

**GREEN CONSUMER BUYING BEHAVIOUR: ANTECEDENTS, SELECTION
ATTRIBUTES OF GENERATION Y CONSUMERS AND THE RELATIONSHIP
WITH FUTURE BEHAVIOURAL INTENTIONS**

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DECLARATION

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

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DEDICATION

I would like to dedicate this thesis to the enduring love of my brother Abitary and his wife Abigail, the loving memory of my late father Joseph and the tenacity of my lovely mother Cecilia. This work is also dedicated to all life on earth, from flora to fauna.

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ABSTRACT

The concept of green marketing has gained prominence in academia in recent years with concomitant implications for marketing strategy. The considerable attention accorded to green marketing is accentuated by concerns about global climate change and its threat to the sustainability of livelihoods. As the debate on green marketing continues to unfold, there are important issues yet to be addressed, one of which relates to the antecedents of green consumer buyer behaviour and selection attributes of green products. In view of the growing importance of green consumer buyer behaviour in contemporary markets, the purpose of the present study was to examine empirically the antecedents of green consumer buyer behaviour and the selection attributes of Generation Y consumers.

The Generation Y cohort was considered as the ideal target population for the present study owing to its size, bespeaking a profitable market segment with the potential to provide a “snap-shot” of future pro-environmental behavioural intentions. The theories of Reasoned Action and Consumption Values provided the theoretical lens through which to examine and delineate the antecedents of green consumer buyer behaviour and the selection attributes of Generation Y consumers in the context of a developing country such as South Africa.

The present study adopted a sequential mixed-methods methodology that commenced with a qualitative study and was followed by a quantitative study. For the qualitative study, data were collected from a purposively selected Generation Y student sample comprising sixteen participants. The principle of technical saturation was employed to ascertain the adequacy of the sample size. The credibility and trustworthiness of the qualitative study were achieved through pretesting of the interview guide, bracketing, prolonged engagement with participants, member checks, peer de-briefing, an audit trail of the interviewing process and researcher reflexivity. The analysis of the qualitative data was conducted through the use of content and thematic analyses.

The qualitative study identified environmental attitude, environmental concern, social influence, environmental responsibility, government influence, selection attributes and green purchase intention as the main determinants of green purchase behaviour. The qualitative study also revealed that the demand for green products is thwarted by marketing-related barriers such as high prices, misleading green marketing messages and unavailability of products. In line with the methodology of the study, the determinants of green purchase

behaviour that emerged from the qualitative study were further examined through a quantitative study. The data for the quantitative study were generated from a conveniently selected Generation Y student sample of 386 respondents, using a structured self-administered questionnaire. The historical evidence method and the pre-conditions of multivariate data analysis (confirmatory factor analysis) guided the determination of the sample size for the quantitative study.

The statistical data analysis procedures utilised for the quantitative study were descriptive statistics, reliability and validity analysis, correlation analysis, confirmatory factor analysis and structural equation modelling. Prior to questionnaire administration, a pilot study was conducted to improve the accuracy of the survey instrument. The collected quantitative data were analysed using the Statistical Package for the Social Sciences (SPSS) 22.0 and Analysis of Moment Structures (AMOS) 22.0. The preliminary data analysis involved the process of coding and checking the distribution of scores. The results of the normality test revealed that the data were not normally distributed. Thus, non-parametric statistics were employed for correlation analysis and for testing gender difference in green consumer buyer behaviour. The Mann-Whitney U Test and the Kruskal-Wallis Test revealed that Generation Y female consumers are more apt to engage in pro-environmental behaviours than their male counterparts.

In order to verify the reliability of the measurement items, Cronbach's alpha coefficient, the item-to-total values and composite reliability were computed. In addition, the validity of the survey instrument was enhanced through content, convergent, discriminant and predictive validities. The reliability and validity measures employed in the present study attested that the survey instrument utilised in the quantitative study was both reliable and valid.

The results of correlation analysis indicated that environmental concern, environmental attitude, environmental responsibility, government influence, social influence and selection attributes have a positive association with green purchase intention. The correlation analysis also revealed a weak association between green purchase intention and actual purchase behaviour. Prior to testing the hypothesised relationships, the fitness of the measurement and structural models was assessed. The model fit indices that included the chi-square value over degree of freedom (χ^2/df), Goodness-of-Fit Index (GFI), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Incremental Fit Index (IFI) and

Tucker-Lewis Index (TLI) yielded satisfactory results that are consistent with acceptable thresholds, demonstrating that the measurement and structural model fitted well with the data.

The posited relationships were tested using structural equation modelling. The hypotheses testing results revealed that green purchase intention was significantly and positively influenced by environmental attitude, environmental concern, social influence, environmental responsibility and selection attributes, but not by government influence. The results also showed that the relationship between green purchase intention and actual purchase behaviour was moderated by selection attributes. The findings of the study imply that marketers need to formulate and implement green marketing strategies that enhance environmental attitudes and concerns, initiate programmes that foster environmental responsibility, understand the selection attributes of Generation Y consumers and utilise social networks to stimulate pro-environmental behaviours. The results also suggest that the South African government needs to re-invigorate its environmental initiatives to foster green purchase intention and the purchase of green products. Finally, the study also provided evidence that suggests an insignificant relationship between green purchase intention and actual purchase behaviour. This result suggests an urgent need by marketers to understand the underlying factors causing the gap between green purchase intention and actual purchase behaviour.

To effectively promote green consumer buyer behaviour, marketers need to understand the determinants of green purchase intention and craft effective strategies to translate green purchase intentions into actual purchasing behaviour. The findings of the present study provide avenues for further study in a discipline that is increasingly gaining theoretical and practical prominence. Future research efforts should consider the use of an integrated research model that encompasses more variables, utilising a broader sample frame and employing a longitudinal study in order to enhance the generalisability of the research findings. Overall, the study offers valuable insights for stimulating green purchase behaviour among the potentially profitable Generation Y cohort and equips marketers with green marketing strategies to position green products competitively in the marketplace.

Key words: Green purchase intention, actual purchase behaviour, selection attributes, confirmatory factor analysis, structural equation modelling and Generation Y.

TABLE OF CONTENTS

DECLARATION.....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT.....	v
TABLE OF CONTENTS	viii
LIST OF TABLES	xvii
LIST OF FIGURES	xix
CHAPTER 1 INTRODUCTION, BACKGROUND OF THE STUDY, PROBLEM	
ORIENTATION AND DESIGN.....	1
1.1 INTRODUCTION	1
1.2 BACKGROUND TO THE STUDY	4
1.3 SIGNIFICANCE OF THE STUDY	7
1.4 PROBLEM STATEMENT	8
1.5 OBJECTIVES OF THE STUDY.....	11
1.5.1 Primary objective.....	11
1.5.2 Theoretical objectives	12
1.5.3 Empirical objectives.....	12
1.6 RESEARCH DESIGN	14
1.6.1 Literature review.....	14
1.6.2 The empirical design process	15
1.6.2.1 Target population	15
1.6.2.2 Sample frame and sample	15
1.6.2.3 Sampling method	16
1.6.2.4 Sample size	16

1.6.2.5	Data collection and measuring instrument.....	17
1.7	DATA ANALYSIS	18
1.8	RELIABILITY, VALIDITY AND TRUSTWORTHINESS	18
1.9	ETHICAL ISSUES	20
1.9.1	Potential benefits and hazards	20
1.9.2	Data collection procedure.....	20
1.9.3	Informed consent.....	20
1.10	DELIMITATIONS OF THE STUDY	20
1.11	CLARIFICATION OF KEY TERMS	21
1.12	CHAPTER CLASSIFICATION	21
1.13	CHAPTER SUMMARY	23
CHAPTER 2 EVOLUTION AND GROWTH OF GREEN MARKETING.....		24
2.1	INTRODUCTION	24
2.2	GREEN MARKETING CONCEPTS AND DEFINITIONS.....	24
2.3	HISTORICAL OVERVIEW AND DEVELOPMENT OF GREEN MARKETING	27
2.3.1	Ecological marketing	28
2.3.2	Environmental marketing	31
2.3.2.1	Green spinning	33
2.3.2.2	Green selling	34
2.3.2.3	Green harvesting	35
2.3.2.4	Enviropreneurial marketing	35
2.3.2.5	Compliance marketing	36
2.3.3	Sustainable marketing	37
2.4	GREEN MARKETING DRIVERS.....	40
2.5	STAKEHOLDERS IN GREEN MARKETING	43
2.6	CORPORATE STRATEGIES FOR SUSTAINABLE MARKETING	47

2.7	CHALLENGES ASSOCIATED WITH GREEN MARKETING.....	59
2.7.1	Lack of standardisation	60
2.7.2	Structuring green marketing messages	60
2.7.3	Credibility of green marketing tools.....	61
2.7.4	Environmental performance measurement	62
2.7.5	The success rate of green products	63
2.7.6	Green marketing cost.....	63
2.7.7	Change management.....	64
2.7.8	Policing the value chain	65
2.8	THE FUTURE PROSPECTS OF GREEN MARKETING.....	66
2.9	CHAPTER SUMMARY.....	68
 CHAPTER 3 ANTECEDENTS OF GREEN CONSUMER BUYER BEHAVIOUR.....		70
3.1	INTRODUCTION	70
3.2	GREEN CONSUMER PROFILING	71
3.2.1	Green consumer segments.....	72
3.2.1.1	Shades of Green segments	73
3.2.1.2	Lifestyles of Health and Sustainability.....	74
3.3	CONCEPTUALISATION OF GREEN BUYER BEHAVIOUR	76
3.3.1	Demographic variables	78
3.3.1.1	Age.....	78
3.3.1.2	Gender.....	83
3.3.1.3	Family size	83
3.3.1.4	Income	84
3.3.1.5	Education level	85
3.3.2	Psychographic variables	86
3.3.2.1	Environmental attitudes	87
3.3.2.2	Values, beliefs and norms	89

3.3.2.3	Environmental concern	95
3.4	GROUP FACTORS	96
3.4.1	Cultural orientations.....	96
3.4.2	Ethical ideologies.....	97
3.4.3	Social influence.....	99
3.5	ENVIRONMENTAL FACTORS.....	100
3.5.1	The role of media exposure	100
3.5.2	Green atmospherics	102
3.5.2.1	Ambience factors	103
3.5.2.2	Green design	105
3.5.2.3	Social factors.....	107
3.5.3	Government influence.....	108
3.6	CHAPTER SUMMARY	109
CHAPTER 4 SELECTION ATTRIBUTES OF GENERATION Y CONSUMERS		111
4.1	INTRODUCTION	111
4.2	THE THEORY OF CONSUMPTION VALUES AND SELECTION ATTRIBUTES.....	114
4.2.1	Green functional value.....	115
4.2.1.1	Price sensitiveness	117
4.2.1.2	Quality consciousness.....	118
4.2.1.3	Healthiness.....	119
4.2.1.4	Perceived risk.....	120
4.2.2	Green social value	123
4.2.3	Green emotional value	130
4.2.3.1	Guilt appeals	131
4.2.3.2	Fear appeals	132
4.2.3.3	Moral appeals.....	133

4.2.4	Green conditional value	135
4.2.5	Green epistemic values	138
4.3	CHALLENGES OF SUSTAINING PRO-ENVIRONMENTAL BEHAVIOURS.....	143
4.4	CHAPTER SUMMARY.....	145
CHAPTER 5 RESEARCH METHODOLOGY.....		147
5.1	INTRODUCTION	147
5.2	PHILOSOPHICAL UNDERPINNINGS AND RESEARCH PARADIGMS.....	147
5.3	RESEARCH DESIGNS.....	152
5.4	QUALITATIVE AND QUANTITATIVE RESEARCH APPROACHES.....	154
5.5	THE EMPIRICAL DESIGN PROCESS.....	157
5.5.1	The target population	157
5.5.2	The sampling frame	158
5.5.3	The sampling procedure.....	158
5.5.4	The sample size.....	159
5.5.5	Data collection and measuring instruments.....	160
5.5.5.1	Literature review	160
5.5.5.2	In-depth interview design	162
5.5.5.3	Conducting the interview.....	163
5.5.5.4	Questionnaire design.....	164
5.5.5.5	Questionnaire format and layout.....	165
5.6	PILOT TESTING THE QUESTIONNAIRE.....	166
5.7	FIELDWORK AND ADMINISTRATION OF QUESTIONNAIRES	167
5.8	DATA PREPARATION AND ANALYSIS.....	167
5.8.1	Qualitative data analysis.....	167

5.8.2	Quantitative survey validation.....	171
5.9	STATISTICAL ANALYSIS	172
5.9.1	Descriptive statistics.....	172
5.9.2	The measurement model.....	172
5.9.2.1	Absolute fit indices	173
5.9.2.2	Incremental fit indices	174
5.9.2.3	Structural model.....	174
5.9.2.4	Correlation analysis	175
5.9.2.5	Non-parametric t-test – Kruskal-Wallis.....	176
5.10	RELIABILITY AND VALIDITY	176
5.10.1	Reliability of the qualitative study.....	177
5.10.2	Validity of the qualitative study.....	177
5.10.2.1	Member checking	178
5.10.2.2	Bracketing.....	178
5.10.3	Reliability of the quantitative study	179
5.10.4	Validity of the quantitative study	180
5.11	CHAPTER SUMMARY.....	182
CHAPTER 6 DATA ANALYSIS AND INTERPRETATION OF RESULTS		183
6.1	INTRODUCTION	183
6.2	RELIABILITY OF THE PILOT STUDY.....	183
6.3	TRUSTWORTHINESS OF THE MAIN QUALITATIVE STUDY.....	183
6.4	RESULTS AND DISCUSSION OF THE QUALITATIVE STUDY	186
6.4.1	Sample composition	186
6.4.2	Environmental concern	195
6.4.3	Environmental attitude.....	197
6.4.4	Environmental responsibility	198
6.4.5	Social influence.....	199

6.4.6	Government influence.....	201
6.4.7	Selection attributes.....	203
6.4.8	Green purchase intention	209
6.4.9	Actual purchase behaviour.....	210
6.5	QUANTITATIVE DATA ANALYSIS PROCEDURES	210
6.6	THE CODING PROCESS	213
6.7	NORMALITY TEST	213
6.8	SAMPLE COMPOSITION	215
6.9	DESCRIPTIVE STATISTICS OF VARIABLES UNDER STUDY.....	216
6.10	GENDER DIFFERENCES IN GREEN PURCHASE BEHAVIOUR.....	218
6.11	KRUSKAL-WALLIS TEST	220
6.12	RELIABILITY AND VALIDITY	223
6.12.1	Reliability of the pilot study	223
6.12.2	Reliability of the main survey	224
6.13	VALIDITY ANALYSIS	225
6.13.1	Content validity	225
6.13.2	Discriminant validity	225
6.13.3	Convergent validity.....	226
6.13.4	Predictive validity.....	226
6.14	CORRELATION COEFFICIENTS BETWEEN CONSTRUCTS.....	228
6.14.1	Multicollinearity.....	229
6.14.2	Relationship between variables.....	230
6.15	MEASUREMENT MODEL FIT ASSESSMENTS	232
6.16	STRUCTURAL MODEL FIT ASSESSMENT.....	233
6.17	RESULTS OF HYPOTHESIS TESTING.....	234
6.18	CHAPTER SUMMARY	242

CHAPTER 7 CONCLUSIONS AND RECOMMENDATIONS	243
7.1 INTRODUCTION	243
7.2 PRIMARY RESEARCH OBJECTIVE.....	243
7.3 EVALUATION OF THEORETICAL OBJECTIVES.....	243
7.4 EVALUATION OF EMPIRICAL OBJECTIVES	245
7.4.1 To understand the antecedents of green consumer buyer behaviour through a qualitative study	245
7.4.2 To determine whether male and female Generation Y consumers differ in terms of green purchase behaviour	246
7.4.3 To determine the influence of environmental attitude on green purchase intention	246
7.4.4 To determine the influence of social influence on green purchase intention	246
7.4.5 To determine the influence of environmental responsibility on green purchase intention.....	247
7.4.6 To determine the influence of environmental concern on green purchase intention	247
7.4.7 To determine the influence of government influence on green purchase intention	247
7.4.8 To determine the influence of selection attributes on green purchase intention	248
7.4.9 To determine the influence of green purchase intention on actual purchase behaviour	248
7.4.10 To determine the influence of selection attributes on actual purchase behaviour	249
7.4.11 To determine whether selection attributes moderate the relationship between green purchase intentions and actual purchase behaviour	249
7.5 EVALUATION OF POSITED HYPOTHESES	249
7.6 RECOMMENDATIONS.....	250
7.6.1 Recommendations based on the qualitative study.....	250
7.6.1.1 Gender-based green market segmentation.....	250

7.6.1.2	Enhancing self-efficacy beliefs.....	251
7.6.1.3	Enhancing the market appeal of green products.....	251
7.6.1.4	Enhancing the credibility of green marketing claims	252
7.7	RECOMMENDATIONS BASED ON THE QUANTITATIVE STUDY....	253
7.7.1	Improving the effectiveness of government environmental initiatives.....	253
7.7.2	Tapping into the favourable effect of social influence on Generation Y consumers	253
7.7.3	Integrating environmental concern in marketing efforts	254
7.7.4	Understanding the causes of the attitude-behaviour gap	254
7.7.5	Closing the gap between environmental concern and actual purchase behaviour	254
7.8	IMPLICATIONS OF THE STUDY.....	255
7.9	LIMITATIONS AND IMPLICATIONS FOR FURTHER RESEARCH	256
7.10	CONCLUDING REMARKS	258
	BIBLIOGRAPHY	260
	APPENDIX A REQUEST TO CONDUCT RESEARCH.....	324
	APPENDIX B COVER LETTER FOR INTERVIEW GUIDE	326
	APPENDIX C INTERVIEW GUIDE	327
	APPENDIX D QUESTIONNAIRE	329
	APPENDIX E RELIABILITIES FOR PILOT STUDY	334
	APPENDIX F SEM MODEL.....	337

LIST OF TABLES

Table 2.1:	Synopsis of green marketing definitions	26
Table 2.2:	Timelines of key environmental events	39
Table 2.3:	Stakeholder interest in green marketing.....	47
Table 2.4:	The key pillars in developing an enterprise-level green strategy.....	49
Table 2.5:	Green marketing activities	51
Table 2.6:	The implications of strategic greening on business functions.....	52
Table 2.7:	The sustainability marketing mix	54
Table 2.8:	Sins of greenwashing	62
Table 2.9:	Factors influencing future directions in green marketing	68
Table 3.1:	Antecedents of green purchase behaviour.....	77
Table 3.2:	Characteristics of marketing generations	82
Table 3.3:	Ethical considerations influencing green purchase intentions	97
Table 3.4:	Green ambience factors.....	105
Table 3.5:	Green design cues.....	106
Table 3.6:	Green social factors.....	107
Table 5.1:	Philosophical beliefs and the research paradigms.....	152
Table 5.2:	A comparison of descriptive and causal research designs	153
Table 5.3:	Mixed-methods design types.....	156
Table 5.4:	Measurement and structural model fit indices	175
Table 5.5:	Spearman’s correlation analysis guidelines	176
Table 6.1:	Participant demographics	187
Table 6.2:	Descriptions and excerpts from in-depth interviews.....	188
Table 6.3:	Coding	213
Table 6.4:	Skewness and kurtosis values	214
Table 6.5:	Tests of normality.....	214

Table 6.6:	Sample descriptions.....	216
Table 6.7:	Mean scores and standard deviations of research variables.....	218
Table 6.8:	Mann-Whitney U Test statistic of EA, SI, SI, EC, GI, SA, GPI, APB and Gender	220
Table 6.9:	Kruskal-Wallis Test statistic of EA, SI, SI, EC, GI, SA, GPI, APB and Gender	222
Table 6.10:	Accuracy analysis statistics	227
Table 6.11:	Spearman's rho inter-construct correlation matrix	229
Table 6.12:	Measurement model fit indices	233
Table 6.13:	Structural model fit indices	234
Table 6.14:	SEM hypotheses testing results.....	235

LIST OF FIGURES

Figure 1.1:	Research framework for the study	14
Figure 2.1:	Green organisation	58
Figure 3.1:	Values Beliefs Norms Theory	94
Figure 4.1:	The Theory of Consumption Values	115
Figure 4.2:	The selection attributes of Generation Y consumers	145
Figure 5.1:	Stages in interview analysis	170
Figure 6.1:	Refinement of categories into themes	194
Figure 6.2:	Statistical procedures.....	212
Figure 6.3:	Hypothesised relationships results	241

CHAPTER 1
INTRODUCTION, BACKGROUND OF THE STUDY,
PROBLEM ORIENTATION AND DESIGN

1.1 INTRODUCTION

Traditionally, marketing strategies were premised on the promotion of the “holy grail” of consumption, “throw-away” consumer culture and perpetuation of the mindset of human supremacy over nature (Hume 2010:385; Kotler 2011:132; Shabnam 2013:445). It is this hegemony which is blamed for inculcating the culture of human indifference to nature, resulting in the escalation in environmental problems (Roberts & Bacon 1997:79). The Brundtland Report of 1987 emerged as the game changer and notably challenged the principles of conventional marketing (World Commission of Environment and Development 1987:1). For this reason, the Brundtland Report is globally acclaimed for its dual role of unearthing the severity of environmental problems and acting as a catalyst for stimulating global environmental concern (Huang, Yang & Wang 2014:250). The subsequent Rio Summit in 1992 and the 2002 World Summit on Sustainable Development in Johannesburg jointly established green marketing as the central facet of sustainable development (Nittala 2014:138).

The concept of “green marketing” is deeply embedded in the principle of environmental sustainability (Hume 2010:385; Kotler 2011:132). Historically, the term green marketing came into prominence in 1975, when the American Marketing Association held its first workshop titled “Ecological Marketing” in Austin, Texas in the United States of America (Akehurst, Afonso & Concalves 2012:973). Polonsky (1994:4) succinctly defined green marketing as “all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs with minimal detrimental impact on the natural environment.”

In extant literature, there are three phases that characterise the evolution and growth of green marketing (Horne 2009:178). The first phase was termed “ecological” green marketing, and during this phase, marketing activities were concerned with promoting the judicious use of natural resources and the provision of remedies for environmental problems (Bukhari 2011:376). The second phase was “environmental” green marketing, where the focus was on

producing environmentally friendly products (Ottman, Stafford & Hartman 2008:28). The third phase, which is considered as the current stage of green marketing, is termed “sustainable” green marketing and is focused on integrating green marketing principles into the marketing strategy (Horne 2009:179).

Globally, the United Nations, Greenpeace and the International Organisation for Standardisation are at the forefront of advocating a green global village (Panda 2009:687). One of the major breakthroughs to emerge from the lobbying efforts of environmental watchdogs and scholarly work in the last decades was the realisation that sustainable development and sustainable consumption are subtly intertwined (Lorek & Spangenberg 2014:33). This realisation brought with it the conventional wisdom that dictates that conventional consumption patterns are unsustainable in the context of diminishing natural resources (Koenig-Lewis, Palmer, Dermody & Urbye 2014:94). Generally, there is now global consensus that unsustainable consumption patterns result in ecological imbalance and ultimately translate into environmental degeneration (Hume 2010:386). For instance, the global village’s buy-in into the environmental agenda is attested by Earth Day, which is now celebrated globally and has the potential to entrench pro-environmental behaviour as a socially acceptable norm (Suki 2013:50).

In South Africa, the 2002 World Summit on Sustainable Development, held in Johannesburg, gave impetus to the South African government to address the scourge of climate change (Death 2011:99). Driven by the long-term vision of developing a green economy, the South African government’s environmental sustainability response strategy is guided by principles set out in the Constitution, the National Environmental Management Act, the Millennium Development Goals on Climate Change and the United Nations Framework Convention on Climate Change (Engel 2008:1; RSA 2008:5). In addition, sustainability has been addressed in the King 111 Report in terms of the triple bottom line concept of economic, social and environmental sustainability (Van Wyk & Deegan 2009:21). Moreover, the greening of the 2010 FIFA World Cup and the successful hosting of the Durban Platform for Enhanced Action (COP 17) demonstrate the commitment of the South African government to environmental sustainability (Death 2011:99; Tyrrell 2011:48). However, despite this multi-pronged approach to mitigating the effects of climate change, South Africa still finds itself in the unfortunate position of being Africa’s largest contributor of greenhouse gas emissions (Van Wyk & Deegan 2009:23).

In an attempt to steer the global economies towards the environmental sustainability posture, in 2010 the United Nations set the tone for the transition towards sustainability through its Millennium Development Goals, which recognise sustainable consumption as an integral facet of environmental sustainability (UNEP 2011:23). Consistent with the growth in the green marketing phenomenon, policy makers, marketers and consumers are warming up to the urgency of a paradigm shift from conventional consumption and production trajectories towards sustainable practices as a way of safeguarding the environment and livelihoods of future generations (Leonidou, Leonidou & Kvasova 2010:3).

At the epicentre of the trend towards sustainable consumption are consumers who are becoming increasingly attracted to the emerging green products (Ko, Hwang, Kim 2013:1709). Concurrent with the green marketing megatrend, Generation Y consumers are emerging as the forerunners of the green consumption revolution, driven by the environmental knowledge and status-seeking behaviour that position them as trendsetters in the adoption of sustainable consumption patterns (Atkinson & Rosenthal 2014:42). As a result, concerted efforts are now being exerted by marketers on increasing their understanding of the factors that influence Generation Y consumers' green purchase behaviour (Smith 2012:86). As green products enter the mainstream market, green marketing has become a springboard for creating and sustaining competitive advantage by offering innovative green products (Follows & Jobber 2000:723).

It is noteworthy, however, that the role of marketing within the environmental sustainability debate tends to be paradoxical. For instance, the marketing function continues to be subjected to scrutiny because of its influence on consumption and is generally branded as the antithesis of the concept of sustainability (Peattie 2001:129). In particular, critics of conventional marketing vilify its role in promoting unsustainable consumption patterns (Peattie & Peattie 2009:10). Specifically, marketing is blamed for its consumption-oriented assumption that equates the quality of life with increased consumption (Kotler 2011:132). For instance, Valko as cited by Majlath (2010:5) contends that an estimated thirty to forty percent of environmental problems are attributable to human consumption behaviours. The negative impact of consumption behaviours on the natural environment led to calls for the marketing function to address "the environmental imperative" (Kotler 2011:132).

Conversely, through social marketing and de-marketing, marketing is heralded by many scholars as the potential mediator of consumption and sustainability (Belz & Peattie

2009:260). In line with this perspective, Hume (2010:387) points out that the major challenge confronting environmentalists is not consumption but rather the balancing of sustainability and consumption objectives. Hence Kotler (2011:132) opines that the role of marketing within the environmental sustainability debate needs to be focused on re-structuring, re-aligning and re-orienting the marketing mix in line with sustainability principles.

One of the outcomes of the re-orientation of the marketing mix elements in recent years is the emergence of a wide array of green products, a trend that is ushering in a new dispensation in consumption known as green consumerism (Sinnappan & Rahman 2011:129). Although there is no product that has a zero environmental impact (Ottman, Stafford & Hartman 2006:24), a green product is generally defined as one that is produced following environmentally friendly processes and with minimal detrimental effects on the natural environment (Durif, Boivin & Julien 2010:26). Related to green products is the concept of green consumption, which is aptly defined by Peattie (1992:117) as the process of “consuming in a more sustainable and socially responsible way.”

In spite of the growth in popularity of green products and their associated environmental benefits, Zhu, Li, Geng and Qi (2013:280) observe that little is known about the factors that influence green purchase behaviour, yet such knowledge is imperative in enhancing such behaviour. In an attempt to understand the antecedents of green consumer buyer behaviour, this chapter presents the introduction to and background of the study. The chapter is structured as follows: the first sections of the chapter present the introduction to and background of the study, the significance of the study, the problem statement and the research objectives; following on that is the description of the research framework that underpins the study. Thereafter, the chapter introduces the research design of the study, including the target population, sampling methods and data collection instruments. The data analysis methods and approaches to enhance reliability and validity are also briefly explained. Finally, definitions of the key terms and ethical considerations that guide the study are discussed.

1.2 BACKGROUND TO THE STUDY

Worldwide, the major challenge confronting economies in the twenty-first century is how to balance economic growth and environmental sustainability (Smith & Perks 2010:2). Specifically, the business fraternity is currently grappling with the dual challenge of sustaining global competitiveness and the need to preserve the natural environment (Gan,

Wee, Ozanne & Kao 2008:93). This challenge is compounded by the need to balance the “holy trinity” of sustainable development: economic growth, sustainable consumption and environmental sustainability (Sinnappan & Rahman 2011:129).

On a global level, it appears the main challenge confronted by environmentalists is to gain the commitment of national governments to embrace sustainability principles and to implement global environmental treaties (Hale 2011:91). For example, in developing countries, macro-economic objectives such as economic growth and employment, among others, tend to take precedence over environmental sustainability considerations (Lee 2008:576). From a marketing strategy perspective, the major challenges faced by marketers include: the need to understand the factors that drive consumers to adopt sustainable consumption patterns, delineating the marketing opportunities and threats posed by the green marketing trend, crafting sustainable green marketing strategies and justifying green marketing as a viable strategy to shareholders (Kotler 2011:135).

In spite of the aforementioned challenges, there is an increased awareness of the effects of global warming and a surge in interest in environmental protection and sustainable consumption (Chen & Chai 2010:27). The concerted efforts to address environmental problems are spearheaded by the media, environmentalists, national governments, consumers and environmentally conscious companies (Mishra & Sharma 2010:9; Rasha & Igbaza 2011:638). This awareness means that sustainable development and sustainable consumption are now entrenched as the dominant themes of the twenty-first century. This view is reinforced by Lee (2008:575), who envisaged that “going green” is inevitable for businesses and consumers.

Around the globe, increased environmental awareness has resulted in a shift towards sustainable consumption patterns (Lee 2008:575). This trend was confirmed by Jansson, Marell and Nordlund (2010:358), who report that marketers across the globe are reacting to consumers’ growing environmental consciousness by developing green products. A drift towards green consumerism was also noted in a comparative study by Zaman, Miliutenko and Nagapetan (2010:109) of consumers’ behaviour on selected Eco and Fairtrade labelling (green labelling) in Sweden, which revealed a radical shift in buying patterns as consumers are now showing a preference for products with environmental attributes over traditional products. With the emergence of green consumerism, consumers are increasingly concerned

with the effects on the environment of value chain processes such as production, packaging, procurement, marketing, consumption and disposal (Lee 2008:575).

The growth of green consumerism is resulting in the proliferation of environmentally friendly products, with organic food gaining popularity among health and environment-conscious consumers (Paul & Rana 2012:412). Together with the growth in demand of organic products, green purchase behaviour emerged, spearheaded by the Lifestyles of Health and Sustainability (LOHAS) and Shades of Green consumer segments (Saleki & Seyedsaleki 2012:98). Conceptually, organic food is a collective term that encompasses products that are environmentally safe and whose production processes are deemed to be environmentally sound (Paul & Rana 2012:413). Organic food is distinguished from conventional products by its packaging, which contains selling propositions such as natural, organic, environmentally friendly and biodegradable (Saleki & Seyedsaleki 2012:99). In this study the terms “organic products”, “green products” and “environmentally friendly” products are therefore used interchangeably to refer to products that are not harmful to the environment.

Historically, organic products originated from the United States of America during the 1980s, with consumers demonstrating interest in attributes such as that they are healthy for consumers, carbon free, recyclable and energy efficient (Elliott 2013:296). In terms of market appeal, organic products such as natural chocolates, green coffee and fish certified by the Marine Steward Council (MSC) are proving to be more popular among young consumers in South Africa (Woolworths Holdings Ltd 2012:55). Additionally, an increasing number of young people are participating in green initiatives such as recycling and ecosystem-management projects (RSA 2008:12). Given this background of pro-environmental behaviour, it is worth exploring whether young people in South Africa engage in green purchasing behaviour and what motivating factors influence such behaviour.

Critical to marketers are the findings of a study by Lee (2008:573) which revealed that the emerging green product market was dominated by young consumers. This is important to South African marketers given that young consumers aged between 18 and 34 years constitute approximately 37 percent of the total population (RSA 2011:28). Generation Y, as this cohort is known (Lee 2008:573), represents a significant citizenry group and has the potential to be a dominant force in environmental protection and green purchase behaviour (Lee 2009:8). Fundamental to marketers is the fact that young consumers who are part of the Generation Y group were born during the era of environmental consciousness and are

therefore presumably more likely than other generations to influence green purchase behaviour (Lee 2008:573).

Generation Y is considered an important segment of the consumer market as statistics in 2009 revealed that this group of the population will potentially represent approximately 26-30 percent of the total global consumer market by 2020, which translates into trillions of dollars (Kumar & Lim 2008:568). However, Generation Y consumers as a target market present a particular challenge as they are known to be resistant to traditional marketing efforts and difficult to capture and retain as loyal consumers (Lazarevic 2012:45). Given this background, Roy and Kisholoy (2009:182) emphasise the importance of understanding the green purchase behaviour of Generation Y consumers.

Fundamental to understanding green buyer behaviour is an analysis of the antecedents that influence green purchase behaviour (Sinnappan & Rahman 2011:129). Green marketing literature acknowledges that green consumer buyer behaviour is prompted by demographic factors, psychographic variables and situational factors (Cheah & Phau 2011:452; Irawan & Darmayanti 2012:3; Leonidou *et al.*, 2010:5). In addition, Chen and Chang (2012:502) stress the importance of understanding the influence of green product attributes such as quality, performance and price on purchase behaviour. However, green marketing researchers Sinnappan and Rahman (2011:129) note that the antecedents of green purchase behaviour tend to vary, depending on the contextual factors to which consumers are exposed.

Given that consumers who are embedded in different environmental settings tend to vary in their green purchase behaviour, this study intends to examine the antecedents of green buyer behaviour and the selection attributes of Generation Y consumers in the context of a developing economy such as South Africa.

1.3 SIGNIFICANCE OF THE STUDY

The global scale of environmental degradation and the risks it poses to economic growth and the livelihoods of current as well as future generations have necessitated a change in business and consumption practices (Belz & Peattie 2009:10). Confronted with the undeniable evidence of the dangers of environmental degradation, businesses, consumers, environmentalists and governments are embracing green marketing as a strategic tool to enhance sustainable development (Kaufmann, Panni & Orphanidou 2012:50). Given this

background, systematic academic research is deemed necessary to guide all key stakeholders to achieve sustainability goals.

As a contribution to the environmental debate, the current study provides the leverage to understand the antecedents of green buyer behaviour and offers insights into strategy formulation for green marketing. Additionally, in today's open and fragmented markets, attracting and retaining consumers, especially the fickle Generation Y cohort, is proving to be a daunting challenge for marketers (Zakaria, Alhady, Zakaria, Sawal, Ahmad & Noordin 2011:35). In an attempt to capture the loyalty of Generation Y consumers, this study aims to understand the factors that influence their purchase behaviour in the context of green products. With this knowledge, it is anticipated that marketers will be able to develop effective green marketing strategies to attract and retain Generation Y consumers.

It is also important to note that marketing managers, especially in developing countries, are still striving to understand the characteristics of the emerging green market (Albayrak, Caber, Moutinho & Herstein 2011:189). This study, therefore, attempts to fill the knowledge gap of marketers by profiling green consumers and providing insights into the market potential of green products. A detailed understanding of green consumers is thus aimed at providing valuable inputs for marketers in developing effective green marketing strategies. This is important, since, as Jansson *et al.* (2010:359) note, the development of green marketing strategies can be effective only if supported by a detailed knowledge of consumer profiles.

This study was also aimed at highlighting the challenges of implementing green marketing strategies and suggesting coping strategies for marketers. Specifically, the study is expected to generate awareness among marketers about the factors that influence green purchase behaviour among Generation Y consumers. In addition, the findings of this study are also expected to shed light on the factors that stimulate green product purchase intentions and actual purchase behaviour of Generation Y consumers in the South African context.

1.4 PROBLEM STATEMENT

Although green marketing is well established in terms of literature and practice in developed economies, it is still in the budding stage in developing economies. The infancy of green marketing in developing economies is mirrored by the paucity of research on the antecedents of green buyer behaviour, especially in South Africa. While marketers are eager to tap into

the growing green market, they are experiencing challenges in understanding the profile of the emerging green market in developing markets (Awad 2011:58).

One of the major challenges faced by marketers is the apparent lack of consensus among researchers on the demographic profile of green consumers. For instance, Lee (2009:91) reports that female consumers are more favourably inclined towards buying green products than their male counterparts. Yet, in contrast with Lee's (2009:91) view, Chen and Chan (2010:33) found no significant differences between male and female consumers in their green purchase behaviour.

In terms of age, Sinnappan and Rahman (2011:136) note that young consumers tend to have both a greater concern for the environment and a greater propensity to buy green products than adults, yet Ottman (2011:4) maintains that every generation is "green" and espouses sustainable principles. In addition, green marketing researchers such as Boztepe (2012:12) and Chen and Chan (2010:33) add that, in comparison with psychographic variables, demographics tend to be less effective in predicting green purchase behaviour among consumers. Drawing from the foregoing insights, this study attempts to understand the relationship, if any, between demographic variables and green purchase behaviour.

In spite of the remarkable growth of green products, Atkinson and Kim (2014:3) insightfully observed that an understanding of the drivers that influence the adoption and discontinuation of pro-environmental behaviours among consumers remains a challenge for marketers. Although the antecedents of green purchase behaviour have been the subject of extensive research in recent years, the findings are largely contradictory. For instance, researchers Cheah and Phau (2011:463) and Akehurst *et al.* (2012:977) argue convincingly that the influence of antecedents of green purchase behaviour tends to vary globally, based on the level of economic growth, national cultures and value orientations. The complexities of green purchase behaviour in different cultural settings and value systems necessitate an empirical study in South Africa.

In theory, antecedents of green buyer behaviour are classified as internal and external factors that influence consumer buyer behaviour (Wahid, Rahbar & Shyan 2011:38; Zhu *et al.*, 2013:280). Based on The Theory of Reasoned Action (Ajzen & Fishbein 1980:8), the hierarchy of values-attitudes-intentions-behaviour is employed as a conceptual framework to identify antecedents of green purchase behaviour. Consistent with the values-attitudes-

intention-behaviour continuum, green product consumer choice was shown to be driven by environmental values, environmental attitude, environmental concern, perceived environmental responsibility, social influence, perceived seriousness of environmental problems, ecological effect, green atmospherics, ethical orientation, green marketing tools, media exposure and government influence (Gadenne, Sharma, Kerr & Smith 2011:7684; Kreidler & Joseph-Mathews 2009:229; Leonidou *et al.*, 2010:12; Lee 2011:301; Sinnappan & Rahman 2011:129; Zhu *et al.*, 2013:280).

Prompted by the findings of earlier research by Wahid *et al.* (2011:135), Kaufman, Panni and Orphanidou (2012:53) and Sinnappan and Rahman (2011:129), this study attempts to identify the dominant factors that influence green purchase behaviour in the context of a developing country such as South Africa. By focusing on the dominant antecedents, this study also seeks to investigate the relationship, if any, between green purchase intentions, selection attributes and actual purchase behaviour. The present study builds upon a previous quantitative study by Sinnappan and Rahman (2011:129), which found that not all the antecedents of green purchase behaviour acknowledged in academic literature translate into actual purchase behaviour.

Central to the debate on green marketing is also the ascription of responsibility among key stakeholders in environment management such as consumers, businesses and the government (Gadenne *et al.*, 2011:7684). For instance, consumers have an enduring perception that the government ought to be more accountable in environmental protection, a viewpoint that often results in negative environmental attitude and concern (Sinnappan & Rahman 2011:132). Against this background, this study attempts to explore the relationship, if any, between government influence and green consumer buyer behaviour.

Equally striking is the existence of the “green paradox” that characterises the performance of pro-environmental behaviours (Davari & Strutton 2014:1). The green paradox is manifested by the gap between environmental concern, environmental attitude and actual purchase behaviour (Kalamas, Cleveland & Laroche 2014:12; Van Doorn & Verhoef 2011:167). To corroborate this view, Park and Lee (2014:572) observe that sales of green products are not commensurate with the reported environmental concern among consumers. As a response to Park and Lee’s (2014:572) observation of a gap between environmental concern and purchase behaviour, the present study attempts to shed more light on the relationship between

environmental concern, environmental attitude, green purchase intention and actual purchase behaviour.

In a similar vein, a previous qualitative study by Young, Hwang, McDonald and Oates (2010:20) also notes that purchase intention does not always translate into actual purchase of green products. According to Zaman *et al.* (2010:104), scepticism and contradictions associated with green product attributes such as eco-labels negatively affect the actual purchase behaviour. In addition, Zhu *et al.* (2013:280) attribute the gap between green purchase intention and actual purchase behaviour to factors such as unavailability, information asymmetry, high price and the poor quality of some green products. The gap between green purchase intention and actual purchase behaviour contradicts the theoretical proposition that perceives a strong positive association between intention and behaviour (Ajzen & Fishbein 1980:62). Given this background, this study attempts to understand the relationship if any, between green purchase intention and actual purchase behaviour. In addition, the study seeks to examine the influence of selection attributes such as price, quality and availability on green purchase intention and actual purchase behaviour.

It is also important to note that there have been very few studies conducted on green marketing in South Africa. Notable studies on green marketing have been largely devoted to the impact of the implementation of green practices on business functions (Smith & Perks 2010:1) and attitudes of consumers towards green advertising (Synodinos, Bevan-Dye & De Klerk 2013:17). There is no known prior work that has examined green consumer buyer behaviour in terms of preferences for, perceptions of and motivation to buy green products in the context of South Africa. This study therefore attempts to fill this void by examining the antecedents of green consumer buyer behaviour and the selection attributes of Generation Y consumers in South Africa. Based on the foregoing discussion, the objectives of the study follow.

1.5 OBJECTIVES OF THE STUDY

1.5.1 Primary objective

The primary purpose of this study was to examine the antecedents of green consumer buyer behaviour, the selection attributes of Generation Y consumers and their relationship with future behavioural intentions.

1.5.2 Theoretical objectives

The primary objective of the study was achieved through the following theoretical objectives:

- To conduct a literature review on the evolution of green marketing.
- To conduct a literature review on the challenges and future direction of green marketing.
- To conduct a literature review on the profile of green consumers.
- To conduct a literature review on the antecedents of green buyer behaviour.
- To conduct a literature review on selection attributes of Generation Y consumers and behavioural intentions towards green products.

1.5.3 Empirical objectives

The following empirical objectives were set for the study:

- To identify the dominant factors that influence green purchase behaviour through a qualitative study.
- To determine whether gender differences influence green purchase behaviour.
- To ascertain whether environmental attitude influences green purchase intention.
- To determine whether there was a relationship between environmental concern and green purchase intention.
- To determine whether there was a relationship between social influence and green purchase intention.
- To determine whether environmental responsibility influences green purchase intention.
- To ascertain the effect of government influence on green purchase intention.
- To establish the relationship between green purchase intention and actual purchase behaviour.
- To establish the relationship between green purchase intention and selection attributes.
- To determine the influence of selection attributes on actual purchase behaviour.
- To ascertain whether selection attributes moderate the relationship between green purchase intention and actual purchase behaviour.

Based on the primary and empirical objectives, the following hypotheses were formulated:

- H₁:** Environmental attitude has a positive influence on green purchase intention.
- H₂:** There is a positive relationship between social influence and green purchase intention.
- H₃:** There is a positive relationship between environmental responsibility and green purchase intention.
- H₄:** There is a positive relationship between environmental concern and green purchase intention.
- H₅:** Government influence has a positive effect on green purchase intention.
- H₆:** There is a positive relationship between green purchase intention and selection attributes.
- H₇:** There is a positive relationship between green purchase intention and actual purchase behaviour.
- H₈:** There is a positive relationship between selection attributes and actual purchase behaviour.
- H₉:** Selection attributes moderate the relationship between green purchase intention and actual purchase behaviour.

Consistent with the outlined empirical objectives, this study views green purchase behaviour from the intent-behaviour approach that seeks to understand antecedents of green purchase intention and actual purchase behaviour. Towards this end, firstly, the study investigates the antecedents of green purchase intention. Secondly, it investigates the relationship between green purchase intention and actual purchase behaviour. Thirdly, it investigates the moderating effect of selection attributes on the relationship between green purchase intention and actual purchase behaviour. The posited relationships between antecedents of green purchase intention and actual purchase behaviour are illustrated in Figure 1.1.

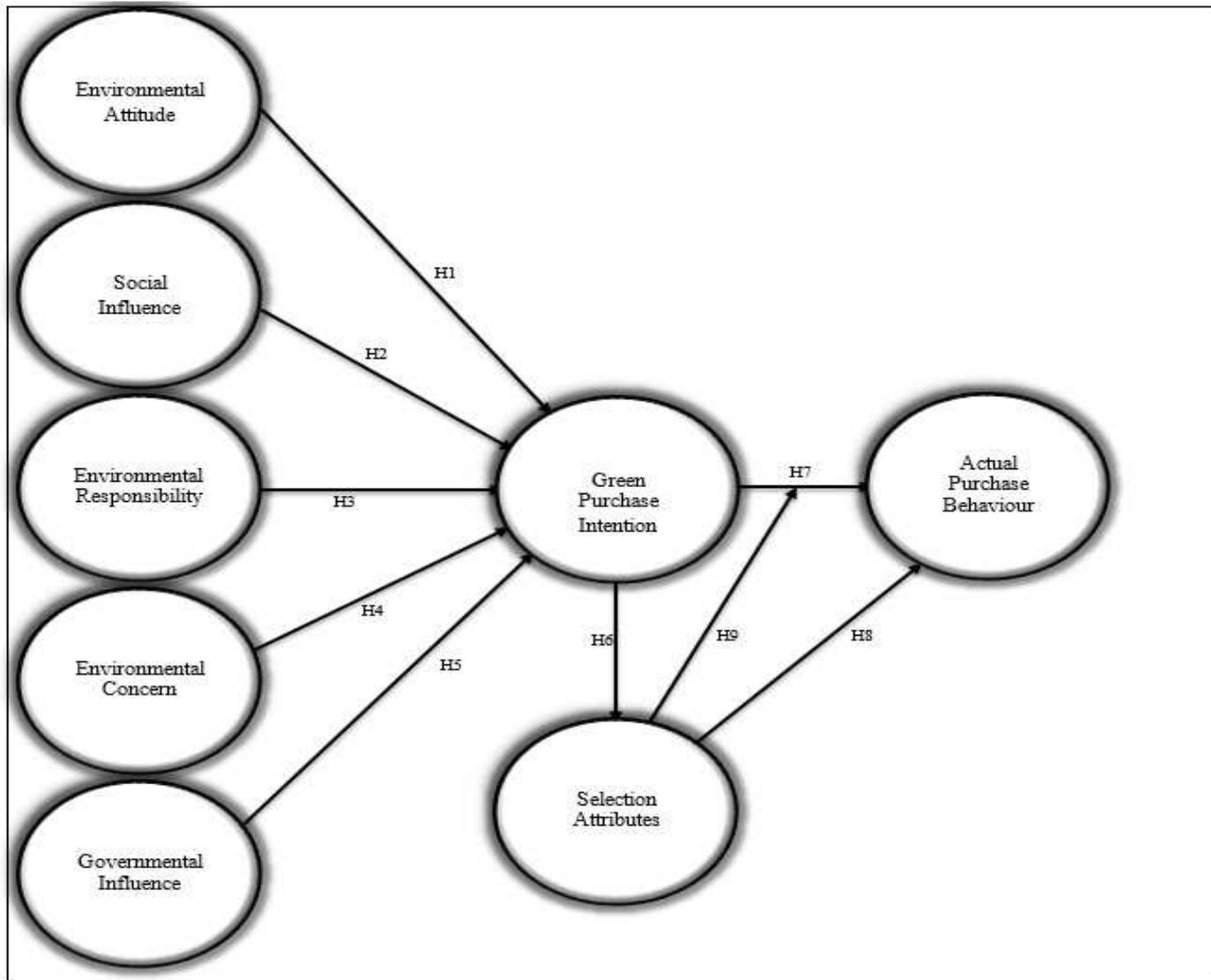


Figure 1.1: Research framework for the study

1.6 RESEARCH DESIGN

A research design is a master plan that specifies the methods or procedures for collecting and analysing information needed for a research study (Welman, Kruger & Mitchell 2011:52). In the present study, a thorough review of the literature on antecedents of green consumer buyer behaviour and the selection attributes of Generation Y consumers preceded the empirical study.

1.6.1 Literature review

A detailed literature review on the growth and evolution of green marketing, the antecedents of green consumer behaviour and selection attributes of Generation Y consumers was

conducted. Literature was drawn from textbooks, journal articles, conference papers and the Internet with the objective of developing the theoretical framework for the study.

1.6.2 The empirical design process

The empirical design of the study followed a sequential mixed-methods approach that combined qualitative and quantitative approaches. A qualitative study in the form of in-depth interviews was conducted first and the themes that emerged from the interviews were used to develop the questionnaire for the quantitative study. The qualitative approach was selected because it allowed for an in-depth probing of participants in order to understand the phenomenon under study. The quantitative approach complemented the qualitative approach by enhancing the accuracy of results through detailed statistical analysis, with the added advantage of minimising the element of subjectivity associated with the qualitative approach. The steps recommended by Wiid and Diggins (2011:183) and Gupta (2011:231) were followed in developing the sampling procedure for the empirical study and are outlined in the next sections.

1.6.2.1 Target population

A population is defined by Welman *et al.* (2011:53) as a group of entities with a common set of characteristics. The target population for this study comprised male and female undergraduate and postgraduate business students from two institutions of higher learning in the Gauteng Province of South Africa. A student sample was chosen because similar surveys by Smith and Paladino (2010:101) and Gupta and Ogden (2009:381) indicated that most students enrolled at institutions of higher learning are knowledgeable about the concept of green marketing.

1.6.2.2 Sample frame and sample

A sample frame is a list of the sample units available for selection from the target population (Wiid & Diggins 2011:196). The consumer was the unit of analysis in this study. The sampling frame for the study comprised 25 public and 30 private higher education institutions registered in South Africa as listed by Higher Education South Africa and the Department of Higher Education and Training (HESA 2012:1; RSA 2014:1-82). The sample for the present study consists of students in the age group of 19-34 years, which represents an independent and knowledgeable segment of Generation Y consumers (Kumar & Lim 2008:568).

The student sample was used because students are considered to have more knowledge of the concept of green marketing. Young students are acknowledged as the future consumers and are presumed to be more likely to influence future consumption patterns (Beckfold, Jacobs, Williams & Nahdee 2010:240). In addition, Generation Y consumers are often early adopters of new products and are regarded as a key consumer market segment for emerging green products (Kumar & Lim 2008:568). This makes the sample frame ideal for the present research study.

1.6.2.3 Sampling method

Sampling methods are broadly divided into probability sampling and non-probability sampling methods (Guba 2010:73). In probability sampling, each unit of the population has a known positive chance of being selected as a unit of the sample, whereas in non-probability sampling, the probability of a specific unit of the population of being selected is not known (Wiid & Diggins 2011:199).

Non-probability sampling methods, namely purposive and convenience sampling were used in the present study. Knowledge of green marketing was used as a basis for selecting respondents for in-depth interviews (qualitative study). Postgraduate, degree and diploma students were considered for interviews. Convenience sampling was employed for the structured questionnaire survey (quantitative study). This allowed respondents to participate in the study based on their level of interest. The respondents were requested to complete the questionnaires in their regularly scheduled classes with the permission of their respective lecturers.

1.6.2.4 Sample size

The sample size refers to the elements that are included in a research study (Gupta 2011: 196). The present study employed the historical evidence approach to determine the sample size for the quantitative study. Based on previous similar studies conducted by Chen and Chang (2012:510), Cheah and Phau (2011:452), Rahbar and Wahid (2011:73) and Ramayah, Lee and Mohamad (2010:1423), a sample size of 250 respondents was considered adequate. However, Gupta (2011:122) indicated that the more data collected the better, as statistical power is improved by increasing the sample size. Hence, instead of using 250 respondents, 420 students were surveyed for the quantitative study. Furthermore, consideration of sample sizes was also based on the type of multivariate analysis, namely factor analysis, which was

used in the study. Pallant (2010:187) affirms that, ideally, the overall sample size in factor analysis and structural equation modelling (SEM) procedures should be 150+ and that there should be a ratio of at least five cases for each of the variables under investigation. Hence, the study also had to meet these requirements for the use of multivariate procedures.

With respect to the qualitative study (in-depth interviews), respondents were interviewed until technical saturation was achieved, that is, interviews were deemed adequate when no new ideas were generated from subsequent interviews. In the present study, technical saturation was achieved by the sixteenth interview.

1.6.2.5 Data collection and measuring instrument

Data collection is the precise systematic gathering of information relevant to the research problem (Murthy & Bhojanna 2010:241). Primary data were collected through in-depth interviews and a self-administered structured questionnaire. In-depth interviews were focused on green marketing awareness, environmental attitudes, perceptions of green products, determinants of green consumer buyer behaviour, implementation of green marketing and associated challenges. The interview guide was given to the interviewees prior to the interviewing process to allow them to familiarise themselves with the questions. Probing techniques, such as open-ended questions, clarification, tracking and reflective summary, were used to enhance the quality of data. The researcher showed sensitivity to the uniqueness of each participant throughout the interview by being a good listener, flexible, non-judgemental, friendly, open and honest. The main themes that emerged from the interviews were used to develop a structured questionnaire.

The structured questionnaire comprised five sections. Section A consisted of questions on the demographic profile of consumers. Section B covered questions on the antecedents of green purchase behaviour, such as environmental attitude, environmental concern, environmental responsibility, social influence and government influence. Section C was based on questions on green purchase intention and Section D comprised questions on selection attributes. Lastly, Section E covered questions on actual green purchase behaviour. A five-point Likert scale was used for sections B, C, D and E. The questionnaire was pre-tested to check the suitability of questions and the general attitude of the respondents towards the survey. In addition, a pilot test was conducted with 50 respondents in order to establish the reliability of

the questionnaire. Thereafter, the questionnaire was refined to prepare it for use in the main survey.

1.7 DATA ANALYSIS

For data to be useful, it must be organised in a way that results in logical conclusions (Guba 2010:85). For the qualitative study (in-depth interviews), content analysis was undertaken in order to establish the underlying determinants of green consumer buyer behaviour and the selection attributes of Generation Y consumers. The analysis of qualitative data was conducted by identifying themes that could be extracted from field notes. Thereafter, line-by-line coding was undertaken. Descriptive, interpretative, pattern and reflective codes were used during the coding process. Codes with similar meanings were sorted into sub-categories. Depending upon the relationship between the sub-categories, themes were combined into a smaller number of categories. The data display matrix was used to draw conclusions from the data gathered from in-depth interviews.

The Statistical Package for Social Sciences (SPSS) Version 22.0 and the Analysis of Moments of Structure (AMOS) Version 22.0 were used to analyse the quantitative data. To analyse quantitative data, descriptive statistics and multivariate analysis (confirmatory factor analysis) were used. The Kruskal-Wallis and Mann-Whitney U tests were utilised to establish whether respondents varied in terms of green purchase behaviour. The non-parametric Spearman's rho correlation analysis was undertaken to establish the relationship between antecedents of green consumer buyer behaviour. The posited relationships among variables were tested by employing structural equation modelling.

The fitness of the measurement and structural model was examined using absolute fit indices that included the chi-square value over degree of freedom (χ^2/df), the Goodness-of-Fit Index (GFI), Root Mean Square Error of Approximation (RMSEA) and incremental fit indices, that is, the Comparative Fit Index (CFI), Incremental Fit Index (IFI) and Tucker-Lewis Index (TLI).

1.8 RELIABILITY, VALIDITY AND TRUSTWORTHINESS

Reliability is the degree to which research instruments are free of error and yield consistent results (Gupta 2011:132). Validity is the ability of a measuring instrument to measure what is

intended to be measured (Gupta 2011:133). The research results are trustworthy when the experiences of the participants are accurately represented (Murthy & Bhojanna 2010:243).

For the qualitative study, inter-rater reliability and content validation were undertaken. The researcher and two research professors established consensus on the content of the transcripts that emerged from the in-depth interviews. Cross-case comparisons were conducted to check the degree of fit between research findings, theoretical frameworks and the results of similar research. Credibility was established through member checking (validation) and peer checking (Yoshida & James 2011:17). Purposive sampling and respondents' briefing was also conducted to enhance credibility, as recommended by Cuba (2010:91). With regard to member validation, participants were given a full transcript of the coded interviews, with a summary of the emerging categories, in order to determine whether the codes and categories appropriately explained their experiences. Objectivity (confirmability) was achieved through peer checking conducted by two experts, the promoter and co-promoter. A table indicating the sub-categories, categories and themes was developed for inter-rater reliability (Vagharseyyedin, Vanaki & Mohammadi 2011:70). A detailed inquiry audit of the research process was conducted by the promoter and the co-promoter to assess the dependability of the data, findings, interpretations and recommendations.

For the quantitative study, content, discriminant, convergent and predictive validities were examined. Cronbach's alpha coefficient, the item-to-total values and composite reliability were computed to assess the reliability of the survey instrument. Content and construct validity were established through the pre-testing and pilot-testing of the survey instrument. Correlations and factor analysis procedures were used to establish convergent and predictive validity.

1.9 ETHICAL ISSUES

Ethics in research refers to the norms or standards that guide the research process (Gupta 2011:21). Ethics concerns the researcher's application of appropriate moral behaviour in relation to respondents participating in the research and towards those that may be affected by the study (Saunders, Lewis & Thornhill 2007:610). The Higher Degrees Committee's codes of research ethics at the Vaal University of Technology and Faculty of Management Sciences guided the researcher; the ethical considerations that were adhered to in the present study are described in the following sections.

1.9.1 Potential benefits and hazards

There were no benefits, either in the form of incentives or remuneration, offered to participants. In addition, participants were not exposed to any known risks. Following the example of Polit, Beck and Hungler (2001:81), the researcher remained sensitive to the participants' beliefs, values, culture and emotions during the entire study.

1.9.2 Data collection procedure

Permission was sought from the two institutions of higher learning soon after the approval of the research proposal by the Vaal University of Technology Higher Degrees Committee. Refer to **Appendix A** for the authorisation letters. After permission was granted, the interviews were conducted following a standardised procedure to reduce bias. In the quantitative survey, respondents were requested to complete the questionnaire in good faith and to the best of their understanding. They were informed that participation in the study was completely voluntary and that they could withdraw from the study at any stage without incurring any penalty.

1.9.3 Informed consent

A cover letter explaining the purpose of the study and assuring the respondents of anonymity and confidentiality accompanied each questionnaire. The respondents were assured that the collected data were to be used only for the research purposes. To ensure anonymity and confidentiality, no names were attached to the interview transcripts and returned questionnaires (Polit *et al.*, 2001:82). The findings of the study were reported in an aggregated format and again the personal details of the participants were not included.

1.10 DELIMITATIONS OF THE STUDY

The primary objective of the study was to examine the antecedents of green consumer buyer behaviour and the selection attributes of Generation Y consumers. The present study therefore focused on Generation Y consumers in South Africa, using a sample drawn from two institutions of higher learning in the Gauteng province. Consequently, non-student Generation Y respondents and other cohorts were excluded from this study. The Gauteng province was considered for the study because it is regarded as the economic hub of South

Africa. Thus, it was naturally expected that new trends in consumption patterns and new product development in this province and observed here first.

Although there is a broad range of green products, ranging from electronic products and automobiles to apparel, the focus of this study was environmentally friendly products, also known as organic products, within the fast-moving consumer goods category.

1.11 CLARIFICATION OF KEY TERMS

Generation Y: Refers to a cohort of consumers who were born in the period 1978 to 2000 (Kotler & Armstrong 2010:98).

Environmental concern: Is conceptualised as an attitude that reflects the level of consumer apprehension of the well-being of the environment (Tantawi, O’Shaughnessy, Gad & Ragheb 2009:36).

Environmental attitude: Refers to a predisposition to behaviour that consciously seeks to minimise the negative impact of the individual’s actions on the environment (Samarasinghe 2012:91).

Social influence: Refers to the ability of individuals to persuade and convince peers to align themselves with certain behaviours (Cheah & Phau 2011:456).

Green purchase intention: Refers to the probability and willingness of individuals to give preference to green products over conventional products in their purchase considerations (Ali & Amad 2012:88).

Pro-environmental behaviour: Is defined as “behaviour that consciously seeks to minimise the negative impact of one’s actions on the natural and built world” (Kollmuss & Agyeman 2002:240).

1.12 CHAPTER CLASSIFICATION

Chapter two: Growth and evolution of green marketing

The chapter traces the growth and evolution of green marketing. Green marketing concepts are identified and explained. The phases of growth and evolution of green marketing, such as ecological marketing, environment marketing and sustainable green marketing, are elaborated

upon. The key stakeholders in the practice of green marketing are identified and their roles explained. The implementation of green marketing, key drivers and benefits of green marketing, challenges and the future directions of green marketing are also discussed in detail.

Chapter three: Antecedents of green consumer buyer behaviour

In this chapter, the literature on the profile of green consumers, green market segments and antecedents of green buyer behaviour is reviewed. The Theory of Reasoned Action provides the theoretical foundation for examining the antecedents of green buyer behaviour.

Chapter four: Selection attributes of Generation Y consumers

The chapter discusses the selection attributes of Generation Y consumers. The Theory of Consumption Values formed the theoretical foundation for discussion of the selection attributes of Generation Y consumers. The chapter concludes by discussing the challenges of generating and maintaining sustainable consumption patterns.

Chapter five: Research design and methodology

The chapter explains the methodology used in the study. The philosophical underpinnings of the study, research design and methodology utilised in the study are covered. Reliability and validity measures for the qualitative and quantitative study are discussed in detail. The statistical procedures for data analysis are described and justified.

Chapter six: Results and findings

The chapter presents the empirical findings of the study and the interpretation of results. It also relates the results of the study to the empirical objectives and hypotheses.

Chapter seven: Conclusions and recommendations

Conclusions and recommendations emanating from the study are provided. Implications of the research findings are discussed and limitations of the study are highlighted. The chapter also suggests avenues for further research.

1.13 CHAPTER SUMMARY

The chapter presented the introduction and background to the study. The research objectives, the research problem, the proposed hypotheses and the rationale of the study were outlined and delimitations described. The research design of the study includes a literature review, the definition of the target population and a description of the sampling methods, sample frame and data collection instruments. In addition, the statistical analysis techniques employed for data analysis were briefly highlighted. The classification of chapters for the entire study was provided and the key concepts defined.

The next chapter provides a literature review on the evolution of green marketing, green marketing concepts, the implementation process, and the benefits and challenges of green marketing, as well as the future prospects of green marketing.

CHAPTER 2

EVOLUTION AND GROWTH OF GREEN MARKETING

2.1 INTRODUCTION

The previous chapter provided the introduction and background to the study. The objectives and the methodology of the study were outlined. The chapter also highlighted the intricate relationships between businesses, the natural environment and society within the green marketing domain. This chapter attempts to broaden the understanding of the concept of green marketing by tracing its evolution and growth. The chapter discusses the historical background and progression of green marketing in three distinct stages: ecological marketing, environmental marketing and sustainable marketing. The implications of the evolution and growth of green marketing for the discipline of marketing and its contribution to the sustainability debate are also outlined.

The present chapter also discusses the key drivers of the adoption of green marketing, the main stakeholders involved, the implementation of green marketing and the challenges associated with its practice. The chapter concludes by discussing the future prospects of green marketing.

2.2 GREEN MARKETING CONCEPTS AND DEFINITIONS

The proliferation of terms associated with green marketing, such as biodegradable, environmentally friendly, organic, planet-friendly, natural, recyclable, compostable and ozone-friendly, have given rise to an array of green marketing definitions (Borin, Cerf & Krishnan 2011:77; Saleki & Seyedsaleki 2012:104). Notably, the repertoire of green marketing terms signifies the metamorphosis of the concept of green marketing over the past years (Ahmed, Kamalabhan & Chih 2001:245; Mourad & Ahmed 2012:517). However, the main concern is that the aforementioned terms are erroneously assumed to be synonymous with green marketing, resulting in the concept being perceived narrowly as the marketing of products with environmental characteristics (Dhar & Das 2012:41; Kinoti 2011:264; Mohajan 2012:1). The variety of green marketing terminologies in extant literature has also resulted in every company having its own “green story”, thereby jeopardising efforts to standardise green marketing practice (Rettie, Burchell & Riley 2012:422). Consequently, an array of

green marketing conceptualisations has led to the lack of a universally acceptable definition, further complicating the practice of green marketing (Kinoti 2011:265).

In academic literature, green marketing is alternatively termed ecological marketing, environmental marketing, organic marketing, responsible marketing, sustainable marketing and ethical consumption (Horne 2009:179; Mohajan 2011:1; Polonsky 2011:1311). In addition, green marketing is classified as a subset of the corporate social responsibility, component of the marketing concept and a tool for enhancing sustainable development (Jamge 2012:1; Shrikanth & Raju 2012:27; Verma, Agarwal & Srivastava 2012:100). Henion and Kinnear's (1976) definition of green marketing guided early debate on its role. They define green marketing as the study of the positive and negative impacts of marketing activities on pollution, energy depletion and non-energy resource depletion. It is important to note that Henion and Kinnear's (1976) definition has since evolved in tandem with the growth of green marketing in modern day theory and practice (Rakhsha & Majidazar 2011:755). Table 2.1 summarises green marketing definitions in contemporary green marketing literature.

Table 2.1 Synopsis of green marketing definitions

Authors	Year	Definition
Shrikanth and Raju	2012	A holistic and strategic marketing management process that identifies, anticipates, satisfies and fulfils stakeholder needs for a reasonable reward without adversely affecting the environment.
Kung, Huang and Cheng	2012	The application of appeals, ideas and practices concomitant with environmental protection in the formulation of marketing strategies.
Awad	2011	A management process responsible for identifying, anticipating and satisfying the needs of customers and society in a profitable and sustainable manner.
Tiwari, Tripathi, Srivastava and Yadav	2011	“The marketing of products that are presumed to be environmentally safe (retailing perspective), the development and marketing of products designed to maximise customer satisfaction and improve the quality of the environment (consumer perspective) and the efforts by the organisation to produce, promote, package and reclaim products in a manner that is sensitive or responsive to ecological concerns (environmental perspective).”
Rahman and Haque	2011	An all-inclusive management process tailored to identify, anticipate and satisfy the requirements of various stakeholders in a profitable and sustainable manner.
Mishra and Sharma	2010	A comprehensive marketing concept in which the production, marketing, consumption and disposal of products and services occur in a way that is less harmful to the environment

Source: Awad (2011:57); Kung, Huang and Cheng (2012:115); Mishra and Sharma (2010:9); Rahman and Haque (2011:86); Shrikanth and Raju (2012:8); Tiwari, Tripathi, Srivastava and Yadav (2011:18).

It can be deduced from the aforementioned definitions that green marketing ties in closely with environment-centric concepts such as industrial ecology, environmental sustainability and sustainable consumption. Thus, Singh and Pandey (2012:22) construed green marketing as a broad concept with far-reaching implications for corporate strategy and public policy. In its wide-ranging application, green marketing encompasses all marketing activities, such as research and development, product design, packaging and advertising, that are necessary to develop and sustain consumers’ eco-friendly attitudes and behaviours in a way that sustains the natural environment (Sarumathi 2014:779; Selvakumar & Pandi 2011:12). Green

marketing also represents a set of strategies associated with the production, pricing, promotion and distribution of offerings that are designed to satisfy the demand of consumers and societal well-being (Kung *et al.*, 2012:115).

According to Polonsky (2011:1311), the ultimate objective of green marketing is to promote integrated exchange processes that strike a balance between business, society and the natural environment. Green marketing is also considered as a tool for monitoring, seeking and fulfilling consumer needs and desires in the context of environmental responsibility (Akehurst *et al.*, 2012:974).

It can be reasoned from the foregoing discussion that green marketing mirrors the goals of conventional marketing, which are to facilitate exchanges with the intention of satisfying consumer needs profitably. The point of difference is that green marketing attempts to satisfy consumer needs with minimum detrimental impact on the natural environment (Singh & Pandey 2012:24). More precisely, green marketing needs to be understood as a comprehensive phenomenon aimed at balancing consumption, production and environmental sustainability (Chen & Chai 2010:27). Polonsky (2011:1311) has warned, however, that failure by green marketing definitions to adopt a macro-marketing transformation approach tends to limit the practice of green marketing and its ability to create value for consumers in the marketplace.

2.3 HISTORICAL OVERVIEW AND DEVELOPMENT OF GREEN MARKETING

The contribution of mankind to environmental problems can be traced back to the era of human evolution that was premised on the mastery over nature orientation (Griskevicius, Cantu & Vugt 2012:118). The perception that the natural environment ought to be submissive to human needs also appears to be entrenched in religious foundations (Polonsky 2011:1311). In particular, Genesis (1:28) states that: "...be fruitful, multiply, replenish the earth, subdue it and have dominion over the fish of the sea, the fowl of the air and over every living thing that moveth upon the earth." Additionally, the Agency Theory also exonerated corporates from taking environmental responsibility, claiming that it dilutes shareholder value (Chen, Chang & Wu 2012:370). Given this background of human-centered behaviour, there is strong global consensus that anthropocentrism is the root cause of most of today's environmental problems (Belz & Peattie 2009:11).

The extent of ecological imbalance is evidenced by recent trends that reveal the following: sea levels are changing by an average of 3.2 mm per year globally; 13 million hectares of forests were cleared between 2000 and 2010; the global average temperature has risen by 0.6 degrees Celsius over the course of the 20th century; and the amount of carbon dioxide in the atmosphere has reached 140 percent of the pre-industrial level of 280 parts per million (World, Meteorological Organisation 2013:3). The Living Planet report also estimated that human beings will need an equivalent of two planets by 2030 to sustain livelihoods (World Wide Fund 2012:40). As concern for the environment heightens globally, marketing has been singled out as the main catalyst for unsustainable production and consumption practices (Belz & Peattie 2009:27).

In an attempt to avert environmental degradation, in 1975 the American Marketing Association convened the first workshop on ecological marketing in Austin, Texas (United States of America), which recommended green marketing as a solution to environmental challenges (Tiwari *et al.*, 2011:18). Despite its early development, Rakhsha and Majidazar (2011:755) claimed that it was only in the late 1980s that the concept of green marketing gained prominence as a result of increased environmental concern and the emergence of green consumerism. On a global scale, environment-centred engagements such as the Earth Summit (1992), the Kyoto Protocol (1997), the Copenhagen Accord (2009), the Cancun Agreement (2011) and the Durban Platform for Enhanced Action (COP 17, 2011) represent concerted efforts by political leaders to address the scourge of climate change (Tyrrell 2011:46). Notably, the Cancun Agreement laid the foundation for the United Nations Green Climate Fund, which aims to generate \$100bn a year by 2020 to help finance the migration of developing countries to green economies (Garen 2009:117).

Samarasinghe and Ahsan (2010:334) have pointed out that, because of its global appeal, green marketing has emerged as a strategic option for enhancing sustainable development and customer value. Ecological marketing, environmental marketing and sustainable marketing are identified as the distinct phases that characterise the evolution of green marketing thought (Horne 2009:178).

2.3.1 Ecological marketing

The concept of ecological marketing has ancient roots. According to Smith (2010:438), the term “ecology” was coined by German biologist Ernst Haeckel as early as 1866. Despite its

early development, the intellectual roots of ecological marketing were laid down only in Carson's renowned book *Silent Spring*, published in 1962 (Belz & Peattie 2009:28). *Silent Spring* provided an alarming revelation of the extent to which human beings were contaminating the environment through the use of uncontrolled pesticides (Carson 1962:1). The early 1960s also marked breakthroughs in environmental research and the elicitation of global cooperation to address environmental problems (Peattie 2001:130). The resultant awareness of the magnitude of environmental problems was instrumental in shaping the first definition of ecological marketing.

Henion and Kinnear (1976:1) defined ecological marketing as the process of identifying marketing activities that are responsible for causing environmental problems and providing remedies. The thrust of ecological marketing was to provide solutions to environmental problems and propagate ecocentric values such as recycling and energy conservation (Carrete, Catano, Felix, Centeno & Gonzalez 2012:471; Mishra & Sharma 2010:10). Accordingly, Jamge (2011:1) and Horne (2009:179) interpreted ecological marketing as marketing with an environmental conscience.

The major contribution to ecological marketing came in the form of the promulgation of national environmental laws and the commitment of governments to multi-lateral and bi-lateral environmental agreements such as the 1972 United Nations Conference on Human Environment in Stockholm, the UN General Assembly in 1987 and the celebration of Earth Day (Wong 2012:468). In response to the global environmental concern, government regulatory bodies and consumer pressure groups aggressively lobbied for businesses to adopt green practices (Panda 2009:687). This culminated in environmental regulations such as Environmental Management Systems (Smith & Perks 2010:2). Under the auspices of the International Organisation for Standardisation (ISO), the ISO 14001 standards provided a framework for Environmental Management Control Systems (EMS) such as ISO 14001 and ISO 14002 and the Eco-Management and Audit Scheme which mandated businesses to obtain independent environmental certification to authenticate their environmental practices (Bhattacharya 2011:62).

The major contribution of ecological marketing to the practice of green marketing was the introduction of a cocktail of environmental laws (Peattie 2001:130). From a business standpoint, ecological marketing was, however, perceived as a cost driver and compliance burden, and therefore minimal adjustments were initiated to reduce environmental pollution

and comply with environmental regulations (Peattie & Crane 2005:358). In order to comply with environmental laws and reduce costs, businesses adopted and implemented pro-environmental programmes that primarily enhanced operating efficiencies and were aptly called “lean greens” (Kumar, Kumar, Rahman, Yadav & Goyal 2011:62). The focus of a lean green strategy was to reduce costs and improve efficiencies through pro-environmental activities, thus creating a low-cost competitive advantage for the organisation (Davari & Srutton 2014:3).

During the ecological marketing phase, Environmental Condition Indicators (ECI) and Environment Performance Indicators (EPI) were used to evaluate environmental performance (Kung, Huang & Cheng 2012:116). Based on the ISO 14031 Environment Management Systems, ECI provided updated information on the effects of the company’s operations on the well-being of the environment and assisted management in mapping out intervention strategies to address environmental shortcomings (Kung *et al.*, 2012:114). Improvement in operating efficiencies was the key driver of the adoption and implementation of ecological marketing (Kung *et al.*, 2012:114). Operational efficiencies were measured by the ability of the organisation to establish, integrate, coordinate and re-configure its core competencies to enhance economies of scale and minimise environmental harm (Chen *et al.*, 2012:387).

Although ecological marketing provided the momentum for the drive to preserve the environment, its approach to solving environmental problems was narrow in its scope (Peattie 2001:130). In particular, its predominant focus on curtailment behaviours such as energy conservation and cost reduction resulted in a narrow understanding of green marketing (Carrete *et al.*, 2012:471). In its practice, ecological marketing was narrowly focused on “chimney” industries, that is, those companies that were presumed to have a high carbon footprint (Wu & Teng 2011:7579). In addition, during the ecological marketing phase, most companies perceived environmental protection as a regulatory compliance and it was treated as a production constraint, thereby limiting the full adoption of green marketing practices (Belz & Peattie 2009:28). The inherent shortcomings of ecological green marketing resulted in the emergence of the second phase of green marketing, termed environmental marketing, in the early 1990s (Belz & Peattie 2009:28).

2.3.2 Environmental marketing

Triggered by incidents such as the Bhopal tragedy in 1984, the discovery of the Antarctic hole in the ozone layer in 1985 and the Exxon-Valdez oil spill in 1989, ecological marketing evolved into environmental marketing during the early 1990s (Belz & Peattie 2009:28). The resultant media coverage of the aforementioned environmental disasters resulted in heightened environmental concern (Peattie 2001:131). Fittingly, the 1990s were dubbed “The Earth Decade” and were characterised by the emergence of green consumers and the introduction of green products (Lu, Bock & Joseph 2013:4). The environmental concern was also replicated in the political arena, particularly in the European elections of the 1990s, where voters were reportedly inclined towards political parties with a “green” ideology (Peattie 2001:131).

During the early 1990s, the concept of green marketing was extended to the boardroom, with implications for marketing strategy (Garcia-Rosell & Moisander 2008:210). The most noticeable development during this period was the emergence of corporate environmentalism, with “global sustainability champions” such as Walmart, Woolworths, Coca-Cola and Toyota as torch bearers (Dauvergne & Jane 2012:36). In particular, the sustainability debate was more focused on the most visible and final loop of the value chain, that is, the marketing function (Jones, Clarke-Hill, Comfort & Hillier 2008:123).

In contrast to ecological marketing, environmental marketing was broad in its perspective, including not only the value chain processes but also encompassing the creation of competitive advantage by targeting environmentally conscious consumers with green products (Belz & Peattie 2009:29). Notably, environmental marketing was characterised by a paradigm shift from environmental preservation to “green” technology, premised on designing innovative, environmentally friendly products (Mishra & Sharma 2010:10). The terms “green design” and “green” consumers were topical during this phase and emerged as the key drivers for integrating environmental considerations in the production and marketing functions (Horne 2009:89). Green design and the resultant green products constituted an active interface between businesses and consumers in the drive to conserve the environment (Rashad & Igbazua 2011:638).

In its application, green design acknowledges that a product interacts with the environment throughout its entire life cycle from the design phase to the disposal phase (Kasap & Peker

2011:101). Green design, alternatively known as design for the environment or ecological design (Subramaniyam, Srinivasan & Prabakaran 2011:244), was defined as the integration of principles of environmental consciousness, such as reduce, re-use, recycle and re-conceptualise, in the manufacturing process (Mean-Shen 2012:7742). Driven by the mantra “green marketing begins with green design”, green design emphasised the importance of product life cycle assessment and product recyclability (Subramaniyam *et al.*, 2011:244). The Life Cycle Assessment Framework was used to provide a “cradle to grave” analysis of the value chain in order to understand operations that result in harm to the environment and to take corrective action (Balkau & Sonnemann 2010:47). Based on Life Cycle Assessment, environmental labels and green products were developed and their initial market appeal was documented as green marketing success stories (Belz & Peattie 2009:29).

However, the effectiveness of the Life Cycle Assessment Framework was jeopardised by failure to accurately capture supply chain emissions and calculate carbon footprints (Thorn, Kraus & Parker 2011:1). Of great concern was that attempts to reduce the environmental impacts of a product at one stage of the life cycle often resulted in an unintended increase in the ecological footprint at the subsequent stages (Stitzhal 2011:27). Given this challenge, the concept of design for recyclability was recommended to complement product life cycle assessments (Subramaniyam *et al.*, 2011:244). The immediate benefits of the design for recyclability approach included lower greenhouse gas emissions and pollution reduction (Subramaniyam *et al.*, 2011:244). However, the major shortcoming of the design for recyclability concept was its apparent failure to effectively assign costs to all parties in the supply chain as a way of stimulating environmental accountability among channel members (Polonsky 2011:1315).

Overall, the preoccupation of environmental marketing with production processes resulted in green marketing being defined as the marketing and promotion of products based on their environmental performance (Sheth, Shethia & Srinivas 2011:23). Consequently, marketers adopted the defensive green mode, where the focus was on green product positioning and branding to appeal to the emerging green markets (Kumar *et al.*, 2011:62). Environmental marketing strategies were developed specifically to target consumers who were willing to pay a higher price for green products (Belz & Peattie 2009:29).

Despite the exponential growth in the adoption of green practices during the environmental marketing phase, marketers experienced a backlash from consumers (Irawan & Darmanyanti

2011:2; Lee 2008:74). Notably, ecologically designed products were vulnerable relative to conventional products and failed to stimulate market demand (Sharma 2011:152). In addition, the predominant focus on environmental metrics such as life cycle assessments at the expense of identifying consumer needs reduced the market appeal of green products (Subramaniam *et al.*, 2011:244). In addition, Kirchoff, Koch and Nichols (2011:688) note that the major contributing factor to the backlash of green products was consumer cynicism as a result of unsubstantiated green product claims. Moreover, failure by most companies to justify the premium prices of green products and provide environmental benefits of green products over conventional alternatives compounded the scepticism (Ottman 2011:131; Polonsky 2011:1315).

Based on the seminal work of King (1985) titled “False marketing”, Peattie and Crane (2005:360) and later, Lee, Hsu, Han and Kim (2010:902), identified five marketing practices that led to the failure of environmental marketing. These are: green spinning, green selling, green harvesting, enviropreneurial marketing and compliance marketing.

2.3.2.1 Green spinning

Green spinning refers to a reactive, company-centric approach of addressing environmental problems with the primary objective of enhancing the profitability and environmental reputation of the organisation (Lee 2008:574; Mohajan 2011:1). In practice, green spinning was focused mainly on enhancing the corporate image by integrating green marketing activities within the public relations function (Lee *et al.*, 2010:903). Green spinning was also employed as a defensive strategy with the aim of propping up the environmental image of the organisation by discrediting and challenging any negative perceptions about the environmental practices of the company (Gilbert 2007:2). Based on King’s (1985:229) “formula marketing” concept, the focus of green spinning was to maximise profits by implementing minimal changes in company processes and systems (Peattie & Crane 2005:229). To enhance the environmental reputation of the organisation, peripheral environmental enhancement projects were highly publicised and any public criticisms were counteracted (Simuka, Lehtimaki & Salo 2009:337).

The major downfall of green spinning was lack of stakeholder engagement (Peattie & Crane 2005:361). In addition, Alves (2009:3) noted that green spinning failed because consumers and pressure groups were not fully convinced by the inward and piecemeal approach of

addressing environmental problems. By focusing on defensive public relations campaigns, marketers missed a strategic opportunity to integrate environmental considerations into the marketing strategy (Gilbert 2007:2). Additionally, the green spinning approach was short-term in perspective and primarily concerned with enhancing the interests of the organisation, with minimum effort invested in identifying and satisfying customer needs (Simuka *et al.*, 2009:337).

2.3.2.2 Green selling

Another source of consumer cynicism was termed “green selling”. Green selling took the form of an opportunistic marketing approach of adding green claims to existing products based on the mindset that “green will sell” (Ottman 2011:47). During this period, marketers were accused of misleading consumers by advertising their products using unproven environmental attributes (Lu *et al.*, 2013:4). The most common practice during this period was the act of advertising products as environmentally friendly without proving their environmental attributes (Montague & Mukherjee 2010:433). Green selling reflected a typical sales-orientation approach, whereby green themes were added to promotional campaigns in order to take advantage of environmentally conscious consumers as a way of boosting sales (Simuka *et al.*, 2009:337).

Consistent with King’s (1985:224) “thrust marketing” dimension, environmental concern was used as a promotional tool with little investment in providing tangible green product environmental benefits (Simuka *et al.*, 2009:337). The desire to boost sales resulted in the proliferation of eco-labels with unsubstantiated and misleading environmental claims (Peattie & Crane 2005:361). During this phase, there were neither standards to verify the composition of eco-labels nor processes to enhance the credibility of environmental claims, leading to many products being marketed using misleading information (Gilbert 2007:2). The term “greenwashing” was employed, therefore, to refer to misleading claims about the environmental attributes and performance of green products (Vermillion & Peart 2010:70).

The most vivid examples of greenwashing claims that heightened consumer disillusionment with green products include Ford Motors’ unfulfilled promise in 1999 to “bring about the demise of the combustion engine” and British Petroleum’s (BP) 2001 “beyond petroleum” campaign (Dauvergne & Jane 2012:36). It was this kind of mindset that led to concern among regulators and consumer groups over the authenticity of green claims that emerged in the

early 1990s (Vaccaro 2009:13). As a result, greenwashing resulted in marketers sacrificing customer loyalty for short-term sales, leading to mounting consumer cynicism (Lee *et al.*, 2010:905). Consequently, green products underperformed significantly during this phase compared to conventional products (Routroy 2009:22).

2.3.2.3 Green harvesting

Apart from green spinning and green selling, green harvesting also negatively affected the uptake of green products. Typical of King's (1985:227) concept of "accountant's marketing", green harvesting refers to the act of implementing green initiatives in order to save operating costs and maximise profits (Lee *et al.*, 2010:97). Green harvesting was associated with an organisational culture that focuses on profitability and a short-term environmental perspective (Simuka *et al.*, 2009:337). According to Peattie and Crane (2005:362), economies of scale in energy and material input efficiencies, packaging reductions and logistics rationalisation provided strong incentives for firms to develop environmental programmes during this phase.

The main concern during the environmental marketing phase was that cost savings that resulted from operational efficiencies were not filtered down to consumers (Carrete *et al.*, 2012:474). On the contrary, green products were priced at a higher price relative to conventional products (Simuka *et al.*, 2009:337). Consequently, the perception of green products being expensive severely affected their market acceptance (Ottman 2011:47).

2.3.2.4 Enviropreneurial marketing

The concept of enviropreneurial marketing was developed by Varadarajan (1992:342) to refer to the act of formulating pro-environmental strategies with the aim of creating competitive advantage. By definition, an enviropreneur is an intrapreneur who takes risks by creating a business venture focused on targeting green markets with a portfolio of green products (Allen & Malin 2008:830). Enviropreneurial marketing occurs when a company positions its products or services, using environmental claims (Simuka *et al.*, 2009:337). The quest for profitability, environmental concern, the creation of employment, opportunism and the need to match competitor activity were the key drivers of the practice of enviropreneurial marketing (Braun 2010:245; Varadarajan 1992:342). Enviropreneurial marketing was based on the mindset that green marketing offers entrepreneurial opportunities for new product development and innovation (Vaccaro 2009:15).

Enviropreneurial marketing was initially successful but was derailed by marked disconnectedness between green products and consumer needs (Ottman 2011:47). Typical of King's (1985) concept of "marketing department marketing", enviropreneurship failed owing to lack of integration between marketing and other functions (Peattie & Crane 2005:360). For instance, marketing research efforts were narrowly focused on understanding the environmental concern of consumers with the assumption that this would result in more sales of green products (Peattie & Crane 2005:363). As a result, green products produced did not meet consumer expectations and failed in the market (Gilbert 2007:2). Enviropreneurial marketing also failed to integrate the concerns of key stakeholders such as wholesalers and retailers, thereby negatively affecting the uptake of green products (Wilson, Bunn & Savage 2010:76). Moreover, enviropreneur marketers failed to understand consumer needs and educate customers on the benefits of green products (Peattie & Crane 2005:363).

2.3.2.5 Compliance marketing

Environmental marketing also enjoyed little success because it was narrowly understood as a way of complying with environmental regulations. The release of the Brundtland Report in 1987 resulted in the enactment of a plethora of environmental laws and regulations globally (Belz & Peattie 2009:133). As a result, companies were compelled to implement green practices in order to minimise the risks of non-compliance (Simuka *et al.*, 2009:337). Compliance marketing was therefore primarily concerned with the implementation of green practices in order to conform with environmental legislation and promote the company's green credentials, without taking initiatives to go beyond the requirements of environmental regulations (Lee 2008:574; Peattie & Crane 2005:360). Compliance marketing is manifested in the current context through environmental compliance as regards greenhouse gas emissions, mandatory reporting on sustainability and carbon footprint disclosure (Nidumolu, Prahalad & Rangaswami 2009:3).

Overall, the cumulative effect of green selling, green harvesting, enviropreneurial marketing and compliance marketing was the identification of the gap between consumers' environmental concern and their purchase of green products (Gleim, Smith, Andrews & Cronin 2013:44). More importantly, the use of unsubstantiated green marketing claims met with consumer cynicism, causing Lee (2008:574) to describe the environmental marketing phase as the era of "consumer backlash."

In spite of their concern for the environment, consumers were not willing to pay the premium price for green products (Belz & Peattie 2009:30). Solvalier and Haglund (2010:39) opined that failure to address long-term sustainability imperatives and identify consumer needs resulted in the downfall of environmental marketing. Moreover, as Alves (2009:3) pointed out, the major weakness of the environmental marketing phase was that green marketing was regarded as a set of isolated and fragmented activities such as recycling, reducing pollution and energy conservation. Thus, green marketing researchers Kumar *et al.* (2011:62) argued that environmental marketing's failure to integrate green marketing in the overall marketing strategy was its major downfall. To address the challenges associated with environmental marketing, green marketing evolved into the sustainable marketing phase.

2.3.3 Sustainable marketing

The concept of sustainable marketing emerged in the early 2000s and marked the renaissance of green marketing (Belz & Peattie 2009:31). In particular, sustainability is important to environmental policy makers because it is considered a key factor in balancing consumption and production (Crittenden, Crittenden, Ferrell, Ferrell & Pinney 2011:72). Historically, sustainability was brought into perspective by the Brundtland Report of 1987, titled "Our Common Future" (Deshpande 2011:4; Kumar *et al.*, 2012:483). In that report, sustainability was defined as development that satisfies the needs of present generations without compromising the ability of forthcoming generations to meet their own needs (World Commission on Environment and Development 1987:8).

In its application, sustainability is a broad concept that incorporates issues such as preservation of non-renewable resources, caring for the natural environment, supply chain management, reduction of ecological footprint and promotion of responsible consumption (Crittenden *et al.*, 2011:72). Sustainability is also associated with terms and management approaches such as corporate social responsibility, environmental sustainability, social responsibility, sustainable development, corporate citizenship and the triple bottom line concept (Sridhar 2012:313).

From a marketing perspective, sustainability is defined as the planning, coordination, implementation and controlling of all market exchanges in such a way that a sustained satisfaction of the needs of current and future consumers is achieved while maintaining ecological balance (Nkamnebe 2011:220). The aim of sustainable marketing is to align the

development of green products with sustainable consumption behaviour (Ottman 2011:84; Irawan & Darmayanti 2011:1). Sustainable marketing as a central component of the sustainable development agenda is defined as the process of establishing and maintaining long-term, mutual relationships with consumers and the natural environment (Belz & Peattie 2009:30).

As a macro-marketing concept and component of sustainable development, sustainable marketing is grounded on the mindset that the assessment of business performance should be based on economic, environmental and social dimensions (Kumar *et al.*, 2012:483). Specifically, the Brundtland Report urged businesses to focus on and implement the concept of sustainability premised on three fundamental components: environmental protection, economic growth and social equity (Bhattacharya 2011:66). The central theme of sustainable marketing is to integrate economic and ecological considerations in the formulation of the marketing strategy in such a way that the well-being of the environment is enhanced (Connolly & Prothero 2008:118; Rashad & Igbazua 2011:638).

The sustainable marketing phase is characterised by the implementation of advanced technologies to design green products, the formulation of regulations to curb deceptive green marketing claims and a thorough inspection of green products by environmental organisations (Ottman 2011:117; Routray 2009:30). The International Organisation for Standardisation (ISO), The Federal Trade Commission (FTC) and the Advertising Standards Authority provide guidelines for curbing deceptive green marketing claims (Tyrrell 2012:256). The main thrust of sustainable marketing is to create competitive advantage by stimulating product innovations that tap into consumers' environmental concern (Baverstam & Larsson 2009:4).

The most noticeable trend during the sustainable marketing phase was the emergence of environmentally concerned consumers and the green market (Basgoze & Tektas 2013:478). A green market is defined as a portfolio of consumers who integrate environmental issues in their purchase decisions (Sharma & Joshi 2009:254). Green consumers are defined as those who avoid products that are likely to endanger the environment during manufacturing, consumption and disposal (Irawan & Darmayanti 2011:3). The rise in green consumers has led to the emergence of a broadened consumption concept called green consumerism (Dhar & Das 2012:42). Green consumerism has been conceptualised as a set of pro-environmental

personal values and attitudes that result in environmentally conscious purchase decisions (Chen & Chai 2010:28).

Based on the foregoing discussion, Table 2.2 presents the major timelines during the evolution of green marketing.

Table 2.2 Timelines of key environmental events

Period	Environmental event time frame
1400 BC	Moses provides environmental guidance.
1866	German zoologist Ernst Haeckel coins the word “ecology”.
1901–1909	Avid conservationist, US President Theodore Roosevelt, popularises environmentalism.
1962	The renowned book on environmentalism, <i>Silent Spring</i> , is published.
1969	The Santa Barbara Oil Spill pollutes beaches in Southern California.
1970	Earth Day is celebrated.
1975	First Workshop on Ecological Marketing held in Austin, Texas, USA.
1987	The Brundtland Report is released.
1989	The oil tanker Exxon Valdez spillage in the coast of Alaska.
1990	The Decade of the Environment.
1997	The Kyoto Protocol.
2000	The Era of Sustainable Development.
2002	World Summit for sustainable Development in Johannesburg.
2006	Al Gore’s Oscar-winning documentary <i>An Inconvenient Truth</i> is released.
2009	The Copenhagen Accord.
2011	The Cancun Agreement.
2011	The Durban Platform for Enhanced Action (COP 17).

Source: Smith (2010:439).

2.4 GREEN MARKETING DRIVERS

In the contemporary marketplace, going green is considered an important imperative and an opportunity for corporates (Dangelico & Pontrandolfo 2010:1608). The growing impetus towards the adoption of green marketing is driven principally by market opportunities, environmental legislation, competitive pressures and social responsibility (Chen 2010:93; Deshwal 2012:801; Mishra & Sharma 2010:11). In addition, McKinsey's (2011:3-4) report revealed that other drivers for the adoption of green marketing include cost reduction, operating efficiencies, improved profitability, market share growth potential and improved value chain performance.

At corporate level, the concept of green marketing is gaining prominence as a strategic tool for enhancing competitive advantage (Smith & Brower 2012:539). For example, Accenture's (2010:13) survey revealed that 93 percent of chief executive officers of top global companies now regard sustainability as a key success factor. Similarly, a Boston Consulting Group (2011:7-8) survey found that 60 percent of companies increased their sustainability investments in 2010 in spite of the economic downturn. The main sources of competitive advantage are cost reductions in raw material, energy usage and waste disposal (Mishra & Sharma 2010:11; Mohajan 2012:3).

The cost savings associated with sustainability initiatives provide tangible gains that result in bottom-line improvements (Smith & Brower 2012:539). In particular, green value chain processes such as ecological product design, eco-procurement and reverse logistics significantly reduce operating costs (Fraj, Martinez & Matute 2011:351). For example, following an initial investment of US\$187 million in energy saving initiatives between 2005 to 2009, Johnson & Johnson achieved a 19 percent internal rate of return (Boston Consulting Group 2011:8). Similarly, Marks and Spencer's (2011:1) projects aimed at reducing packaging and energy usage resulted in cost savings of over £70 million in 2010-2011, up from £50m in 2009-2010, an increase of 40 percent. In South Africa, Woolworths' Good Business Journey resulted in technology innovation, cost savings and operational efficiencies and positioned the company as an investment option for environmentally conscious investors (Woolworths Holdings Limited 2011:2).

Beyond financial gains, green marketing also results in enhanced corporate image through value chain transparency, ethical procurement of raw materials, environmental risk

management and an increase in consumer trust (Fraj *et al.*, 2011:351). For instance, through the use of reverse logistics, manufacturers, wholesalers and retailers are able to develop symbiotic relationships whereby the waste generated by one company is used by another as a cost-cutting measure (Mishra & Sharma 2010:12; Mohanasundaram 2012:70). A typical example is the South Africa retail giant Woolworths, which is running recycling projects with Nampak, Engen, Gusco and Isikhwama that result in cost savings in packaging (Woolworths Holdings Limited 2012:68). Overall, the implementation of green marketing improves supply chain productivity and performance through the use of the 3R typology, that is, reduce, re-use and recycle, as the guiding philosophy (Lee, Park & Trimi 2013:630). However, Owen (2012:2) cautioned marketers about the likelihood of the “green marketing conundrum” whereby efficiencies reaped from green marketing implementation may unintentionally result in more consumption and production and ultimately translate into a larger ecological footprint.

Besides cost reduction, companies are also embracing sustainability marketing principles as a growth strategy (Mishra & Sharma 2010:11). Specifically, growth opportunities are being realised in green product development, innovation, market share acquisition and market development (Davergne & Lister 2012:39). In particular, the surge in the demand for green products is a key driver in the adoption of green marketing practices. Globally, it is estimated that 82 percent of consumers now prefer green products to conventional ones (Tinne 2013:84), thereby positioning the green market as an attractive market segment. Globally, companies that were successful in implementing their green initiatives, such as Toyota (Toyota Pirus), Coca-Cola (PET Project), Woolworths (Good Business Journey), Walmart (Organic product range), and Xerox (recycled paper photocopier), managed to grow their market shares (Mishra & Sharma 2010:11).

Another driver of the adoption of green marketing initiatives is social responsibility (Mishra & Sharma 2010:11). To substantiate this view, Babik and Trendafilova (2011:13) succinctly comment that “the natural environment is increasingly being viewed as a pillar of social responsibility.” In addition, Mohajan (2012:3) notes that more organisations than before are warming to the fact that they have a moral obligation to protect the environment. In line with the triple bottom line concept, investments in corporate social responsibility programmes demonstrate the acceptance by companies of their obligation to protect the environment (Dhar & Das 2012:42). In an increasingly environmentally conscious marketplace, corporate

social responsibility initiatives scale up the legitimacy of the organisation to its stakeholders (Sarkar 2012:126). The elements of corporate social responsibility within the sustainable marketing debate include responsible procurement, fair operating practices and responsible disposal of wastes (Kumar & Christodoulopoulou 2013:2).

Apart from enhancing an organisation's environmental legitimacy, marketers also use social responsibility as a marketing tool (Dhar & Das 2012:42). To this end, most companies are publicising their green marketing initiatives in order to propel their corporate image (Hillestad, Xie & Haugland 2010:440). Substantiating this view, Kumar and Christodoulopoulou (2013:2) noted that the market value of an organisation tends to increase following environmental philanthropy announcements and the awarding of environmental certifications (Kumar & Christodoulopoulou 2013:2).

At a macro-level, government regulations are also pressuring companies to adopt green marketing practices (Hale 2011:225). In particular, governmental regulations relating to green marketing are designed to protect consumers by reducing the production and consumption of products that cause environmental harm, as well as to assist consumers in evaluating the environmental composition of green products (Mishra & Sharma 2010:11; Sinappan & Rahman 2011:132). Although national governments have made remarkable strides in promulgating and enforcing environment laws, Simuka *et al.* (2009:337) cautioned that the dearth of a global framework for enforcing environmental regulations and standards tends to negate the progress of individual governments. In the absence of a well-enforced global environment regulatory framework, Dauvergne and Lister (2012:38) noted that global companies such as Walmart, Coca-Cola, McDonald's, Toyota and Nike, among others, are branding themselves as "global sustainability champions" and acting as global environmental regulators in the process. The inherent danger of the self-regulation approach, according to Do Paco and Reis (2012:149), is the likelihood of selective adoption and implementation of environmental regulations.

Although government pressure, market opportunities, competitive pressure and social responsibility are compelling factors in the adoption of green marketing, implementation of green marketing practices tends to be influenced by company strategy, company size, resources and core competencies (Fraj *et al.*, 2011:352).

2.5 STAKEHOLDERS IN GREEN MARKETING

In its conception, green marketing is a broad phenomenon whose practice requires a meticulous counterbalancing of vested interests of various stakeholders (Peattie 2001:144). The Stakeholder Theory defines a stakeholder as a group or individuals with the capacity to influence or be affected by the operations of the organisation (Freeman 1984:46). It is important to note that the identification of green marketing stakeholders is central to the practice of green marketing as effective implementation requires the building of transformative relationships with all parties involved in green marketing initiatives (Kirchoff *et al.*, 2011:689).

The key stakeholders in green marketing practice are identified as governments, consumers, employees, retailers, marketers, suppliers and environmentalists (Kinoti 2011:271; Mishra & Sharma 2010:9). The identified stakeholders influence all aspects involved in the practice of green marketing strategy, such as green product development, marketing, consumption and green marketing programmes (Rasha & Igbaza 2011:638).

Traditionally, national governments are driven by international environmental obligations and commitments to address environmental problems (Bhattacharya 2011:71). Given this background, Koenig-Lewis *et al.* (2014:95) suggest that the government needs to proactively promote the balancing of ecological and economic activities through environmental regulations, policies and partnerships with the industries that spearhead the transformation of production and consumption practices in line with global trends. Lee *et al.*, (2013:630) are also of the view that, to enhance its role, the government needs to drive the sustainability agenda by enforcing environmental regulations and building green marketing infrastructure.

Central to the practice of green marketing are consumers, with the Generation Y cohort considered as the significant segment (Hume 2010:385). In particular, consumers play a pivotal role through adoption of sustainable consumption patterns and responsible by-product disposal (De Bakker & Dagevos 2011:3). To enhance the maximum participation of consumers in environmental protection, marketers need to invest in environmental education focusing on the benefits of green product consumption (Mishra & Sharma 2010:10). In essence, the growing interest among consumers globally in environmental protection and adoption of sustainable consumption patterns further confirms the consumer as an important stakeholder (Mishra & Sharma 2010:9). Since consumption behaviour is presumed to be the

main driver of environmental problems, it is important for marketers to gain insight into the antecedents of green purchase behaviour in order to elicit pro-environmental behaviour among consumers (Sinnappan & Rahman 2011:130).

Apart from consumers and national governments, companies, through their environmental omissions and commissions, are central to the green marketing debate (Belz & Peattie 2009:18). At corporate level, top management is instrumental in providing sustainability leadership (Sustainalytics 2012:65). Sustainability leadership, also known as environmental leadership, can be enhanced by inspiring a shared green vision, creation and maintenance of green values, strong corporate governance and accountability structures (Chen, Chan & Wu 2012:372). A sustainability-oriented vision is one that blends ecological concern, viability, ethics and a mutually beneficial relationship with key stakeholder needs (Belz & Peattie 2009:18). A green vision will ultimately result in sustainable marketing transformation, driven by the active participation of corporates in influencing the adoption of sustainability by all economic participants (Belz & Peattie 2009:33).

Management commitment to sustainability is measured by environmental capability, which is defined as the ability to integrate, coordinate, build and re-configure a company's competences and resources to achieve sustainable goals (Chen *et al.*, 2012:372). Key indicators of a strong sustainability leadership style include a dedicated sustainability staff with clear reporting lines to management, an incentive structure that rewards achievement of sustainable goals, sustainability reporting in financial statements, green organisational culture and time-bound environmental performance improvement targets (Sustainalytics 2012:65).

Employee engagement is a prerequisite for effective implementation of a green vision and green strategies (Silins 2009:46). To enhance full employee participation and involvement, organisations need to foster a green culture, where environmental concern is incorporated in the day-to-day operations of the organisation (Olson 2008:23). For example, to foster a sustainability culture, Woolworths engages its employees through sustainable performance management, Pick n Pay focuses on employee communication and Spar focuses on employee training and development (Sustainalytics 2012:68). The human resource function must also cultivate the green culture through training and development, green communication and the creation of functional green teams (Smith & Perks 2010:23; Garen 2009:1). To embed a sustainability culture, recruitment priorities that recognise environmental awareness in prospective employees and green awareness campaigns are also recommended (Olson

2008:27). As green marketing is increasingly influencing corporate strategy, Olson (2008:27) remarked that: “It may challenge our imagination to envision a Chief Green Officer sitting at the table with a company’s Chief Executive Officer”.

The supply chain and channel members are also integral to the practice of green marketing. Greening the supply chain requires suppliers to restructure their value addition activities in a way that improves the environmental performance of their products (Olson 2008:25). A green value chain assesses the life cycle of a product from the sourcing of raw material through to research and development, production, marketing and disposal (Kung *et al.*, 2012:111). In a green value chain, environmental control is implemented at each stage of the operation to reduce the waste of resources and curb unnecessary expenses (Lee & Lam 2012:591). Green procurement will also ensure that all purchased raw materials comply with environmental standards, taking into account the environmental performance of upstream suppliers, thereby incorporating environmental principles into supply chain management (Kung *et al.*, 2012:114). For instance, Woolworths’ sustainable transport strategy is based on route optimisation that results in cost savings, reduction of fuel through the use of Euro-five technology, transit packaging and the use of reusable plastic lugs to transport products (Woolworths Holdings Limited 2011:66).

As a link between consumers and producers, retailers play a complementary role in enhancing sustainable behaviour in the value chain (Wiese, Kellner, Lietke & Toporowski 2012:319). Specifically, retailers safeguard sustainable behaviour by engaging in environmental supply chain management and pushing green products to consumers (Kotzab, Munch, Faultrier & Teller 2011:25). Retailers play a strategic role in facilitating the consumption of green products by providing information to enhance green purchase intentions (Belz & Peattie 2009:128). Despite its important role, sustainability in retailing tends to focus narrowly on corporate social responsibility and carbon footprint management (Wiese *et al.*, 2012:332). To broaden the sustainability perspective, retailers need to understand consumers’ perceptions of sustainability to gain insights into its relevance to consumers (Belz & Peattie 2009:128). In doing so, implications for retailers and manufacturers can be deduced and a complete view of how sustainability influences consumers will be established (Wiese *et al.*, 2012:331).

Besides corporates, environmental pressure groups are at the centre of promoting the green marketing agenda, through environmental activism and lobbying (Belz & Peattie 2009:141).

Environmental groups such as Greenpeace, The Living Planet and The Rights of Nature are the main pressure groups that lobby for the well-being of the environment (Tyrrell 2011:80). Greenpeace's most successful campaigns include Saving the Arctic region, Nestlé Kit Kat, Kleercut and Royal Dutch Shell (Greenpeace 2011:19). Environmental pressure groups are also lobbying for the planet to be considered as an independent stakeholder with its own rights and obligations (Belz & Peattie 2009:141). For the Planet to be recognised as a stakeholder, the philosophy of Rights of Nature is that human beings must not be regarded as masters of the natural environment but rather as a component of the environment (Belz & Peattie 2009:141). The Rights of Nature furthers the biocentric viewpoint that values all forms of life equally and it demands that this be reflected in the legal systems (Belz & Peattie 2011:11). The growing acceptance of the idea that the law should respect and protect nature is reflected in the South African Constitution (RSA 1996:1251) and the Universal Declaration of the Rights of Mother Earth of 2010 (Tyrrell 2011:80). However, implementing the Rights of Nature framework will require the radical redesign of legal governance systems to recognise the rights of the earth (Tyrrell 2011:80).

Based on the foregoing discussion, it can be concluded that green marketing stakeholders such as consumers, investors, companies, and environmentalists are contributing to shaping global environmental institutions, regulations and norms (Kinoti 2011:271; Mishra & Sharma 2010:9). According to Dauvergne and Lister (2012:41), the environmental sustainability agenda can be achieved only through the collaboration of governments, mindful consumerism, sustained lobbying and respect for global environmental treaties. In summary, Table 2.3 presents the stakeholder interest in green marketing.

Table 2.3 Stakeholder interest in green marketing

Stakeholder	Pertinent issues	Performance indicators
Shareholders and managers	Product safety and acceptability	Return on investment, profitability, prosecutions
Employees	Harmful processes and substances	Accident rate, time lost due to injury
Intermediaries	Product-recall handling, reverse logistics	Efficiency, productivity and success of product recalls
Suppliers	Green supply chains, involvement in research and development	Supplier evaluation and sustainability tracking, green design processes
Customers	Awareness of green products, credibility of environmental claims, green product labelling	Customer satisfaction, breaches of government or industry environmental regulations
Competitors	Health and safety performance and effect on industry reputation	Performance against industry benchmarks and guidelines
Government and regulators	Product stewardship	Greenhouse emissions
Pressure groups	Product safety and socio-environmental impacts	Regulatory targeting

Source: Belz and Peattie (2009:128).

2.6 CORPORATE STRATEGIES FOR SUSTAINABLE MARKETING

The focus of a sustainable green marketing strategy is to facilitate decisions and transformation initiatives that improve the environment and customer satisfaction (Singh 2009:322). A sustainable marketing strategy results in value addition to businesses, societies and the ecology in line with the triple bottom line concept (Kumar 2012:28). The implementation of sustainable marketing requires a fundamental integrated approach across all functional areas and the restructuring of the elements of the marketing mix (Fraj, Martinez & Matute 2011:341). An integrated approach enhances the achievement of economic, consumer-centric and environmental goals (Young *et al.*, 2010:29).

The sustainable marketing philosophy advocates that businesses need to develop products and marketing strategies that not only address the needs of the consumers but also safeguard

sustainable interests (Friend 2009:7). Although marketers appreciate the importance of a corporate-level sustainable marketing strategy, commitment to a holistic corporate-level approach is still lacking (Olson 2008:22). An enterprise-level green strategy creates sustainable advantage by fostering common green values that facilitate decisions to improve the welfare of the environment and cost-effective customer-centric value propositions (Fraj *et al.*, 2011:351).

To create a green culture within the organisation, employee training, green communication, measuring and reporting of green marketing performance are imperative (Olson 2008:24). In essence, top management needs to demonstrate commitment by setting guiding principles for sustainable marketing governance within the organisation as well as by aligning corporate strategies with sustainability principles (Quinn & Dalton 2009:24). According to Olson (2008:23), sustainable marketing objectives can be achieved by setting a clear vision that facilitates decisions and transformation initiatives that improve the environment (Olson 2008:23). Given that the organisational structure follows the corporate strategy (Ehlers & Lazenby 2011:320), the implementation of sustainable marketing requires an integrated business re-engineering strategy that aligns the systems, core competencies, policies and procedures of the organisation with sustainable marketing objectives (Quinn & Dalton 2009:24). The long-term nature of sustainability marketing also requires top management to maintain commitment among employees and other external stakeholders (Belz & Peattie 2009:141). The effective implementation of a green strategy often results in cost-effective, customer-centric and green marketing metrics that translate into sustainable competitive advantage (Olson 2008:27). The main factors that are central to the implementation of an enterprise-level green strategy are summarised in Table 2.4.

Table 2.4 The key pillars in developing an enterprise-level green strategy

Perspective	Green awareness	Developing	Practising	Optimising & leading
Role of leadership	Create guiding principles and governance to implement strategies.	Invest in visible green marketing projects.	Initiate and integrate green marketing principles within the conventional value chain.	Support and institutionalise continuous green marketing improvement programmes.
Role of policies	Identify company-wide action programmes that show commitment to green marketing strategies.	Motivate employees to adopt a green marketing culture.	Conduct environmental scanning to take note of green marketing opportunities.	Coordinate all green marketing initiatives and exploit synergies across all green marketing initiatives.
Illustrative actions	Engage in reverse logistics to optimise green marketing activities in the value chain.	Establish and maintain green marketing reporting systems to track green marketing performance measures.	Establish and maintain green marketing best practices as a basis of continuous improvement.	Evaluate and control green marketing initiatives in order to develop effective green marketing strategies.

Source: Olson (2008:28).

To enhance the successful implementation of an enterprise-level strategy, the main focus areas include value-addition processes, environmental management systems and product modification (Bhattacharya 2011:63). Greening the value-addition processes entails re-designing the value chain with the objective of reducing the aggregated environmental impact of value chain processes such as procurement, manufacturing, marketing and distribution (Wang & Gupta 2011:10). To be effective, Bhattacharya (2011:70) suggested that the green value chain needs to be supported by measurable green marketing performance indicators. Thus, by having measurable performance indicators, Polonsky (2011:1314) contends that

marketers are able to make verifiable claims about the environmental impact of green marketing strategies.

Product modification is one of the environmental performance indicators. It entails the designing of environmentally friendly products in such a way that environmental harm is reduced (Wang & Gupta 2011:10). Rakhsha and Majidazar (2011:755) suggest that product modification, to be effective, needs to provide tangible environmental benefits that are justifiable to the discerning modern consumer. According to Deshwal (2012:110), greening the value chain involves adopting green technologies and processes that reduce the environmental impact of products, instituting a management control system that results in a robust green marketing culture and reducing the ecological footprint at all stages in the production process.

It is important to note that the influence of green marketing on strategy formulation depends largely on company philosophy, industry characteristics and the extent of environmental concern in consumers (Baverstam & Larsson 2009:11). At corporate level, a green strategy involves the integration of green marketing activities into the vision, mission and operations of the organisation (Polonsky 2011:1313). At strategic business unit level, a green strategy involves the optimal allocation of resources with the aim of achieving green marketing objectives and the creation of sustainable competitive advantage in the target market (Cronin, Smith, Ramirez & Martinez 2011:158). At functional level, the focus of a green strategy is to restructure the marketing mix elements and re-organise the marketing function in line with the green marketing objectives (Olson 2008:24). The success of a functional green strategy depends on effective blending of the traditional elements of the marketing mix with customer needs and societal expectations (Smith *et al.*, 2010:6).

According to Polonsky and Rosenberger (2001:27), functional green marketing activities are divided into tactical greening, quasi-strategic greening and strategic greening. Tactical greening involves implementing limited green initiatives aimed at complying with environmental regulations (Baverstam & Larsson 2009:11; Sudha 2012:105). Tactical green marketing refers to a piecemeal approach that involves limited coordination of green marketing activities across functional departments within the organisation and often does not result in competitive advantage (Worthington 2013:211). Conversely, quasi-strategic greening involves substantial changes to the elements of the marketing mix and involves re-designing and re-modification of products to reduce environmental damage (Baverstam &

Larsson 2009:13). Specifically, quasi-strategic greening requires the re-orientation of the entire marketing mix through package re-design and re-labelling and product repositioning in line with sustainability principles (Belz & Peattie 2009:162).

In its implementation, quasi-strategic greening involves the re-structuring of promotional mix elements, such as price, promotion, place and product, to enhance green purchase behaviour (Worthington 2013:212). However, Belz and Peattie (2009:162) caution that a focus on greening the marketing mix elements without integrating consumer needs in the green strategy may result in green marketing myopia, a perception that green products will sell irrespective of the value sought by consumers. Alternatively, strategic greening refers to a fundamental change in corporate philosophy that involves a company-wide commitment to principles of sustainable marketing and takes the form of an integrated, proactive, long-term orientation that utilises cross-functional teams to create and sustain competitive advantage (Baverstam & Larsson 2009:11).

Based on the foregoing discussion, the main activities that are involved in tactical, quasi-strategic and strategic greening are summarised in Table 2.5.

Table 2.5 Green marketing activities

	Tactical greening	Quasi-strategic greening	Strategic greening
Targeting	Adverts mention green features run in green-focused media.	A firm develops a green brand in addition to its brands.	A firm launches a new strategic business unit aimed at the green market.
Green design	A firm switches to suppliers with eco-friendly processes.	Product life cycle analysis is incorporated in new product development to minimise ecological harm.	Focus on eco-labelling and packaging
Green positioning	Public relations function used to highlight a company's green practices	Designing of corporate green identity	Consumer education to adopt green practices

	Tactical greening	Quasi-strategic greening	Strategic greening
Green pricing	Cost savings due to energy efficiencies highlighted	Premium pricing for green products	Premium pricing for green products
Green logistics	Focus on reducing distribution costs	Packaging minimisation incorporated as part of a firm's manufacturing review process	Focus on greening the supply chain
Green promotion	Promotional campaigns to highlight green practices	Communication of only authentic green product benefits	Integrated green marketing communications

Source: Polonsky and Rosenberger (2001:27).

In sum, an integrated strategic greening strategy results in a green business (Baverstam & Larsson 2009:11). To be effective, the strategic greening strategy needs to be supported by a green corporate philosophy that is premised on the integration of green marketing principles across all functional areas of the organisation (Smith & Perks 2010:4). The effects of strategic greening marketing initiatives on the business functions are summarised in Table 2.6.

Table 2.6 The implications of strategic greening for business functions

Manufacturing/operations function

- Focus on profitability by using environmentally friendly operations.
- Produce durable products from design to disposal by decreasing ecological damage.
- Consider input costs in terms of regulations, energy use and disposal.
- Use eco-friendly materials, procedures and processes and minimise emissions.
- Use lean manufacturing to incorporate green goals into productive outcomes.
- Production methods, tools and techniques must satisfy environmental requirements and market needs.
- Research and development should explore new sustainable ways of extracting raw materials and new methods to minimise energy generation.

Marketing / sales function

- Enhance consumer awareness of green products.
- Satisfy consumer needs for green products in a green manner to ensure business credibility.
- Create a balance between profitability and environmental concern.
- Having good environmental credentials provides a competitive advantage.
- Portray an environmentally friendly business image through green marketing communications.

Purchasing/supply chain management function

- Seek suppliers with green production processes to offset environmental risk.
- Choose suppliers with good waste management systems.
- Select suppliers committed to sound environmental performance.

Distribution/Logistics

- Limit carbon emissions linked to the transportation of goods.
- Use biofuels as fuel alternatives and greener technologies.

General management/Human resources function

- Communicate green business strategies to staff for effective goal attainment.
- Use green workplace, corporate culture, and reward systems to encourage green activities.
- Employ experts in environmental development to implement environmentally friendly systems.
- Design business strategies to address environmental issues that satisfy stakeholder expectations.
- Foster a green organisational culture through employee training and development.

Finance/information technology function

- Emphasise sustainability reporting in line with the triple bottom line concept and auditing systems.
- Institute green accounting policies and use an integrated eco-information system.
- Use advanced cutting-edge technology to move to a paperless administrative environment.
- Get up-to-date information about new environmentally friendly technology.

Source: Garen (2009:117); Silins (2009:46); Smith and Perks (2010:23).

In the marketplace, the implementation of green business practices calls for a detailed analysis of consumer needs and alignment of operating systems to balance the objectives of environmental sustainability and customer needs (Smith & Perks 2010:4). At strategy

formulation level, there is a need to develop sustainability marketing values that form the foundation of a sustainable marketing strategy (Belz & Peattie 2009:32). According to Mishra and Sharma (2010:10), the golden rules of green marketing implementation include knowing your consumers, educating consumers, being genuine and transparent, reassuring consumers to avoid post-purchase dissonance, justifying premium prices of green products and allowing consumers to participate in green initiatives.

To create sustainable competitive advantage, the implementation of sustainable marketing needs to be focused on re-directing consumer needs towards choices that are environmentally compatible, promoting re-consumption, re-orienting the marketing mix and re-organising marketing functions to meet environmental challenges (Maheshwari & Malhotra 2011:2). The concept of re-consumption requires marketers to take cognisance not only of the environmental impact of products, but also the process by which the products are consumed and disposed of (Hill & Lee 2012:477). In addition, re-consumption is concerned with the minimisation of environmental risks through a detailed product life cycle analysis (Worthington 2013:225).

At operational level, green marketing tactics revolve around green product innovation, identification of green market segments and green product positioning (Peattie & Belz 2009:33). The roll-out of green marketing tactics is achieved through the structuring and implementation of a comprehensive green marketing mix (Belz & Peattie 2009:33). Drawing from The 4P Theory, Belz and Peattie (2009:33) suggested an alternative Four Cs Framework, also known as the sustainability marketing mix, as a way of re-orienting the marketing mix. The elements of the sustainability marketing mix are depicted in Table 2.7.

Table 2.7 The sustainability marketing mix

The 4P Theory elements	The Four Cs framework	Scope
Product	Customer Solutions	Involves stratifying customer needs and understanding consumer buyer behaviour

Price	Customer Cost	Includes the cost price of the product. It also considers the psychological, social and environmental cost of obtaining, using and disposing of the product.
Promotion	Communication	Generating awareness and trust of green products
Distribution	Convenience	Making the green products readily available to the consumer

Source: Belz and Peattie (2009:179-192).

The re-orientation of the marketing mix elements also involves product re-design, green packaging, product re-positioning and restructuring of marketing communication messages (Peattie & Peattie 2009:261). Traditionally, the re-orientation of the marketing mix was driven by the need to comply with environmental laws and the surge in green consumerism (Belz & Peattie 2009:179; Kotler 2011:132; Shimp 2013:79). To enhance the transition towards sustainable consumption patterns, green marketing tools are considered key drivers for eliciting behavioural change (Datta & Ishaswini 2011:126). The re-orientation of the marketing mix is aimed at promoting green consumerism, defined as the production and marketing of products that are not harmful to the environment (Hult 2011:1). To enhance green consumerism, traditional marketing mix elements such as product, price, promotion and place are restructured to incorporate a “green’ appeal” (Davari & Srutton 2014:4).

To effectively redirect consumer needs to embrace sustainability principles, market research and in-depth customer analysis are imperative for reaching an understanding of customer needs and for gauging consumers’ perceptions of pro-environmental behaviour (Greenham 2010:335). Marketers also need to assume the responsibility of converting the consumer’s environmental concern into actual green purchase behaviour (Laszlo & Zhexembayeva 2011:105). To frame an effective sustainability message, Ottman (2011:134) suggests that the green advertising strategy needs to be structured around consumer education and empowerment.

Consumer education is instrumental in creating awareness of green products, given that most consumers fail to identify green products (Pickett-Baker & Ozaki 2008:290). Consistent with the Knowledge-Attitude-Behaviour Model (Kollmus & Agyeman 2002:257), the education campaign needs to be aimed at translating environmental knowledge into pro-environmental attitudes and, ultimately, into green purchase behaviour. Based on the Classical Conditioning

Theory, consumers are likely to learn if they are conditioned to environmental stimulus (Pavlov 1927:1).

To generate green product awareness, it is imperative to maintain genuine and transparent communication (Leonidou, Leonidou, Palihawadana & Hultman 2011:6). This can be done by employing an information-based consumer empowerment strategy, whereby marketers position green products according to fact-based environmental claims (Tyrell 2011:260). The concept of information-based empowerment is supported by the Information Integration Theory that states that consumers evaluate products based on the information they have about product attributes (Bettman, Capon & Lutz 1975:267).

The ultimate objective of the implementation of the green marketing mix is to balance consumption and sustainable development (Belz & Peattie 2009:175). The green marketing mix additionally plays the strategic role of addressing the higher levels of uncertainty perceived by consumers in the adoption of sustainable consumption lifestyles (Carrete *et al.*, 2012:470). This uncertainty emanates from the perception that green products are expensive and from the lack of credibility of environmental advertisements (Chen & Chang 2012:503). Given the background of perceived uncertainty in the adoption of sustainable consumption patterns, green marketing mix elements are employed to re-align consumer perceptions with sustainable consumption patterns (Rahbar & Wahid 2011:73). The main green marketing tools that are used to promote green consumerism include green products, environmental labels, green brands, environmental certificates and environmental advertisements (Magali, Francis & Hulten 2012:8; Rahbar & Wahid 2011:74). The effective implementation of a green marketing mix should stimulate actual purchase behaviour, enhance the credibility of green products and foster green product loyalty among consumers (Davari & Strutton 2014:2).

The culmination of an integrated sustainable marketing strategy is a green business (Smith & Perks 2010:10). A green business is defined by Friend (2009:5) as a business with a long-term green vision supported by integrated environmental strategies across all business functions. Within the green business, the role of the marketing function is to co-ordinate the implementation of green marketing principles in the value chain (Vashisht, Wadhwa & Uppal 2012:1165). Through its interface with consumers, the marketing function is responsible for co-ordinating green value-creation processes, identifying environmental challenges and addressing them through sustainable intervention strategies (Silins 2009:46). Overall, the

green intervention strategies ultimately result in a green organisation and sustainable development. Based on the foregoing discussion, Kinoti (2011:266), Vashisht, Wadhwa and Uppal (2012:1165) propose a model of a green organisation as illustrated in Figure 2.1.

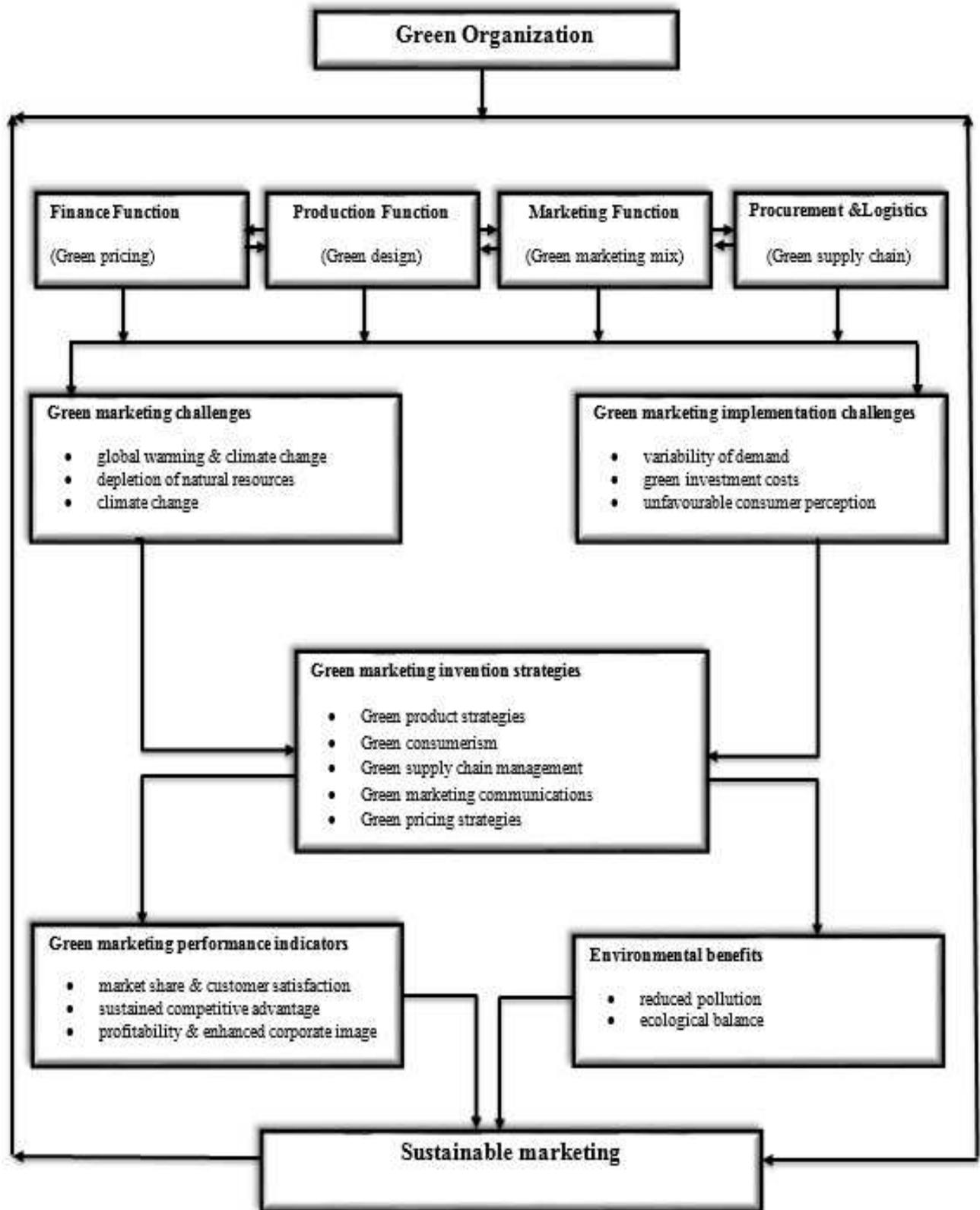


Figure 2.1 Green organisation

Source: Kinoti (2011:266); Vashisht, Wadhwa and Uppal (2012:1165).

The transition to sustainable marketing implies that marketers need to grapple with a host of challenges. Ramirez, Gonzalez and Moreira (2014:16) noted that, in spite of a broader appreciation of what green marketing portends, some companies are adopting an “environmentally ambivalent” posture as a result of several implementation challenges. For instance, Polonsky (2011:1311) notes that green marketing appears to be failing to achieve its expected potential of enhancing sustainable development. Global environmental problems remain a challenge as the quest for economic growth continues to pose a challenge to the institutional response to the enhancing of sustainability (Dauvergne & Lister 2012:42). In addition, environmental problems tend to be compounded by the lack of a universally acceptable perspective regarding the causes and consequences of climate change (Polonsky, Miles & Grau 2011:368). Against this backdrop, Hale (2011:91) contends that the solution to environmental challenges is more likely not going to be realised in the immediate future because of a lack of consensus on the causes of climate change and the slow implementation of international environmental agreements.

One of the core problems that impede attempts to address environmental problems is the micronisation of environmental problems (Polonsky 2011:1312). Although green marketing stakeholders understand the importance of the systems approach in the exchange process, its application in the implementation of green marketing is not evident (Polonsky 2011:1311). The failure to adopt a broader systems approach in green marketing implementation results in green marketing practitioners perceiving a disconnection between macro-marketing and micro-marketing, thereby inhibiting the implementation of transformational green strategies (Russell & Russell 2010:65). Given this background, Polonsky (2011:1311) suggests the need to integrate green marketing implementation with macro-marketing objectives.

At micro-level, companies that are pursuing green marketing are encountering numerous challenges which include consumer cynicism, failure to structure effective green marketing messages, inability to measure environmental performance, variability in demand of green products, failure to manage the transition towards sustainability and exorbitant investment costs in green technologies (Polonsky 2011:1312; Chen & Chai 2010:28). A discussion of the challenges associated with the implementation of green marketing follows.

2.7.1 Lack of standardisation

One of the major challenges that obstruct the market appeal of green products is the lack of standardisation in the authentication of green claims (Mishra & Sharma 2010:10; Van Wyk & Deegan 2009:21). Specifically, there is a need for universally acceptable standards to monitor green marketing tools such as environmental claims, environmental labels and green product certifications (Mishra & Sharma 2010:10). In the absence of green marketing standards, consumer scepticism will continue to negatively affect the purchase of green products and derail progress towards sustainable consumption (Ramirez, Gonzalez & Moreira 2013:5).

To address consumer scepticism, Chen and Chai (2010:29) emphasise the need to integrate environmental attributes with traditional product attributes such as convenience, price, quality and performance. Sinnappan and Rahman (2011:138) add that, to create sustainable competitive advantage, marketers need to properly segment the green markets and position green products competitively in the consumers' psyche. In the absence of green product standards, Ottman (2011:131) suggests that marketers need to be guided by the tenets of the marketing concept to enhance the credibility of green products. Since this is a new concept in developing countries, Mishra and Sharma (2010:11) stress the importance of investing in green consumer education by incorporating consumers in green initiatives.

Other challenges faced by marketers include negative attitudes towards green product quality and justifying the premium prices associated with green products (Singh & Pandey 2012:26). Quality-related perceptions can be addressed by aligning green product attributes with consumer needs (Mishra & Sharma 2010:14; Tiwari *et al.* 2011:22). The quality of green products can also be enhanced through the use of endorsements and environmental certifications from trustworthy independent third parties (Ottman 2011:48).

2.7.2 Structuring green marketing messages

Apart from limited green product standards, marketers are also confronted with the challenge of structuring green marketing messages in terms of tone, style and appeal (Smith & Brower 2012:540). Specifically, framing effective environmental messages that have the potential of enhancing environmental knowledge, pro-environmental attitudes and sustainable consumption patterns remains a challenge for marketers (Sampei & Aoyagi-Usui 2009:210). The Centre for Research on Environmental Decisions (CRED) (2009:2) acknowledged that it

remains a challenge to frame environmental communications because of the complexities, confusion and uncertainties associated with the concept of climate change.

2.7.3 Credibility of green marketing tools

Marketers also face the challenge of positioning green products in the marketplace (Chatterjee 2009:367). In particular, the credibility of green marketing tools is singled out as the major obstacle in limiting the adoption of pro-environmental behaviours (Belz & Peattie 2009:189). The environmentalist Westerveld coined the term “greenwashing” in 1986 to refer to the act of communicating misleading information about the environmental practices of the organisation (Orange 2010:30). Greenwashing is defined as the intentional or unintentional act of misleading consumers regarding the environmental practices of a company or the environmental benefits of a product or service (Fernando, Sivakumaran & Suganthi 2014:224). Greenwashing also implies the practice of falsifying, omitting and presenting ambiguous environmental claims in green marketing messages (Tschupp 2012:46).

According to the green marketing firm Terachoice (2010:2), the risks of greenwashing include misleading consumers, jeopardising consumer trust, increased competitive pressure from illegitimate green products, poor corporate image and reduced market share as a result of consumer cynicism. In addition Delmas and Burbano (2011:3) contend that greenwashing has the potential of spoiling the market for genuine green products, owing to lack of consumer trust. Moreover, greenwashing claims dilute the competitive edge associated with the adoption of green marketing strategies (Fernando *et al.*, 2014:224).

Although the threats of greenwashing are evident, there is no consensus in marketing literature on what constitutes greenwashing (Alves 2009:12). Thus, Durif *et al.* (2010:25) and Tinne (2013:86) contend that the high number of greenwashing cases seems to be linked to the lack of clarity on the definition of green products. In an attempt to clarify the concept of greenwashing and the practice of green marketing, the Terrachoice 2008-2009 research culminated in the identification of the following forms of greenwashing:

Table 2.8 Sins of greenwashing

Type	Description
Sin of the hidden trade-off	Involves portraying products as “green” based on a narrow set of attributes without paying attention to important environmental issues
Sin of no proof	Involves the use of unsubstantiated environmental claims
Sin of vagueness	Committed through the use of vague environmental claims such as “all-natural”
Sin of worshipping labels	Outright misrepresentation of green product labels (for example fake labels)
Sin of irrelevance	Emphasising insignificant environmental claims in green marketing messages (for example CFC-free)
Sin of lesser of two evils	Involves a deliberate attempt to distract consumers from product attributes that have a significant negative effect to the environment
Sin of fibbing	Involves the use of false environmental claims

Source: Terrachoice (2010:5).

2.7.4 Environmental performance measurement

Besides the credibility of green marketing tools, the achievement of sustainability marketing objectives remains a challenge because of the problems associated with the measurement of the environmental impact of green practices (Dangelico & Pujari 2010:481). The challenge emanates mainly from the lack of consensus on what should be measured and how (Delai & Takahashi 2011:467). This has resulted in the use of various sets of environmental performance measures, making it difficult to come up with best practices in sustainability marketing and therefore limiting environmental performance improvements (Delai & Takahashi 2011:467). For instance, Epstein and Buhovac (2010:306) contend that the subjective nature of social and environmental impact assessments makes it difficult to quantify in objective terms the return on green marketing initiatives. It is also difficult to promote environmental accountability among employees, owing to the challenge of integrating sustainability performance targets in their day-to-day activities (Delai & Takahashi 2011:467).

Although there is a plethora of sustainability metrics in the marketplace, very few sustainability measurement initiatives follow an integrated approach of reporting that encompasses environmental, economic and social dimensions (Singh, Murty, Gupta & Dikshit 2009:209). Given this background, Epstein and Buhovac (2010:306) note that the lack of an integrated approach to sustainability measurement has the potential to dilute the long-term commitment of key stakeholders in the implementation of sustainability initiatives.

2.7.5 The success rate of green products

Green product functionality is another potential obstacle, as some non-green products are perceived to have attributes that are superior to those of green products and consumers are usually not prepared to trade off quality and functionality (Ramirez *et al.*, 2013:5). Perceptions of the poor quality of green products make it a challenge to set a competitive price and generate market demand for sustainable offerings (Nidumolu, Prahalad & Rangaswami 2009:5). Another challenge is the unwillingness of some consumers to pay the higher prices associated with green products (Awad 2011:68; Carrete *et al.*, 2012:481). Taking into consideration the high development costs of green products, it is a challenge to sell green products in price-sensitive markets, in the absence of government subsidies green products will not be able to compete with the cheaper conventional products (Dangelico & Pujari 2010:480).

In most developing countries, green marketing is still at a developmental stage and more needs to be done to generate awareness of environmental problems and of the benefits of green products (Kiran 2012:22; Sarkar 2012:128). Although eco-labels are instrumental in creating consumer awareness of green products, not all green product categories have credible eco-labels (Dangelico & Pujari 2010:480). In addition, eco-labels are plagued by the time-consuming challenges of the coordination and negotiation processes involved in the certification process (Dangelico & Pujari 2010:480).

2.7.6 Green marketing cost

Although the implementation of green marketing has the potential to enhance the bottom line of organisations, not all firms have enough capability to undertake green marketing strategies (Chen & Chang 2012:503). The implementation of green marketing strategies has a substantial impact on the financial resources of the organisation because of expenditure on green infrastructure, training and development, research and the development of green

marketing policies (Dauverge & Lister 2012:43). In particular, the high initial cost of financing green infrastructure and the long payback periods are singled out as the main challenges faced by marketers (Vermillion & Peart 2010:70). For instance, Wal-Mart spends \$500 million annually to improve its supply chain and General Motors is estimated to be spending upwards of \$2.5 billion a year on research and development for vehicles using alternative energy (Gleim *et al.*, 2013:44). In South Africa, the new green hotel, Hotel Verde, cost about R20 million more than would a conventional hotel of its size (Hirsch 2013:1).

The contracting global economies make it difficult to invest in green marketing processes, considering the high initial investments required. In addition, the global economic downturn also affects the demand for green products as the majority of consumers are not willing to pay the premium associated with green products (Kiran 2012:22; Singh 2012:169). Sustainable marketing will succeed only if shareholders consider green marketing as a long-term commitment and are prepared to forgo short-term financial gains (Mohanasundram 2012:71; Sarkar 2012:128).

In view of the costs associated with green marketing, Leonidou, Leoonidou, Fotiadis and Zerit (2013:104) suggest that going green imposes a financial burden on the firm and is one of the major obstacles to the practice of green marketing. The huge investments made by firms, coupled with the variability of demand for green products, are the major challenges for companies (Gleim *et al.*, 2013:44). Globally, financial markets continue to be fragile, owing to the prolonged effects of the financial crisis that has resulted in a downturn in green marketing investments (World Economic Forum 2011:8). Another challenge is designing a system that accurately assigns the environmental costs to specific participants causing environmental harm within the supply chain (Polonsky 2011:1315).

2.7.7 Change management

The implementation of green marketing requires a radical change in organisational culture and operations (Linnenluecke & Griffiths 2010:357; Peattie & Peattie 2009:261). The change process involves a paradigm shift from the conventional linear cradle-to-grave operational model to the more holistic cradle-to-cradle model (Borland 2009:558). Part of the challenge is to manage the change process, especially gaining the support of internal stakeholders of the organisation such as top management, shareholders and employees (Leonidou *et al.*, 2013:104). Some of the major challenges include such factors as culture misalignment with

sustainability values, lack of employee awareness and fear of change (Belz & Peattie 2009:256; Ramirez *et al.*, 2013:6). In particular, cultural changes present the biggest challenge to marketers if sustainability values are not part of the operating philosophy and core ideology of the organisation (Crittenden *et al.*, 2011:75).

Changing the ideology of the organisation is a transformation change process that requires employees to be aware of sustainability issues beyond their work responsibilities (Haugh & Talwar 2010:384). To make meaningful strides towards sustainability, there is a need to integrate green marketing principles in the vision, mission and core values of the organisation (Crittenden *et al.*, 2011:75). To cultivate a sustainability-oriented culture is usually a challenge in large organisations, owing to the existence of various sub-cultures that may negatively affect the commitment of employees to the achievement of sustainability goals (Linnenluecke & Griffiths 2010:364). Gaining employee commitment to sustainability objectives may prove to be a challenge, especially if employees are highly unionised and when the business case for sustainability needs to be justified (Ramirez *et al.*, 2013:6). To foster employee buy-in, green marketing needs to be implemented in a manner that involves employee participation and empowerment to enhance internal legitimacy and co-ownership of green marketing objectives (Frandsen, Morsing & Vallentin 2013:243).

2.7.8 Policing the value chain

The greening of the supply chain is a strategic imperative for the achievement of green marketing objectives (Belz & Peattie 2009:128). Increasingly, it is important for marketers to evaluate suppliers on the basis not only of lead times and cost but also of their commitment to enhancing the well-being of the environment (Kung *et al.*, 2012:111). For instance, there is a need to know whether the products or raw materials were sourced ethically and fairly along the supply chain (Walker & Jones 2012:15). The need to check the environmental credentials of value chain partners stems from the realisation that the behaviour of supply chain members may influence the reputation of the organisation (Keating, Quazi, Kriz & Coltman 2008:175). For instance, Nestlé's image was negatively affected by the practices of its key supplier of palm oil (Nothhaft & Akerstrom 2012:22).

In practice, it is difficult to develop effective tools to evaluate the performance of key members in the value chain (Walker & Jones 2012:15). Although it is important to track the environmental performance of suppliers, the main challenges include the development of an

integrated sustainable supply chain tracking system, gathering data on the performance of suppliers, pressure to reduce operating costs and screening of potential suppliers (Keating *et al.*, 2008:176). The development of a green supply chain management monitoring system is a challenge because of problems in maintaining the environmental awareness of suppliers, complexities in measuring and monitoring the environmental practices of suppliers and the lack of effective environmental measures (Mathiyazhagan, Govindan, Noorulhaq & Geng 2013:295).

Although environmental assessment strategies such as carbon management, analysis of carbon and energy footprint and lifecycle analysis are useful in measuring the environmental performance of companies, they are usually too complex (Nidmolu *et al.*, 2009:5). As a result, the sustainability performance of an organisation depends largely on the activities of independent stakeholders of the organisation that are beyond the control of marketers, such as the actions of investors, suppliers and competitors (Belz & Peattie 2009:276). Hoejmoose, Grosvold and Millington (2013:277), for instance, are of the opinion that the unevenness of the bargaining power among buyers and suppliers tends to limit the extent to which marketers influence suppliers to comply with sustainability principles.

However, marketers need to understand that green marketing implementation challenges are not insurmountable. A well-articulated green strategy supported by a green corporate culture, green marketing core competencies and ideal competitive conditions is central to the achievement of sustainability objectives (Baverstam & Larsson 2009:4). It is also important to note that green marketing challenges tend to vary by industry and early adopters of green marketing have the potential to create sustainable competitive advantage (Rakhsha & Majidazar 2011:762). To be effective, green marketing needs to be supported by appropriate organisation structures, systems and policies (Epstein & Buhovac 2010:313). The achievement of green marketing objectives requires a systems approach in the implementation process, whereby all organisational functions, such as accounting, operations management and human resource management, are integrated into the overall corporate sustainability strategy (Belz & Peattie 2009:276).

2.8 THE FUTURE PROSPECTS OF GREEN MARKETING

In spite of the aforementioned challenges, green marketing is increasingly becoming a viable strategy to address the scourge of climate change (Rahbar & Wahid 2011:73; Ramirez *et al.*,

2013:8). With sustainability emerging as the dominating theme in the twenty-first century, green marketing is expected to continue to influence marketing strategy and practice in the long term (Ottman 2011:83; Young *et al.*, 2010:29).

At corporate level, it is predicted that companies will initiate global green marketing strategies in order to expand their markets, increase market share and take advantage of the positive image of their initial successful green brands (Young *et al.*, 2010:30). For emerging markets such as China, Brazil, South Africa and India, among others, the adoption and implementation of green marketing will enable them to integrate their budding economies into the mainstream global economy (Nkamnebe 2011:217). It is also envisaged that global warming, climate change and the trend towards green consumerism will continue to spur interest in environmentalism and direct efforts towards the harmonisation of green marketing practices (Lee *et al.*, 2010:912; Ottman 2011:83).

Foreseeing the potential growth of green marketing, marketers are investing in long-term green marketing initiatives to capacitate them to provide innovative green products (Smith & Perks 2010:18). With the expected growth in demand for green products (Chen 2008:531; Mazar & Zhong 2010:494; Lin, Tan & Geng 2013:106), marketers are re-positioning their marketing strategies to tap into the green market by seeking to understand the factors that influence the purchase of green products (Rahbar & Wahid 2011:73).

It is also anticipated that the concept of green marketing will change the future outlook of global economic systems, with the transition towards green economies an expected megatrend (Belz & Peattie 2009:8). The United Nations Environmental programme (UNEP) (2011:5) defined a green economy as one that results in improved economic growth and socially equity while significantly reducing environmental risks. Green economies are expected to stimulate economic growth through the creation of green jobs and to shift the global economy towards ecological balance (Belz & Peattie 2009:281).

With calamities induced by climate change projected to account for 500 000 deaths and \$340 billion in damages globally by 2030, the green market is expected to grow, mature and influence the rules of exchange in the marketplace (Ottman 2010:17). The forecasted trends in population growth, poverty and climate change all point to the relevance of green marketing in the long term (Belz & Peattie 2009:283). Overall, it is expected that green

marketing will continue to be relevant in the coming decades as a result of the factors presented in Table 2.9.

Table 2.9 Factors influencing future directions in green marketing

Driving factors	Implications
Population growth	The global population is expected to reach almost 9 billion by the year 2050 putting further strain on the environment.
Unemployment	Approximately 1.3 billion people globally working in environment-related jobs such as agriculture and fisheries are likely to lose jobs as a result of environmental degradation, droughts and climate change.
Health	Health remains a key indicator of the quality of life and the demand for organic food is expected to grow.
Ecosystems damage	Increasing environmental degradation, if not addressed, will affect the welfare of future generations.
Food shortages	Climate change may reduce developing countries' food production by 16 percent, resulting in food shortages pushing up global food prices.
Fuel prices	Depletion of fossil fuels will limit economic growth.

Source: Belz and Peattie (2009:8-9).

2.9 CHAPTER SUMMARY

Green marketing is defined as a comprehensive marketing concept that involves the production, marketing, consumption and disposal of products in a way that is less detrimental to the environment. Ecological marketing, environmental marketing and sustainable marketing are the main phases that characterise the evolution and growth of green marketing. The primary objective of green marketing is to satisfy consumer needs while safeguarding the well-being of the environment. The main reasons why companies adopt green practices include compliance with environmental regulations, the quest for competitive advantage, corporate social responsibility, pressure from environmental groups and green consumerism.

Green marketing is not limited to environmental protection but is also an integral element of the marketing strategy. It is worth noting that the adoption of green marketing is costly in the short run, owing to the variability of demand for green products, unfavourable consumer

perceptions and significant capital investment requirements in green technology, research and development. However, in the long term, green marketing may prove to be a viable strategy that enhances corporate image, reduces wastage, increases market share and improves financial performance.

In its holistic application, green marketing is regarded as a macro-marketing concept with important implications for all activities of the value chain, including procurement, production, marketing and consumption. To sustain competitive advantage, marketers need to deliver products with tangible environmental benefits, understand the drivers of green purchase behaviour and adopt a transformative approach in green marketing implementation.

In an attempt to understand the drivers of sustainable consumption, the next chapter provides a detailed discussion of the antecedents of green consumer buyer behaviour.

CHAPTER 3

ANTECEDENTS OF GREEN CONSUMER BUYER BEHAVIOUR

3.1 INTRODUCTION

The previous chapter traced the evolution and growth of green marketing with ecological, environmental and sustainable marketing identified as the key phases. Market share growth, profitability, environmental sustainability, sustainable development, cost reduction and enhanced corporate image were proffered as the main benefits of implementing green marketing. The variability of consumer demand for green products, unfavourable consumer perceptions of green products and exorbitant investment costs associated with green technologies were identified as the major challenges constraining the practice of green marketing. The preceding chapter also identified consumers as central to the trend towards the adoption of green marketing. The chapter additionally recognised consumers as emerging custodians of environmentalism through the purchase and consumption of environmentally friendly products.

As the concept of green marketing is becoming more of a mainstream ideology, Husted, Russo, Meza and Tilleman (2013:1) expressed the need to understand the influence of green marketing on market behaviour. The understanding of the influence of green marketing on consumer buyer behaviour is complicated in part by the challenge of profiling green consumers and green markets (Paco & Raposo 2010:429). In addition, the practice of green marketing tends to be constrained by the apparent lack of consensus in extant literature on the antecedents of green buyer behaviour (Steg & Vlek 2009:315).

In view of mixed views consensus on the antecedents of green buyer behaviour, the present chapter examines the factors that influence green buyer behaviour by incorporating the Theory of Reasoned Action and the Values-Beliefs-Norms Theory. The chapter first discusses the profile of green consumers and green markets and thereafter presents a detailed discussion of the antecedents of green buyer behaviour.

3.2 GREEN CONSUMER PROFILING

The emergence of green consumers is the driving force behind the growth in green consumerism. Historically, the green consumerism era was ushered in during the late 1990s and early 2000s, signifying a trend towards the adoption and entrenchment of sustainable consumption lifestyles among consumers (Hessami, Yousefi & Goudarzi 2013:10). Sustainable consumption patterns have grown exponentially in recent years, as demonstrated by the increased number of consumers engaging in pro-environmental behaviours (Zhu, Li, Geng & Qi 2013:279). Notably, green marketing practices, such as the purchase of environmentally friendly products, recycling, energy saving and water conservation, are regularly undertaken by consumers as a way of reducing their ecological footprint (Gadenne, Sharma, Kerr & Smith 2011:7684).

The shift towards sustainable consumption patterns resulted in the evolution of consumers into independent economic participants accorded the responsibility of enhancing the well-being of the environment (Autio, Heiskanen & Heinonen 2009:40). Within the current global context of grappling with human-induced climate change, disintegrating biodiversity and degraded ecosystems, the adoption of sustainable practices by consumers is a welcome reprieve for sustainable consumption proponents (Gadenne *et al.*, 2011:7687).

Consistent with the growth in environmental concern, sustainable consumption is emerging as a mainstream ideology which is unlocking a niche market of green consumers (Bantye *et al.*, 2010:374; Datta 2011:125; Ottman 2011:1). For instance, in the United States of America the green market is estimated to be \$250 billion per annum and sales of environmentally friendly products grew from \$12.6 billion in 2005 to \$21.4 billion in 2009 (O'Rourke 2012:248). The upward trend in uptake of ecologically friendly products is also mirrored in South Africa, where leading retailers such as Pick n Pay and Woolworths reported an increase in sales of organic products of 66.8 percent and 47 percent respectively during the 2011-2012 financial year (Woolworths Holdings Limited 2012:53; PicknPay 2013:13).

In view of the trend towards green consumerism, Bantye *et al.* (2010:374) and Rundle-Thiele *et al.* (2008:6) suggest that a thorough appreciation of the characteristics of green consumers is essential for marketers in order to formulate effective green marketing strategies. Driven by the need to create sustainable competitive advantage, marketers are tapping into the "going green" mega-trend by launching green products, targeting the environmentally conscious

consumers (Husted *et al.*, 2013:3). From a public policy perspective, governments and environmental regulatory authorities are crafting environment laws and regulations to enhance pro-environmental behaviour (Mostafa 2009:11031). However, the biggest challenge has been the lack of effective implementation and monitoring of environment laws to enhance meaningful behavioural changes (Hale 2011:91).

Pursuant to the growth in environmental concern, buyers are steadily evolving into green consumers (Mostafa 2009:11031). A green consumer is defined as an environmentally sensible individual who primarily and regularly makes product purchase decisions based on environmental considerations (Nittala 2014:140). The green consumer, also known as an ethical consumer (Basgoze & Tektas 2012:477), is also defined as one who adopts environmentally friendly behaviours and prefers eco-friendly products to conventional products (Boztepe 2012:7). In addition, Basgoze and Tektas (2011:477) noted that the concept of green consumerism evolved from the Norm Activation Theory, which states that environmental consciousness is derived from the consumer's value and belief orientation.

From a sustainability standpoint, Connolly and Prothero (2008:141) stated that green consumption needs to be construed as a process that results in consumers feeling both responsible for the environment and empowered in coping with environmental issues. Rachel Carson's seminal book, *Silent Spring*, published in 1962, was largely credited with promoting pro-environmental behaviour in America (Belz & Peattie 2009:55). *Silent Spring* was instrumental in alerting consumers, marketers and regulatory authorities to the effect on the environment of unsustainable farming practices and consumption patterns (Carson 1962:172). However, the awareness of the magnitude of environmental problems brought with it the challenge of segmenting green and non-green consumers (Paco & Raposo 2010:429).

3.2.1 Green consumer segments

In spite of the reported exponential growth in green markets, not all consumers are committed to environmental issues and receptive to the "going green" mantra (Awad 2011:58). Against this backdrop, profiling green consumers remains a daunting challenge for marketers (Ferraro 2009:2). In particular, the characterisation of green consumers is compounded by lack of consensus in extant literature on the profile of green consumers (Chan, Wong & Leung 2008:470), resulting in a "reified green consumer identity" (Elliott 2013:298). For instance, Albayrak, Caber, Moutinho & Herstein (2011:189) observed that marketers still strive to

understand the emerging green market and the factors that influence green purchase behaviour. Although Park and Ha (2012:392) broadly classified green consumers as green purchasers and non-green producers, Barverstam and Larsson (2009:6) identify the Shades of Green segments and the Lifestyles of Health and Sustainability as the most popular approaches for profiling green consumers.

3.2.1.1 Shades of Green segments

Proponents of the Shades of Green segments opined that the level of environmental concern is not homogeneous among consumers (Barber *et al.*, 2012:281). Barverstam and Larsson (2009:6) reported that the Roper Organisation's groundbreaking study in 1990 categorised consumers according to shades of green segments based on environmental attitudes. The Roper Organisation's typology traces the roots of green consumerism by classifying consumers as true-blue greens, sprouts, grouzers and basic browns (Barverstam & Larsson 2009:6).

The true-blue greens segment exhibits a high ecological orientation and strongly perceives that it has the ability to address environmental problems through its actions (Lu *et al.*, 2013:5). The true-blue green consumers are characterised as committed, hard-core environmentalists who are highly involved in pro-environmental activities (Ottman 2011:23). As avid environmentalists, the true-blue greens are the most environmentally conscious segment and show the highest propensity of all the segments to engage in pro-environmental behaviours (Lu *et al.*, 2013:5). True-blue greens are also alternatively classified as green product purchasers or sustainable consumers (Park & Ha 2012:392). The most distinguishing characteristic of true-blue greens is that they have a higher inclination to pay a premium for green products, thereby positioning them as the prime target for green products (Awad 2011:68).

The sprouts are categorised as environmentally concerned consumers who voluntarily comply with environmental laws (Lu *et al.*, 2013:5). Although consumers in the sprout segment demonstrate high levels of environmental concern, they do not translate their concern into green purchase behaviour (Ottman 2011:24). This makes the segment a key swing group and a possible target for green marketing messages (Baverstam & Larsson 2009:6). Also known as the potential green segment or occasional buyers (Verain *et al.*, 2012:129), the predisposition of sprouts not to translate green environmental concern into green purchase

behaviour may be the plausible reason for the continued existence of the gap between environmental concern and actual purchase behaviour (Gupta & Ogden 2009:377; Pickett-Baker & Ozaki 2009:282). Given this background, understanding the purchase behaviour of sprouts may provide insights into bridging the gap between environmental concern and green purchase behaviour (Verain *et al.*, 2012:129).

Conversely, grouzers are traditionally not well versed in environmental issues and do not believe that they are capable of addressing environmental problems (Ottman 2011:24). Distinguished by low perceived environmental responsibility, grouzers believe that corporations and governments are the ones to blame for the environmental issues (Tomme & Zaidi 2012:31). Driven by an environmental responsibility denial mindset, grouzers perceive that addressing environmental problems is the duty of the government, their low levels of income are a further constraint, preventing them from paying a premium price for green products (Lu *et al.*, 2013:5). Drawing on the Role Theory (Biddle 1986:82) construct of role conflict, grouzers' purchase behaviour is not compatible with pro-environmental values and they are classified as green product non-purchasers (Park & Ha 2012:392).

Finally, basic browns are considered as indifferent to environmental issues and are not interested in making an effort to engage in pro-environmental behaviours, including the purchase of green products (Tomme & Zaidi 2012:31). The basic brown segment perceives that environmental problems are of great magnitude and that no amount of individual, corporate and government intervention has the ability to proffer solutions (Jamilah *et al.*, 2012:85). It follows that, in order to align grouzers and basic brown consumer segments with green consumerism, marketers need to invest in consumer education with a focus on raising their self-efficacy beliefs (Akehurst *et al.*, 2012:984).

Although the Roper Organisation's Shades of Green segmentation provides a framework for profiling green consumers, a study by Baverstam and Larsson (2009:35) revealed that, in practice, effective segmentation of green consumers needs to take into account the nature of the product and the industry profile rather than the degree of consumer greenness. Hence other green consumer segmentation approaches are also considered.

3.2.1.2 Lifestyles of Health and Sustainability

Inspired by *The Cultural Creatives*, the seminal work of Ray and Anderson (2000), the Lifestyles of Health and Sustainability model (LOHAS) segments green consumers based on

environmental attitudes (French & Showers 2008:31). The LOHAS refers to green consumers and represents the marketplace for sustainable food and lifestyles (Ferraro 2009:4; French & Rodgers 2010:5). LOHAS consumers are defined as individuals who are driven principally by the quest for health and environmental concern when making purchase decisions (Kotler 2011:134). The LOHAS categorises green consumers as LOHAS consumers, naturalists, drifters, conventionals and the unconcerned (French & Rogers 2010:1).

LOHAS consumers are classified as early adopters of new innovations and are regarded as the primary target for green products (French & Rogers 2010:1). LOHAS consumers habitually purchase environmentally friendly products and are generally active in support of environmental initiatives (Ferraro 2009:8; French & Showers 2008:31). Notably, LOHAS consumers value their health and sustainability in their consumption behaviour (Heim 2011:2). They are also significantly influenced by their concern for the health of their families and have a favourable disposition towards the sustainability of the environment (French & Rogers 2010:3).

Another segment based on the LOHAS model is the naturalists. Attitudinally, the naturalists are primarily motivated by self-enhancement values such as personal health and wellness when buying green products (French & Showers 2008:32). This implies that naturalists prioritise personal benefits when making purchase decisions. Although naturalists are ranked high on the attitude-intention continuum, their high levels of scepticism towards environmental claims coupled with low income levels limit their capacity to buy green products (Gelfer 2010:48). This presents an opportunity to marketers to foster green purchase intentions by enhancing consumer trust in green products (Chen & Chang 2012:502).

Drifters are identified as trend-sensitive consumers who are more interested in image enhancement than environmental well-being when making product choices (Ferraro 2009:8). The drifter segment is also fairly price sensitive and is more concerned with maintaining a socially acceptable image (Ferraro 2009:9). Although drifters are more committed to sustainability issues, they are highly unstable and this puts a dent in the viability of this segment (French & Showers 2008:32).

Lastly, conventionals are characterised by those consumers who lack a long-term green marketing perspective and participate in short-term environmental initiatives such as recycling and energy conservation (Ferraro 2009:9). Remarkably, conventionals engage in

pro-environmental behaviour if they perceive that such behaviour is economical and sensible (French & Showers 2008:32). Thus, to appeal to the conventionals, rational appeals need to be incorporated in green marketing messages. Rational appeals are considered effective since conventionals make purchase decisions based primarily on price, value, quality and convenience (Paco & Raposo 2009:434). In appealing to the conventionals, green marketing messages emphasising the functional benefits of green products are considered effective in changing the attitudes and perceptions of this highly capricious segment (Barber *et al.*, 2012:288).

Although the LOHAS is a dominant market for sustainable products, French and Showers (2008:32) contend that the well-being of the environment can be achieved only if the quest for aesthetics and healthy lifestyles is balanced with sustainability objectives. In addition, the scarcity of a clear socio-demographic consumer group which can be considered as LOHAS renders segmentation, targeting and positioning efforts a complex process (Paulesich 2008:152).

Another challenge emanates from the fact that the Shades of Green segments and LOHAS researches were conducted in developed economies, making generalisation of findings questionable in less affluent markets (Cheah & Phau 2011:453; Sarigollu 2009:366). In addition, the LOHAS and Shades of Green segments place more emphasis on individual behaviours, yet green purchase behaviour is characterised as collective obligation (Wells, Ponting & Peattie 2011:809). Owing to the aforementioned challenges, Barbel *et al.* (2012:281) suggested that demographic and psychographic variables are more likely to be useful in profiling green consumers.

3.3 CONCEPTUALISATION OF GREEN BUYER BEHAVIOUR

The appreciation of the antecedents of green purchase behaviour is considered as the focal point in understanding green consumer buyer behaviour (Huang, Yang & Wang 2014:252). Green marketing researchers contend that green buyer behaviour is influenced by a host of factors that include personal capabilities, attitudinal factors and contextual factors (Jansson, Marell & Nordlund 2010:369; Kilbourne & Pickett 2008:885). Conceptually, green buyer behaviour is interpreted as a positive disposition by consumers towards behavioural actions that enhance the welfare of the natural environment (Datta 2011:128). According to Lee (2009:87), green buyer behaviour is defined as the act of consuming products that align with

the consumer's environmental concern and are beneficial for the environment. Similarly, Steg and Vlek (2009:309) define green buyer behaviour as purchase decisions that result in customer satisfaction with minimum harm to the environment.

In green marketing literature, terms such as pro-environmental behaviour, green consumer buyer behaviour, environmentally conscious behaviour, environmentally friendly behaviour, green consumption behaviour and sustainable behaviour are applied to refer to behavioural actions that are consciously aimed at enhancing customer satisfaction and minimising environmental harm (Carrete *et al.*, 2012:470; Cheah & Phau 2011:452; Lee, Kim, Kim & Choi 2014:2098; Verain *et al.*, 2012:123). In this study, the aforementioned terms are applied interchangeably with green buyer behaviour to refer to the preference for and use of products that are environmentally friendly and that have been produced following environmentally friendly processes.

In the marketplace, green buyer behaviour is characterised as a complex process that requires a detailed understanding of the determinants that drive green purchase intentions and actual purchase behaviour (Carette *et al.*, 2012:471). According to Steg and Vlek (2009:309), encouraging green buyer behaviour involves identification of behavioural actions that need to be changed, an examination of the factors underlying pro-environmental behaviour, and the designing and implementation of interventions to change undesirable behaviour. In green marketing theory, antecedents of green buyer behaviour are documented as demographic factors, psychological variables, environmental variables, cultural orientations and ethical ideologies (Cheah & Phau 2011:452; Leonidou *et al.*, 2010:13; Irawan & Darmayanti 2012:3; Sinnappan & Rahman 2011:129). The classification of antecedents of green purchase behaviour is presented in Table 3.1.

Table 3.1 Antecedents of green purchase behaviour

Antecedent	Variables	Supporting theories/ models	References/sources
Demographics	<ul style="list-style-type: none"> • Age • Gender • Income • Occupation • Education level • Family size 	<ul style="list-style-type: none"> • Gender Socialisation Theory • Generational Theory • Theory of social Comparison 	<ul style="list-style-type: none"> • Sinnappan and Rahman (2011) • Leonidou et al. (2010) • Moschis (1981) • Festinger (1954) • Gilligan (1982)

Antecedent	Variables	Supporting theories/ models	References/sources
Psychographic variables	<ul style="list-style-type: none"> • Environmental concern • Environment attitude • Environmental values • Environmental beliefs and norms 	<ul style="list-style-type: none"> • Theory of Reasoned Action • Values-Attitude-Behaviour Model • Norm Activation Theory • Self-Concept Theory 	<ul style="list-style-type: none"> • Azjen and Fishbein (1980) • Azjen (1991) • Stern, Dietz, Abel, Guagnano and Kalof (1999). • Steg and Vlek (2008) • Sirgy (1985)
Group Factors	<ul style="list-style-type: none"> • Cultural orientations • Ethical orientations • Social influence 		<ul style="list-style-type: none"> • Lee (2009) • Chan and Lau (2000) • Garcia-Rosell and Moisander (2008)
Contextual environmental	<ul style="list-style-type: none"> • Government's role • Atmospherics • Media exposure 		<ul style="list-style-type: none"> • Kreidler and Mathews (2009) • Lee (2011). • Zeithaml, Bitner and Gremler (2009)

3.3.1 Demographic variables

The influence of demographic variables on green buyer behaviour has been extensively examined by researchers in an attempt to understand the profile of green consumers (Lee 2008:87; Sinnappan & Rahman 2011:132). In Consumer Behaviour Theory, demographic data are elicited based on variables such as age, gender, income, marital status, family size and social class to predict behaviour outcomes (Batra & Kazmi 2008:32). In the context of green buyer behaviour, age, gender, income, education level and family size are considered influential in fostering pro-environmental behaviour (Verain *et al.*, 2012:127).

3.3.1.1 Age

The Generational Cohort Theory has been employed in numerous studies to explain the effect of age on consumer buyer behaviour (Akehurst *et al.*, 2012:976; Urien & Kilbourne 2011:69). The Generational Cohort Theory postulates that individuals who belong to the same cohort share similar life experiences that shape their attitudes and value systems (Ryderin 1965:845). According to Parment (2013:189), the shared values result from the “defining moment” events that took place during the coming of age of each cohort. To

substantiate this view, Cant and Machado (2008:20) employed the term “age-based subculture” to suggest that individuals who have experienced comparable social, political, historical and economic conditions tend to respond to marketing stimuli in a similar way, thereby imprinting consistent behaviour in buying patterns. Consequently, each generation is perceived as possessing a peculiar value system that shapes and influences its behaviour (Eastman & Liu 2012:95). Ultimately, similarities in life experiences and shared contextual factors result in each generational cohort developing unique value systems and behaviours (Dries, Pepermas & De Kerpel 2008:908). The Generational Theory therefore explains not only differences in age but also diversity in generational values, attitudes and beliefs (Meriac, Woehr & Banister, 2010:316).

The Generational Cohort Theory identifies the Pre-Depression Generation, Depression Generation, Baby Boomers, Generation X, Generation Y and Generation Z as the main generational cohorts (Eastman & Liu 2012:93; Williams & Page 2011:1). Among other cohorts, Baby Boomers, Generation X and Generation Y are identified as the cohorts that are most influential in green marketing thought and practice (Ottman 2011:5). The Generational Theory is considered to be relevant in explaining the influence of age on green purchase intention because environmental concern is assumed to be influenced by generative concern (Urien & Kilbourne 2011:74). The Generational Theory is premised on the proposition that each cohort has distinctive expectations, experiences, history, lifestyles and values that stimulate their buying behaviours (Valkeneers & Vanhoomissen 2012:54). Ultimately, the shared historical orientation results in “a common collective persona” (Strauss & Howe 1997:61). By taking cognisance of the different characteristics and behaviours of the different generations, marketers can craft effective positioning strategies and build long-term relationships in their target markets (Williams & Page 2011:1).

Historically, Baby Boomers, who were born between 1946 and 1964, are characterised by a revolutionary outlook and considered the champions of the green marketing revolution pioneered in the early 1960s (Cant & Machado 2008:21). The key milestones for the Baby Boomer generation are the celebration of the first Earth Day in 1970 and Solar Day in 1971 (Ottman 2011:5). In the South African context, the Baby Boomer generation witnessed key historical events such as Apartheid, the Rivonia trial and the Sharpeville massacre (Cant & Machado 2008:21). The Baby Boomers, alternatively known as the Me Generation, Love Generation or Sandwich Generation, significantly influence green marketing practice as they

control almost 75 percent of global wealth (Kasriel-Alexander 2012:19). Health is now the primary concern of Baby Boomers, making them the prime target for LOHAS products (Kim *et al.*, 2012:20). It is important to note that Baby Boomers are less price sensitive, which positions them as an ideal market for premium-priced green products (Williams & Page 2011:5). However, as an ageing generation, Baby Boomers' influence in the sustainability debate tends to be diluted in the long term (Ottman 2011:5).

The subsequent Generation X comprises individuals who were born between 1965 and 1978 (Cant & Machado 2008:21). In spite of being raised in the era of heightened environmental concern, economic hardships coupled with high levels of pessimism and disillusionment inhibit Generation X's viability in the marketplace (Cant & Machado 2008:21). In particular, the price-sensitive nature of Generation X consumers stirred up the frugality debate as an alternative to enhance sustainable development (Kasriel-Alexander 2012:19). As a result, the unattractiveness to marketers of the Generation X segment resulted in marketing efforts and substantial attention to green purchase behaviour being focused on young consumers who belong to the Generation Y group (Lee 2009:93).

The twenty-first century ushered in the Generation Y cohort. The Generation Y consumers have been identified by a plethora of tags such as Generation Dot-com, Millennials, Net-Generation, Nex-ters, First Digitals and the C-Generation (Lu *et al.*, 2013:3). In addition to the variation in Generation Y labelling, there is no consensus regarding the exact years when Generation Y consumers were born. The time intervals that dominate extant literature are 1977-1987 (Eastman & Liu 2012:94), 1980-2000 (Gurau 2012:103), 1979-1994 (Kotler & Keller 2012:241), 1977-1994 (Noble *et al.*, 2009:617), 1978-2000 (Kotler & Armstrong 2010:98) and 1980-2000 (Lu *et al.*, 2013:3). While there is no consensus on specific cut-off dates, the general understanding is that Generation Y consumers were born between 1980 and 2000 (Lu *et al.*, 2013:3).

In terms of market value, the Generation Y consumer segment is fast emerging as a potentially profitable and consumption-oriented segment with high purchasing power and significant influence on peers' purchase behaviour (Lee 2009:93). With regard to size, the Generation Y group presents a significant market opportunity, accounting for almost 40 percent of the total population in South Africa, according to the census results of 2011 (Synodinos, Bevan-Dye & De Klerk 2013:17).

The main traits that differentiate Generation Y from other cohorts are a high degree of independence, optimism, confidence and social connectedness (Cant & Machado 2008:22). Generation Y consumers are also described as social networking fanatics who are information-empowered, shopping-oriented, technologically savvy, status consumption-oriented, , open-minded, image-driven, goal-oriented and seekers of immediate satisfaction (Eastman & Liu 2012:102; Williams & Page 2011:8). In South Africa, Generation Y consumers were the first cohort to be raised in a post-apartheid era, with access to more numerous opportunities than other generations in the form of education and wealth creation, earning this cohort the “black diamond” tag (Bevan-Dye, Garnett & De-Klerk 2012:5580). The liberal orientation of the traits of Generation Y consumers position them as a global market segment with a comparable culture, as well as comparable needs, attitudes, perceptions and lifestyles (Cant & Machado 2008:22).

Although Ottman (2011:4) argued that every generation is green and espouses sustainable values, emic observations by researchers indicate that Generation Y consumers are emerging as leaders of the green revolution owing to their substantial size, their access to information and propensity for sharing it, coupled with high purchasing power (Lee 2011:21; Tai & Tam 1997:304; Williams & Page 2011:8). In addition, the exposure of young consumers to healthy lifestyles has been instrumental in enhancing favourable perceptions of green products (Suki 2013:726).

Based on the customer lifetime value concept, the marketing focus on Generation Y is justified in the sense that this cohort has the potential to live on to witness the implications of their purchase behaviour (Hill & Lee 2012:488). Additionally, Generation Y consumers were born during the era of environmental consciousness and are therefore presumed to be more likely to adopt pro-environmental behaviours than other cohorts (Awad 2011:60; Lee 2008:573). For instance, Parment (2013:191) contends that the 26 December 2004 Tsunami that was triggered by the Indian Ocean earthquake was instrumental in entrenching environmental values among Generation Y consumers.

Despite the strategic importance of Generation Y consumers, Noble *et al.* (2009:618) report that little is known about their selection criteria and consumption behaviour. Since Generation Y constitutes a significant citizenry segment with the potential to enhance environmental protection, the cultivation of green product taste values is deemed a strategic priority (Lee 2009:87). Additionally, the awareness of how Generation Y consumers perceive

green products is seen as central to the formulation of effective green marketing messages (Hill & Lee 2012:478). Based on the foregoing discussion, Table 3.2 summarises the main characteristics of marketing generations.

Table 3.2 Characteristics of marketing generations

Generations	Alternative terms	Birth year	Historic events	Core values
Baby Boomer	<ul style="list-style-type: none"> • Boomer Generation • Me Generation • Sandwich Generation • Love Generation • Woodstock Generation 	1946-1964	<ul style="list-style-type: none"> • Civil rights movement • Rivonia trail • Sharpeville 	<ul style="list-style-type: none"> • Idealism • Creativity • Tolerance • Self-fulfilment • Workaholism
Generation X	<ul style="list-style-type: none"> • X-ers • 13th Generation • Why me Generation • Slackers • Baby Bust • Latchkey 	1965-1980	<ul style="list-style-type: none"> • Oil Crisis of 1973 • Emerging technology 	<ul style="list-style-type: none"> • Individualism • Scepticism • Flexibility • Materialism
Generation Y	<ul style="list-style-type: none"> • Millennials • Eco Boomers • Dot.Com Generation • Gen Wired • iPod Generation • Net Generation • Gen Y 	1981-2001	<ul style="list-style-type: none"> • Information Age • Climate change • Global warming • MTV • Internet • Tsunami 	<ul style="list-style-type: none"> • Positivity • Civic-mindedness • Confidence • Passion • Sense of morality • Consumption-oriented • Internet-centric • Brand-conscious

Source: Cant and Machado (2008:20); Dries *et al.* (2008:910); Williams and Page (2011:9).

Although there are attempts to predict consumer buyer behaviour by age, Parment (2013:189) noted that its major shortcoming is the inability to address the intrinsic drivers of consumption behaviours, hence other demographic variables such as gender are considered.

3.3.1.2 Gender

Consumer Behaviour Theory suggests that male and female consumers differ in their consumption patterns and purchase behaviours (Han, Hsu, Lee & Sheu 2011:347). For instance, women are projected as being endowed with higher environmental concern and more favourable environmental attitudes than their male counterparts (Lee 2009:91). Similarly, a study by Rezai, Teng, Mohamed and Shamsudin (2013:4) found that women are more willing to pay a higher price for green products than males. According to Lee (2009:96), higher levels of environmental concern among women are attributed to the gender-socialisation process that fosters a more empathetic and supportive orientation in females than in males. Specifically, the Gender Socialisation Theory postulates that women are socialised to be more interdependent, compassionate, nurturing, co-operative and caring than men (Gilligan 1982:81).

The Socialisation Theory suggests that green marketers need to market their products by following a gender-based market segmentation approach (Braun 2010:248). According to Gilligan (1982:81), based on their relational and responsibility orientation, young female consumers are likely to be good communal forces for enhancing environmental culture in their social networks. To effectively target young female consumers, Lee (2009:93) suggests that green marketing campaigns need to be focused on triggering female consumers' sympathetic emotions and passion for the environment. However, the foregoing reasoning contradicts the findings of a study by Chen and Chai (2010:33), which found an insignificant difference among females and males in green purchasing behaviour. Overall, the notion that a typical green consumer is a young woman, well-educated, wealthy and liberal is contested in theory and by empirical evidence (Brecard, Hlaimi, Lucas, Perraudeau & Salladarre 2009:115).

3.3.1.3 Family size

Family is another factor that is presumed to have an effect on purchase and consumption of green products (Smith & Brower 2012:541). This is because the family is considered as the primary reference group that shapes the consumption values of consumers (Caruan & Vassallo 2003:55; Cotte & Wood 2004:84). For instance, a study by Lee (2011:306) found that the attitudes and purchase intentions of young consumers are influenced by their parents. Within a family setup, parents are considered as the primary socialisation agents of their

children as they inculcate and reinforce consumption values and behaviours (Lee 2014:230). It follows that, based on the values entrenched during their childhood, young consumers tend to benchmark their product preferences with those of their family.

In the context of green marketing, family is considered a driver of environmental consciousness as it enhances the formation of environmental values and attitudes (Yue, Grebitus, Bruhn & Jensen 2008:1; Cheah & Phau 2011:456). At household level, young families are at the forefront when it comes to consumption of organic food, with health and environmental protection being the key drivers (Aertsens *et al.*, 2009:1152; Elliott 2013:310; Paul & Rana 2012:413). Young families are presumed to patronise green products as they are considered to be able to afford the higher prices associated with green products because of their higher levels of disposable income (Gan *et al.*, 2008:100).

Although the family is influential in the formation of environmental values and attitudes, consumption of green products tends to change with the change in the family cycle (Riefer & Hamm 2008:1). For instance, Loureiro and Hine (2002:484) observed that, as the family grows, the willingness to pay for organic products diminishes. In addition, Reifer and Hamm (2008:1) reported that the preference for organic food tends to decrease when the family grows, as children develop their own consumption lifestyles. This is usually the case with Generation Y consumers, whose peers tend to be more influential than their own families in shaping their consumption patterns as they grow up (Yarrow & O'Donnell 2009:6).

3.3.1.4 Income

In the absence of consensus on the effect of age and gender on green purchase behaviour, Awad (2011:68) argued that income is likely to be a key driver of green purchase behaviour. In terms of price, green products are perceived as expensive in comparison with non-green products (Nath, Kumar, Agrawal, Gautam & Sharma 2014:503). Notably, the higher price has largely resulted in variations in consumers' willingness to pay for green products (Drozdanko, Jensen & Coelho 2011:112). The premium price of green products has led to consumers with higher incomes appearing to be more responsive to environmental issues than those with lower incomes (Barber *et al.*, 2012:80). This view is echoed by Brecard *et al.* (2009:117), who argue that budget constraints play a central role in consumer choice between green products and conventional ones, especially given that green products are more expensive.

The implication of the foregoing observation is that low income earners may not be able to afford the premium prices associated with green products (Rezai *et al.*, 2013:15). Remarkably, the income aspect of green purchase behaviour has resulted in “the willingness to pay” debate (Aryal, Pashupati, Sangita & Govinda 2009:19; Yau 2012:277). According to Drozdenko *et al.* (2011:112), willingness to pay for green products tends to vary with product category and potential savings emanating from the purchase action. Furthermore, Aryal *et al.* (2009:19) noted that, although consumers are willing to pay a higher price for ecological products, their level of acceptance varies considerably with information asymmetry, price sensitivity and green product availability.

Additionally, willingness to pay for green products is regarded as a function of prevailing economic conditions, particularly in developing economies (Carrete *et al.*, 2012:481). To explain the concept of willingness to pay, the concepts of “green thrift” and “frugality” have been employed to suggest that green purchase behaviour tends to be influenced by the economic constraints confronted by consumers (Gonzalez 2012:16; Kasriel-Alexander 2012:19), rather than by environmental consciousness (Paco & Raposo 2009:375). For instance, a study in the recession-prone Euro-Zone revealed that 48 percent of consumers were not prepared to pay a premium price for green products (Kim & Chung 2011:47).

Green thrift is becoming trendy in the context of the contraction of the global economy and green brands are expected to generate market demand only if they are priced competitively relative to conventional products (Kasriel-Alexander 2012:20). To bridge the income gap and sustain green product demand, BreCARD *et al.* (2009:118) recommended the use of financial incentives such as subsidies and tax concessions. Given this background, Hanss and Bohm (2013:66) asserted that attempts to make green products mainstream should be complemented by a detailed analysis of the willingness of consumers to pay for the premium-priced green products.

3.3.1.5 Education level

Education level is another demographic factor that influences green purchase behaviour (Wahid, Rahbar & Shyan 2011:41). The level of education is assumed to have an impact on the formation of favourable attitudes towards environmental issues and environmental knowledge (BreCARD *et al.*, 2009:116). Environmental knowledge, also known as eco-literacy, refers to consumers’ ability to identify green products and green practices (Cheah & Phau

2011:456). Eco-literacy encompasses the level of environmental awareness among the consumers and creates a sense of obligation among consumers to maintain the environment for the sake of future generations (Kumar 2012:10).

In the context of green purchase behaviour, objective environmental knowledge is considered a strong contributor to the formation of consumer attitudes towards green products (Akehurst *et al.*, 2012:976; Ha & Janda 2012:462, Wahid *et al.*, 2011:46). Thus, environmental knowledge involves what people know about the environment (Mostafa 2009:11031). In order to make rational choices, consumers often engage in an active information search about environmental problems to increase the knowledge and awareness necessary to the forming of attitudinal views when making purchase decisions (Cheah & Phau 2011:456).

It is important for marketers to note that inadequate information among consumers relating to the performance and availability of green products has become one of the main impediments to the purchase of green products (Hanss & Bohm 2013:64). Marketers need to realise that consumers who have a higher level of knowledge about green products are more willing to pay more for green products (Rahman & Hague 2011:95). The preceding viewpoint is clouded, however, by Paco and Raposo's (2009:432) assertion that environmental knowledge does not always result in green product purchase behaviour.

Based on the foregoing discussion, it can be concluded that there is mixed debate on the power of demographic variables to explain green purchase behaviour. For instance, Schwepker and Cornwell (1991:85) noted that the inability of demographic variables to foster pro-environmental behaviour may be explained by the fact that environmentalism is considered as a collective rather than an individual responsibility. In practice, Van Strien and Koenders (2012:268) observed that consumers are confronted with a conflict of balancing individual and collective objectives in their quest to adopt sustainable lifestyles. More importantly, demographic variables are regarded as highly dynamic, making market segments unstable (Awad 2011:59). Consequently, green purchase behaviour cannot be explained exclusively by demographic factors, but also by psychographic variables (Verain *et al.*, 2012:124).

3.3.2 Psychographic variables

Green purchase behaviours are considered to be driven by the consumer's intrinsic disposition towards green products and the value attached to environmental protection

(Barber *et al.*, 2012:286). Psychographic variables are therefore regarded as more effective than demographic variables in predicting the factors that influence the performance of pro-environmental behaviour (Akehurst *et al.*, 2012:983; Cheah & Phau 2011:465 Leonidou *et al.*, 2010:27). Psychographic variables that tend to influence green purchase behaviour include environmental attitudes, values, beliefs and environmental concern (Akehurst *et al.*, 2012:977).

3.3.2.1 Environmental attitudes

The performance of pro-environmental behaviour is considered to be reliant on the attitudes of consumers (Synodinos, Bevan-Dye & De Klerk 2013:22). For instance, Gupta and Ogden (2009:385) contend that consumers behave in ways that are consistent with their attitudes. The seminal work of Allport (1935:810) defined an attitude as a mental state of preparedness that is organised through experiential learning with the inherent ability to direct an individual's psychological response to environmental stimuli. Similarly, Fishbein and Ajzen (1975:211) defined attitude as "a learned predisposition to respond in a consistently favourable or unfavorable manner with respect to a given object." Integral to the attitude definition is the enduring nature of attitudes that are learned from experience and its directive influence on behaviour (Sheth *et al.*, 2011:1). In consumer behaviour, attitude is defined as an individual's consistently favourable or unfavourable evaluations, feelings and tendencies towards a product or service (Kotler & Keller 2012:552).

Attitudes include cognitive, affective and conative components (Eagly & Chaiken 1993:10). Cognitive attitudes are formed following a rational, fact-based decision-making process and are activated principally by rational appeals in green marketing messages (Sinnappan & Rahman 2011:137). Affective attitudes refer to emotional attachments that are associated with an object; peer influence is considered a dominant factor that triggers favourable emotions and feelings towards green products among young consumers (Lee 2011:35). Conative attitudes denote the action-related attitudes towards a product and capture the actual purchase behaviour (Sinnappan & Rahman 2011:137). In terms of attitude formation, a favourable evaluation of an object results in positive intentions and unfavourable assessment often translates into negative intention towards an object (Eagly & Chaiken 1993:13).

When an attitude is formed with respect to an object such as the environment, it is known as environmental attitude (Singh & Gupta 2013:6). Environmental attitudes imply a pre-

disposition in behaviour that directs an individual to minimise the negative impact of behavioural actions on the natural environment (Samarasinghe 2012:91). According to Lee (2008:578), environmental attitude is defined as an “individual’s value judgment of environmental protection which taps into the individual’s cognitive assessment of the value of environmental protection.” In addition, environmental attitude is also defined by Lee (2009:88) as a cognitive judgment of the value of environmental protection.

The Theory of Reasoned Action (TRA) has been widely employed to explain the influence of attitudes on consumer buyer behaviour (Sinnappan & Rahman 2011:130). The TRA posits that an individual’s behaviour is influenced by intention, which is a function of two constructs: attitude towards the behaviour and subjective norm (Ajzen 1991:181). According to Ramayah *et al.* (2010:1421), intention is defined as the determination to act in a certain manner. Attitude towards behaviour refers to the individual’s assessments of whether to execute a certain behaviour or not (Kim & Chung 2011:40). It follows therefore, that the stronger the intention to engage in behaviour, the higher the propensity for intention to translate into actual behaviour performance.

According to Ajzen (1985:183), an individual is more likely to perform certain behaviour if the attitude towards undertaking the behaviour is positive. Similarly, an increase in the intention to purchase a green product is expected to enhance the propensity of consumers to engage in actual green product purchase (Rehman & Dost 2013:102). Green purchase intention is therefore conceptualised as the probability and willingness of a consumer to prefer green products relative to conventional products (Ali & Amad 2012:88; Beckford *et al.*, 2010:243). Green product purchase can therefore be fostered by enhancing purchase intentions and stimulating favourable consumer attitudes towards green purchase behaviour (Jamilah *et al.*, 2012:85).

The TRA further states that an individual’s intention to perform certain behaviour depends on cognitive and affective attitudes (Aman *et al.*, 2012:147). The cognitive perspective portrays human beings as rational entities that make systematic use of information available to them to evaluate the likely outcomes of certain behaviours (Wahid *et al.*, 2011:39). Based on the cognitive attitude view, consumers assess green products on their performance, reliability, perceived risk and price (Ali & Ahmad 2012:87). Similarly, Sinnappan and Rahman (2011:13) noted that integrating cognitive and affective elements when conveying green marketing messages has the potential to make consumers more environmentally responsible.

In particular, literature reviewed on the consumption of environmentally sustainable products validated the finding that perceived product performance as a significant barrier to green product selection (Pickett-Baker & Ozaki 2008:281). For this reason, Chen and Chan (2010:36) stress the importance of blending green marketing messages with traditional functional product attributes, such as quality and performance, when marketing green products.

In spite of the theoretical reasoning presented in the foregoing discussion, contrasting views have been reported on the relationship between attitude and behaviour intentions, resulting in the now popularised attitude-behaviour gap (Barber *et al.*, 2012:281; Gupta & Ogden 2009:376). In particular, marketers are confronted by the daunting challenge of delineating specific attitudes that influence behaviour (Kilbourne & Pickett 2008:887; Wahid *et al.*, 2011:46). In addition, Sarigollu (2009:382) reported that measuring environmental attitudes in a composite manner and the variability of attitudes across cultural settings may be the principal causes of the attitude-behaviour gap.

In an attempt to delineate the determinants of green purchase intentions, Paco and Raposo (2009:435) observed that consumers are more likely to buy green products if they are more involved in environmental issues. According to Jansson *et al.* (2011:359), Sarigollu (2009:389) and Stern (2000:412), specific attitudinal factors that have the potential of stimulating green purchase intentions include values, beliefs, norms and environmental concern.

3.3.2.2 Values, beliefs and norms

Inclinations towards pro-environmental behaviours among consumers tend to vary considerably across different value and belief systems (Park & Ha 2012:392). In general, values are defined as the desirable trans-situational goals that serve as guiding principles of behavioural actions (Schwartz 1992:21). Environmental values are described as stable prescriptive beliefs that explain the importance attached by an individual to the natural environment (Pickett-Baker & Ozaki 2008:282). They play an integral role in the formation of pro-environmental beliefs and norms (Vermeir & Verbeke 2008:544). Specifically, a particular value orientation pre-conditions individuals to be favourably inclined towards products that are congruent with their beliefs and norms (Hansla, Gamble, Juliusson & Garling 2008:3). Aertsens *et al.* (2009:3) therefore consider values as instrumental in shaping

behaviour intentions in a value-congruent manner during the purchase decision-making process.

The Value-Belief-Norm Theory (VBN) provides the theoretical foundation to explain the role of values, beliefs and norms in green purchase behaviour (Jansson *et al.*, 2011:359; Steg & De Groot 2010:725). The VBN Theory, which incorporates the Norm Activation Model, Value Theory and the New Environmental Paradigm (NEP), postulates that values influence beliefs that, in turn, influence norms that ultimately direct behavioural intentions (Stern, Dietz, Abel, Guagnano & Kalof 1999:85). The VBN Theory suggests that pro-social behaviour emanates from an individual's awareness of the consequences of behaviour and his/her assumption of responsibility for addressing negative behavioural actions (Stern *et al.*, 1999:85). According to the VBN Theory (Stern *et al.*, 1999:85), consumers are characterised mainly by values in the egoistic, altruistic and biospheric domains.

Egoistic values are consistent with individuals who value gratification of personal interests and desires (Sahin 2012:271). Egoistic values, also known as self-enhancement values, suggest that individuals are favourably inclined to pursue behaviours that are perceived to enhance their social standing (Urien & Kilbourne 2011:75). In green marketing literature, egoistic values are alternatively known as concern for self-image in environmental protection and imply that the congruence between the product and the consumer's ideal self-image has the potential to shape green purchase intentions (Cheah & Phau 2011:459). Thus, Jansson *et al.* (2010:360) are of the view that the anticipation of personal benefits is instrumental in stimulating consumers driven by egoistic values to engage in pro-environmental behaviours.

Based on Sirgy's (1985) Self-Concept Theory, consumers with egoistic values are more likely to accept the New Environmental Paradigm (NEP) if they perceive that consumption of environmentally friendly products is congruent with their self-image (Sahin 2013:275). The state of positive self-image congruity occurs if there is a low discrepancy between one's actual self-image and the product image (Cheah & Phau 2011:459). To enhance green purchase intentions, the profile of green products needs to be consistent with the consumer's ideal self-image.

The ideal self-image concept is more prominent in young consumers as they perceive that their behaviour towards the environment carries symbolic functions (Lee 2008:582). Consequently, to market green products to consumers driven by egoistic values, marketers

need to structure value propositions that reinforce these consumers' quest for self-esteem and ideal self-image (Cheah & Phau 2011:459). The added advantage of targeting consumers driven by egoistic values is that they are willing to pay the premium price associated with green products if they perceive that the product image is commensurate with the image sought (Oliver & Lee 2010:97). In this instance, individuals with an egoistic value orientation are more likely to develop green product purchase intentions if perceived personal benefits outweigh the perceived costs (Jansson *et al.*, 2010:360).

Self-transcendence, alternatively known as altruistic values, consists of societal utilitarian factors that drive consumers to make purchase decisions (Barber *et al.*, 2012:282). Individuals with a socio-altruistic value orientation tend to base their green consumer decisions on perceived costs and perceived benefits for the greater good of the society (Jansson *et al.*, 2010:360). Based on altruistic values, social desirability is considered as the motivating factor behind the performance of pro-environmental behaviours (Durif, Roy & Boivin 2012:1). Notably, self-transcendence values are emerging as one of the key drivers of green purchase intentions in contemporary markets, resulting in a new trend of "collaborative consumption" behaviour (Lee 2008:582). Based on self-transcendent values, Mostafa (2009:11031) opines that individuals are likely to assume environmental responsibility if they are aware of the harmful consequences of their behaviour to significant others and the natural environment.

Altruistic values are more prominent in collectivist cultures, where individuals are prepared to subordinate individual goals in order to pursue intra-group goals (Oliver & Lee 2010:97). Determinism characterises collectivist cultures, in which people believe that the will of the group should determine members' beliefs and behaviours (Sarigollu 2009:370). Taking this background into account, the behaviour of collectivist-oriented consumers is driven by injunctive norms, defined as the perceived approval of certain behaviour in a given society (Kim *et al.*, 2012:6). As the environment is more of a collective than an individual matter, consumers with collectivist orientations are presumed to have higher environmental concern than those from individualistic cultures (Sarigollu 2009:370). Additionally, individuals from a collectivist culture are more likely to develop environmentally-friendly attitudes because they tend to demonstrate cooperative behaviour, offer their help promptly to others and give priority to the goals of the group rather than their personal goals (Leonidou *et al.*, 2010:24).

A collectivist orientation tends to support the sustainability agenda owing to its long-term orientation (Oliver & Lee 2010:97). Long-term orientation refers to the prospects, as perceived by an individual, that a society will be in a position to overcome its problems over time (Leonidou *et al.*, 2010:10). By extension, altruistic consumers are biospherically oriented individuals who value nature for its own sake (Soyez 2012:625). It is important to note that biospherically oriented consumers tend to develop enduring attitudes pertaining to the protection of the natural environment and often engage in environmental activism (Sarigollu 2009:378). Through boycotts, protests and civil suits, consumers with an altruistic orientation have the potential to force companies to comply with environmental laws and regulations (Lenox & Eesley 2009:45).

Although values are instrumental in predicting behaviour, values in the domains of self-enhancement and self-transcendence and biospheric values do not exhaust the range of possibilities, particularly if the generational perspective of sustainability is considered (Urien & Kilbourne 2011:71). In addition, the variability of values across markets, coupled with the continued fragmentation of markets, limits the ability of values to predict purchase intentions (Samarasinghe 2012:84). Gupta and Odgen (2009:386) add that the decision to purchase green products presents itself as a social dilemma as consumers are trapped in the continuum of balancing individual and collective consumption objectives, resulting in the values-action gap.

Another challenge is that materialistic values are well institutionalised in young consumers and empirical evidence suggests that materialism is negatively associated with the performance of pro-environmental behaviour (Hurst, Dittmar, Bond & Kasser 2013:265). Materialism is a value structure through which individuals seek personal gratification and symbolic relationships from products (Kilbourne & Pickett 2008:886). As such, consumption induced by materialism in the environmental context is likely to result in resource depletion, pollution and waste (Kilbourne & Pickett 2008:886). Taking into account the shortcomings of values in eliciting pro-environmental behaviour, the influence of beliefs is discussed.

In conjunction with values, environmental beliefs are regarded as influential in fostering purchase intentions. In environmentalism, beliefs are captured as an individual's awareness of the implications of behavioural actions for the environment (Wan, Cheung & Shen 2012:633). Within the VBN Theory, environmental beliefs are formed when an individual is aware of the environmental consequences of his/her behaviour and takes responsibility to

address environmental problems (Nordlund & Garvill 2002:751). Thus, awareness of consequences and ascription of responsibility promote pro-environmental behaviour by alerting individuals to the negative consequences of engaging in behaviours that are detrimental to the environment (De Groot & Steg 2009:426).

Broadly, environmental beliefs are categorised as general and specific (Stern 2000:416). General beliefs are shaped by traditional wisdom that has to do with the relationship between human beings and the natural environment (Stern 2000:416). Environmental beliefs are principally influenced either by the harmony-with-nature orientation or by the anthropocentric mindset (Polonsky 2011:1311). The harmony-with-nature orientation instils a sense of environmental responsibility among individuals and naturally fosters the values of environmental protection (Dietz, Stern & Guagnano 1998:11). An anthropocentric orientation, on the contrary, regards nature as subservient to human needs and often this mindset results in environmental degradation (Polonsky 2011:1311).

Alternatively, specific environmental beliefs concern the extent to which individuals perceive the magnitude and existence of environmental problems such as the threats of climate change, ozone depletion and global warming (Sinnappan & Rahman 2011:131). Environmental concern has the potential to trigger favourable attitudes and purchase intentions towards green products (Dietz *et al.*, 1998:11). In terms of purchase behaviour, Zagata (2012:81) observes that beliefs about the healthiness, safety and environmental performance of green products significantly influence purchase intentions. For example, in most developing economies, economic growth takes precedence over environmental considerations and this has the potential of inhibiting the formation of pro-environmental behaviour (Lee 2008:582). In order to promote the formation of environmental beliefs, Nordlund and Garvill (2003:345) advise marketers to develop green marketing messages that have the potential to generate awareness of the negative environmental consequences of behavioural actions as well as to emphasise the seriousness of environmental problems.

In particular, the awareness of the consequences of individual behaviour on the environment has the potential to stimulate pro-environmental personal norms (Jansson *et al.*, 2011:365). Generally, personal norms are defined as the moral principles that influence an individual to perform or refrain from certain behavioural actions (De Groot & Schuitema 2012:101). In environmentalism, personal environmental norms imply the intrinsic drive by individuals to

engage in behavioural actions that enhance the well-being of the environment (Wan *et al.*, 2012:633).

In relation to green purchase behaviour, environmental norms are considered as drivers of green product purchase intentions. For example, it has been reported that personal environmental norms induce the purchase of organic food (Thøgersen 2009:173; Minton & Rose 1997:40) and the willingness to pay the premium associated with green products among consumers (Nordlund & Garvill 2002:753). It can be inferred, therefore, that the activation of environmental personal norms is central to promotion of pro-environmental behaviour. Based on the preceding discussion, The VBN Theory illustrates how values, beliefs and norms influence behavioural intentions, as shown in Figure 3.1.

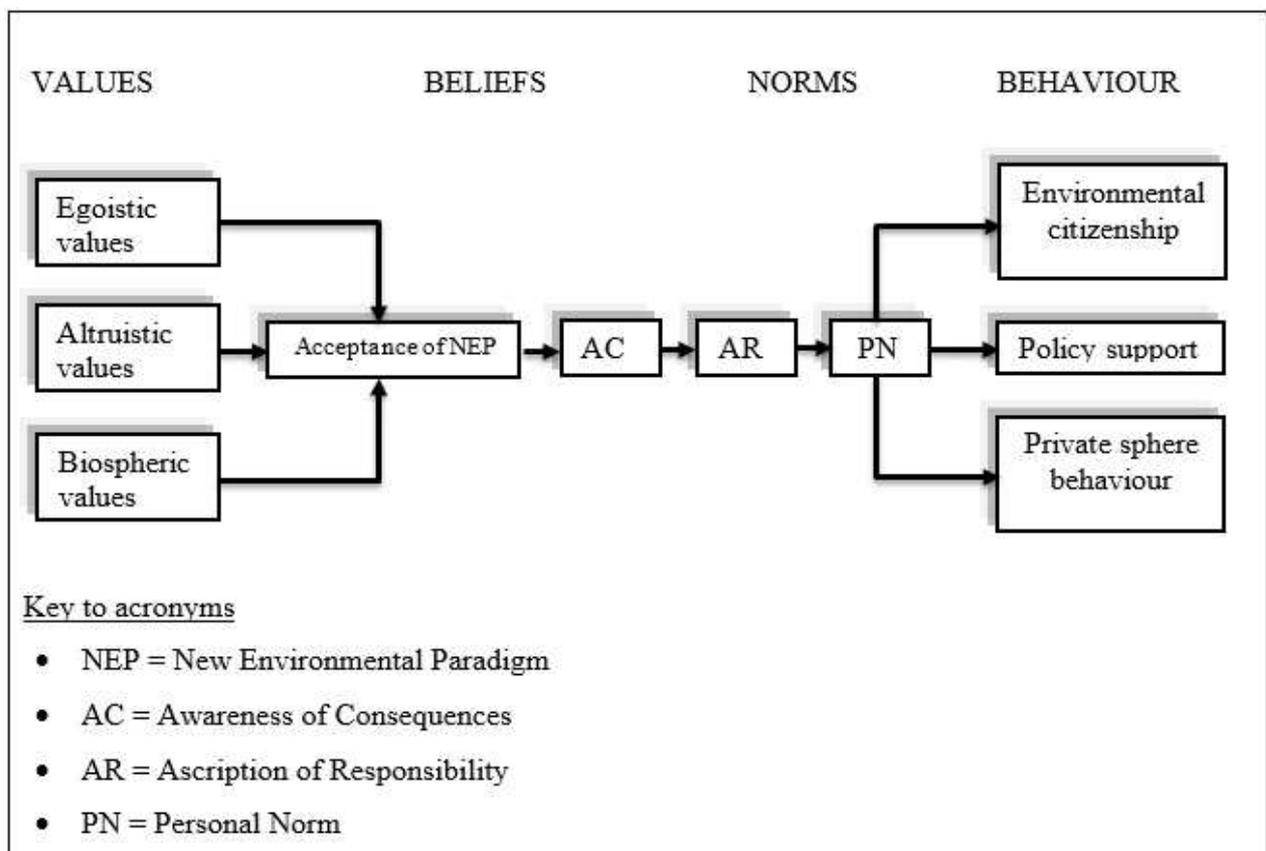


Figure 3.1 Values Beliefs Norms Theory

Source: Stern, Dietz, Abel, Guagnano and Kalof (1999:85).

Based on the foregoing discussion, the continued existence of the value-action and belief-behaviour gaps implies the limitations of values, beliefs and norms in promoting pro-environmental behaviour. In an attempt to understand the antecedents of green purchase

behaviour, another attitudinal factor, environmental concern, is discussed in the following section.

3.3.2.3 Environmental concern

Fundamental to green consumer behaviour research is the influence of environmental concern on purchase intentions (Rehman & Dost 2013:104). Consumers who exhibit high levels of environmental concern are presumed to develop favourable purchase intentions towards green products (Kim & Choi 2005:596). It is also important to note that consumers who exhibit higher levels of environmental concern are more receptive to green marketing messages than those with lower levels of environmental concern (Kong & Zhong 2013:432).

Environmental concern is identified as the dominant attitudinal factor that influences pro-environmental behaviours (Tantwi, O'Shaughnessy, Gad & Ragheb 2009:36) and drives consumer values and lifestyles towards the consumption of green products (Lu *et al.*, 2013.5). Environmental concern is defined as the emotional attachment of an individual to the welfare of the environment (Yeung 2004:101).

Although environmental concern is regarded as the foundation of pro-environmental behaviour, it appears to have made little discernible impact on consumers' green purchase behaviour (Albayrak *et al.*, 2011:194). For instance, the apparent failure of environmental concern to stimulate actual purchase behaviour is unanimously acknowledged in extant literature (Datta 2011:124; Park & Ha 2011:389; Paco & Raposo 2009:435). Pickett-Baker and Ozaki (2008:282) noted that the incongruence between environmental concern and purchase behaviour could be a result of the conflict between immediate consumer needs and collective societal interests. Ali and Ahmad (2012:95) add that, although consumers are environmentally concerned, the overall purchase decision tends to be a function of both psychographic, group and environmental factors.

The mixed views on the influence of environmental concern on green purchase behaviour present a challenging marketing environment for green products (Gupta & Ogden 2009:376). Taking account of this background, Oliver and Lee (2010:97) suggest that the green purchase behaviour is likely to be a function of group factors.

3.4 GROUP FACTORS

Green buyer behaviour researchers Zander, Stolz and Hamm (2013:133), Lee (2011:306), and Oliver and Lee (2010:97) identify cultural orientations, ethical ideologies and social influences as the main group factors that influence the performance of pro-environmental behaviours. A discussion of the influence of these group factors follows.

3.4.1 Cultural orientations

The influence of cultural orientations on pro-environmental behaviour has been researched extensively in green marketing literature (Chan & Lau 2000:340; Griskevicius *et al.*, 2012:118; Vess & Arndt 2008:1376). Culture is defined as a set of norms, beliefs and values that act as fundamental determinants of an individual's behaviour (Kotler & Keller 2012:173). The seminal work of Kluck and Strodtbeck (1961:3) classified cultural orientations into five dimensions, namely man-nature orientation, man-himself orientation, relational orientation, past-time orientation and activity orientation. Of particular interest in this study is the man-nature orientation that determines the relationship between human beings and the natural environment (Chan & Lau 2000:340).

The main elements within the man-nature orientation that influence human beings' relationship with the natural environment are mastery-over-nature and harmony-with-nature (Griskevicius *et al.*, 2012:118). The harmony-with-nature orientation refers to the mutual interdependence of human beings and the natural environment with the aim of achieving human objectives while maintaining ecological balance (Brecard *et al.*, 2009:117). For instance, India's Ayurvedic heritage considers land (Prithvi), water (Jal), Air (Vayu), and nature (Prakriti) as protectors of human beings (Jagale & Dalvi 2013:123), while the Chinese are inspired by the Taoist philosophies on environmental protection (Chan & Lau 2000:340).

The man-nature orientation is consistent with ecocentric attitudes and, to enhance green purchase intentions, marketers need to structure green marketing mix strategies in such a way that a balance between organisational and environmental needs is attained (Rehman & Dost 2013:105). The mastery-over-nature orientation, on the other hand, implies that human beings are naturally ordained to reign supreme over the natural environment in order to satisfy their needs (Rehman & Dost 2013:105). The mastery-over-nature orientation supports the anthropocentric environmental attitude and it is the perpetuation of this mindset that has resulted in exploitation of the environment (Husted *et al.*, 2013:3). To address the mastery-

over-nature mindset and enhance environmental sustainability, Chan and Lau (2000:349) stressed the importance of considering the natural environment as a strategic partner bestowed with rights, including protection from human exploitation.

Although cultural orientations have the ability to foster pro-environmental behaviour, their effectiveness tends to be limited by diverse cultural sets among markets, given the global scale of the concept of sustainability (Oliver & Lee 2010:97). For instance, cultural anthropologist Becker (1971:114) noted the conflict between indigenous and modern culture, with the former centered on environmental preservation and the latter focused on conspicuous consumption. Specifically, differences in consumption, power, economic growth, cultural borrowing and assimilation, convergence of markets and technological advances tend to affect the way consumers respond to their relationships with nature (Oliver & Lee 2010:97). Considering the inherent shortcomings of cultural orientations, Chan, Wong and Leung (2008:469) suggested the application of ethical practices to understand pro-environmental behaviour.

3.4.2 Ethical ideologies

Traditionally, the consumption of green products, especially the organic fair-trade labelled products, has been driven by ethical considerations (Dowd & Burke 2013:143; Zander, Stolz & Hamm 2013:133). Ethical debates in the context of green marketing are centred on the need to appreciate that it is morally wrong to deplete the natural environment (Garcia-Rosell & Moisaner 2008:211). With regard to buyer behaviour, ethical orientations are presumed to be effective in stimulating ethical consumerism (Zander *et al.*, 2013:133). The main ethical concerns that influence purchase intentions towards organic food are summarised in Table 3.3.

Table 3.3 Ethical considerations influencing green purchase intentions

Ethical dimension	Ethical indicators
Social issues	Fair and safe methods of food production
Environmental	Protection and enhancement of the natural environment
Economic issues	Fair prices and financial incentives for consumers and manufacturers of green products

Source: Zander, Stolz and Hamm (2013:139).

The three major approaches to environmental ethics are utilitarian, deontological and legal compliance (Chan *et al.*, 2008:469). The utilitarian orientation contends that the moral integrity of an action depends on its consequences (Garcia-Rosell & Moisander 2008:211). From the utilitarian perspective, the protection of the environment is deemed necessary if it offers the greatest good to the society (Leonidou *et al.*, 2010:22). To appeal to utility-driven consumers, marketers need to reinforce the benefits of environmental protection (Chan *et al.*, 2008:479). The major weakness of the utilitarian approach is that it perpetuates the notion that the environment is subject to human needs, resulting in more environmental exploitation (Polonsky 2011:1311).

The deontological ethical approach focuses on evaluation of whether the behaviour intention or consequences of a given behavioural act are right or wrong (Chan *et al.*, 2008:469). The deontological approach is based on the notion that the environment has a right to be treated with respect and human beings have a moral obligation to enhance the well-being of the environment (Garcia-Rosell & Moisander 2008:211). In this regard, Sheth, Sethia and Srinivas (2011:21) proposed the concept of “mindful consumption” to emphasise the responsibility of consumers to promote and engage in sustainable consumption behaviours. A deontological individual is one that adheres to a set of behavioural principles that enhance personal and environmental obligations (Leonidou *et al.*, 2010:13). In this way, respecting rights and fulfilling duties pertaining to the environment result in the development of pro-environmental consumer attitudes (Garcia-Rosell & Moisander 2008:212).

The other ethical orientation is law obedience, which is defined as the expectation that human beings comply with national laws (Leonidou *et al.*, 2010:13). Law obedience, also known as compliance marketing, is one of the main reasons why marketers are adopting green practices (Sinnappan & Rahman 2011:129). Specifically, environmentally related legislation has grown steadily in recent decades with the aim of regulating consumer and organisational environmental behaviours (Leonidou *et al.*, 2010:13). A law-obedient consumer or corporate citizen is one who accords respect to environmental laws and assumes the responsibility of condemning organisations that do not comply with environmental laws (Leonidou *et al.*, 2010:13).

In South Africa, The National Environmental Management Act of 1998 (NEMA) provides the legal framework to guide and monitor environmental behaviour (RSA 2010:31). Specifically, the key principles of NEMA of 1998 include the need for public engagement in

environment management, protection of sensitive environments and the enforcement of the “polluter must pay” concept (Tyrrell 2012:81). Although major advances have been made in the development of the environmental management regulatory framework in South Africa, these have not been supported by effective implementation and enforcement (Gosling 2012:5). For instance, the Environmental Management Inspectorate (Green Scorpions) in South Africa has been criticised for being lethargic, ineffective and disorganised and failing to enforce environmental laws (Gosling 2013:5). The extent of environmental law disobedience in South Africa is apparent as the big corporates such as Eskom, BHP Billiton, ArcelorMittal and Silicon Smelters are cited as main defaulters (Gosling 2012:5).

At global level, environmental law disobedience is mirrored by the apparent lack of commitment by national governments to comply with international environmental treaties (Hale 2011:91). For instance, the United States of America refused to sign the Kyoto Protocol and the 2010 Copenhagen Summit and, more recently, the COP 17 failed to solicit a common agreement on the management of greenhouse gases (Hale 2011:89). Additionally, China and the United States effectively blocked the G2 leadership debate on climate change (Tyrrell 2011:46). This background of lack of political will to comply with inter-governmental environmental initiatives prompted Hale (2011:91) to suggest that such behaviour is likely to be replicated at corporate and individual levels, resulting in the solution to environmental problems being elusive.

3.4.3 Social influence

Social influence, also known as subjective norm, is another integral component of the Theory of Reasoned Action; it refers to the influence of social pressure on behaviour intention (Ajzen 1991:188; Kim & Chung 2011:42). Subjective norm is a function of perceived expectations by individuals or groups who are important to the individual and the motivation to comply with their expectations (Ajzen 1991:181). In the context of green purchase behaviour, social influence is regarded as a proxy for subjective norm (Wahid *et al.*, 2011:45). Social influence, also known as interpersonal influence, consists of the power of persuasion to solicit desirable behaviours (Cheah & Phau 2011:456). For example, Ottman (2010:10) notes that consumers are strongly influenced by the recommendations of friends, family and trusted third parties when making purchase decisions. Where social influence is high, pro-environmental behaviour forms part of a social norm and individual behaviour is primarily influenced by engaging in pro-social behaviours (Jansson *et al.*, 2010:369).

The effect of social influence explains why green purchase behaviour is considered as altruistic behaviour with pro-social norms, awareness of behavioural consequences and ascription of responsibility as its antecedents (Wan, Cheung & Shen 2012:633). This resonates with the view of Aertsens *et al.* (2009:17) that social norm and personal norm improve the explanatory power of consumers' pro-environmental behaviours. The strong power of social influence suggests a possible group effect in environmental behaviour, a trend more noticeable in young consumers (Lee 2009:92). This view may prove useful in inducing green purchase behaviour among young consumers, given their propensity for sharing information on social networks.

However, it is worth noting that studies on the effect of social influence on green purchase behaviour have produced largely fragmented results (Jamilah *et al.*, 2012:87; Wahid *et al.*, 2011:40) In particular, Cheah and Phau (2011:453) note that the effect of social influence tends to vary within the cultural domains of collectivism and individualism. Given this background, Lee (2011:302), Zhu, Li and Qi (2013:280) contend that environmental factors profoundly influence green purchase behaviour.

3.5 ENVIRONMENTAL FACTORS

The main environmental factors that are presumed to be influential in fostering pro-environmental behaviours are media exposure, green atmospherics and government influence (Chan & Lau 2000:340; Lee 2011:301; Kreidler & Joseph-Mathews 2009:229; Sinnappan & Rahman 2011:132). A discussion of these factors follows.

3.5.1 The role of media exposure

Recent studies have revealed that repeated exposure to environment-related media messages promotes pro-environmental behaviours (Do-Paco & Reis 2012:147). The media focus on climate change, global warming and sustainable development reflects a transition towards sustainability-oriented communications (Biloslavo & Trnavcevic 2009:1169). In particular, the media act as a socialising agent by enforcing environmental norms in the target audience (Chan 1999:85; Good 2006:198), thus playing a strategic role in generating environmental awareness and engendering a sense of environmental consciousness among consumers (Lee 2011:302).

In the context of green marketing, media exposure refers to the rate at which environmental issues are given prominence in media coverage (Qader & Zainuddin 2011:244). Of particular concern, however, is the observation by Smith and Brower (2012:539) that the media tend to be preoccupied with depicting corporate goals as being at odds with environmental goals. As the environmental debate continues to unfold, television programmes, Internet-based social media, films, newspaper articles and documentaries with ecological themes are becoming more popular (Lee 2011:306). Globally, mass media campaigns are emerging as popular policy tools used to influence government and public opinion on environmentalism (Sampei & Aoyagi-Usui 2009:203).

Media coverage of environmental issues is deemed to be instrumental in the formation of environmental values, knowledge and perceptions (Lee 2011:301; Lee 2009:96). A typical example is that of Al Gore's seminal work *An Inconvenient Truth*, which contributed significantly to generating public awareness on the dangers of global warming and climate change (Peattie, Peattie & Ponting 2009:271). Globally, other popular environmental campaigns to dominate the media include "Green is Universal", "Green Done Right" and the "Seven Whole Grains on a Mission" (Ottman 2011:13).

In South Africa, environmentally focused organisations such as the Centre for Environmental Rights and Global Carbon Exchange provide environmentally focused communication to the public (Tyrrell 2011:328). Increased environmental awareness in South Africa has resulted in enhanced public participation in initiatives for environment enhancement such as the "Collect a Can" and National Recycling Forum spearheaded by the Indalo Yethu (Go Green) Campaign (Tyrrell 2011:342). Globally, the transition of the media to a green outlook is manifested by the emergence of eco-cable channels such as the Discovery Channel, Planet Green and Sundance, among others, targeting the environmentally conscious viewership (Ottman 2011:13). In South Africa, environmental programmes such as 50/50 have influenced environmental policy and have helped to create a stronger awareness of environmental issues (RSA 2012:12). Additionally, the newspaper Business Day, through its partnership with Nedbank and GreenEdge Communications, trains companies on how to green their businesses (Tyrrell 2011:1).

As environmentalism continues to gain media profile, the Internet, because of its interactive nature, is fast emerging as the preferred media choice for green product communication (Ottman 2011:13). Websites such as Discovery's treehugger.com and greenamerica.org

contribute immensely to a pool of green knowledge (Ottman 2011:13). Since Generation Y is susceptible to Internet-based messages, it is important to create supportive social and media environments to promote environmental behaviour among young consumers (Lee 2009:306).

Other than being a communication platform, the social media are also emerging as a podium for environmental activism (Greenpeace International 2011:3). A case in point is that of Greenpeace's 2010 campaign "Give The Orangutan a Break" directed at Nestlé for its use of palm oil from Sinar Mas, a company known for deforestation of Indonesia's tropical rainforests (Nothhaft & Akerstrom 2012:14). The campaign resulted in behavioural boycotts of Nestlé products and subsequently in Nestlé committing itself to investing in sustainable supply chain systems (Nothhaft & Akerstrom 2012:22).

Although the media have great potential to raise public awareness on environmental issues, it is often a challenge for marketers to convince consumers that any communication they undertake in relation to climate change represents a genuine commitment to sustainability (Peattie *et al.*, 2009:276). For instance, Peattie *et al.* (2009:276) note that media efforts to promote pro-environmental behaviour are usually negated by the persistent failure to trigger behavioural intentions that result in actual purchase behaviour. Moreover, communicating effectively with consumers about climate change presents a targeting challenge due to considerable differences among consumers in their levels of environmental concern (Sampei & Aoyagi-Usui 2009:204). For example, media messages are focused mostly on how the public perceives the issue of climate change rather than on stimulating pro-environmental behaviour among the target audience (Sampei & Aoyagi-Usui 2009:204). In addition, Lee (2008:582) notes that the extensive coverage of the seriousness of environmental problems tends to desensitise young consumers' attitudes towards the environment. To enhance the effectiveness of sustainability communication, Qader and Zainuddin (2011:244) suggest that media messages need to be coordinated, integrated and scientifically oriented.

Given the challenges associated with media exposure in enhancing pro-environmental behaviour, Kreidler and Joseph-Mathews (2009:235) hypothesise that green atmospherics are more effective in stimulating pro-environmental behaviour.

3.5.2 Green atmospherics

As the final loop in the marketing of green products, the physical environment of retail outlets plays a significant role in shaping green purchase intentions (Tsarenko, Ferraro, Sands

& McLeod 2013:308). In the context of green marketing, the term “green atmospherics” emanated from the realisation that sustainability is more than the development of green products but encompasses the integration of green values into the value mix (Joseph-Kreidler & Mathews 2009:229). To this end, retailers globally are implementing initiatives that include green infrastructure, green operations and green supply chain systems to enhance their green image (Sinha 2011:1). From the consumer’s perspective, an ideal retail environment is one that is physically appealing, socially supportive, symbolically welcoming and naturally gratifying (Rosenbaum & Massiah 2011:483).

In the context of green purchase behaviour, the term green atmospherics is employed to refer to the deliberate effort of designing retail environments that enhance the probability of green product purchase (Kreidler & Joseph-Mathews 2009:233). Specifically, marketers utilise atmospherics to manipulate the physical retail environment with the objective of inducing specific cognitive and affective response behaviours (Batra & Kazmi 2008:456). In virtual digital markets, retailers use the Internet to create a visual atmosphere by incorporating graphics, colours, layout, content and interactivity (Batra & Kazmi 2008:456). In marketing communications, atmospheric-oriented stimuli are regarded as effective in enhancing or constraining consumer approach and avoidance behaviours, a quality that is more predominant in young consumers (Parish, Berry & Lam 2008:234).

In the context of green purchase behaviour, Kreidler and Joseph-Mathews (2009:235) observed that green consumers demonstrate stronger approach behaviours to green environments than non-green ones. It is important, however, to understand that green atmospherics does not consist only of objective, measureable and manageable variables but also encompasses subjective social, symbolic and natural stimuli that influence customers’ interaction with the retail environment (Rosenbaum & Massiah 2011:471). In particular, consumers perceive green environments as physical interpretations of the company’s commitment to enhancing the well-being of the environment (Kreidler & Joseph-Mathews 2009:235). Zeithaml, Bitner and Gremler (2009:331) identified ambience, design and social factors as the main atmospheric components that influence consumer buyer behaviour.

3.5.2.1 Ambience factors

The ambience dimension encompasses observable and measurable stimuli, controllable by the firm, to enhance or constrain consumer interface (Zeithaml *et al.*, 2009:331). Ambient

conditions include visual, aesthetic cleanliness, olfactory and auditory elements (Oakes, Patterson & Oakes 2013:42). Green atmospherics are also construed as a demonstration of the commitment of the company to integrate green marketing principles as part of their operating philosophy (Grayson & McNeil 2009:517). From a green operations perspective, the efficient use of energy, the use of renewable energy and energy star ratings are some of the most utilised green cues (Kreidler & Joseph-Mathews 2009:236).

Green ambience factors are complemented by design and layout elements such as the interior and exterior furnishings (Pareigis, Echeverri & Edvardsson 2012:679). The trend towards green atmospherics resulted in green building design (Kreidler & Joseph-Mathews 2009:229). A green building is one whose design and operating life assures a positive contribution to the environment through efficient use of land, water and energy (Pareigis *et al.*, 2012:679). The Leadership in Energy and Environmental Design (LEED) provides the best green design option as it results in compliance with standards pertaining to water management, energy conservation and material usage (Kreidler & Joseph-Mathews 2009:229). Green design is predicted to enhance good corporate image and brand equity and results in cost savings due to energy consumption reductions (Kreidler & Joseph-Mathews 2009:242). Based on the foregoing discussion, the most popular green cues are summarised in Table 3.4.

Table 3.4 Green ambience factors

Atmospheric variable	Traditional cue	Green cue	Environmental implications
Ambient factors	Lighting	<ul style="list-style-type: none"> • Energy star rating • Day lighting • Optimisation of energy • Use of renewable energy sources 	<ul style="list-style-type: none"> • Energy conservation • Reduction of carbon and ecological footprint
	Cleanliness	<ul style="list-style-type: none"> • Biodegradable cleaning agents • Recycling • Composting 	<ul style="list-style-type: none"> • Reduction of carbon and ecological footprint
	Noise	<ul style="list-style-type: none"> • Use of appropriate insulation and acoustic barriers 	<ul style="list-style-type: none"> • Energy conservation • reduction of carbon footprint
	Air quality	<ul style="list-style-type: none"> • Reduction in chlorofluorocarbons • Insulation use • Use of renewable energy • Use of thermal power 	<ul style="list-style-type: none"> • Energy conservation • Reduction in carbon footprint

Source: Chun and Giebelhausen (2012:401); Kreidler and Joseph-Mathews (2009:236).

3.5.2.2 Green design

Contemporary green design incorporates the retail greening concept known as biophilic store design (Joye, Willems, Brengman & Wolf 2010:58). Biophilia is defined as the inborn emotional attachment of humans to the natural environment (Joye *et al.*, 2010:58). Given the background of the depletion of the natural environment and the trend towards urbanisation, biophilic store designs are expected to gain relevance as they allow consumers to reconnect with Mother Nature (Joye *et al.*, 2010:58).

To extend the relevance of biophilic store designs, consumers who seek a psychological escape from their everyday lives might also be influenced by the retail outlet's natural dimension (Rosenbaum & Massiah 2011:483). For instance, biophilic store designs tend to mitigate the discomfort, negative mood and stress that are common in retail settings (Joye *et*

al., 2010:58). Globally, the market appeal of biophilic store designs has resulted in the emergence of environmentally themed restaurants such as the Rainforest Café restaurant chain (Rosenbaum 2009:177). Green cues mostly used in retail design and layouts are shown in Table 3.5.

Table 3.5 Green design cues

Atmospheric variable	Traditional cue	Green cue	Environmental implications
Green design	Architecture	<ul style="list-style-type: none"> • Responsible use of materials • Percentage of recycled content • Use of renewable materials • Biophilic design 	<ul style="list-style-type: none"> • Environmental sustainability • Reduction of carbon and ecological footprint • Favourable environmental attitudes
	Colour	<ul style="list-style-type: none"> • Responsible use of material • Use of recycled content • Off-gassing 	<ul style="list-style-type: none"> • Reduction of carbon footprint • Environmental sustainability
	Lighting	<ul style="list-style-type: none"> • Energy star ratings • Optimisation of energy • Renewable energy resources 	<ul style="list-style-type: none"> • Reduction of carbon footprint • Environmental sustainability

Source: Ling (2013:1450; Rosenbaum (2009:177), Kreidler and Joseph-Mathews (2009:236).

Although ambience and design factors are important, marketers must also realise that the green product buying process constitutes a social interaction between the consumer and the retailer's social environment (Kreidler & Joseph-Mathews 2009:239).

3.5.2.3 Social factors

The social factors, aptly termed the “social servicescape,” encompass consumer interactions with the servicescape, consumer-to-consumer interaction and interaction with employees (Pareigis *et al.*, 2012:678). For instance, consumers that seek social value are more likely to respond to a company’s socially symbolic servicescape (Rosenbaum & Massiah 2011:483). To consumers, the interaction of the company with its physical environment portrays its level of environmental conscientious, as shown by participation in environmental enhancement initiatives such as recycling (Kreidler & Joseph-Mathews 2009:239). In their roles as “Directors of First Impressions” and “Managers of Moments of Truth”, employees must demonstrate that they embrace sustainability values in their daily operations (Kreidler & Joseph-Mathews 2009:240).

Table 3.6 Green social factors

Atmospheric variable	Traditional cue	Green cue	Environmental implications
Social	Community relations	<ul style="list-style-type: none"> • Recycling programmes • CSR programmes • Community outreach • Volunteering 	<ul style="list-style-type: none"> • Energy conservation • Reduction of carbon and ecological footprint • Environmental sustainability
	Employee-to-customer relationship	<ul style="list-style-type: none"> • Green team • Green culture • CSR efforts • Sustainability communication 	<ul style="list-style-type: none"> • Reduction of carbon and ecological footprint • Environmental sustainability
	Customer-to-customer relationship	<ul style="list-style-type: none"> • Use of appropriate insulation and acoustic barriers 	<ul style="list-style-type: none"> • Energy conservation • Reduction of carbon footprint

Source: Rosenbaum and Massiah (2011:473); Kreidler and Joseph-Mathews (2009:240).

Based on the foregoing discussion, it can be surmised that green atmospherics have the potential to increase green purchase intentions, corporate image and brand loyalty (Ling 2013:14505). Green atmospherics further provide a differential competitive advantage for the organisation (Kreidler & Joseph-Mathews 2009:241). Although atmospherics may be

influential in enhancing the uptake of green products, the effect of atmospherics is highly subjective; hence, in designing the retail environment, marketers must understand the expectations of the target market (Ling 2013:14505).

As a marketing tool, atmospherics are important only if they result in customer satisfaction and retention (Rosenbaum & Massiah 2011:483). Marketers need to realise that in some instances atmospherics are likely to reduce consumer satisfaction if they are interpreted unfavourably by consumers (Robinot & Giannellani 2010:164). This realisation presents marketers with a dilemma as to whether to communicate their green atmospherics to consumers or not (Robinot & Giannellani 2010:164). Overall, however, governments set the tone for promoting pro-environmental behaviour by formulating environmental policies and regulations (Caird, Sally, Roy, Robin, Herring & Horace 2008:161).

3.5.3 Government influence

Globally, national governments influence the adoption of green marketing strategies through the formulation of environmental regulations, environmental awareness and financial interventions such as tax concessions and incentives (Nath, Kumar, Agrawal, Gautam & Sharma 2014:514). By virtue of being the biggest customer in industrial markets the government has the ability to insist on environmental compliance as a pre-condition for conducting business with its suppliers (Belz & Peattie 2009:129).

In South Africa, the National Climate Change Response Policy of 2010 represents a bold attempt by the government to address environmental problems through risk reduction, integrated planning and green technology research (Tyrrell 2011:89). In addition, the Constitution of 1996 and the National Environment Management Act of 1998 provide the legal framework for addressing environmental problems (RSA 2010:5). For instance, Section 24 of the Constitution of the Republic of South Africa (1996:1251) states that: “Everyone has a right to an environment that is not harmful to their health or well-being and to have the environment protected, for the benefit of present and future generations”.

To address climate change, the South African government further committed itself to reducing greenhouse gas emissions by implementing a Carbon Tax Policy with effect from 1 January 2015 and rolling out the Carbon dioxide Capture Project (RSA 2011:32). Specifically, the carbon tax will be calculated at the rate of R120 per ton of carbon dioxide emitted in 2015 and will be increased by 10 percent annually until 2020 (Tyrrell 2011:95). In

addition, the transition to a low-carbon economy is premised on reducing the carbon footprint through the implementation of policies that unlock energy efficiency potential and the introduction of technology policies that result in long-term decarbonisation (RSA 2011:32). By implementing carbon tax, the South African government envisages a reduction in greenhouse gas by 34 percent by 2020 and a further 42 percent by 2025 (Tyrrell 2011:45). The South African government's drive towards a green and low-carbon economy is managed under the auspices of the Industrial Development Corporation and the Department of Environmental Affairs' Green Fund (RSA 2008:5).

It is important to note, however, that there is a significant gap between developing and developed countries in terms of engaging in pro-environmental behaviours (Tantawi *et al.*, 2009:29). For instance, in developed countries such as America, sustainability is a key value among consumers whereas in developing countries consumers are motivated to perform pro-environmentally mainly by incentives (Caird *et al.*, 2008:159). It is also worth noting that government response to environmental problems in developing countries depends on the need to balance economic growth, population growth, climate change funding and availability of green technology (Tyrrell 2011:45). Although the International Organisation for Standardisation 14063-3 provides a benchmark for carbon footprint verification, carbon footprint calculation and disclosure remain a challenge in most developing countries (Polonsky 2011:1316). Despite the strategic role of the government in promoting pro-environmental behaviour, Roberts and Bacon (1997:89) singled out the lack of commitment by national governments to the enforcing of environmental regulations as one of the main deterrents to the adoption of pro-environmental behaviours.

3.6 CHAPTER SUMMARY

The surge in environmental problems is redirecting consumer buyer behaviour and the marketplace towards a green outlook. The Shades of Green segments and the Lifestyles of Health and Sustainability are the main approaches employed to define green market segments. The variations in demographic and psychological variables across markets challenge attempts to have a truly homogeneous green market segment. In terms of green purchase behaviour, environmental attitude, environmental concern, social influence, government influence, cultural and ethical orientations and media exposure are identified as the main factors that influence green product purchase intentions.

The overriding viewpoint to emerge from the literature reviewed is that antecedents of green purchase behaviour tend to vary among global markets. The contrasting views on the antecedents of green buyer behaviour are replicated by the existence of gaps between environmental concern and purchase behaviour, and purchase intentions and actual purchase behaviour. In an attempt to understand the underlying causes of the gap between purchase intention and actual purchase behaviour, the next chapter discusses the selection attributes of Generation Y consumers.

CHAPTER 4

SELECTION ATTRIBUTES OF GENERATION Y CONSUMERS

4.1 INTRODUCTION

The preceding chapter identified green consumers as central to the practice of green marketing. It also documented the growth in green products as a mega-trend in contemporary markets. The chapter additionally presented green purchase behaviour as an imperative for achieving sustainable development. It also characterised the promotion of pro-environmental behaviours as a complex process with notable variations in antecedents of green buyer behaviour across global markets. Notwithstanding these complexities, academic insights are converging in acknowledging green consumption as a significant tool for enhancing sustainable development (Saleki & Seyedsaleki 2012:101).

In the marketplace, however, it appears that green purchase behaviour, as manifested by the gap between green purchase intention and actual purchase behaviour, is an enigma (Barcellos, Krystallis, Saab, Kugler & Grunert 2011:391). In an apparent paradox, the intention-behaviour gap continues to exist despite growing evidence that suggests a surge in environmental attitude and concern among consumers (Wahid, Rahbar & Tan 2011:38). Initially, the exponential growth in environmental concern among consumers was a welcome reprieve to environmental policy makers, who were traditionally guided by the maxim that states that: “If consumers understand the environmental consequences of their consumption patterns, through their market choices they will put pressure on manufacturers to move towards sustainable production methods” (Akenji 2014:13). Mindful of the preceding axiom, the primary focus of policy makers was to initiate programmes aimed at stimulating pro-environmental behaviour in the marketplace (Jamilah *et al.*, 2012:84).

A major noticeable outcome of the plethora of pro-environmental initiatives by policy makers was the emergence of a trend towards the adoption of sustainable consumption patterns, which was touted as the strategic response to environmental problems (Kanchanapibul, Lacka, Wang & Chan 2013:1). Sustainable consumption, also known as green consumption (Elliot 2013:294), refers to consumption behaviour that is aimed at meeting the needs of the present generation without compromising the ability of future generations to satisfy their own

needs (Leary, Vann, Mittelstaedt, Murphy & Sherry 2013:2). The growth in environmental concern and the expected bandwagon effect among consumers in the adoption of sustainable consumption patterns prompted marketers to launch an assortment of green products, targeting the emerging environmentally conscious market (Mazar & Zhong 2010:494; Smith 2010:437). According to Chen (2008:272), the surge in environmental concern among consumers was naturally presumed to constitute a unique selling proposition for green products. In particular, it was posited that the integration of sustainability attributes in conventional products would significantly stimulate the purchase of green products (De Boer, Helms & Aiking 2006:272).

As green products entered the mainstream market, marketers were awakened to the existence of the “green paradox” (Logoni, Gollwitzer & Oettingen 2014:158). The green paradox emanated from the mismatch between the demand for green products and the reported increase in environmental concern among consumers (Tseng & Hung 2013:181). In particular, green products fail to achieve the expected level of market success (Kalamas, Cleveland & Laroche 2013:1). For instance, Van Doorn and Verhoef (2011:167) observe that the market appeal of green products appears to be highly polarised in major markets, with empirical evidence suggesting that green products seem to play second fiddle to conventional ones. In addition, Tseng and Hung (2013:181) note that the sales of green products appear to be trending downward. Apart from the meagre sales of green products, there are also prevailing controversies in the marketplace associated with green products, including quality, taste and the integrity of environmental labels, which tend to have a negative effect on the adoption of green products (Durif *et al.*, 2010:25). Given this background, Buder, Feldmann and Hamm (2012:390) are of the view that the key question for marketers is: “Why do regular buyers of organic food still buy many conventional products?”

As green products continue to be outpaced by conventional products, marketers observed the existence of a “green wall” in the marketplace (Gleim, Smith, Adrews & Cronin 2013:44). The green wall manifests itself by way of low market shares of green products relative to non-green products (Rousseau & Vranken 2013:31). In an apparent confirmation of the existence of the green wall, Luchs, Naylor, Irwin and Raghunathan (2010:18) coined the term “sustainability liability” to refer to the challenges faced by green products in the marketplace. The complementary work of Chang (2011:28) also suggests that consumers are ambivalent towards green products, implying that green products are not generating a consistent market

response from consumers. What also appears to reinforce the green wall is the lack of consensus among green marketing proponents on what constitutes a green product (Pickett-Baker & Ozaki 2008:290).

Taking the above into account, Vermeir and Verbeke (2008:543) contend that the main challenges confronting marketers include re-conceptualising the definition of green products and understanding the extent to which consumers turn their environmental concern into actual purchase behaviour. According to Leary *et al.* (2013:1), an implicit challenge in promoting sustainable consumption is the need to understand the role of environmental concern in shaping green purchase intention. In particular, marketers are faced with the challenge of delineating the consideration set that influences consumers to buy or not to buy green products (Lu *et al.*, 2013:3). According to Hawks, Winterich and Naylor (2013:6), the gap between environmental concern and purchase behaviour may be attributed to the differences among consumers in the value they attach to environmental protection in consumption settings.

The lukewarm reception of green products and the existence of the green wall suggest the prevalence of barriers to green consumption (Gleim, Smith, Adrews & Cronin 2013:44). To pull down the green wall, Husted, Russo, Meza and Tilleman (2013:2) advised marketers to understand the attributes of green products that are considered important by consumers. Welsch and Kuhling (2009:166) also stressed that the identification of attributes that are valued by consumers is an important pre-condition for understanding the factors necessary for the adoption and diffusion of green products. This is particularly important in fostering demand for green products among the notoriously fickle Generation Y consumers (Lazarevic 2012:45). Given this background, consumption values and contextual factors are considered to be the main components informing the consideration set of consumers when making green product purchase decisions (Lin & Huang 2012:11; Zhu *et al.*, 2012:279).

Based on the foregoing insights, the present chapter discusses the selection attributes of Generation Y consumers in the context of green products. The chapter attempts to shed more light on the attributes of green products that are valued by consumers. The Theory of Consumption Values proposed by Sheth, Newman and Gross (1991) provides the theoretical foundation for the discussion of the underlying factors that enhance or inhibit the purchase of green products.

4.2 THE THEORY OF CONSUMPTION VALUES AND SELECTION ATTRIBUTES

Today's marketplace is undergoing a metamorphosis in consumption patterns, driven in part by the surge in environmental consciousness (Tsakiridou, Boutsouki, Zotos & Zotos 2008:158). Within this metamorphosis is the emerging, highly profitable Generation Y cohort that has been nurtured in a marketing environment where consumption decisions assume a sustainability dimension (Pomarici & Vecchio 2013:1). At the forefront of the shift in consumption patterns towards a sustainability perspective are consumers' value orientations (De Groot & Steg 2008:340). Value orientations are theorised as powerful drivers that influence purchase behaviour, lifestyle formation and product choice (Werff, Steg & Keizer 2013:55). In general, values are defined as enduring beliefs that shape human behaviour (Pickett-Baker & Ozaki 2008:281). In consumer buyer behaviour theory, values play a pivotal role in explaining the relationship between behavioural intentions and actual purchase behaviour (De Groot & Steg 2008:347).

In the context of green purchase behaviour, Hawks *et al.* (2013:2) employed the term "green consumption values" to refer to the propensity of consumers to express the principles of environmental protection through their purchase and consumption behaviours. Green consumption values are considered influential in driving consumers towards the adoption of sustainable consumption patterns (Lu *et al.*, 2013:3). To substantiate this view, Werff *et al.* (2013:55) contend that values are antecedents of green product choice, green purchase intentions and ultimately green purchase behaviour. This view resonates with the Values-Beliefs-Norms (VBN) Theory that posits that values influence attitudes which, in turn, influence the performance of environmentally responsible behaviour, including the purchase of green products (Stern, Dietz, Abel, Guagnano & Kalof 1999:85). Green consumption values are described as persistent principles inherent in consumers that have the potential of enhancing pro-environmental consumption behaviour (Pickett-Baker & Ozaki 2008:282).

Given the influence of values on consumer consumption behaviour, Lin and Huang (2012:11), Pihlstrom and Brush (2008:673) and Wang, Liao and Yang (2013:11) employed the Theory of Consumption Values (TCV) to predict consumption behaviour of green products. The TCV attempts to enhance understanding of the motivating factors of choice behaviours. Specifically, the TCV attempts to shed more light on "why consumers buy what they buy" (Sheth *et al.*, 1991:159). The TCV is illustrated Figure 4.1.

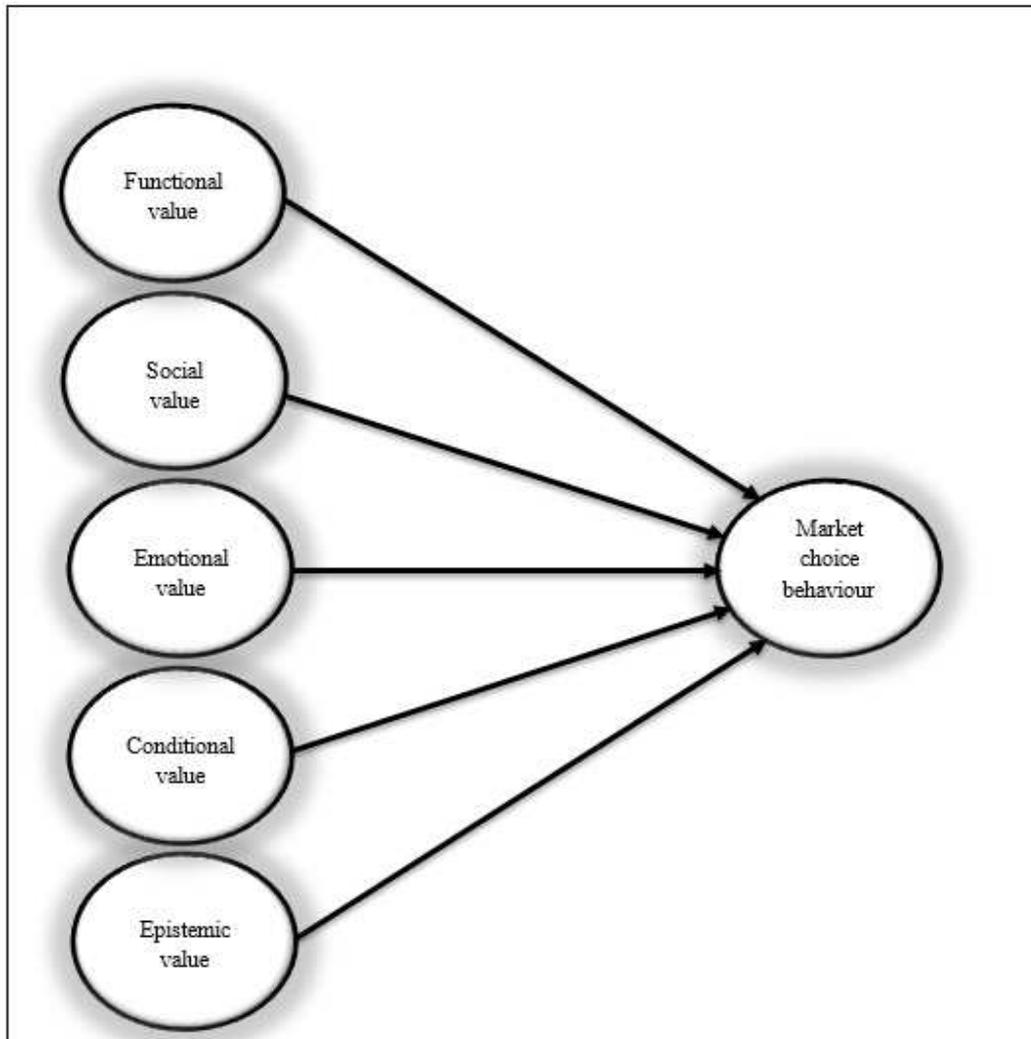


Figure 4.1 The Theory of Consumption Values

Source: Sheth, Newman and Gross (1991:160).

The TCV identifies functional, social, emotional, conditional and epistemic values as antecedents of choice behaviour (Sheth *et al.*, 1991:159). Based on the TCV, this study proposes green consumption values, namely “green” functional value, “green” social value, “green” emotional value, “green” conditional value and “green” epistemic values, as the main selection attributes that influence Generation Y consumers’ green purchase behaviour.

4.2.1 Green functional value

Functional value is a central concept in consumer buyer behaviour and is traditionally presumed to influence product choice and value perceptions (Kotler & Keller 2012:193). With regard to green products, perceived value is considered as instrumental in stimulating

purchase intentions (Chen & Chang 2012:516). The TCV describes functional value as the ability of a product or service to satisfy the consumer's utilitarian needs (Sheth *et al.*, 1991:160). According to the Goal Framing Theory (Lindenberg & Steg 2007:119), consumers are favourably inclined to engage in purchase decisions that have the potential to satisfy their needs. Thus, the concept of functional value is deeply embedded in Economic Theory, which regards consumers as utility seekers who make deliberate product choices in order to maximise satisfaction (Brecard *et al.*, 2009:117).

In economic terms, functional value gains support from the principles of “mental accounting” and “homo economicus” that state that consumers evaluate product choices based on the cost-benefit-analysis continuum (Hur, Yoo & Chung 2012:691; Kotler & Keller 2012:198; Nyborg 2000:309). The concept of mental accounting is supported by the Prospect Theory, which maintains that consumers evaluate purchase decisions in terms of gains and losses to be derived from product choice behaviours (Kahnman & Tversky 1979:263). Thus, functional value explains why green product purchase behaviour is principally influenced by search qualities such as price, quality, environmental and health benefits (Khare 2014:6; Paul & Rana 2012:412; Roberts 1966:228). The Search-Experience-Credence (SEC) framework defines search qualities as “those that can be verified easily prior to purchase by actual inspection of the good” (Ford, Smith & Swasy 1988:240).

Functional value is particularly important to Generation Y consumers as they are characterised as utility maximisers who cognitively seek brands that provide authentic value propositions (Colcucci & Scarpi 2013:2; Yarrow & O'Donnell 2009:28). Specifically, Generation Y consumers tend to buy green products based on personal benefits and contribution towards the well-being of the environment (Mourad & Ahmed 2012:516). Given this background of utility-driven purchase behaviour, Chen and Chang (2012:502) suggested that the purchase of green products appears to be prompted by a set of cognitive factors such as green perceived value, green trust, green satisfaction and green perceived risk.

With regard to purchase decisions, perceived value refers to the consumer's holistic evaluation of the satisfaction derived from consumption of a product based on perceptions of the benefits and costs of the exchange process (Zeithaml 1988:14). It implies, therefore, that perceived value consists of a set of attributes that are related to the perception of a product's benefits relative to its price. In the context of green marketing, Chen and Chang (2012:503) and Koller, Floh and Zauner (2011:1157) employed the terms “green perceived value” and

“perceived ecological value” respectively to refer to the deliberate efforts by consumers to seek products that enhance satisfaction and maximise environmental benefits. In the context of organic products, perceived value refers to the ability of the product to enhance the quality of life of consumers and environmental well-being (Zhu *et al.*, 2013:279).

Functional value is particularly important for the creation and sustenance of competitive advantage in today’s value-driven marketing environment (Zhuang, Cumiskey, Xiao & Alford 2010:1). Based on the concept of functional value, consumers are more likely to buy a product if it results in utility maximisation relative to competing offerings (Phipps, Ozanne, Luchs, Subrahmanyam, Kapitan, Catlin, Gau, Naylor, Rose, Simpson & Weaver 2013:1228). Thus, a green consumer who is principally driven by functional value considers the costs and benefits of green products before making a purchase decision (Elliot 2013:299). Perceived value is considered as a comprehensive concept that encompasses search attributes such as price, quality and performance that drive purchase intentions (Barber, Bishop & Gruen 2014:220; Lin & Huang 2012:12; Matthes, Wonneberger & Schmuck 2013:1).

4.2.1.1 Price sensitiveness

Conventional wisdom dictates that price is the main factor that influences purchase decisions (Buder, Feldmann & Hamm 2014:399; Gleim *et al.*, 2013:53; Saleki & Seyedsaleki 2012:100). The likelihood of consumers selecting a green product is therefore largely dependent on price. Although a higher price is often construed as a quality cue (Marian, Chrysochou, Krystallis & Thøgersen 2014:58), the dominant perception among consumers is that green products are overpriced relative to their conventional substitutes (Aertsens, Mondelaers, Verbeke, Buysse & Huylenbroeck 2011:399; Lea & Worsley 2005:860; Radman 2005:269). Within the context of green products, Elliott (2013:299) conceptualises price as dependent on the willingness of consumers to pay the premium associated with green products. For instance, Shafie and Rennie (2012:365) note that the premium price of green products remains one of the major deterrents to green product consumption. In a similar vein, a study by Radman (2005:269) revealed that 70 percent of consumers would buy organic products if the price were reduced.

Price consciousness tends to be more noticeable among consumers in the low-income category where the demand for value for money is high (Tarkiainen & Sundqvist 2005:816). A typical example is that of developed markets in the eurozone, where the recession has

resulted in the withering of demand for green products (Carrigan & De Pelsmacker 2009:674). For this reason, Lockie, Lyons, Lawrence and Mummery (2002:37) postulate that price tends to run parallel to antecedents of green buyer behaviour such as environmental concern, resulting in the “green” paradox. The green paradox is reflected when consumers’ reported environmental concern does not translate into the actual purchase of green products (Smith & Paladino 2010:95).

To enhance green purchase behaviour, Hill and Lynchehaun (2002:536) emphasise the need for marketers to justify the premium price attributed to green products. However, justifying the price of green products proves to be a mammoth task for marketers owing to the inherent credence attributes of green products (Shafie & Rennie 2012:360). From a consumer’s perspective, justification of the price premium proves difficult because of lack of accurate information on the environmental performance of green products (Padel & Foster 2005:621).

It is important, however, to note that the willingness to pay a higher price tends to vary with the profile of the market. For example, Lockie, Lyons, Lawrence and Grice (2004:144) suggest that consumers are willing to pay a premium for green products within a margin of 10-20 percent. As willingness to pay for green products seems to vary across markets, Smith and Paladino (2010:95) suggested that it appears that premium prices may not be the only factor that influences the purchase of green products.

4.2.1.2 Quality consciousness

The hedonistic Generation Y cohort tends to be favourably inclined towards products with improved quality (Dhurup & Tusiime 2011:531). Quality consciousness plays a significant role in the marketing of green products, given that the demand for green products tends to be influenced by perceptions of low quality, high prices and poor environmental performance (Chen & Chang 2012:503; Luchs *et al.*, 2010:18; Nittala 2014:143). For instance, Van Doorn and Verhoef (2011:167) contend that the low quality tag attributed to green products results in variations in consumers’ willingness to pay the premium price associated with green products. It is noteworthy that quality plays a central role in enhancing purchase intentions by reducing product performance risk and fostering brand loyalty among consumers (Batra & Kazmi 2009:127; Zhuang *et al.*, 2010:1). Consumers are therefore likely to engage in pro-environmental behaviour if they realise tangible benefits in consuming green products (Phipps *et al.*, 2013:1229). In the case of organic products, the benefits that accrue to

consumers include an enhanced health lifestyle and the preservation of the environment for future generations.

Apart from performance, the quality of green products depends on appearance (Smith & Paladino 2010:101). For instance, Hill and Lynchehaun (2002:537) found that the packaging of organic milk appears subdued on the shelf. In addition, Thompson and Kidwell (1998:279) noted that the poor visibility of green products in retail outlets tends to limit awareness and ultimately discourage the actual purchase. This view concurs with the study conducted by Buder *et al.* (2014:399), which revealed that consumers were not favourably inclined to pay for green products with poor appearance. However, contrary to this view, Smith and Paladino (2010:96) argue that the poor appearance tag associated with green products is not applicable to all green products. Similarly, Tregear, Dent and McGregor (1994:23), noted that, for environmentally conscious consumers, concern for the environment supersedes poor product appearance at the point of purchase.

The quality of green products also depends on the taste or flavour (Smith & Paladino 2010:97). Again, there are mixed views on the perception of the taste of green products. For instance, a study by Tregear *et al.* (1994:24) found that consumers perceive organic products to be superior in taste to conventional products. In contrast to this finding, a similar study by Buder *et al.* (2014:399) revealed that green products are perceived to be less tasty than conventional alternatives.

In terms of purchase behaviour, McEachern and Willock (2004:547) affirm that the improved taste of organic products was the key driver of purchase behaviour. The natural content, that is, lack of chemicals, additives and artificial ingredients, is singled out as the key selling proposition that propels the demand for green products (Lockie *et al.*, 2002:37). Accordingly, Smith and Paladino (2010:97) assert that “the higher the natural content, the higher are perceptions of quality as held by the consumer.”

4.2.1.3 Health

Apart from quality, green product purchase intentions are also driven by the consumers' quest for health (Tobler, Visschers & Siegrist 2011:680; Tsakiridou *et al.*, 2008:163). This is because green marketing literature stresses that green products enhance the quality of life and are more healthier than their conventional alternatives (Paul & Rana 2012:419; Lea & Worsley, 2005:862; Magnusson, Arvola & Hursti 2001:222; Radman 2005:269). Health has

thus been identified as one of key drivers of the purchase of green products (Goetzke, Nitzko & Spiller 2014:100; Hutchins & Greenhalgh 1997:336; Padel & Foster 2005:611). Health is typically considered to include personal and family health, which is defined as the responsibility one takes for one's own well-being and that of one's family (Hutchins & Greenhalgh 1997:336). Padel and Foster (2005:618) distinguished between the two and suggested that individual rather than family health is the strongest motivator for purchasing organic products.

It is worth noting, however, that there are mixed views on the effect of health considerations on green purchase behaviour. For instance, Squires, Juric and Cornwell (2001:395) found that consumers who are more concerned with health are more likely to purchase organic products than those who are not health conscious. However, in a related study, Tarkiainen and Sundqvist (2005:817) found that the relationship between health and the purchasing of organic products was insignificant. Schleenbecker and Hamm (2013:421) attributed the variations in the findings on the effect of healthiness on green product purchase behaviour to the credence qualities of green products, which result in the evaluation of green products being reliant on the experience of individual consumers. Given this background, Lockie *et al.* (2004:145) opine that health consciousness alone may not be sufficient to enhance green purchase intentions.

4.2.1.4 Perceived risk

Associated with functional value is the concept of functional risk, which refers to the consumer's perceptions of the uncertainty associated with the consumption of a product or service (Batra & Kazmi 2009:127). In general, environmental risks include the loss of biodiversity, droughts, floods and the depletion of the ozone layer attributed to unsustainable consumption patterns (Sheth *et al.*, 2011:24). In consumption settings, functional risk is defined as the gap between the product's performance and the consumer's expectations (Kotler & Keller 2012:193). To enhance sustainable consumption behaviour, an assessment of risk perception is deemed important, given that most green products are considered by consumers as innovations with a high risk attachment (Durif *et al.*, 2012:4). Specifically, misleading eco-labels, self-proclaimed environmental certificates and unproven green product claims, coupled with the poor performance of some green products, trigger greenwashing concerns that heighten the level of functional risk for consumers (Gleim *et al.*, 2013:46; Kaufman 2013:2).

Generally, consumers are considered as risk-averse when they engage in purchase behaviours that are aimed at minimising uncertainty associated with the purchase of a particular product or service (Puto, Patton & King 1985:90). The purchase of green products is considered a risky choice in some markets because consumers lack information on the benefits of such offerings (Smith & Paladino 2010:97). The perception of risk is further heightened by the lack of effective standards to monitor the production of green products (Radman 2005:271). In particular, the perception of risk is driven by the fact that consumers do not have enough information to know whether a product was organically produced or not, and is heightened by the scepticism surrounding the credibility of eco-labels (Padel & Foster, 2005:620; Magnusson *et al.*, 2001:221). Thus, risk-averse consumers would rather remain loyal to known conventional products than experiment with relatively unknown green products (Smith & Paladino 2010:97). However, Zakowska-Biemans (2009:771) contends that health-conscious consumers are prepared to buy green products to reduce the risks related to conventional products and do not perceive them as riskier than conventional products.

To promote green purchase behaviour, marketers need to increase trust in green products among consumers (Chen & Chang 2012:516). Engendering consumer trust is considered important, especially against the background of challenges experienced by consumers in distinguishing between green products and conventional products in the marketplace (Janssen & Hamm 2012:9). To emphasise the importance of trust in green products, Chen (2010:309) coined the term “green trust” to refer to the willingness of consumers to patronise a product based on its credibility, benevolence and the ability to deliver consistently on environmental performance. According to Chen and Chang (2012:511), green trust is enhanced by the environmental reputation of the organisation, the environmental performance of green products and the credibility of environmental messages. In essence, green trust is important to Generation Y consumers as any inconsistencies in brand performance have the potential to diminish brand loyalty and the self-image congruence relationships (Noble *et al.*, 2009:621).

To cultivate green trust, Chen and Chang (2012:516) propose that marketers need to develop strategies that foster positive green product perceptions and brand loyalty. For instance, eco-labels and eco-brands are emerging as the predominant forms of addressing consumer scepticism (Smith & Brower 2012:540). Eco-labels and eco-brands are particularly effective when targeting Generation Y consumers, as they are considered “worshippers of labels” (Lazarevic 2012:52). Eco-labels are not only crucial in enhancing trust in the credence

attributes of green products (Schleenbecker & Hamm 2013:426), but additionally act as the principal tools for differentiating green products from conventional ones (Cherian & Jacob 2012:121; Bostrom & Klintmann 2008:28). Furthermore, eco-labels endorsed by a third party act as a signal to consumers by vouching for the authenticity of green products through the conveying of accurate information about their environmental performance and benefits (Janssen & Hamm 2012:9).

It is important to note, however, that eco-labels are effective as quality assurance tools only if they provide accurate information about the environmental impact of products (Bratt *et al.*, 2011:1631). In essence, the quality assurance role is guaranteed only if a detailed product life cycle assessment is done with specific focus on production, distribution, usage and disposal (Amstel, Driessen & Glasbergen 2008:263; Rashid 2009:133). Product life cycle assessments are of great importance given the high levels of cynicism associated with misleading eco-labels (Tzilivakis, Green, Warner, McGeevor & Lewis 2012:55). Thus, brand loyalty of eco-labelled products is likely to improve if consumers understand the benefits of eco-labels and the integrity of the certification process (Zaman *et al.*, 2010:109).

In the case of eco-brands, differentiation and credibility are the key success factors in the marketplace (Mourad & Ahmed 2012:516). From a consumer perspective, a brand is perceived as sustainable only if it can credibly convey proven environmental benefits that are relevant to consumers (Meffert, Rauch & Lepp 2010:28). Effective green brand positioning therefore involves robust communication and differentiation of the brand from competing brands based on environmental attributes valued by consumers (Hartmann & Apaolaza-Ibanez 2012:1254). Thus, the green positioning strategy that is premised on functional value needs to emphasise attributes that distinguish green products from conventional ones such as environmentally friendly production processes, healthiness, superior taste and quality (Matthes *et al.*, 2013:2). To be effective, the green brand positioning strategy needs to be structured in a way that results in positive brand associations and brand loyalty (Hartmann, Ibanez & Sainz 2005:11).

Overall, perceived value is of significant importance to Generation Y consumers as they value novel ideas and, as such, green product innovations are likely to be instrumental in enhancing their purchase intentions (Yarrow & O'Donnell 2009:180). Because Generation Y demonstrates the attributes of innovation and value-seeking behaviour, Kotler and Armstrong (2010:183) suggested that marketers might benefit by targeting Generation Y with innovative

green products that result in the creation of competitive advantage in the marketplace. Thus, the purchase of green products tends to be influenced by the degree to which the consumer's perceived value is commensurate with the premium price associated with green products (Stolz, Stolze, Hamm, Janssen & Ruto 2011:67).

Although the foregoing discussion positions functional value as a potent factor in promoting the purchase of green products, some of the benefits of sustainable consumption such as a healthy environment benefit society as a whole; yet consumers bear the full costs of the high price of green products and this tends to limit their uptake (Hanss & Bohm 2013:54). Based on this view, Hartmann and Ibanez (2006:678) asserted that the challenge confronted by marketers is to increase the individual benefits perceived by consumers upon consumption of green products (Hartmann & Ibanez 2006:678). Additionally, the functional value concept assumes that consumers act rationally and make purchase decisions based on perfect information about the benefits and costs of their decisions (Welsch & Kuhling 2010:405). In the marketplace, however, consumers are experiencing challenges in differentiating between a green and a non-green product at the point of purchase (Rousseau & Vranken 2013:33), and tend to rely on credence values to evaluate green products.

Given this background of information asymmetries in green product markets, the Goal Framing Theory suggests that hedonic goals tend to be instrumental in driving pro-environmental behaviours (Lindenberg & Steg 2007:131). Accordingly, sustainable consumption decisions are not driven only by the functional value, but are also influenced by social value (Koenig-Lewis *et al.*, 2014:96).

4.2.2 Green social value

In addition to function value, consumption behaviour appears to be influenced by the quest to satisfy social value needs such as social identification, self-presentation, symbolism and belongingness (Ashworth & Matear 2009:129; Koenig-Lewis *et al.*, 2014:96). In particular, social identification plays a key role in buying behaviour as it enhances approval from an esteemed reference group (Bartels & Reinders 2010:350). Similarly, Dhurup (2012:743) used the term "In-group association" to suggest the extent to which individuals sacrifice self-control as a way of enhancing behaviour congruence with a preferred social group. For instance, the surge in environmental concern among social groups and the formation of

environmental clubs gives credence to the importance of social values in promoting pro-environmental behaviours (Khare 2014:2).

In general, the purchase of environmentally friendly products is regarded as a socially acceptable gesture with a high social value attachment (Webb, Mohr & Harris 2008:93). For instance, Smith and Brower (2012:357) note that millennials consider an environmentally sensitive group as a socially appealing and inspirational segment to be associated with. Conceptually, social value entails the quest for identification with a significant social group and the extent to which an individual complies with the expectations of peers through the purchase and consumption of products or services (Bearden, Netemeyer & Teel 1989:473). Accordingly, Leibenstein (1950:184) introduced the “bandwagon effect” concept to refer to the demand for products induced by the desire to belong to an esteemed reference group. This view is consistent with the TCV that states that consumers regularly buy products that enhance their social standing (Sheth *et al.*, 1991:161).

Based on the concept of social value, consumption is considered as a social conversation (Jackson 2005:19). For example, sustainable consumption is regarded as a form of pro-social behaviour that emanates from an individual’s awareness of the consequences of consumption behaviour on the natural environment and assumes responsibility for addressing the behavioural outcomes (Stern *et al.*, 1999:85). Similarly, Griskevicius, Tybur and Bergh (2010:392) explain the purchase of green products as a socially driven gesture that conveys the value attached to the environment by consumers. In contrast to a rational consumer, whose purchase decisions are influenced by utilitarian needs, a consumer driven by social values, also known as “Homo Politicus” (Nyborg 2000:310), is naturally guided by environmental values and convictions when making purchase decisions (Elliot 2013:299). In line with the concept of social value, marketers need to position the purchase and consumption of green products as a socially desirable act and a symbol of collective altruism (Smith & Paladino 2010:102).

Social value is particularly important to Generation Y consumers as they are characterised by the need for peer acceptance, conformity and affiliation (Williams & Page 2011:44). In an endeavour to connect with peers, Oliver and Lee (2010:99) note that Generation Y consumers perceive purchase decisions as a creation of social identities. According to Smith (2010:4), the environmentally conscious segment is considered as an aspirational cluster that Generation Y consumers are willing to associate with. Therefore, Arvola *et al.* (2008:452)

opine that, in buying green products, Generation Y consumers gain a sense of belongingness and social approval from their peers. In particular, the influence of peers has the potential to shape environmental norms and lead to a preference for environmentally friendly products relative to non-green products (Lu *et al.*, 2013:6).

The purchase of green products additionally represents a high sense of environmental commitment and is expected to elicit pro-environmental behaviours among consumers (Mazar & Zhong 2012:495). For instance, the need for social acceptance by peers, social visibility and the quest to share a common “green” identity are considered key drivers in the adoption of pro-environmental behaviour among Generation Y consumers (Griskevicius *et al.*, 2010:392; Lee 2011:37). As a result, consumers tend to engage in pro-environmental behaviour as a way of aligning themselves with the norms of their society (Mazar & Zhong 2012:495). To substantiate this view, Hjelm (2011:341) employed the term “social embeddedness” to imply that the consumption of organic products is not only an individual decision but a collective societal imperative.

To enhance their social value, Generation Y consumers are largely dependent on the opinions of their parents and a digitally connected social circle (Yarrow & O’Donnell 2009:6). In congruence with their quest for social value, Generation Y consumers regularly seek brands that offer satisfaction of higher-order needs such as self-expression, symbolism, self-esteem and self-actualisation (Rajamma, Pelton, Hsu & Knight 2010:390). As a result, Generation Y consumers are likely to respond favourably to green marketing messages that are endorsed by their peers.

Consistent with the concept of social value, consumption behaviours are also driven by the desire to satisfy symbolic needs that allow consumers to portray self-identities and demonstrate conformity with the values of their social circle (Sheth *et al.*, 1991:161). Symbolically induced consumption refers to the preference for products that satisfy intrinsic needs such as self-esteem, group affiliation and ego-identification (Park, Jaworski & Macnnis 1986:136). A higher symbolic value is assigned to the product if it assists a consumer to be accepted by peers and this translates into willingness to pay a premium price for the product (Ashworth & Matear 2009:129).

Generation Y consumers are particularly attracted to visual symbols of products such as labels and brands that make them easily noticed by peers (Talbot 2012:13). This is because

Generation Y consumers were nurtured and socialised in a marketplace where almost every product is branded and are presumed to respond favourably to eco-labels and eco-brands (Hanss & Bohm 2013:54). As regards green products, Basu and Hicks (2008:13) note that consumers are willing to pay a higher price for green products as a way of satisfying symbolic environmental needs as well as signalling to significant others their concern for the environment. According to Pickett-Baker and Ozaki (2008:288), when there is a mismatch between the symbolic value sought by the consumer and the profile of the product, the ability of environmental concern to enhance actual purchase behaviour tends to be lower.

Generation Y consumers are further characterised as sophisticated and perceive products as tools that enable social networking and status enhancement (Lazarevic 2012:56). Phau & Cheong (2009:110) employed the term “status consumption” to refer to the preference for products that enhance the social standing of consumers. Leibenstein (1950:189) coined the term “snob effect” to imply that prestige-driven consumers desire to purchase products based on high prices to portray uniqueness and to differentiate them from others in their social group. Thus, consumers driven by the snob effect are presumed to be more likely to be willing to pay the high price associated with green products in order to signal their status to their peers.

Status is regarded as an integral component of Generation Y consumers’ consideration set when making purchase decisions (Shukla 2010:108). For instance, Eastman and Liu (2012:102) noted that the spending on branded and status-enhancing products is more common among Generation Y consumers than any other cohorts. Eastman, Goldsmith & Flynn (1999:41) define status consumption as “the motivational process by which individuals strive to improve their social standing through consumption of products that confer or symbolise status for both the individual and surrounding others.” Similarly, Elliot (2013:294) and Shukla (2010:110) noted that status-related consumption is motivated by the need for self-expression and the desire for social prestige. In the context of environmentalism, Sexton and Sexton (2012:4) employed the term “conspicuous conservation” to imply that consumers engage in pro-environmental behaviours to seek and gain social visibility and environmental identity.

Based on Veblen’s (1899:36) assertion that “the wealth or power must be put in evidence, for esteem is awarded only on evidence”, Generation Y consumers utilise products as symbols to communicate their uniqueness to their peers (Husic & Cicic 2009:234). To enhance brand

recognition, marketers need to create a brand personality that is consistent with status elements perceived favourably by Generation Y consumers (Maehle & Shneor 2010:44; Shulka 2010:109). According to Kong and Zhang (2013:430), the purchase of green products accords social status to consumers and accentuates a green identity that can serve as a differentiating factor among consumers within a social circle.

The consumption of green products is associated with the quest for status (Griskevicius, Tybur & Van den Bergh 2010:394). For instance, Sexton and Sexton (2012:6) contend that green consumption has a “green” signalling effect as it portrays an individual’s pro-social behaviour as demonstrated by the willingness to incur costs associated with the purchase of organic products such as a high price. Given the status-enhancing benefits of pro-social behaviour, consumers are likely to engage in competitive altruism in order to be noticed by peers while at the same time improving the well-being of the environment (Nunes, Dreze & Han 2011:199). The activation of status motives has the potential to foster among consumers a preference for green products relative to non-green products (Griskevicius *et al.*, 2010:392).

Driven by social-value-seeking behaviour, Generation Y perceive high social risk if product purchase decisions fail to meet the expectations of an important reference group (Batra & Kazmi 2009:127). Nunes *et al.* (2009:200) add that a poor product choice has the potential to severely affect an individual’s status within an esteemed social group. For instance, Khare (2014:6) notes that past experience with the consumption of green products affects subsequent green purchase intentions. More importantly, consumers’ past experiences with green products are central to the formation of green product-specific perceptions that have the potential to inform future purchase decisions (D’Souza *et al.*, 2006:150). As a result, consumers are more likely to avoid products that will result in their being perceived as social misfits in the eyes of their peers (Kotler & Keller 2012:193). Given the background of the desire for social connectedness by Generation Y consumers, Goneos-Malka (2012:187) is of the opinion that social appeals are more effective than rational appeals when marketing to this cohort.

Generation Y consumers similarly perceive brands as natural extensions of themselves and thus buy products with the aim of enhancing both their social image and self-image (Rajamma, Pelton, Hsu & Knight 2010:390). Drawing from the Self-Concept Theory and the Self-Discrepancy Theory, consumers are more likely to embrace pro-environmental behaviours if they perceive that the consumption of environmentally friendly products is

congruent with their self-image (Higgins 1987:319; Sirgy 1985:287). The state of positive self-image congruence occurs when there is a low discrepancy between an individual's ideal self-image and the product image (Cheah & Phau 2011:459). To elicit pro-environment behaviour, it follows that the green product image needs to be consistent with the consumer's ideal self-image.

The Theory of Social Comparison acknowledges the inherent nature of human beings to compare themselves with individuals with similar abilities and mindset (Festinger 1954:139). In line with the Theory of Social Comparison, Generation Y consumers tend to compare their lifestyles with those of their peers as a benchmark to evaluate their level of satisfaction (Soyez 2012:625). For example, in a study of college-age Generation Y consumers, Noble *et al.* (2009:622) found that they are motivated to consume and purchase products that satisfy the need for novelty and prestige. Therefore, to appeal to Generation Y consumers, Lazarevic (2012:49) suggests that green product branding efforts need to be focused on developing a favourable brand image and brand equity that contributes to perceived congruence between the consumer and the brand.

In the context of green marketing, Lee (2008:581) employed the term "concern for self-image" in environmental protection to imply that young consumers buy products that are compatible with their ideal image. Lee (2011:36) noted that young consumers are more likely to be involved in environmental protection in order to gain social approval and acceptance by their peers. As a result, Generation Y consumers are principally driven by products that match their own personality in an effort to satisfy their image-oriented goals (Noble *et al.*, 2009:622). Taking account of this characteristic, Griskevicius *et al.* (2010:392) emphasised the need for marketers to implement a status-positioning strategy that aligns green products with the image sought by Generation Y consumers.

In accordance with the Self-Discrepancy Theory, any significant discrepancy between the actual and the ideal self-image results in emotional vulnerability (Monga & John 2008:680; Noble *et al.*, 2009:622). The concept of green brand image is employed to refer to a set of perceptions of a brand in the minds of consumers that is linked to environmental commitments and environmental concerns (Chen 2010:309; Chen 2009:309). Environmental self-identity is employed to denote the extent to which consumers purchase green products to reflect their environmental outlook (Werff *et al.*, 2013:56). Green brand image is important

for companies, especially to allay the high levels of scepticism inherent in Generation Y consumers (Chen 2010:309).

To sustain the egoistic needs of Generation Y consumers, marketers need to structure value propositions that reinforce consumers' quest for self-esteem (Cheah & Phau 2011:459) and self-image (Hume 2010:392). The added advantage of targeting consumers driven by egoistic values is that they are willing to pay the premium price associated with green products if they perceive that the product image is commensurate with their desired image (Oliver & Lee 2010:97; Lee 2008:582).

Social value is presumed to be more influential in shaping purchase intentions within a collectivist cultural setting, where consumers are expected to comply with social norms to a greater extent than in individualist cultures (Oliver & Lee 2010:98). This is so because the purchase of green products is construed as altruistic behaviour that enhances societal and environmental value (Smith & Brower 2012:537). From a marketing perspective, social value is instrumental in positioning products that are high in credence attributes in the minds of consumers (De Pelsmacker, Janssens, Sterckx & Mielants 2005:515). This implies that if Generation Y consumers are socially inclined towards green products, marketers need to emphasise the importance of social values when framing green marketing messages in order to build consumer loyalty.

In spite of Generation Y's attachment to brand image they are inherently prone to continual brand switching (Dev, Buschman & Bowen 2010:466). The tendency to switch brands may be explained by the fact that Generation Y consumers value the purchase experience and the feel of a brand more than the functional or social value associated with their purchase (Noble *et al.*, 2009: 621). To appeal to Generation Y consumers, branding efforts therefore need to be focused on translating value propositions into memorable consumer experience. Green marketing researchers Vazifehdoust, Taleghani, Esmaeilpour, Nazari and Khadang (2013:2493) also note that the purchase and consumption of green products presents consumers with a social dilemma where they need to balance personal and social goals. With this in mind, Fernandez (2009:79) suggests that, to capture Generation Y consumers' loyalty, marketers need to build an emotional attachment to make the brand special and to create long-term consumption memories and brand affiliation. Accordingly, Koenig-Lewis *et al.* (2014:96) stress the importance of understanding emotions that are effective in influencing consumers' attitudes towards green products.

4.2.3 Green emotional value

Consumer product choices are influenced not only by functional and social values but also by the ability to satisfy emotional needs (Koenig-Lewis *et al.*, 2014:96; Liao & Wang 2009:991). For instance, Lin and Huang (2012:16) observe that consumers who buy green products are driven by the intrinsic feelings of doing something good both for their own well-being and that of society. This view resonates with De Young's (2000:515) observation that consumers engage in pro-environment behaviours in order to satisfy emotional values. Emotional values refer to "the perceived utility acquired from an alternative's capacity to arouse feelings or affective states" (Sheth *et al.*, 1991:161).

Emotional value is instrumental in positioning products that are high in credence attributes where consumers are unable to ascribe value prior to and after utilising the product (De Pelsmacker *et al.*, 2005:515). Traditionally, consumers assign a higher emotional value to a product if the consumer receives positive and memorable experiences from the product (Kemp & Bui 2011:431). Given this background, Lee (2009:93) and Matthes *et al.* (2013:6) suggest that emotions play a pivotal in enhancing favourable brand attitudes and are more effective when framing environmental messages. Similarly, Koenig-Lewis *et al.* (2014:97) contend that the introduction of green products in the market stimulates favourable emotions as consumers perceive green purchase behaviour as a potential solution to environmental problems.

The importance of emotional values in buyer behaviour is supported by the Attachment Theory, which posits a positive relationship between the consumer's emotional state and brand loyalty (Yim, Tse & Chan 2008:753). In green marketing literature, the terms "ecological effect" and "dispositional empathy with nature" are employed to refer to the extent to which emotional attachment to environmental issues influences the purchase of green products (Chan & Lau 2000:341). The positive role of emotions in fostering pro-environmental behaviour was confirmed in a study by Lee (2008:581), which revealed that the green purchase behaviour of young consumers tends to be influenced more by emotional factors than by rational appeals. For instance, Lee (2011:36) contends that the cognitive-control system tends to be weaker in young consumers and as a result, the socio-emotional system tends to dominate decision making, including purchase behaviour.

From a hedonic perspective, consumption of products is often associated with emotions in the realms of enjoyment, pleasure and escapism (Kang & Park-Poaps 2009:316). For instance, Matthes *et al.* (2013:2) maintain that the portrayal of the biophilic environment in green marketing messages has the potential to act as a heuristic cue that triggers the formation of positive environmental attitudes. Other emotional factors that are presumed to have a strong influence on the purchase of green products include consumers' feelings of guilt, fear and morality (Young *et al.*, 2010:29). For instance, the pervasiveness of environmental problems such as climate change and global warming is compelling marketers to make use of fear and guilt appeals to promote green consumption (Belz & Peattie 2009:186). Guilt and fear appeals are considered effective in prompting remorse among consumers by alerting them to the negative effects of their consumption behaviour on the environment (Belz & Peattie 2009:187).

4.2.3.1 Guilt appeals

Guilt is viewed as a complex emotional reaction that consists of a combination of negative emotions such as regret, remorse and self-blame (Chang 2012:742). Guilt is defined by Aertsens *et al.* (2009:1148) as a "painful feeling of regret that is aroused when the actor actually causes, anticipates causing or is associated with an aversive event according to personal or subjective norms." From a green purchase behaviour perspective, guilt appeals are based on the mindset that if consumers are aware of the negative effects of their consumption behaviours on the environment they are more likely to adopt sustainable consumption patterns, with the spill-over effect of forcing manufacturers to embrace sustainable production processes (Orange 2010:26).

When confronted with a sense of guilt, consumers tend to be overwhelmed by the need to take corrective action in order to reduce the level of guilt, in this case by engaging in pro-environmental behaviour (Chang 2012:743). Specifically, the use of guilt appeals imbues consumers with a sense of responsibility over their consumption behaviour and provides them with assurance that green products are viable solutions to addressing environmental problems (Brennan & Binney 2010:140).

Guilt appeals are likely to be more effective in collectivist cultures where there is a high propensity for consumers to feel guilty as a result of failing to meet their social obligations, such as environmental protection (Chang 2012:743). Guilt appeals have the potential to grab

immediate attention and prompt consumers to process the information, thereby enhancing actual purchase behaviours (Chang 2012:745). However, marketers need to understand that guilt appeals are not ideal for consumers with high environmental involvement as they tend to negate their individual commitment towards environmental issues (Magali *et al.*, 2012:8).

4.2.3.2 Fear appeals

Green marketers also attempt to influence purchase intentions through the use of fear appeals (O'Neill & Nicholson-Cole 2009:355). Fear appeals place emphasis on the use of threats to induce consumers to engage in or desist from certain behaviours (Belz & Peattie 2009:186). In the context of green marketing, fear appeals are proving to be effective, since climate change disasters such as droughts, floods, disintegrating eco-systems and global warming are seen as key drivers for the adoption of green marketing (Kronrod, Grinstein & Wathieu 2012:95). For instance the dramatic, sensational, fearful and shocking depiction of the effects of climate change by Al Gore's *An Inconvenient Truth* resulted in a 50 percent increase in the purchase of carbon offsets in the United States of America in 2011 (Jacobson 2011:67).

To be effective, fear appeals need to be backed by accurate and scientific information about the effects of human behaviour on the environment (Feinberg & Willer 2012:6). According to the Protection Motivation Model (Rogers 1975:93), fear appeals are only effective if consumers are convinced that their well-being is seriously endangered and that they are capable of averting the danger. Based on the Self-Efficacy Theory (Bandura 1977:193), consumers are likely to engage in pro-environmental behaviour if they believe that they have the capacity to reduce the negative effects of climate change.

Although fear appeals can be effective in enhancing purchase intentions, they tend to have different effects on consumers which are short-lived, with the inherent potential of disengaging the audience from the intended message (Feinberg & Willer 2012:6). A typical example is that of the Act on CO₂ campaign of the government of the United Kingdom, which was criticised for being too frightening and was subsequently withdrawn (Corner & Randall 2011:1005). Additionally, the Prospect Theory (Linville & Fischer 1991:5) employed the "Finite Pool of Worry" construct to imply that individuals have limited capacity to continue worrying about an issue, and that beyond certain limits they appear to be disengaged. Thus, persistent exposure to fear appeals may unintentionally result in "emotional numbing" or "diminishing returns" thereby resulting in negative response

behaviours (CRED 2009:21). For this reason, Koenig-Lewis *et al.* (2014:102) advise that, to be effective, emotional appeals should focus much more on the emotional benefits of engaging in pro-environmental behaviours. Given the aforementioned shortcomings of guilt and fear appeals, moral appeals are considered as effective in promoting pro-environmental behaviours (Feinberg & Willer 2012:1).

4.2.3.3 Moral appeals

According to the normative construct of the Goal Framing Theory, pro-environmental behaviours are driven by assessments of what is deemed right or wrong (Lindenberg & Steg 2007:118). A moral decision is one that considers the integrity of behavioural actions and outcomes (Schwartz 1970:128). In the context of green marketing, environmental morals refer to behavioural actions that are consistent with preserving the welfare of the environment (Arvola, Vasallo, Dean, Lampila, Saba, Lahteenmaki & Shepherd 2008:443). Based on the deontological ethical orientation, moral appeals aim to foster pro-environmental behaviour by appealing to consumers' sense of what is right or wrong (Chan *et al.*, 2008:469). Moral appeals assume that environmental problems are moral in nature and employ the concept of social marketing as a conduit to promote the adoption of sustainable consumption patterns (Peattie & Peattie 2009:260).

Moral norms play a central role in forming positive environmental attitudes and have the potential to stimulate "competitive" altruism (Feinberg & Willer 2012:2). In addition, moral suasion has the potential to activate group norms and thus marketers use moral appeals to enhance a group identity that is consistent with environmental values (Griskevicius, Tybur & Bergh 2010:392). Through the use of moral appeals, green product purchase intentions can be solicited by emphasising consumers' moral obligation to protect the environment for the sake of future generations (Chen & Chai 2010:30).

Although moral norms have the potential to prompt pro-environmental behaviour, their effectiveness is dependent on the ability of green advertising messages to invoke moral values that are consistent with the target audience's belief system (Feinberg & Willer 2012:2). Another challenge is to overcome confirmation bias, defined as a situation in which consumers selectively seek and expose themselves to marketing messages that are consistent with their value systems (Hernandez & Preston 2012:1).

Consistent with the Theory of Confirmation Bias (Bacon 1926:1) and the Theory of Motivated Reasoning (Atkinson & Kim 2014:13), when exposed to marketing stimuli, consumers tend to selectively sift and retain information that is congruent with their values. Confirmation Bias therefore acts as a potential barrier to green advertising messages as consumers will tend to avoid information that attempts to change their mindset, a situation known as ideological disconfirmation (Hernandez & Preston 2012:2). However, the dynamic nature of the human mind makes it possible for marketers to change entrenched beliefs and values through effective integrated green marketing communication messages (Koenig-Lewis *et al.*, 2014:96). Hernandez and Preston (2013:181) employed the term “disfluency” to suggest that effective communication strategies have the ability to prompt consumers to re-analyse pre-existing knowledge and subsequently change attitudes in line with current information.

Overall, emotion-laden messages have been criticised for confusing and misleading consumers, resulting in calls for more rationality in promoting green products (Koenig-Lewis *et al.*, 2014:94). For instance, Matthes *et al.* (2013:7) noted that emotional appeals are often perceived with scepticism and associated with greenwashing. The effectiveness of emotional appeal strategies also depends on consumers’ level of involvement (Matthes *et al.*, 2013:6). In consumer buyer behaviour, involvement refers to the extent to which a consumer perceives the relevance of the marketing stimuli (Tu, Kao, Tu & Chen 2011:2). According to the Elaboration-Likelihood Model (ELM), highly involved consumers are favourably inclined to marketing messages such as rational appeals that allow them to apply their cognitive skills, whereas low-involvement consumers are more receptive to emotional appeals (Petty & Cacioppo 1990:373).

In the context of environmental advertising, high-involvement consumers tend to have favourable perceptions of search qualities of the product while low-involvement consumers are principally driven by the credence qualities of green products (Matthes *et al.*, 2013:2). Based on the ELM, it implies that the effectiveness of emotional values in enhancing pro-environmental behaviour depends on a thorough analysis of the levels of consumer involvement. In addition, Koenig-Lewis *et al.* (2014:96) contend that the ephemeral nature of emotions, coupled with individual variations in emotional intensity, tends to limit the effectiveness of emotions in promoting and sustaining pro-environmental behaviours.

Given the inherent drawbacks of emotional appeals, Steg, Bolderdijk, Keizer and Perlaviciute (2014:19) noted that emotional values are more likely to influence purchase behaviour when supported by environmental cues when purchase decisions are made.

4.2.4 Green conditional value

Consumption behaviour is also regarded as situationally primed and largely dependent on contextual factors known as conditional value (Lin & Huang 2012:11). Conditional value refers to the satisfaction derived by the consumer from purchase decisions that are triggered by a set of situational factors in the marketplace (Sheth *et al.*, 1991:162). The concept of conditional value is related to the Hedonic Goal Frame Theory, which posits that consumers seek to maximise sensory pleasure, variety and cognitive stimulation needs through purchase decisions (Lindenberg & Steg 2007:119). Based on the concept of conditional value, contextual cues that are salient at a given point are presumed to be influential in driving purchase behaviour (Hur, Yoo & Chung 2012:692; Wood & Neal 2009:589).

To demonstrate that consumption situations influence purchasing decisions, Lai (1991:57) developed the Situation-Product-Consumer-Intention (SPCI) Model that contends that consumers purchase certain products in order to satisfy situational needs. The SPCI Model is considered relevant to Generation Y consumers as they are categorised as pragmatic buyers who value convenience, immediacy and instant gratification when making purchase decisions (Goneos-Malka 2012:180). Situationally induced buying behaviour therefore requires green products to be available at the point of need (Hjelmar 2011:336).

The desire for conditional value explains why Generation Y consumers are regarded as a segment driven by impulse purchase behaviour (Goneos-Malka 2012:184). To tap into the impulsive nature of Generation Y consumers, marketers of products need to patronise green events valued by this cohort (Lin & Huang 2012:16). Marketers also need to promote real-time communication and to tailor green products based on contextual factors (Goneos-Malka 2012:190). In line with the concept of conditional value, Lin and Huang (2012:16) add that situational environmental factors such as floods, worsening environmental degradation and droughts tend to be influential in stimulating the performance of pro-environmental behaviours.

One of the situational factors that influence purchase decisions is task knowledge (Phipps *et al.*, 2013:1228). The Motivation-Opportunity-Abilities Model defines task knowledge as the

ability by individuals to perform certain behaviours (Olander & Thøgersen 1995:345). In the context of green purchase behaviour, Ellen, Wiener and Cobb-Walgren (1991:103) coined the term “perceived effectiveness of environmental behaviour” to refer to “a domain-specific belief that the efforts of an individual can make a difference in the solution to a problem”. An individual with high perceived consumer effectiveness has confidence in his or her ability to bring about favourable outcomes through the performance of certain behaviour (Kim & Choi 2005:593). Similarly, the Theory of Planned Behaviour (Ajzen 1991:183) employs the perceived behaviour control construct to refer to an individual’s perception of the ease and effectiveness of performing the behaviour of interest.

Perceived behavioural control is defined as the extent to which consumers control their purchase decisions (Kim & Chung 2011:47). Perceived behavioural control also refers to an individual’s perceptions of the ability to perform a given behaviour (Paco & Raposo 2009:431). Associated with the concept of perceived behaviour control is perceived ability. Perceived ability, alternatively termed the sphere of control (Jamilah *et al.*, 2012:87), is construed as the individual’s understanding and knowledge of green products (Wan *et al.*, 2012:632). For instance, Wahid *et al.* (2011:40) reported that when consumers perceive that their actions have the potential to make a noticeable difference, they are more likely to engage in pro-environmental behaviour. Related to the concept of perceived behavioural control is the concept of perceived marketplace influence, which refers to the ability of an individual’s purchase behaviour to influence others to change their own behaviour (Leary *et al.*, 2013:2). Based on the concept of perceived marketplace influence, Farah and Newman (2010:353) opine that consumers are likely to engage in pro-environmental behaviour if they believe that their behaviour is likely to result in motivating others to engage in such behaviour.

The concept of perceived behavioural control further suggests that individuals who believe that they lack the necessary resources and opportunities to perform a particular behaviour are unlikely to form strong behavioural intentions, regardless of their favourable attitudes (Ajzen 1991:183). To substantiate this viewpoint, The Social Learning Theory (Bandura 1977:11) employs the concept of self-efficacy, also known as stimulus control, to refer to the extent to which an individual perceives that his/her own contribution helps to achieve the collective goals for societal benefit. Similarly, the concepts of ecological effect and perceived effectiveness of environmental behaviour are employed in green marketing to imply the

ability of an individual to contribute to the well-being of the environment (Ahmad, Shah & Ahmad 2010:220). Thus, socio-demographic variables such as age, education and income present a general benchmark to measure consumers' personal abilities to engage in green purchase behaviour (Jansson *et al.*, 2010:360).

The concept of self-efficacy is based on the premise that consumers' attitudes and responses to environmental appeals are a function of the belief that their efforts can positively address such problems (Awad 2011:61). It is important to note, however, that the public's perceptions of self-efficacy may be diluted by the extensive coverage of environmental problems that are portrayed as complex, with environmental responsibility appearing now to be shifted to corporates and national governments (Roberts 1996:219). In the context of green marketing, consumers' perception of the value of green products, affordability and green product availability are listed as the key inhibiting factors of green purchase behaviour (Young *et al.*, 2010:28). In addition, Pickett-Baker and Ozaki (2008:289) note that a significant number of consumers experience challenges in identifying greener products, an indication of the inadequacy of green marketing communications. To foster self-efficacy among consumers, Roberts (1996:218) stresses the need for environmental messages to reinforce the mindset that individuals have the ability to avert environmental problems.

Perceived behavioural control also reflects on external conditions that influence behaviour (Ajzen 1991:183). In the context of green purchase behaviour, extrinsic conditions are described as the convenience of buying green products (Wan *et al.*, 2012:632). In particular, lack of availability is often cited as one of the major barriers to the purchase of organic products (Lea & Worsley 2005:860). For instance, Jamilah *et al.* (2010:93) found that unavailability is one of the main reasons why consumers do not purchase organic products. Complementary findings are also presented by Hill and Lynchehaun (2002:536), who found that consumers are concerned by the unavailability of green products and that the majority of consumers are likely to buy green products if they are readily available (Lea & Worsley 2005:863).

The external conditions can also be in the form of the perceived seriousness of environmental problems (Cheah & Phau 2011:455). To support this view, Lin and Huang (2012:17) note that when confronted with contextual situations such as environmental threats, the propensity of consumers to act in a pro-environmental manner is enhanced. Environmental problems that are presumed to enhance conditional value include the negative effects of climate change,

global warming, depletion of fossil fuels, pollution, droughts and floods (Jamilah *et al.*, 2012:85). When consumers understand the implications of their consumption behaviour for the environment, it is expected that a feeling of moral obligation will emerge and trigger the adoption of pro-environmental behaviours (Gadenne *et al.*, 2011:7686). For example, the devastation brought by hurricane Katrina, the Indian Ocean Tsunami and the BP oil spill in the Gulf of Mexico heightened environmental concern in America (Ottman 2010:2). This implies, therefore, that to promote pro-environmental behaviour, marketers need to emphasise the magnitude of environmental problems when structuring green marketing messages.

Based on the foregoing discussion, it can be reasoned that when confronted with situational factors such as the perceived seriousness of environmental problems, consumers with high environmental concern tend to be more inclined to buy green products. To support this view, Lin and Huang (2012:16) add that consumers who are aware of environmental problems and the possible effects of their consumption behaviour on the environment have the potential to perceive going green in their purchase decisions as a contribution to environmental protection.

4.2.5 Green epistemic values

Beyond functional, social, conditional and emotional values, Xiao (2005:23) suggested that product choice behaviour is also influenced by epistemic values. Epistemic values refer to “the perceived utility acquired from an alternative’s capacity to arouse curiosity, provide novelty and satisfy a desire for knowledge” (Sheth *et al.*, 1991:162). Epistemic values are particularly important for Generation Y consumers as they are identified as knowledgeable trendsetters with an insatiable quest to fulfil meta-needs (Kinley, Josiam & Lockett 2010:563). The trendsetting status emanates from Generation Y consumers’ traits of innovativeness and their intrinsic drive to express themselves through product choices (Lazarevic 2012:47).

Consistent with the trend-setting nature of Generation Y consumers, green products are considered as innovative offerings that have the potential to accord social status to consumers (Chen, Chang & Wu 2012:368). For this reason, marketers intending to enhance the novelty of green products need to emphasise green product design features as a way of improving their attractiveness relative to non-green products (Lin & Huang 2012:16). Design elements

that have the potential to offer a differential competitive advantage include green packaging, eco-branding and shopping environments known as green atmospherics (Kreidler & Joseph-Mathews 2009:229). According to Lin and Huang (2012:16), the integration of design elements in the green marketing mix has the capacity to stimulate consumer curiosity and green product trial.

To enhance consumer familiarity with green products, Lee (2009:93) also suggests that green marketers need to utilise novel media channels such as the Internet and social media networks. Enhancing familiarity is particularly important with regard to green products, especially in emerging markets where they are regarded as innovations with a high risk attachment (Saleki & Seyedsaleki 2012:107). Given the individualist nature of Generation Y consumers, the Internet allows marketers to customise green marketing messages to meet their individual needs. The profuse usage of digital media by Generation Y consumers is expected to pre-condition them to favourably evaluate messages conveyed through social networking sites (Smith 2012:86; Rahim *et al.*, 2012:50). Through the use of social networks, marketers can encourage the electronic word of mouth also known as viral marketing to promote green products (Lee 2011:39). To benefit from the social networks, there is also a need to design interactive and accurate green marketing messages (Smith 2012:89).

Generation Y consumers also exhibit high experiential values relative to other cohorts, with a propensity for trying new products (Meyer, Zhao, & Han 2008:1083). In developing markets green products are perceived as innovations and the early-adopter tag attached to Generation Y consumers positions them to be the prime target market for green products (De Medeiros, Ribeiro & Cortimiglia 2013:3). In particular, Generation Y consumers' high discretionary income predisposes them to pay the higher price associated with green products (Parment 2013:193).

In addition to novelty-seeking behaviour, Generation Y consumers are also characterised by their desire for knowledge, coupled with the aptitude to process information at a higher speed than preceding generations (Yarrow & O' Donnell 2009:9). Consumer Behaviour Theory considers knowledge as the primary driver for adoption of new products (Lin & Huang 2012:13). This view is supported by Hill and Lynchehaun (2002:538), who found that knowledge, is a key influencer in the purchase of organic products. Similarly, a study by Moorman, Diehl, Brinberg and Kidwell (2004:676) revealed that subjective knowledge influences the consumer decision-making process with regard to attitudes towards green

products. To substantiate this view, Simith and Paladino (2010:101) note that consumers' willingness to pay the premium price for green products is highly dependent on the environmental knowledge they possess.

Although environmental knowledge has the potential to enhance green purchase intentions, empirical evidence suggests that knowledge of the environmental friendliness of products (Cherian & Jacob 2012:123) and the certification process of organic products (Hill & Lynchehaun 2002:538) remains limited among consumers. Given the dearth of reliable information about green products, Simith and Paladino (2010:101) caution that, as consumers are not willing to exert extra effort in information search, when making purchase decisions they are more likely to be reliant on subjective knowledge, which may then prove to be inaccurate, thereby jeopardising the uptake of green products. Thus, provision of objective environmental knowledge is critical in gratifying Generation Y consumers' need for real-time communication.

Communication of information specific to green products is particularly important since the credence attributes of green products are not easily discernable and consumers are often unaware of the environmental benefits of such products (Khare 2014:4; Stolz *et al.*, 2011:71). However, the proximity of Generation Y consumers to an Internet-aided virtual world of information pre-conditions them to be a more discerning, impatient and elusive target market which is sceptical of advertising (Kelly 2012:12). In light of this, Chen and Chang (2012:516) stressed the importance of disseminating accurate information in order to enhance green purchase intentions.

In the context of green purchase behaviour, epistemic value also implies the willingness to search for information about the environmental performance of companies and green products (Oliver & Lee 2010:102). For instance, the poor depiction of green products in the marketplace and misleading green environmental messages make information search imperative (Sinnappan & Rahman 2011:130). Owing to the lack of clear information about the benefits of green products, consumers are unable to effectively determine the comparative advantages of green products over non-green products (Borin, Douglas & Krishnan 2011:77).

Communication is particularly important in view of Rousseau and Vranken's (2013:31) observation that the gap between purchase intention and actual purchase behaviour may be explained by information asymmetries between marketers and consumers. Considering the

lack of information on green products, Smith and Paladino (2010:102) advise marketers to enhance green purchase behaviour by increasing the familiarity of green products among consumers. The availability of credible information about green products that allows for easy comparison with conventional products is considered central to the purchase of green products (Gottschalk & Leistner 2013:136). According to the Uncertainty Reduction Theory, if consumers perceive that they lack pertinent information, they engage in extensive information-seeking behaviour, thereby prolonging the purchase decisions (Berger 1987:133).

To bridge the information gap, marketers need to instil trust and sustain interest in green products by disseminating accurate information about the environmental benefits of green products (Chen & Chang 2012:503). This is important because there is a lack of information among consumers about the relevance of sustainable consumption (Tobler, Visschers and Siegrist (2011:681). To direct consumption patterns towards sustainability, there is also a need to emphasise the environmental benefits of green products and strengthen consumers' trust of eco-labels (Tobler *et al.*, 2011:681). When employed effectively, eco-labels may prove to be effective informative tools with the ability "to internalise the external effects on the environment of the production, consumption and disposal of products" (Bougherara & Combris 2009:321). To enhance purchase behaviour, Atkinson and Rosenthal (2014:40) emphasise the need for eco-labels to provide detailed information on the credence qualities of green products.

To facilitate credible green communication messages, rational appeals are perceived to be effective in educating consumers to engage in pro-environmental behaviour (Deshpande 2011:13). In particular, rational appeals are regarded as a solution to greenwashing claims as they provide factual information about the attributes of green products (Peattie 2001:198). The primary focus of rational appeals is to narrow the information gap that characterises the sustainability debate (Koenig-Lewis *et al.*, 2014:102). This is achieved by providing factual information about the performance of green products and the benefits of environmental protection (Belz & Peattie 2009:186). To promote pro-environmental behaviour, there is a need to reinforce environmental stimuli to entrench sustainability values among consumers (Pickett-Baker & Ozaki 2008:290). In order to gain the trust and loyalty of consumers, green marketing messages need to be detailed, specific and credible (Leonidou *et al.*, 2011:25).

Consistent with the Attribution Theory, consumers are more likely to change their attitudes if they understand the rationale behind certain behaviours (Ozkocaz & Tuna 2011:6). For instance, the self-perception component of the Attribution Theory is employed to explain why it is important for consumers to adopt green marketing practices (Heider 1958:143) and short-term incentives such as cost savings can be used to promote sustainable consumption patterns (CRED 2009:38). Furthermore, White, MacDonnell and Dahl (2011:482) employed the “Gain or Why Framework” to explain the benefits accrued by consumers when they engage in pro-environmental behaviours. By offering justification for green consumption, consumers can be reassured that green products are of a quality superior to non-green products (Ottman 2008:66).

The rational appeals may take the form of performance comparisons of green and non-green products, information on the manufacturing process and an emphasis on the seriousness of environmental problems (Xue & Zhou 2012:4). The comparative analysis of green products may focus on providing technical evidence of environmental attributes and benefits of green products that differentiate them from non-green products (Belz & Peattie 2009:187). Alternatively, rational appeals can be process-oriented, where the focus is on communicating the integrity of the green product manufacturing process (Xue & Zhou 2012:4).

To be effective, rational appeals need to avoid green marketing clutter, that is, exposing consumers to too much information, which affects information-processing capacity and retention (Horne 2009:179). Apart from clutter, there is also a need to communicate conclusively as consumers are often confronted with incomplete information on the effects of products on the environment on a cradle-to-cradle basis (Brecard *et al.*, 2009:118). In cases where such information is provided, it exists in the form of scientific terms that are not easily understood by consumers (Koenig-Lewis *et al.*, 2014:94). For instance, technical terms such as “ozone layer depletion”, “anthropogenic climate change” and “carbon footprint”, among others, dominate most environmental messages (CRED 2009:24). As a result, failure to interpret the aforementioned terminology exposes consumers to misleading green marketing claims (Koenig-Lewis *et al.*, 2014:94).

Besides the challenges associated with the framing of green marketing messages, consumers tend to differ significantly in their cognitive and analytical skills and this may be a plausible reason for the continued existence of the knowledge gap among consumers (Lee 2010:36; Whitmarsh & O’Neill 2010:312). Another challenge of using rational appeals is the apparent

lack of consensus on definable and quantifiable facts about the causes of climate change and accurate projections about its future effects (Doyle 2011:14; Whitmarsh 2011:698).

It is also important to note that Generation Y consumers tend to experience more content fatigue and have shorter attention spans than other generations (Gleim *et al.*, 2013:54; Yarrow & O'Donnell 2009:9). This implies, therefore, that green marketing messages need to be short to capture attention and interest. Moreover, Generation Y consumers' obsession with Internet usage tends to isolate them from peers, thereby diminishing the effect of social influence in shaping purchase intentions (Goneos-Malka 2012:178). Of greatest concern to marketers is the fact that information empowerment has also resulted in high levels of scepticism among Generation Y consumers, thereby negatively affecting brand loyalty (Williams & Page 2011:45). To reduce green product scepticism, green marketers need to be honest when communicating the environmental benefits of green products (Goneos-Malka 2012:178). Marketers also need to avoid the use of persuasive communication as Generation Y consumers are not easily swayed by persuasive messages (Grotts & Johnson 2013:282). This is so because Generation Y consumers are highly discerning and sensitive to misleading green marketing communications (Leonidou *et al.*, 2011:9).

4.3 CHALLENGES OF SUSTAINING PRO-ENVIRONMENTAL BEHAVIOURS

Although the TCV is instrumental in predicting purchase behaviour, it fails to fully integrate value orientations within the diverse sub-age groups that constitute the Generation Y cohort (Urien & Kilbourne 2011:71). For instance, the variability of consumption values within the Generation Y group, coupled with the global fragmentation of markets, has the potential to limit the influence of consumption values on purchase behaviour (Samarasinghe 2012:84). In addition, delineating the consideration set of Generation Y presents a challenge because of the capricious and fickle nature of this cohort (Lazarevic 2012:45). Another challenge in stimulating pro-environmental behaviour emanates from the variation in the levels of satisfaction with green products among consumers (Paul & Rana 2012:415). Taking these challenges into account, Noble *et al.* (2009:625) advise marketers not to regard Generation Y as a homogeneous subset but to explore the tendencies of divergent behaviour within the cohort in order to foster and sustain n pro-environmental behaviours.

Gupta and Odgen (2009:386) also noted that the decision to purchase green products amounts to a social dilemma as consumers are trapped in the conundrum of balancing individual and collective consumption objectives. Specifically, the social dilemma is perceived when Generation Y consumers, who are naturally primed to have an independent, self-centred view, attempt to reconcile the influence of parents, peers, reference group and self-interest in their purchase decisions (Davari & Strutton 2014:1; Noble *et al.*, 2009:620). To align green products with consumer needs effectively, Jansson *et al.* (2010:370) emphasise the need for marketers to explore the underlying causes of the values-action gap that characterises green purchase behaviour.

Overall, Generation Y consumers tend to be reluctant to purchase green products because they are regarded as expensive, not readily available and appear to be inferior to conventional products. Based on the foregoing discussion, the selection attributes of Generation Y consumers are illustrated in Figure 4.2.

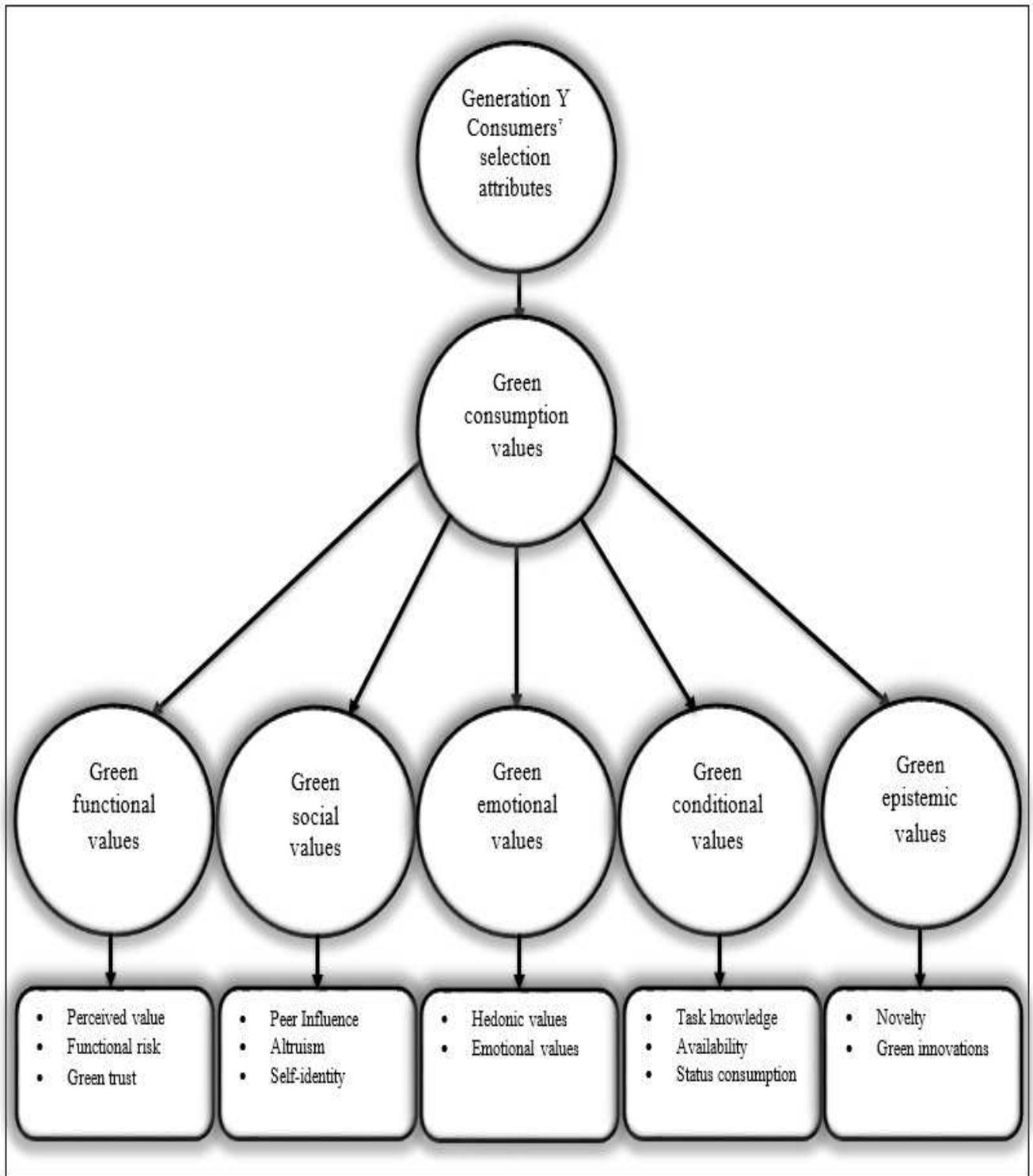


Figure 4.2 The selection attributes of Generation Y consumers

4.4 CHAPTER SUMMARY

Green consumption behaviour is dependent largely on consumers' willingness to pay for the premium-priced green products in exchange for environmental benefits. It appears therefore

that the major challenge confronting marketers is to justify to consumers the high price of green products. In the marketplace, functional, emotional, social, conditional and epistemic values are regarded as instrumental in fostering green purchase behaviours. The main attributes that appear to influence the selection of green products at the point of purchase are identified as performance, quality, taste, price and availability.

In spite of the surge in environmental concern, indications are that consumers are not prepared to sacrifice traditional product attributes such as quality, price, convenience and performance for the sake of preserving the environment. Additionally, Generation Y consumers tend to be confronted by the dilemma of balancing personal and societal goals in an attempt to adopt sustainable consumption patterns. The scepticism associated with green products, coupled with their higher price, continues to reduce the consumption of green products, resulting in the continued existence of the gap between green purchase intentions and actual purchase behaviour.

The following chapter presents the methodology employed in this study in its attempt to come to an empirical understanding of the antecedents of green buyer behaviour and the selection attributes of Generation Y consumers.

CHAPTER 5

RESEARCH METHODOLOGY

5.1 INTRODUCTION

The primary objective of the study, as alluded to in Chapter one, was to examine the antecedents of green buyer behaviour and the selection attributes of Generation Y consumers. The green marketing literature reviewed acknowledged that there is lack of consensus among researchers on the antecedents of green consumer buyer behaviour. The previous chapter also noted the existence of a gap between green purchase intention and actual purchase behaviour. The literature reviewed also highlighted green product positioning challenges faced by marketers in the market place. In particular, one of the major challenges confronting marketers is to understand the attributes of green products that are perceived as important by the Generation Y cohort.

This chapter provides the methodology used in an attempt to address the primary and empirical objectives of the study. The chapter commences with a discussion on the philosophical orientations and research paradigms that guide the study. After presenting the philosophical positions of the study, the research design is discussed. Thereafter, statistical procedures for data preparation and analysis are described. The chapter concludes by discussing the measures employed to enhance reliability and validity.

5.2 PHILOSOPHICAL UNDERPINNINGS AND RESEARCH PARADIGMS

The relationship between the nature of reality and the generation of knowledge is highly contested in academic research (Easterly-Smith, Thorpe & Lowe 2002:27). Accordingly, Denscombe (2008:271), Denzin (2010:419), Symonds and Gorard (2010:123) characterise debates on the nature of reality and knowledge as “research paradigm wars.” For instance, Crotty (1998:66) noted that “different ways of viewing the world shape different ways of researching the world”. Based on Crotty’s (1998:66) viewpoint, it seems that one of the fundamental challenges confronted by researchers is the selection and justification of the research paradigm(s).

Conceptually, a research paradigm refers to a set of philosophical assumptions and beliefs that directs research execution (Jonker & Pennink 2010:29). A research paradigm is defined by Guba and Lincoln (1998:200) as a “set of beliefs that define the nature of the world, the individual’s place in it and the possible relationships to that world and its parts”. In empirical studies, research paradigms are instrumental in guiding the researcher in the selection of the research design, research methodology and research instruments (Easterly-Smith *et al.*, 2002:27; Ponterotto 2005:128). In short, the research paradigm(s) guide(s) the researcher by defining the ontological, epistemological and methodological assumptions of the study (Guba & Lincoln 1994:107).

Ontology and epistemology are identified as the main sets of philosophical assumptions that differentiate research paradigms (Saunders, Lewis & Thornhill 2009:119). Ontology refers to the researcher’s perceptions of what constitutes knowledge and the nature of reality (Bryman 2011:20; Saunders *et al.*, 2009:119). Thus, Guba and Lincoln (1994:108) identified the ontological question as “What is the form and nature of reality and what can be known of it?” Epistemology, also known as the “theory of knowledge” (Dick 1999:306) is defined as the belief system that informs the generation of what constitutes acceptable and valid knowledge in a study (Wahyuni 2012:69). According to Guba and Lincoln (1994:108), the epistemological question is therefore “What is the nature of the relationship between the knower and what can be known?”

Axiology and methodology are the main basic values that guide the research paradigms (Wahyuni 2012:70). Axiology refers to the influence of the researcher’s values in research execution whereas methodology captures the research methods that are employed in the study (Wahyuni 2012:70). By adopting the standpoint of methodological questions, the researcher sets out to find out the nature of reality by following a set of research guidelines and procedures (Guba & Lincoln 1994:108). A research paradigm therefore guides the researcher by defining the ontological, epistemological, axiological and methodological dimensions of the study (Saunders *et al.*, 2009:119).

The main research paradigms that dominate contemporary literature include positivism, post-positivism, realism, constructivism and pragmatism (Creswell 2009:6; McMillan & Schmacher 2010:4). In line with the research objectives, the research paradigms that are relevant to this study are the post-positivist, constructivist and pragmatic. In an attempt to answer the research questions and verify the conceptual framework, the present study

combined the post-positivist and constructivist paradigms. The blending of both paradigms was aimed at providing the researcher with the flexibility to statistically examine and analyse the antecedents of green consumer buyer behaviour and the selection attributes of Generation Y consumers.

The post-positivist paradigm adopts the critical-realist ontology and is grounded in the belief that the nature of reality is independent of human thoughts and can be interpreted effectively through objective analysis of research objects (Wahyuni 2012:70). Epistemologically, the post-positivist paradigm assumes that knowledge is generated logically, based on a systematic and objective scientific inquiry (Creswell 2009:7). The aim of the post-positivist paradigm is to generate objective knowledge through the use of a credible research process that enhances the accuracy, validity, reliability and generalisability of research findings (Schulze & Kamper 2014:131). Post-positivism upholds the tenets of phenomenalism and perceives knowledge as objective and accurate only if it is subjected to objective scrutiny (Bryman & Bell 2011:20). The post-positivist is supported by the quantitative research methodology that is premised on the view that knowledge is constructed through objective measurement of relationships among variables in a given study (Glesne & Peshkin 1992:6). Thus, under the post-positivist paradigm, knowledge is constructed based on quantified numeric data that are subjected to detailed statistical analysis (McMillan & Schumacher 2012:12).

From an axiology perspective, the post-positivist paradigm firmly subscribes to the view that the researcher's values negatively influence the objectivity of the research outcomes (Wahyuni 2012:71). Therefore, to enhance the generation of objective truth, the researcher plays a detached role in a post-positivist paradigm (Schulze & Kamper 2014:131). This study partly follows the post-positivist approach as it employs a quantitative questionnaire survey to understand the antecedents of green buyer behaviour and the selection attributes of Generation Y consumers.

The major criticisms levelled against the post-positivist paradigm are its over-dependence on rationality and its apparent failure to capture knowledge rooted in the subjective realms of perceptions, beliefs, norms, attitudes, feelings and cultural values (Welman, Kruger & Mitchel 2011:6). To complement the post-positivist paradigm, the constructivist paradigm was also incorporated in the study. The constructivist paradigm enabled the researcher to

capture the lived experience of Generation Y consumers when they are exposed to green products in the marketplace.

From an ontological perspective, the constructivist approach subscribes to the viewpoint that knowledge is socially constructed and is dependent on the interaction between the researcher, research objects and the natural environment in which the research is conducted (Wahyuni 2012:70). The constructivist paradigm contends that the researcher is an active participant and is immersed in the research process that naturally unfolds (Schulze & Kamper 2014:132). This paradigm affirms that individuals in their capacity as social actors are central to the creation of knowledge through the process of social interaction with the researcher (Bryman 2008:19; Saunders *et al.*, 2009:111). The overriding objective of the constructivist paradigm is to understand behaviour and not to predict it (Harrison & Reilly 2011:8). In line with the constructivist paradigm, knowledge is generated subjectively by analysing situational and motivating factors that have an effect on the research objects (Wahyuni 2012:70). Consistent with this paradigm, in-depth interviews were conducted in order to understand the antecedents of green buyer behaviour and the selection attributes of Generation Y consumers.

Overall, the study followed the pragmatic paradigm that combined the post-positivist and constructivist paradigms. The pragmatic paradigm resonated with the objectives of the current study. Ontologically, the pragmatic paradigm is grounded on the notion that the nature of reality is multi-faceted and externally generated and that the best research approach is the one that answers the research questions of the study (Wahyuni 2012:70). The pragmatic paradigm views knowledge as socially constructed based on the lived realities of research objects (Schulze & Kamper 2014:132). The logic behind this paradigm is that it employs both the inductive and deductive approaches to find explanations for a phenomenon under study (Creswell 2009:11). The strength of the pragmatic paradigm emanates from its ability to integrate objective and subjective data sets to answer the research questions of the study (Johnson & Onwuegbuzie 2010:18).

Axiologically, the pragmatic paradigm is a values-oriented approach (Johnson & Onwuegbuzie 2010:18) that acknowledges that values are integral in interpreting the results as researchers tend to incorporate both objective and subjective perspectives when conducting data analysis (Wahyuni 2012:70). In terms of methodology, pragmatism is consistent with the mixed-methods approach (Denscombe 2011:273).

Based on the view of Cherryholmes as cited by Creswell, Clark, Guttman and Hanson (2003:186) that “researchers should be concerned with applications, with what works and with solutions to problems”, this study employed the mixed-methods approach that combined qualitative and quantitative research methods to understand the antecedents of green buyer behaviour and the selection attributes of Generation Y consumers. Consumer buyer behaviour is regarded as a complex field that is interwoven with attitudes, perceptions, values systems, norms, beliefs and contextual factors (Kotler & Keller 2012:35). To address the diversity and complexity of consumer buyer behaviour, a mixed-methods approach to methodology was deemed necessary.

Based on the foregoing discussion, the philosophical beliefs and the research paradigms of the study are outlined in Table 5.1.

Table 5.1 Philosophical beliefs and the research paradigms

Worldview and beliefs	Research paradigms		
	Post-positivism	Constructivism	Pragmatism
Epistemology	Knowledge of antecedents of green buyer behaviour was established through an objective quantitative study.	Subjective factors that influence green buyer behaviour such as values, norms and beliefs were subjected to detailed analysis and interpretation.	Mixed methods that combined a qualitative and a quantitative study were employed to understand the antecedents of green buyer behaviour and the selection attributes of Generation Y consumers.
Axiology	Research was value-free and etic. The researcher was independent of the data and maintained an objective stance.	The research was value-bound. The researcher was part of the research process and could not be separated.	The researcher was value-bound and etic-emic. Values play a large role in interpreting the results; the research adopts both the objective and subjective viewpoints.
Research methodology	Quantitative (Questionnaire survey)	Qualitative (In-depth interviews)	Qualitative and quantitative (Mixed-methods design)

Source: Own research

5.3 RESEARCH DESIGNS

A research design is defined as a set of philosophical assumptions, methods and procedures that are utilised in an attempt to provide insights into a research problem (Creswell 2009:5). The research design is defined as a blueprint that specifies the methods and procedures employed for data collection and analysis in a study (Gupta 2010:39; Murthy & Bhojanna 2010:232). The primary objective of the research design is to provide an outline of the research process in order to facilitate the assessment of the study in terms of its reliability and validity (Wiid & Diggins 2011:33). The research design also directs the researcher in the

selection of suitable methods of data collection and data analysis (Welman, Kruger & Mitchell 2011:52).

Theoretically, research designs are classified into exploratory and conclusive design (Malhotra 2007:79). The primary objective of an exploratory research design is to provide insights into the research problem with the aim of generating new knowledge (Wiid & Diggines 2011:55). Conclusive research is aimed at assisting decision makers in making informed decisions based on supporting evidence from a scientific inquiry (Malhotra 2007:99). This study followed the conclusive design in an attempt to understand the antecedents of green purchase behaviour and the selection attributes of Generation Y consumers.

Descriptive and causal research designs are the main types of a conclusive research design (Malhotra 2007:79). A descriptive research design utilises scientific methods and procedures to collect and analyse data in an attempt to answer the research problem (Shiu *et al.*, 2009:62). The differences between descriptive and causal research are summarised in Table 5.2.

Table 5.2 A comparison of descriptive and causal research designs

	Descriptive	Causal
Objective	Describe market characteristics or functions	Determine cause and effect relationships
Characteristics	Marked by the prior formulation of specific hypotheses Follows a pre-planned and structured design	Manipulation of one or more independent variables Control of other mediating variables
Methods	Secondary data Surveys, panels, observational	Experiments

Source: Malhotra (2007:81).

For the purpose of this study, a descriptive survey design was utilised to understand the antecedents of green buyer behaviour and the selection attributes of Generation Y consumers.

5.4 QUALITATIVE AND QUANTITATIVE RESEARCH APPROACHES

The research methods outline the strategies employed for data collection (Creswell 2009:15). Traditionally, quantitative and qualitative approaches are the main strategies that are utilised by researchers for data collection (Bryman & Bell 2011:26). Quantitative research is rooted in the post-positivist paradigm and it employs statistical procedures and methods to measure the relationships among the variables that shape the phenomenon under study (Bryman & Bell 2011:152). The quantitative study takes the form of the deductive approach that seeks to generalise research findings through the use of statistically proven empirical evidence (Borrego, Douglas & Amelink 2009:53). The major advantage of quantitative methods emanates from the objectivity of research findings and the ability to generalise research findings to the entire population (Wiid & Diggins 2011:4).

The qualitative method rests on the constructivist paradigm and is premised on describing relationships between research objects and the environment in which the research is conducted (McCusker & Gunaydin 2014:1). In contrast to quantitative methods, the qualitative approach utilises the inductive approach to ascribe meaning to data generated from research objects (Wiid & Diggins 2011:4). According to Bryman (2008:11), the inductive approach attempts to draw conclusions from generated data through detailed intuitive analysis with the aim of generating new knowledge.

The main advantage claimed by a qualitative study over a quantitative one is that it permits the "phenomenon of interest to unfold naturally" (Patton 2001:39). Additionally, qualitative study provides a "thick" description of the phenomenon under study (Borrego *et al.*, 2009:56) by providing a detailed understanding of the relationships between research objects and their natural settings (Mello & Flint 2009:109). This view resonates with Golafshani's (2003:595) affirmation that the overriding objective of a qualitative study is to understand the lived experiences of the research objects.

In line with the adopted pragmatic paradigm, the present study follows the qualitative-quantitative mixed-methods approach. Historically, the concept of mixing methods originated in 1959 when Campell and Fisk used multi-methods to study the validity of psychological traits (Creswell 2009:14). To date, the mixing of methods in research is associated with terms such as blended research, third methodological movement, integrative methods, multiple methods, triangulated studies, ethnographic residual analysis and mixed research (Bazeley

2009:6; Creswell & Garrett 2008:322; Harrison & Reilly 2011:8; McMillan & Schumacher 2010:396).

In this study, the term mixed methods is employed to imply the integration of quantitative and qualitative approaches in one study with the aim of enhancing the quality of the research findings (Malina, Norreklit & Selto 2011:61). The main advantages claimed by the mixed-methods methodology include its flexibility, integrative and holistic nature, ability to address the limitations of single methods, provision of more comprehensive data sets than mono-methods and credibility of research findings (Bergman 2010:172; McMillan & Schumacker 2010:39). In addition, the mixed-methods approach accords the researcher the opportunity to generalise research findings while gaining a detailed understanding of the phenomenon under study (Schulze & Kamper 2014:145). Given the advantages associated with a mixed-methods approach, Bazeley (2009:204) contends that failure to utilise mixed methods in research “results in lost potential and possibly in misleading conclusions.”

In terms of application, the mixed-methods designs differ in terms of their sequence, the weight accorded to the data set derived from each method and the stage of integration of research findings (Schulze & Kamper 2014:135). Based on the aforementioned variations, Creswell (2009:14) identifies three main forms of mixed methods, namely sequential, concurrent and transformative. The sequential mixed method is a research approach that begins either with a qualitative or quantitative study for exploratory purposes and follows up with a quantitative or qualitative survey (Creswell 2009:14). In concurrent mixed methods, the investigator collects both qualitative and quantitative forms of data at the same time and then integrates the data during the data analysis and interpretation stages (Venkatesh, Brown & Bala 2013:3). The transformative mixed method utilises a theoretical lens to support a study within a design that contains both quantitative and qualitative data. Within the transformative mixed method, data collection can follow either a sequential or a concurrent approach (Creswell 2009:235). The main forms of mixed methods are summarised in Table 5.3.

Table 5.3 Mixed-methods design types

Design type	Variations	Timing	Weighting	Mixing	Notation
Concurrent	Convergence	Qualitative & quantitative simultaneously	Usually equal	Merging the data during analysis	Quantitative + Qualitative
Embedded	<ul style="list-style-type: none"> • embedded experimental • embedded correlation • embedded methodology 	concurrent or sequential	Unequal	Embeds one type of data within a larger design using the other type of data	Quantitative or Qualitative
Exploratory	Instrument development taxonomy	Sequential: qualitative followed by quantitative	Usually qualitative	Connects the data between the two phases	Qualitative quantitative
Transformative	Convergence and exploratory	Sequential or concurrent	Usually equal	Merging the data during analysis	Quantitative + Qualitative

Source: Creswell (2009:15).

Overall, this study employed the sequential transformative mixed-methods approach that encompasses a literature review and qualitative and quantitative methodologies to answer the research problem. The mixed-methods approach was considered appropriate for the study because it allowed the researcher to gain insights into the research problem. According to Delport and Fouche (2011:441), a sequential mixed-methods approach also allows the researcher to develop a suitable measuring instrument through a qualitative study and then follow up with a comprehensive quantitative study with a larger sample. Thus, the relationship between qualitative and quantitative in this study was complementary rather than competitive.

Although there are contrasting views on the efficacy of using mixed methods in a single study, Trustcott, Swars, Smith, Thorton-Reid, Zhao, Dooley, Williams, Hart and Mathews (2009:318) opined that “...compatibility of methods is determined through theoretical consistency of the plan of action and the means by which one achieves the plan...” Thus, this study followed the two-stage process recommended by Creswell (2009:209), whereby data

generated from in-depth interviews act as a “lead-in” (McCusker & Gunaydin 2014:3) in the development of the questionnaire for the quantitative study and the findings from the qualitative study support the findings of the quantitative study. Based on the distinction suggested by Creswell (2009:209), qualitative + QUANTITATIVE is the notation adopted in this study. The word in lower case implies that the qualitative approach was the less dominant method while the word in upper case indicates that the quantitative approach was dominant. In summary, the study commenced with the literature review followed by a qualitative study in the form of in-depth interviews with the Generation Y cohort to generate themes that were used to develop a questionnaire for a quantitative study.

5.5 THE EMPIRICAL DESIGN PROCESS

The empirical design process primarily defines the target population, the sample frame, sample size, sampling methods, data collection methods and measurement instruments of the study.

5.5.1 The target population

In research, population refers to the aggregate of all the units that are eligible to participate in a study (Creswell & Plano 2007:112; Salkind 2012:95). Within the population, the elements that are examined as determined by the research problem are referred to as the target population (Wiid & Diggines 2011:193). The target population for this study comprised Generation Y students, aged between 19 and 34 years and enrolled at two South African institutions of higher learning in 2014. Within the Generation Y cohort, respondents comprised male and female students at a University of Technology and a private institution of higher learning in the Gauteng province in South Africa.

The student population was selected because young students are regarded as the future consumers, with the ability to influence long-term consumption patterns (Atkinson & Rosenthal 2014:42). By focusing on young consumers, the present study was aimed at capturing the factors that influence the Generation Y cohort’s consumption of green products. According to Vermeir and Verbeke (2008:545), personal identities formed during early stages of the life cycle are more likely to be carried forward to old age and hence the findings of the study are expected to assist marketers to capture the loyalty of the fickle Generation Y consumers. University students were also chosen because Smith and Brower (2012:357)

contend that this segment is both educated and more conscientised to the importance of pro-environmental behaviours.

Additionally, institutions of higher learning are considered as miniatures of the society and hence serve as the ideal environment to examine the antecedents of green purchase behaviour (Vermeir & Verbeke 2008:545). The added advantage of using students stems from their convenience as a research sample (Irawan & Darmayanti 2012:5). More importantly, by virtue of their educational level, university students are regarded as future leaders and policy makers and as such, their habits, beliefs and attitudes are influential in shaping community norms and values (Do Paco & Reis 2012:149; Lee 2014:218).

5.5.2 The sampling frame

A sample is a sub-group of the population that is selected for participation in a study (Salkind 2012:95). Thus, a sample frame takes the form of a list of the sample units available for selection from the target population (Wiid & Diggines 2011:196). A good sample frame is one that accurately represents the views of the target population on the subject under study (Malhotra 2007:335). The sampling frame for the study consisted of 25 public and 30 private higher education institutions registered in South Africa as listed by Higher Education in South Africa and the Department of Higher Education and Training (HESA 2012:1; RSA 2014:1-82). Using a judgement sampling method, the sampling frame was narrowed down to two HEIs located in the Gauteng Province, one being a city-based private HEI and another being a country-based university of technology. The sample base for this study comprised students (between the ages of 19 and 34), who were enrolled for the 2013-2014 academic years.

5.5.3 The sampling procedure

Once the sampling frame has been established, the researcher needs to decide on the sources of data and how data will be collected. The selection of participants for the study is referred to as sampling (Englander 2012:17). Wiid and Diggines (2011:193) defined sampling as a process of selecting a group of people, events or behaviours with which to conduct a study. The main advantages of sampling over a census are cost-effectiveness, faster data collection and improvement in the quality of data collected (Ader, Mellenbergh & Hand 2008:1).

Sampling methods are broadly classified into probability sampling and non-probability sampling (Guba 2010:73). In probability sampling, each unit of the population has a known chance of being selected as a unit of the sample, whereas in non-probability sampling, the probability that a specific unit of the population will be selected is not known (Wiid & Diggins 2011:199). In probability sampling, units of the population are selected by chance or randomness (Welman, Kruger & Michell 2011:56). In contrast, non-probability sampling entails the selection of sample elements based on the personal judgement of the researcher (Malhotra 2007:340).

For the purpose of this study, non-probability sampling methods were employed for both the qualitative and quantitative survey. Purposive sampling was used to select participants for in-depth interviews. Parahoo (1997:232) describes purposive sampling as “a method of sampling where the researcher deliberately chooses who to include in the study based on their ability to provide necessary data.” Knowledge of green marketing was the criterion for selecting respondents for in-depth interviews.

For the quantitative study, convenience sampling was employed. Shiu, Hair, Bush and Ortinau (2009:480) defined convenience sampling, also known as as a technique in which respondents that are readily accessible to the researcher are considered for the study. Bryman (2008:183) defined convenience sampling as a sampling method whereby a research sample is selected “by virtue of its accessibility”. In convenience sampling, the selection of sampling units is at the discretion of the researcher and often respondents are chosen based on their availability and willingness to participate in a given study (Malhotra 2007:341). Overall, convenience sampling was employed in the present study because it was expedient, cost-effective and timesaving.

Following the convenience sampling method, the sample was drawn from respondents who were accessible and readily available to the researcher. This allowed respondents to participate in the study based on their level of interest. The respondents were requested to complete the questionnaires in their regularly scheduled classes with the permission of their respective lecturers.

5.5.4 **The sample size**

The sample size refers to the elements of the population which are included in a study (Gupta 2011:196; Malhotra 2007:338). With respect to the in-depth interviews, respondents were

interviewed until technical saturation was reached. In a qualitative study, Guest, Bunce and Johnson (2006:60) define technical saturation, also known as theoretical saturation, as the point at which recurrence of previously generated data occurs. In this study, technical saturation was deemed to be reached by the sixteenth interview as no new information emerged from the interviews.

For the quantitative study, the study employed the historical evidence approach to determine the sample size. Based on previous similar studies conducted by Chen and Chang (2012:510), Cheah and Phau (2011:452), Rahbar and Wahid (2011:73) and Ramayah, Lee and Mohamad (2010:1423), a sample size of 250 respondents was considered adequate. However, in the present study, the sample size was deliberately pitched at 420 in order to enhance the statistical power of the data set, as recommended by Gupta (2011:122). In addition, the determination of sample size was guided by the requirements of the multivariate analysis, that is, factor analysis and SEM employed in the present study. Based on Pallant's (2010:187) recommendation, a ratio of at least five cases for each of the variables under discussion was used as a rule of thumb to determine sample size. For the present study, eight variables were under investigation and hence a sample size of 420 conforms to the requirements for the implementation of multivariate procedures.

5.5.5 Data collection and measuring instruments

The collection of data constitutes an integral element of the research process. Data collection refers to the precise and systematic gathering of opinions and views that have the potential of addressing the research problem (Murthy & Bhojanna 2010:241). In order to address the research objectives, it is important to select suitable data collection tools that enhance the quality of data (Parahoo 1997:52). In an attempt to answer the research questions and verify the research framework, this study utilised in-depth interviews and a questionnaire survey to collect primary data. Data collection commenced with a detailed literature review followed by in-depth interviews and finally through a structured, self-administered questionnaire survey.

5.5.5.1 Literature review

A literature review is an objective, thorough overview and critical analysis of the relevant body of knowledge on the topic being studied (Welman *et al.*, 2011:38). It involves the selection of information from extant literature and the integration of this information into a

logical justification for a study (Jaidka, Khoo & Na 2013:304). Literature reviews are typically written by researchers who survey previous studies in order to identify research gaps and to place their own work in the context of previous findings (Welman *et al.*, 2011:39). The literature review provides the context for the research, locates the research in the existing body of knowledge, traces the intellectual progression of the field under study and helps to identify important variables relevant to the study (Creswell 2009:23).

The literature review helps to determine whether the study is worth pursuing and assists the researcher in structuring the scope of the study (Creswell 2009:23). Thus, the literature review provides a framework for establishing the importance of the study and acts as a benchmark for delineating its boundaries (Welman, Kruger & Mitchell 2011:39). In summary, the literature review justifies the conceptual framework of the study, contextualises the study and acquaints the researcher with the phenomenon under study.

Although the literature review provides the context of the research, Boeije (2009:21) advised against conducting a literature review prior to data collection as it could influence the researcher's conceptualisation of the study. Similarly, Lawrence and Tar (2013:29) argued that conducting the literature review prior to data collection and analysis is likely to influence the researcher's conceptualisation of the study.

In spite of the foregoing arguments, the researcher conducted literature review prior to fieldwork. The aim was to obtain background knowledge on the phenomenon under study. The researcher also conducted a literature review prior to data collection as a prerequisite for the Doctor of Technology Marketing programme. Towards this end, an extensive literature review was conducted to orientate the researcher on the antecedents of green buyer behaviour and the selection attributes of Generation Y consumers.

The study utilised the concept of bracketing to maintain objectivity. In line with the concept of bracketing, the researcher set aside the knowledge that was gleaned from the literature review and approached data collection with an open mind. Thereafter, following the example of Boeije (2009:21), knowledge generated from the literature review was referred to during the interpretation of research findings to support or refute the research outcomes. Specifically, after the research findings had been presented, the researcher revisited the literature reviewed in an attempt to correlate the research findings with the existing body of

knowledge. This was necessary to confirm the conceptual framework and to generate new knowledge.

5.5.5.2 In-depth interview design

The study utilised semi-structured in-depth interviews to explore the antecedents of green buyer behaviour and the selection attributes of Generation Y consumers. In-depth interviews allowed the researcher to collect data that reflected the respondent's views without limiting them to a set of pre-determined responses as is the case in a structured questionnaire survey (Sooful, Surujlal & Dhurup 2010:685). The in-depth interviews were grounded in the theoretical foundations of phenomenology, with the aim of capturing as far as possible a true description of the experiences lived by the participants when exposed to the phenomenon under the study (Giorgi 2009:122).

The in-depth interview technique was considered as suitable for the study because of its flexibility, which allows the researcher to explore a greater depth of meaning than can be obtained with other methods of inquiry (Wiid & Diggins 2011:112). The added advantages of in-depth interviews include the ability to use interpersonal skills to elicit more information and a higher response rate (Turner 2010:754; Wegner 2012:15). Moreover, the in-depth interviews were utilised because of their richness in terms of nuance and depth of knowledge (Englander 2012:27).

The development of interview questions is considered one of the central elements of the interview design (Turner 2010:757). The interview guide was designed after a comprehensive literature review. Following the approach of Surujlal (2011:121), the interview guide was pre-tested with three participants to assess the suitability of questions and determine the duration of the interview. It was refined with minor adjustments after the pre-test. The guide comprised questions on green marketing awareness, determinants of green purchase behaviour and challenges of green marketing. The invitation letter was sent to all prospective participants in line with the concept of informed consent. The consent letter briefly explained the purpose of the interview and the interview procedures (see Appendix B).

A preliminary meeting was held a week prior to the actual interview with those who were willing to participate. A preliminary meeting was held with potential participants in order to explain the purpose of the interview, to establish trust and to obtain their consent. According

to Englander (2012:27), a preliminary meeting enhances the cooperation of participants during the interview and contributes significantly to the quality of data generated.

After the preliminary meeting, the interview guide was given to the participants to familiarise themselves with the questions before the interview (see Appendix C). It provided an outline of the interview questions, thus enhancing the transparency of the study (Arthur & Nazroo 2003:15). As recommended by Legard, Keegan and Ward (2003:155), the phrasing of the questions for the interview guide was focused on enhancing clarity and no double-barrelled questions were included.

5.5.5.3 Conducting the interview

The interviews were conducted in line with ethical considerations such as respect, honesty, confidentiality and anonymity, as suggested by Surujlal (2011:122). An appointment was scheduled with each participant at a convenient time and suitable venue. Interviews were conducted at two campuses over a period of 30 days. The interviews varied in duration, but all fell within the range of 60 to 90 minutes. Although the interviews varied in duration, this does not imply that shorter interviews were inferior to longer ones (Bryman & Bell 2011:482). All interviews followed a standardised format, covering issues of green marketing awareness, determinants of green purchase behaviour and challenges of green marketing.

First, the interviewer thanked the participants for their time and willingness to participate in the interview. The researcher then requested permission to record the interview. The interview was semi-structured and probing questions asked were significantly influenced by the information provided by the participant. Open-ended questions were useful in giving respondents the latitude to express their views (Turner 2010:756). Probing was useful to encourage participants to elaborate further in order to elicit the true meaning of the phenomenon under study. According to Arthur and Nazroo (2003:124), follow-up questions and probes are instrumental in soliciting comprehensive information about the phenomenon under study. Following the example of De Vos, Strydom, Fouche and Delport (2002:293), open-ended questions, interview tracking, clarification and reflective summary were used as the main probing techniques. Open-ended questions were particularly important to allow participants to narrate their lived experiences and this contributed to the quality of data (Bryman 2008:442).

Through tracking, the interviewer showed interest and encouraged interviewees to speak by closely following their verbal conversation and non-verbal cues. Where necessary, the interviewer requested further clarification from the interviewees. This allowed the researcher to determine whether questions had been misunderstood and to clarify the views raised by the interviewee. In some cases, reflective summary was employed, whereby the interviewer paraphrased the contributions of the interviewee in order to gain further clarification.

The interview commenced with a general broad question to put the interviewees at ease. During the interview, data collected were recorded on audiotape and notes taken simultaneously by the interviewer to enrich the taped discussions. The tape recorder was positioned close enough between the researcher and each participant to record the conversation. The tape recorder was tested prior to the interview to ensure that it was in good working order. As advised by Holloway and Wheeler (2002:237), notes were taken discreetly to avoid distracting the participants and disrupting the flow of the interview. The audio tapes and interview notes were labelled properly for each interview with dates and pseudonyms, as well as the date of the interview and the gender of participants.

In line with the sequential mixed-methods approach, after conducting interviews, the study employed the questionnaire survey to further examine the themes that emanated from in-depth interviews.

5.5.5.4 Questionnaire design

The study utilised a structured, self-administered questionnaire to gather data for the quantitative study. By definition, a questionnaire is “a formalised framework consisting of a set of questions and scales designed to generate primary data” (Shiu *et al.*, 2009:329). Owing to its formalised structure, the questionnaire enables the researcher to collect a systematic and well-organised data set (Malhotra 2007:299). The main advantages of a structured self-administered questionnaire are that it saves time and reduces researcher bias as respondents answer questions without the direct assistance of the researcher (Salkind 2012:147; Wiid & Diginnes 2011:176).

Conversely, the major disadvantages of a questionnaire survey include non-response as the respondents may not be willing to provide answers to certain questions, provision of wrong responses in instances where questions are not properly phrased, lack of flexibility and the

likelihood of misleading results in the event of a biased attitude on the part of the respondents (Wiid & Diggins 2011:171).

5.5.5.5 Questionnaire format and layout

The effectiveness of a questionnaire as a data collection instrument depends on its structure. For instance, Shiu *et al.* (2009:327) contend that “a poorly written questionnaire will not provide the data that are required or, worse, will provide data that are incorrect.” According to Wiid and Diggins (2011:171), a haphazardly developed questionnaire results in response bias with the potential of rendering research findings worthless. A good questionnaire is one that is designed in a manner that motivates respondents to participate in the study, as well as providing responses that address the research problem (Malhotra 2007:299). Given this background, considerable effort was given to the design of the questionnaire for the present study.

The questionnaire was developed in English, which is the language of learner instruction at the two institutions of higher learning where the sample was drawn. The questionnaire included a cover letter requesting the consent of the respondents and explaining the purpose of the study. The letter also solicited the co-operation of respondents by way of giving the correct information when completing the questionnaire. The questionnaire consisted of closed-ended questions only to save completion time for the respondents (Bryman & Bell 2011:250). A closed-ended question is one that requires the respondent to select from a set of fixed responses one response that best explains the construct under study (Wiid & Diggins 2011:177). The questionnaire included clear instructions that directed the respondents in completing the questionnaire. Based on the recommendation of Salkind (2012:149), the questionnaire started with basic demographic questions and later focused on specific questions related to the study.

The dominant themes that emerged from the in-depth interviews informed the development of the questionnaire. Based on the content analysis of interview transcripts, *environment attitude, environmental concern, environmental responsibility, social influence, government influence, green purchase intention, selection attributes* and *actual purchase behaviour* emerged as the major themes. These themes concurred with the antecedents of green buyer behaviour in extant literature (Chan & Lau 2000:344; Lee 2008:580; Lin & Huang 2012:14; Sinnappan & Rahman 2011:132).

In terms of structure, the questionnaire consisted of five sections. Section A requested the biographical and demographic information such as gender, age, income and education level, membership of environmental groups and ethnicity of the respondents, based on Lee's (2008:580) study. The demographic variables were incorporated in order to obtain insights into the profile of green consumers. Section B comprised questions on the antecedents of green purchase behaviour that emerged from in-depth interviews.

The questionnaire items used to measure environmental concern, environmental attitude, environmental responsibility, social influence and government influence were adapted from similar studies conducted by Lee (2009:90), Lee (2008:579), and Sinnappan and Rahman (2011:132). These scales have been employed extensively in green consumer buyer behaviour studies and are considered reliable and valid in measuring their respective constructs. The responses to the items were measured on five-point Likert-type scales anchored by "strongly disagree" (1) to "strongly agree" (5) to express the degree of agreement or disagreement.

Section C requested information on the respondents' green purchase intention. Green purchase intention was assessed using a four-item scale adapted from a study conducted by Chan and Lau (2000:344). All the measurement items were measured on a five-point Likert-type scale ranging from definitely unlikely (1) to definitely likely (5). Section D assessed the selection attributes of Generation Y consumers. Selection attributes were measured using a five-item scale adapted from the work of Lin and Huang (2012:14). The measurement items were assessed using a five-point Likert-type scale with end-points of "not at all" (1) to "always" (5), to reflect the propensity to choose a green product.

Finally, Section E captured the actual purchase behaviour of environmentally friendly products using a measurement items scale developed by Chan and Lau (2000:344). Actual purchase behaviour was measured using a five-point Likert-type scale ranging from "not at all" (1) to "very high" (5) to express the degree of agreement or disagreement.

5.6 PILOT TESTING THE QUESTIONNAIRE

Following the development of the questionnaire, a pilot study was conducted prior to the main study. The objective of the pilot study was to assess the feasibility of conducting the study, the appropriateness of the questionnaire and the adequacy of the research methodology (Babbie & Mouton 2010:244; Delpont & Roestenburg 2011:195). Following the example of

Synodinos *et al.* (2013:20), the pilot study was conducted by administering the questionnaire to a convenience sample of 50 respondents from the target population.

Based on the findings of the pilot study, the Cronbach's alpha value was computed to measure the internal consistency of the measurement scales. The measurement items returned acceptable Cronbach alpha values, ranging from 0.704 to 0.899, that were above the minimum threshold value of 0.70 (Pallant 2011:100). The Cronbach alpha values of the measurement items are provided in Appendix E. In addition, as recommended by Bergman (2008:57), the results of the pilot study were scrutinised by the research team, comprised of the promoter, the statistician and the researcher. The aim was to assess the structure, reliability and validity of the measurement. After the consultative meeting of the research team, the measurement instrument was refined to reflect the context of South African institutions of higher learning. Refer to Appendix D for the questionnaire that was used in the study.

5.7 FIELDWORK AND ADMINISTRATION OF QUESTIONNAIRES

The questionnaires were hand-delivered to lecturers at each of the two campuses between July and August 2014. The lecturers were requested to ask diploma, degree and postgraduate students to complete the questionnaire soon after their lectures. The lecturers were given strict instructions that no student should be forced to complete the questionnaire. The questionnaire was completed on a voluntary basis and no incentives were offered for participation. Convenience, enrolment for a business-related programme and belonging to the Generation Y cohort were the main criteria for the inclusion of potential respondents in the study. The questionnaires were delivered and collected personally by the researcher.

5.8 DATA PREPARATION AND ANALYSIS

The data analysis encompasses two data strands from qualitative and quantitative surveys. First, the analysis of qualitative data is discussed and then the approaches utilised for quantitative data are presented.

5.8.1 Qualitative data analysis

For the qualitative study, data were generated by means of phenomenological in-depth interviews. Following the verbatim transcription of the interviews, the researcher and two

professors analysed all the transcripts from the interviews, employing the the six-stage process recommended by Braun and Clarke (2006:6).

First, the qualitative data analysis involved the process of reading through the transcribed notes and listening to the recorded interview tapes to become familiar with the data. According to Braun and Clarke (2006:86), this stage enhances the ability of the researcher to capture all the key aspects raised in the interview. In addition, it allowed the researcher to ascertain the general sense of the data in terms of depth and credibility. After sifting through the data, the second stage took the inductive form of open coding. Open coding refers to the process of clustering interview transcripts that appeared to pertain to similar ideas into categories and sub-categories (Glesne 2011:187; Lawrence & Tar 2013:32).

Thirdly, the creation of themes and sub-themes followed after open coding. According to Leininger (1985:60), theme creation is the process of “bringing together components or fragments of ideas or experiences, which often are meaningless when viewed alone”. It can be deduced from the aforementioned quotation that theme creation involves making sense of the data in line with the research objectives.

In this study, thematic analysis was undertaken to create themes from the interview transcripts. Thematic analysis is defined as a meticulous process of identifying, analysing and reporting themes that emerge from a qualitative study (Braun & Clarke 2006:79). Thematic analysis was utilised because it is regarded by Clarke (2006:78) as “a foundational method for qualitative analysis.” The major advantage of thematic analysis is that it is a logical process that allows the researcher to scrutinise interviews transcripts comprehensively and glean all possible themes (Glesne 2011:187).

The fourth stage involved theme refinement (Braun & Clarke 2006:91). Also known as axial coding (Lawrence & Tar 2013:32), theme refinement involves a detailed analysis of themes and sub-themes in order to search for possible relationships among them (Chen, Chang & Wu 2012:374). Theme refinement followed a two-step process. Firstly, the themes and sub-themes are reviewed to verify whether the identified themes are supported by interview transcripts. Secondly, the themes are re-analysed to check for the relationships between themes and sub-themes (Braun & Clarke 2006:91). In instances where themes and sub-themes are related, they are further collapsed to form one dominant theme (Chen, Chang & Wu 2012:374).

The fifth stage involved mapping the themes that emanated from analysis. The mapping process took the form of naming and defining precisely the themes that were revealed in the analysis of the data. The aim of this step was to identify the essence of each theme and to determine the aspects of the data captured by each theme (Braun & Clarke 2006:92). The data were analysed using an iterative and recursive process to ensure that all information relating to the study was aptly captured (Creswell 2009:189).

In the final phase, the identified themes were related to the research questions and conclusions inferred based on the themes generated. The stages followed in interview analysis in this study are outlined in Figure 5.1.

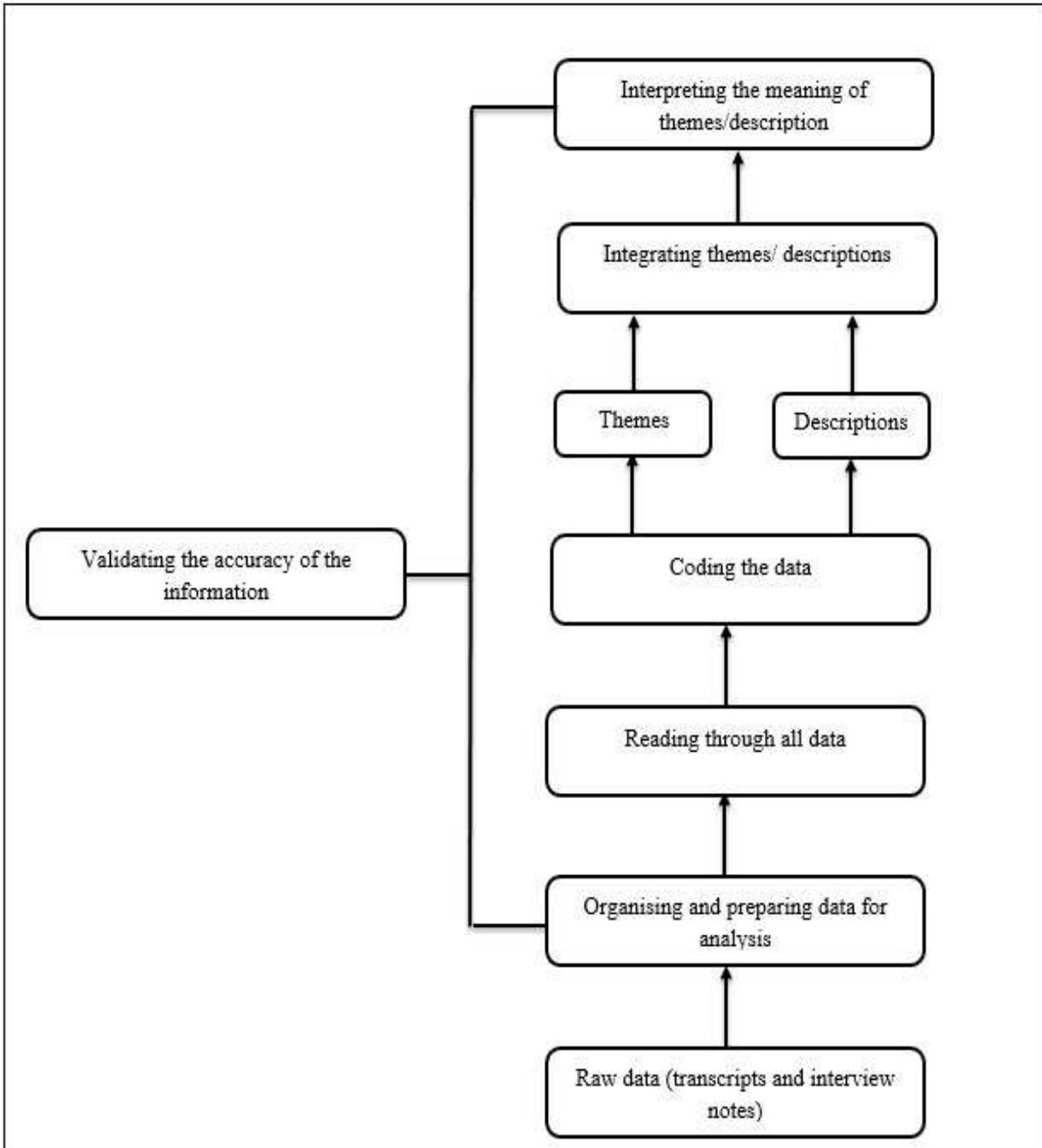


Figure 5.1 Stages in interview analysis

Source: Braun and Clarke (2006:6)

Following the example of Noble *et al.* (2009:619), only illustrative quotes of particular note which are representative of each final theme are illustrated in Table 6.2. Overall, the qualitative findings provided initial support for the conceptual model and yielded valuable insights.

5.8.2 Quantitative survey validation

The analysis of data for the quantitative study commenced with the process of data validation. Validation is the process of declaring that the data gathered are valid and accurate (Wiid & Diggins 2011:228). During the validation process each questionnaire is examined to decide whether to include it in the survey analysis or to discard it (Wiid & Diggins 2011:229).

Editing is the main process involved during the validation process. The validation process begins with the process of data editing, which entails the identification and dropping of unwanted information (Wiid & Diggins 2011:228). The aim of editing is to find and rectify possible errors or irregularities arising from data collection (Malhotra 2007:429). Specifically, the editing process assesses the relevance of responses, inconsistencies in responses and completeness of questionnaires (Wiid & Diggins 2011:230). In practice, the process of editing requires the scrutinising of data to check for uniformity, consistency and accuracy (Malhotra 2007:429).

After the editing process the next step was to prepare a codebook that provided guidelines on how each variable or question is coded on the data set. The coding process comprised three basic steps: the specification of categories, assigning codes to data categories and compilation of a codebook (Wiid & Diggins 2011:231). The preparation of the codebook meant deciding on how variables and possible responses are defined (Pallant 2011:11).

After preparing the codebook, the next stage was building a data file. Creating the data file entailed capturing the information obtained from the study in a format that was consistent with the codebook (Pallant 2011:11). The next step after developing the data file was to screen and clean the data set for errors (Pallant 2011:43). The process of checking errors was conducted by inspecting the frequencies for all the variables. Outliers were checked by looking at the minimum and maximum values to see whether they were within the range of possible scores on each variable (Wiid & Diggins 2011:235). Overall, with the aid of the SPSS software, the case summaries were used to select and display specific pieces of information for each case to check completeness. Statistical assumptions concerning normality, frequency and presence of outliers were also checked.

5.9 STATISTICAL ANALYSIS

The returned questionnaires from the quantitative survey were statistically analysed using the Statistical Package for the Social Sciences (SPSS 22.0) and Analysis of Moments of Structure (AMOS 22.0). The analysis of quantitative data was structured as follows:

5.9.1 Descriptive Statistics

The study employed descriptive statistics to analyse the composition of the sample, using SPSS 22.0. Descriptive statistics are defined as techniques that allow the researcher to tabulate and summarise the profile of research objects in a given study (Lomax & Hahs-Vaughn 2012:6). The study reported on the demographic profile of the sample in terms of age, income, education level, gender and ethnicity. Descriptive statistics utilised in this study included frequencies, mean and standard deviation. The normality of the data set was ascertained by computing the skewness and kurtosis statistics, using SPSS 22.0. The normality test was particularly important to guide the researcher on whether to use parametric or non-parametric statistics (Pallant 2011:57).

5.9.2 The measurement model

The measurement model refers to the relationship between latent variables and manifest variables within a given study (Anderson & Gerbing 1988:414). The adequacy of the measurement model was assessed by conducting confirmatory factor analysis (CFA), using AMOS Version 22.0. The CFA model for the study comprises all latent and manifest variables, that is, environmental attitude (five-item scale), social influence (five-item scale), environmental responsibility (five-item scale), environmental concern (four-item scale), government influence (six-item scale), green purchase intention (four-item scale), selection attributes (five-item scale) and actual purchase behaviour (six-item scale).

Based on CFA, the quality of the measurement model was assessed by checking the significance of the item loadings of all the constructs. Using the procedure followed by Chinomona, Dhurup and Chinomona (2013:7), items reporting loadings below the minimum acceptable threshold of 0.500 were deleted. The measurement model was subjected to a model-fit assessment using AMOS version 22.0. The main goal of model fitting is to determine how well the sample data fit the measurement model.

5.9.2.1 Absolute fit indices

The absolute fit indices were used to determine how well the *a priori* model fits the sample data (McDonald & Ho 2002:72). The Chi-Squared Goodness-of-Fit-test statistic, including its degrees of freedom value ($\chi^2/ (df)$) and p-value, root mean square error of approximation (RMSEA), Goodness-of-Fit Index (GFI), Root Mean Square Residual (RMR) and Standardised Root Mean Square Residual (SRMR) are the main absolute fit indices that were used to assess the fitness of the measurement model.

Traditionally, the Chi-Square value is the conventional approach utilised to evaluate model fit (Hooper *et al.*, 2008:54). The chi-square “assesses the magnitude of discrepancy between the sample and fitted covariance matrices” (Hu & Bentler 1998:426). The chi-square assesses model fit by comparing the difference between the model’s inferred covariances and the observed sample covariances (Bagozzi & Yi 1998:77). The study utilises Wheaton, Muthen, Alwin and Summers’ (1977:99) normed chi-square (χ^2/df) to assess model fit. Although there is no consensus among researchers regarding the acceptable ratio for the normed chi-square, recommendations range from as high as 5.0 to as low as 2.0 (Wheaton *et al.*, 1977:98).

Another index used to assess model fit was the root mean square error of approximation (RMSEA). RMSEA is regarded as "one of the most informative fit indices” (Diamantopoulos & Siguaw 2000:85). The RMSEA describes the extent to which the model fits with the covariance matrix of the sample data (Hooper *et al.*, 2008:54). In contrast with other fit indices, RMSEA is based on the analysis of residuals, with lower values implying the fit between the model and the data (Fadlelmula 2011:37). The minimum threshold of 0.06 is acceptable (Hu & Bentler 1999:428) while 0.08 is the recommended upper limit (Steiger 2007:897). One of the greatest advantages of the RMSEA is that it is not substantially affected by the variation in sample size (Sharma, Mukherjee, Kumar & Dillion 2005:938). In addition, the RMSEA allows for a broader interpretation of the degree of model fit than the chi-square test, because it recognises the influence of sample size when estimating model fit (McQuitty 2004:176).

Another measure of model fit is the Goodness-of-Fit Index (GFI). In confirmatory factor analysis, the GFI measures the difference between the covariance matrix of the sample and that of the measurement model (McQuitty 2004:176). The recommended minimum threshold for GFI is 0.90 for fitting models (Miles & Shelvlin 1998:89).

5.9.2.2 Incremental fit indices

The incremental fit indices are employed to complement the chi-square test (Bentler 1990:238). One of the incremental fit indices is the Normed Fit Index (NFI). The NFI, which was popularised by Bentler and Bonnet (1980:599), assesses the model fit by comparing the χ^2 value of the measurement model to the χ^2 of the null model (Schumacker & Lomax 2004:88). Although values for NFI range between 0 and 1, Hu and Bentler (1998:449) recommended the cut-off point of $NFI \geq .90$.

Another incremental fit index is the Non-Normed Fit Index (NNFI), which is alternatively known as the Tucker-Lewis index (TLI) (Hooper *et al.*, 2008:55). The NNFI is employed to either compare alternative models or to compare a measurement model against a baseline null model (Schumacker & Lomax 2004:88). Bentler and Hu (1998:449) recommended $NNFI \geq 0.90$ as the acceptable threshold. The major advantage of the NNFI emanates from its non-normed nature, although results tend to vary with changes in sample sizes (Bentler 1990:240).

The third incremental fit index is the Comparative Fit Index (CFI) (Hooper *et al.*, 2008:55). The CFI assumes that all latent variables are uncorrelated and compares the sample covariance matrix of the measurement model to that of a null model by taking into account the non-centrality and distribution values of model parameters (Schumacker & Lomax 2004:89). The CFI values between 0.0 and 1.0 with a value of $CFI \geq 0.90$ is generally accepted as an indication of good model fit (Hu & Bentler 1998:459). The main advantage of CFI is that it is the index least affected by sample size (Bentler 1990:245).

5.9.2.3 Structural model

After assessing the quality of the measurement model, the structural model was assessed by means of AMOS version 22.0, employing the maximum likelihood estimates. The structural model captures the relationships among the latent variables (Arslan, Yilmaz & Aksoy 2012:323). Structural models provide estimates of correlations among latent variables. Structural models differ from measurement models in that the emphasis moves from the relationship between latent constructs and their measured variables to the nature and magnitude of the relationship between constructs (Arslan *et al.*, 2012:33).

The structured model includes all latent variables, that is, environmental attitude, environmental concern, environmental responsibility, social influence, government influence, purchase intention, selection attributes and actual purchase behaviour. The correlations between constructs will be assessed. Again, the structural model fit will be assessed using the model fit indices such as GFI, AGFI, IFI, RMSEA, CFI, TLI and CMIN/DF. In assessing the adequacy of the measurement and the structural model, the researcher will be guided by the acceptable thresholds of model fit indices, as summarised in Table 5.4.

Table 5.4 Measurement and structural model fit indices

Fit index	Acceptable threshold
GFI	≥ 0.800
AGFI	≥ 0.800
RMSEA	≤ 0.080
IFI	≥ 0.900
CFI	≥ 0.900
TLI	≥ 0.900
CMIN/DF	< 3.000

Source: Bagozzi and Yi (2012:15); Fornell and Larcker (1981:46); Hu and Bentler (1999:27).

After the adequacy of the measurement and structural models was established, path modelling was conducted using structural equation modelling to predict the nature and direction of relationships of the antecedents of green consumer buyer behaviour and the selection attributes of Generation Y consumers. SEM helps the researcher to be more precise in the specification of research models and the operationalisation of constructs. It guides confirmatory research in a manner combining self-insight and modelling skills (Bagozzi & Yi 2012:12).

5.9.2.4 Correlation analysis

To complement the findings of path modelling, non-parametric Spearman's correlation analysis was undertaken to establish the relationship among the latent variables in the study.

The guidelines summarised in Table 5.5 were used to explain the nature of relationships among variables.

Table 5.5 Spearman’s correlation analysis guidelines

Value	Relationship significance
R = .10 to .29	Small
R = .30 to .49	Medium
R = .50 to 1.0	Large

Source: Cohen (1988:79-81).

5.9.2.5 Non-parametric t-test – Kruskal-Wallis

Another objective of the study was to understand the influence of gender on purchase intention and actual purchase behaviour. The Kruskal-Wallis test, the non-parametric alternative to the t-test independent samples, was employed to establish whether there were gender differences in green purchase behaviour. In addition, the Mann-Whitney U Test was used to complement the findings of the Kruskal-Wallis test. The non-parametric Mann-Whitney test and Kruskal-Wallis test were used as they are recommended for non-probability sampling methods and in cases where the data are not normally distributed, as is the case in this study (Pallant 2011:213).

5.10 RELIABILITY AND VALIDITY

The greatest challenge faced by researchers is to convince the audience that the research findings are credible (Lincoln & Guba 1985:290). To enhance the quality of the research findings, researchers rely on the reliability and validity of the measurement instruments. Reliability refers to the ability of a measurement procedure to produce consistent results if repeated under similar conditions (Yusoff 2011:24). A study is trustworthy when it captures accurately the experiences of the participants in a given study (Krefting 1991:214). Validity is defined as the ability of a measuring instrument to measure what is intended to be measured (Gupta 2011:133). A description of the approaches that were utilised to enhance the reliability and validity of the qualitative and quantitative study follows.

5.10.1 Reliability of the qualitative study

In a qualitative study, the “researcher is the instrument” (Patton 2001:14) and has an obligation to capture the lived experiences of the participants in a manner that ensures the reliability and credibility of the data (Onwuegbuzie & Johnson 2006:49). Acknowledging the role of the researcher as the research instrument in a qualitative study, Creswell (2009:190) contends that reliability and validity are enhanced by the integrity of data collection and analysis procedures.

Within a constructivist paradigm, reliability refers to the transparency in which knowledge is constructed from the generated data (Eastly-Smith *et al.*, 2002:53). In a qualitative study, the term “dependability” is employed to refer to reliability (Lincoln & Guba 1985:300). In a qualitative study, therefore, reliability is enhanced through an inquiry audit (Lincoln & Guba 1985:317). The following procedures, as suggested by Gibbs cited by Creswell (2009:190), were employed to enhance reliability:

The interview transcripts were checked to assess the integrity of the transcription process. To enhance the checking process, the researcher saved all the interview transcripts that had been generated during the study and then subjected them to peer auditing, as suggested by Bryman & Bell (2011:398). The themes generated from the data analysis stage were assessed in line with the research objectives. The assessment of themes was conducted following Lincoln and Guba’s (1985:160) approach of negative case analysis, whereby recoding of the transcripts that did not fit into the thematic map was done (Lincoln & Guba 1985:160). Negative case analysis resulted in changes to the definition of themes and the categorisation of themes.

In addition, the themes that emerged from in-depth interviews were cross-checked independently by members of the research team. This was done by the researcher and two research professors who established consensus on the content of the transcripts emerging from the in-depth interviews as well as the themes that emerged from the analysis. This was important to reduce bias and subjectivity in data analysis.

5.10.2 Validity of the qualitative study

In a qualitative study, validity measures the trustworthiness of the data from the perspective of the researcher, the participants and the audience of the study (Creswell 2009:191). Following a constructivist paradigm, validity assesses the degree of accuracy associated with

the lived experience of participants (Eastly-Smith *et al.*, 2002:53). In terms of validity, the following strategies, as suggested by Creswell (2009:191), were applied:

5.10.2.1 Member checking

Member checks imply subjecting data categories, interpretations and conclusions to the participants to allow them to authenticate their views (Bryman & Bell 2011:396; Yoshida & James 2011:17). Member checking is based on the premise that if participants are able to recognise research findings as depicting their own experiences, then credibility is demonstrated (Lincoln & Guba 1985:161). The researcher sent out the summarised transcripts to five participants who were easily accessible to confirm and validate the researcher's perceptions of their views. The participants confirmed the summarised transcripts and the subsequent themes as a true reflection of the views they had expressed during interviews.

To enhance validity, peer de-briefing was also conducted. This was done by enlisting the assistance of two experts for an inquiry audit of the interviewing process and analysis of the interview transcripts. The inquiry audit took the form of detailed analysis by two experts in the Faculty of Management Sciences of the interview protocol, the interview guide and the transcripts that emerged from the interview. A table indicating the sub-categories, categories and themes was developed for inter-rater reliability and it allowed for credibility checks of the themes and sub-themes that emerged from in-depth interviews (Vagharseyyedin, Vanaki & Mohammadi 2011:70).

5.10.2.2 Bracketing

The concept of bracketing was employed to enhance the objectivity of the data collection and analysis process. Parahoo (1997:45) defines bracketing as "suspension of the researcher's preconceptions, prejudices, and beliefs so that they do not interfere with or influence the participants' experience". Bracketing was observed throughout the interviewing and data analysis stage. Bracketing takes the form of reflectivity, whereby the researcher clarifies the inherent bias that has the potential of threatening the tenets of objectivity (Creswell 2009:192).

During interviews, the researcher remained focused on the participants' views and the respondents' experiences, which shaped the findings of the qualitative study. Through

intuiting (Polit *et al.*, 2001:215), the researcher tried as far as possible to capture the lived experiences of participants. By employing the concept of intuiting, the researcher suspended preconceived ideas on the research topic, remained open-minded during the data collection process, avoided criticism of opinions of respondents and paid attention to how the phenomenon under investigation was described and unfolding. According to Bryman and Bell (2011:398), bracketing enhances confirmability, which refers to objectiveness and absence of bias in a study.

In addition to bracketing, the concept of thick description was employed to enhance validity. Thick description was enhanced by transcribing interview notes and recordings of all interviews in a manner that accurately captured the views raised by participants during interviews. According to Creswell (2009:192), a rich presentation of qualitative data enhances validity.

5.10.3 Reliability of the quantitative study

Reliability and validity in quantitative research primarily assess the integrity of the measurement instruments (Patton 2001:14). The study employed the Cronbach's alpha coefficient, the item-to-total values and composite reliability (CR) to measure the internal consistency of the measuring items. Internal consistency measures the degree of interrelatedness of measurement items that are designed to measure the same construct (Tavakol & Dennick 2011:53).

The Cronbach alpha, also known as the alpha coefficient, is the most frequently used measure of internal consistency. Cronbach's alpha estimates the correlation coefficient of measurement items in a test (Malhotra 2007:285). The Cronbach alpha, which is based on the seminal work of Cronbach (1951), assumes that each measurement item's observed score is the result of adding the item's true score, measurement error and all measurement items are presumed to carry equal loadings and variance and the uni-dimensionality of measurement items (Tavakol & Dennick 2011:53).

In its application, the Cronbach alpha estimates the magnitude of measurement error in a test (Tavakol & Dennick 2011:53). A high alpha value of 0.7 or higher implies a high internal consistency of the test whereas an alpha value below 0.7 implies that the measurement items are not reliable (Blunch 2008:200). Given the plethora of assumptions that guide the alpha

coefficient, any violation of the aforementioned conditions impairs the alpha value (Yang & Green 2011:379).

Composite reliability measures the degree to which observable variables measure the latent variable. It provides a robust measure of reliability by taking into account the contribution of each latent factor to each item and each item's error. The study employs the formula proposed by Fornell and Larcker (1981:45) to manually calculate the composite reliability value. The formula is as follows:

$$CR\eta = (\sum\lambda_{yi})^2 / [(\sum\lambda_{yi})^2 + (\sum\epsilon_i)]$$

Where $CR\eta$ = Composite reliability,

$(\sum\lambda_{yi})^2$ = Square the sum of the factor loadings;

$(\sum\epsilon_i)$ = Sum of error variances.

5.10.4 Validity of the quantitative study

To assess validity, content, convergent, discriminant and predictive validities were tested. Content validity, also known as face validity, assesses the extent to which the measurement scales are aligned to the theoretical lens of the construct under investigation (Malhotra 2007:287). It implies that content validity measures the comprehensiveness of the measurement items of a construct, that is, the extent to which all relevant aspects of the construct are incorporated in the measurement scale. Pre-testing and piloting are the main approaches employed by researchers to enhance the content validity of research instruments (Dhurup, Mafini & Dumasi 2014:6).

To ensure content validity, the interview guide and the questionnaire were pre-tested and reviewed with the assistance of two professors and necessary changes were made to the instruments. In addition, following the example of Synodinos *et al.* (2013:20), the questionnaire was pilot-tested with fifty students based on a convenience sample drawn from the target population. The results of the pre-test and pilot study indicated that the questionnaire had the potential to measure the antecedents of green buyer behaviour and the selection attributes of Generation Y consumers.

Construct validity reflects the inter-relationships between the measurement items and the construct being studied (Bagozzi & Yi 2012:18). Construct validity attempts to ascertain the extent to which the measurement items accurately capture the latent variable that is being

measured (Welman, Kruger & Mitchell 2011:142). In order to assess construct validity, the average inter-item correlations were computed using confirmatory factor analysis. Factor analysis is instrumental in establishing the factor structure of the study. Following the procedure of Synodinos *et al.* (2013:20), construct validity was assessed using the iterative process of deleting items that did not yield factor loadings above the minimum threshold of 0.50.

Discriminant validity assesses the existence or absence of associations among unrelated constructs within a study (Malhotra 2007:287). By definition, discriminant validity refers to the degree to which a measurement item is not related to other items that are not supposed to measure the same underlying construct (Malhotra 2007:287). According to Welman *et al.* (2011:143), discriminant validity is evidenced when there is a low correlation between measures that are theoretically different from the construct being measured. To ascertain the discriminant validity of the measurement model, the study employed Fornell and Larcker's (1981) measure of average variance extracted (AVE). The AVE measures the amount of variance captured by the construct and its items relative to the amount of variance due to measurement error (Chen 2009:314). According to Fornell and Larcker (1981:46), discriminant validity is evidenced when the square root of AVE is greater than the correlation between the construct and the construct in the model. The AVE was calculated manually using the formula recommended by Fornell and Larcker (1981:46). The formula is as follows:

$$V\eta = \Sigma\lambda yi^2 / (\Sigma\lambda yi^2 + \Sigma\epsilon i)$$

Where $V\eta$ = Average Variance Extracted (AVE);

$\Sigma\lambda yi^2$ = Sum of the squared factor loadings;

$\Sigma\epsilon i$ = Sum of error variances.

Overall, the inter-construct cross-loadings that are below the recommended value of 0.8 indicate discriminant validity (Fornell & Larcker 1981:46).

Convergent validity measures the extent of positive associations of the measurement item with other items measuring the same construct (Malhotra 2007:287). Convergent validity was assessed through the computation of the inter-construct correlation matrix among the various constructs, that is, environmental attitude, social influence, environmental responsibility, environmental concern, government influence, green purchase intention and actual purchase behaviour. To ensure convergent validity, the researcher checked if all item loadings of all

constructs were greater than 0.5, as suggested by (Bagozzi & Yi 1988:80; Fornell & Lacker 1981:46).

5.11 CHAPTER SUMMARY

The present study is grounded on the principles of pragmatism, which combines the post-positivist and constructivist paradigms. In terms of methodology, the study follows the sequential mixed-methods approach that builds on the strengths of qualitative and quantitative methods and minimises their inherent shortcomings. It is expected that the mixed-methods approach will result in the collection of rich data sets with the potential to address the research problem. The Statistical Package for Social Sciences (SPSS) and the Analysis of Moments of Structure (AMOS) are the statistical tools that were employed for data analysis. The chapter concluded by discussing the approaches for enhancing reliability and validity. The next chapter reports on the findings that emanated from the study.

CHAPTER 6

DATA ANALYSIS AND INTERPRETATION OF RESULTS

6.1 INTRODUCTION

The previous chapter discussed the methodology of the study. This chapter focuses on the data analysis and results of the study. The findings of the study are presented in line with the sequential mixed-methods methodology outlined in the preceding chapter. The first section of this chapter provides the results of the qualitative study. Content and thematic analyses were employed to interpret qualitative data. For the quantitative study, the Statistical Package for the Social Sciences (SPSS) 22.0 was used to compute descriptive statistics, correlations, validities and reliabilities of all the constructs under study. With the aid of the Analysis of Moment Structures (AMOS) 22.0, Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM) were conducted to assess the fitness of the measurement and structural model as well as to verify the hypothesised relationships in the study.

6.2 RELIABILITY OF THE PILOT STUDY

A comprehensive literature review on green consumer buyer behaviour informed the development of the interview guide (Polit & Beck 2004:489). Following the approach of Surujlal and Dhurup (2011:26), the interview guide was scrutinised by two experts in qualitative research to enhance content validity and reliability. Based on the input from the two experts, minor adjustments were effected to the interview guide. Thereafter, a pre-test of the interview guide was conducted with three participants in order to enhance the integrity of the data as well as to ascertain the proper sequence of questions (Surujlal 2011:121).

6.3 TRUSTWORTHINESS OF THE MAIN QUALITATIVE STUDY

The reliability and validity of the qualitative study depends on the integrity of the methodology employed to generate research findings (Graneheim & Lundman 2004:109). Firstly, as suggested by Morse, Barrett, Olson and Spiers (2002:18), methodological coherence was enhanced by ensuring that there was compatibility between the research method and data analysis procedures. Secondly, purposive sampling was employed to enhance the appropriateness of the sample (Morse *et al.*, 2002:18). The purposive sampling

method was also employed to enhance the richness of data in an attempt to answer the research questions as far as possible (Russell & Gregory 2003:36).

The credibility of the researcher is also considered to be very important in a qualitative study (Patton 1999:1198). To enhance the credibility of the present study, the researcher was thoroughly trained in research methodologies. In addition, by virtue of having detailed knowledge of the phenomenon under study, the researcher conducted all the interviews. Another approach that was employed to enhance the trustworthiness of the present study was researcher reflexivity. It imposes an obligation on the researcher to honestly disclose all personal beliefs and values that underpin the study (Creswell & Miller 2000:121). In this study, the researcher employed the concept of bracketing. This required the researcher to approach the study with an open mind by suppressing inherent preconceptions about the subject under study. In addition, the study was located within the pragmatic paradigm, which acknowledges that the researcher is immersed in the research process and is thus value-bound and etic-emic.

Based on the work of Brink (1991:176), credibility was also ensured by assessing the consistency of responses from the participants. In addition, the concordance of responses was evaluated by using alternative forms of questioning (Long & Johnson 2000:31). Based on this technique, there was evidence of consistency in respondents' responses and thus the stability of data was evidenced. Moreover, all interviews were conducted in similar settings, following the same interview protocol and there were therefore no known variations with the potential to influence the integrity of data (Guba & Lincoln 1989:242). Consistent with Kirk and Miller (1986:30-31) and Guba and Lincoln (1989:237), the researcher employed the concept of "prolonged engagement" with respondents through comprehensive interviews ranging from 60 to 90 minutes in duration in an effort to generate a complete data set as well as to enhance the "thickness" of data with the sole objective of revealing a complete picture of the phenomenon under study.

In line with Guba and Lincoln's (1989:239) assertion that member checks are considered "the single most critical technique for establishing credibility", five respondents who were readily available were requested to inspect the interview transcripts and they vouched that the data represented a true reflection of their views.

In addition to member validation, the data were analysed following an iterative process (Morse *et al.*, 2002:17) to safeguard the omission of pertinent information. The iterative analysis was also utilised to enhance the coherence of sub-categories and themes as well as investigating possible relationships (Morrow 2005:257). The interview transcripts were further subjected to peer-debriefing to foster credibility (Robson 1993:404). As Mays and Pope (1995:110) argued, trustworthiness is attained “if another trained researcher could analyse the same data in the same way and come to essentially similar conclusions”. Hammersley (1992:69) concurs, adding that reliability is also evidenced if “an account represents accurately those features of the phenomena that it is intended to describe, explain or theorise.”

In this study, peer debriefing was done by two experts, that is, the promoter and co-promoter of the study, as recommended by Holloway and Wheeler (1996:165) in the case of scholarly work. The peer debriefing, alternatively known as “analyst triangulation” (Patton 1999:1193), also took the form of an “audit of the decision trail”, whereby all stages in the data collection and analysis were scrutinised by the research promoters to check the adequacy of the research process (Myrdal 1970:43). The researcher also maintained meticulous documents and presented to independent experts all the evidence regarding the interviewing process in the form of recorded interview transcripts and interviewer’s notes as a form of ensuring retest reliability (Mays & Pope 1995:110; Surujlal & Dhurup 2011:127) and corroboration of themes (Crabtree & Miller 1999:170). Thus, the independent assessment of interview transcripts by the two experts in qualitative research further enhanced reliability.

Based on the evidence from the interview documents presented, there was consensus between the researcher and research promoters regarding the validity of the themes that emerged from the qualitative study. Credibility of the qualitative study also depends on the extent to which the emerging themes relate to the data. As recommended by Graneheim and Lundman (2004:110), representative excerpts from interview transcripts are used in this study to support the emergent themes. The themes that emerged from the analysis of in-depth interviews also tie in closely with antecedents of green buyer behaviour in extant literature, thereby providing evidence of internal validity (Walker & Jones 2012:18) and reliability (Surujlal & Dhurup 2011:127). As a result, the concurring themes were considered as valid in addressing the phenomenon under study.

In a nutshell, the credibility and trustworthiness of the qualitative study were achieved through the use of prolonged engagement with participants, member checks, peer debriefing or peer researchers, audit trail and researcher reflexivity.

6.4 RESULTS AND DISCUSSION OF THE QUALITATIVE STUDY

6.4.1 Sample composition

Sixteen semi-structured in-depth interviews which formed the basis of this analysis were conducted in 2013-2014. The participants comprised sixteen students belonging to the Generation Y cohort. Of the sixteen participants, nine (56%) were female and seven (44%) were male. Respondents ranged in age from 20 to 35 years, with a mean age of 25 years. Table 6.1 provides the participants' demographics. Pseudonyms were used to safeguard respondent confidentiality and anonymity.

Table 6.1 Participant demographics

Name	Age	Gender	Education level	Environmental membership	Ethnicity
Owen	34	Male	Postgraduate	No	African
Helen	28	Female	Postgraduate	No	African
Neil	31	Male	Postgraduate	Yes	African
Prime	23	Female	Undergraduate	No	Coloured
Lauren	22	Female	Undergraduate	Yes	African
Steven	35	Male	Undergraduate	No	African
Esther	24	Female	Undergraduate	No	African
Gerly	20	Female	Undergraduate	No	African
Forbes	23	Male	Undergraduate	No	African
Ruth	22	Female	Undergraduate	No	African
Melisa	23	Female	Undergraduate	Yes	Indian
Norman	21	Male	Undergraduate	No	African
Jones	22	Male	Undergraduate	No	African
Rose	26	Female	Undergraduate	No	African
Pandy	23	Female	Undergraduate	Yes	African
Oscar	27	Male	Postgraduate	No	African

The interviews focused on Generation Y consumers' green purchase behaviour. The interviews were based on four broad questions that were structured around:

- Green marketing and awareness of environmental problems,
- Antecedents of green purchase behaviour,
- Effectiveness of consumers' pro-environmental behaviour and
- Challenges associated with practice of green marketing.

Based on the preceding interview focus areas, the participants provided valuable insights pertaining to the factors that influence their green purchase behaviour. The analysis of interview transcripts resulted in eight underlying themes that shed light on the antecedents of green consumer buyer behaviour and the selection attributes of Generation Y consumers. In fulfilment of the first empirical objective, antecedents of green buyer behaviour that emanated from the qualitative study included *environmental concern, environmental attitude, social influence, environmental responsibility, government influence, green purchase intentions, actual purchase behaviour and selection attributes*. Table 6.2 summarises key excerpts emanating from interviews, including the sub-themes and main themes that were derived from the interview transcripts.

Table 6.2 Descriptions and excerpts from in-depth interviews

Excerpts from in-depth interviews	Sub-category	Category	Theme
<p><i>“I am willing to participate but I believe my effort alone is not enough. It must be a collective effort...” “I always want to make a contribution to my community...my conscience tells me it’s wrong to litter...I’m occasionally involved in recycling...With the added advantage of monetary incentive...”</i></p>	<ul style="list-style-type: none"> • <i>Willingness to protect the environment.</i> • <i>Collectivism and environmental protection</i> • <i>Effectiveness of individual behaviour</i> • <i>Role of incentives in environmental protection</i> 	<ul style="list-style-type: none"> • <i>Environmental values</i> • <i>Ascription of responsibility</i> • <i>Self-efficacy</i> • <i>Altruism</i> • <i>Perceived environmental responsibility</i> 	<p><i>Environmental responsibility</i></p>

Excerpts from in-depth interviews	Sub-category	Category	Theme
<p><i>“I think I have a role to play. I must say it’s something I was taught at home tending our garden...besides, my friends are...involved...It feels good to be involved...at campus my colleagues introduced me to organic chocolate...”</i></p> <p><i>“..Though at times I look at factors that affect me as an individual like my image, style yeah something like that...”</i></p> <p><i>"I regularly do shopping errands at home...I remember bringing organic milk at home one day. My dad was surprised but fortunately he enjoyed it so much..."</i></p> <p><i>“I recall my friend telling me how much she is saving by carrying a carrier bag every day to the shop...”</i></p>	<ul style="list-style-type: none"> • <i>The role of socialisation in environmentalism</i> • <i>Group effect and pro-environmental behaviour</i> • <i>Products as satisfiers of personal identity.</i> 	<ul style="list-style-type: none"> • <i>Peer influence</i> • <i>Family influence</i> • <i>Social norms</i> 	<p><i>Social influence</i></p>

Excerpts from in-depth interviews	Sub-category	Category	Theme
<p>“I guess environmental problems are severe in South Africa...Stories of water shortages, droughts and rising temperatures are alarming...I am told we are the largest emitter of gases in Africa...I remember the recent floods in Soweto; it seems the poor suffer most...”</p> <p>“I would rate environmental problems 3/10...I think problems such as poverty, unemployment, crime we face are more urgent...”</p> <p>“My concern about the environment does not influence what I buy that much...I consider myself as a rational consumer I consider price before I buy...now that we live in tough times...Everyone wants to save...”</p>	<ul style="list-style-type: none"> • Awareness of environmental problems • Seriousness of environmental problems • Concern for others in environmentalism 	<ul style="list-style-type: none"> • Perceived seriousness of environmental problems • Altruism and pro-environmental behaviour 	<p><i>Environmental concern</i></p>
<p>“...I must say I’m willing to participate in environmental projects although activities such as recycling and looking for organic products are time-consuming considering the demands of my studies...Honestly I don’t like working with garbage ...”</p>	<ul style="list-style-type: none"> • Stakeholder attitudes towards environmentalism • Challenges associated in pro-environmental behaviours 	<ul style="list-style-type: none"> • Attitudes towards pro-environment behaviour • Perceptions towards pro-environmental behaviour 	<p><i>Environmental attitude</i></p>
<p>“...I think the government must do more to make the products affordable to the low-income markets and support companies that care for the environment...I believe there is a need to generate awareness of green marketing and environmental laws...and enforcement of these laws.”</p>	<ul style="list-style-type: none"> • Awareness of green marketing • Affordability of green products • Enforcement of environmental laws 	<ul style="list-style-type: none"> • Government role in green marketing • Incentives and pro-environmental behaviour • Role of subsidies in green marketing 	<p><i>Government influence</i></p>

Excerpts from in-depth interviews	Sub-category	Category	Theme
<p><i>“Yeah it seems my loyalty now goes with companies and products that care for the environment...I now prefer green tea because of its environmental appeal...Although green products are not readily available; I will make an effort...As it is now I know where to get them...”</i></p>	<ul style="list-style-type: none"> • <i>Perceptions of pro-environmental companies</i> • <i>Availability of green products</i> 	<ul style="list-style-type: none"> • <i>Green product purchase behaviour</i> • <i>Green product loyalty</i> 	<p><i>Green purchase intention</i></p>

Excerpts from in-depth interviews	Sub-category	Category	Theme
<p><i>“I regularly buy green products provided they are available at the right price...as a lady I want to watch my weight and lifestyle...the challenge is availability, green products are mainly found in upmarket outlets and sometimes people are not prepared to make an extra effort to find them...”</i></p> <p><i>“...In terms of performance... the truth is that I do not really know...I remember my first experience with green coffee the test was not good...I tend to have this feeling that green products are inferior.”</i></p> <p><i>“...To me benefits of these products to the environment remains a myth...it appears it’s a marketing gimmick...without sound checks on those claims...”</i></p> <p><i>...it seems companies just slap a green label onto their products...I think the government need to do more to protect consumers...so honestly I don’t trust the so-called green products ...”</i></p> <p><i>“Not really... I look at factors that affect me as an individual such as price, quality and the image I want to project ...”</i></p> <p><i>“...I may consider buying green products if the prices are not significantly different from the non-green product... a price difference of 5-10% is acceptable, beyond that I will opt for the cheaper non-green one...”</i></p> <p><i>“...In terms of price green products are relatively expensive...but I believe the price is matched by the quality.so I am prepared to pay the price...”</i></p>	<ul style="list-style-type: none"> • Lack of availability • Taste • Healthiness • Quality • Product recognition • Brand loyalty • Price • Trust 	<ul style="list-style-type: none"> • Green product performance • Green product price • Willingness to pay 	<p><i>Selection attributes</i></p>
<p>Chapter 6: Data analysis and interpretation of results</p>			<p>192</p>

Excerpts from in-depth interviews	Sub-category	Category	Theme
<p><i>“I must say I buy green products on a regular basis ...They prove to be good for my health...I regularly buy organic milk and chocolates, green coffee, bread, vegetables, free-range chicken...”</i></p> <p><i>“I rarely buy green products...I don’t afford the price...besides there are not always available in the outlets I buy...”</i></p>	<ul style="list-style-type: none"> • <i>Green product purchase frequency</i> • <i>Price of green products</i> • <i>Availability of green products</i> 	<ul style="list-style-type: none"> • <i>Green purchase behaviour</i> 	<i>Actual purchase behaviour</i>
<p><i>“...I feel I still need to learn more about the environment, I need more information on what I must do to preserve the environment...”</i></p>	<ul style="list-style-type: none"> • <i>Environmental awareness</i> • <i>Role of consumers in environmental protection</i> 	<ul style="list-style-type: none"> • <i>Environmental consciousness</i> 	<i>Environmental knowledge</i>
<p><i>“Honestly despite those anti-dumping signs we see I don’t know much about environment laws...it seems people need to be educated. In Soweto you find more litter exactly where the anti-dumping signs are...it seems people are not complying with laws...”</i></p>	<ul style="list-style-type: none"> • <i>Environmental laws awareness</i> 	<ul style="list-style-type: none"> • <i>Environmental law obedience</i> 	<i>Environmental regulation</i>

The sub-categories and categories were further refined into main themes through the process of axial coding, as illustrated in Figure 6.1.

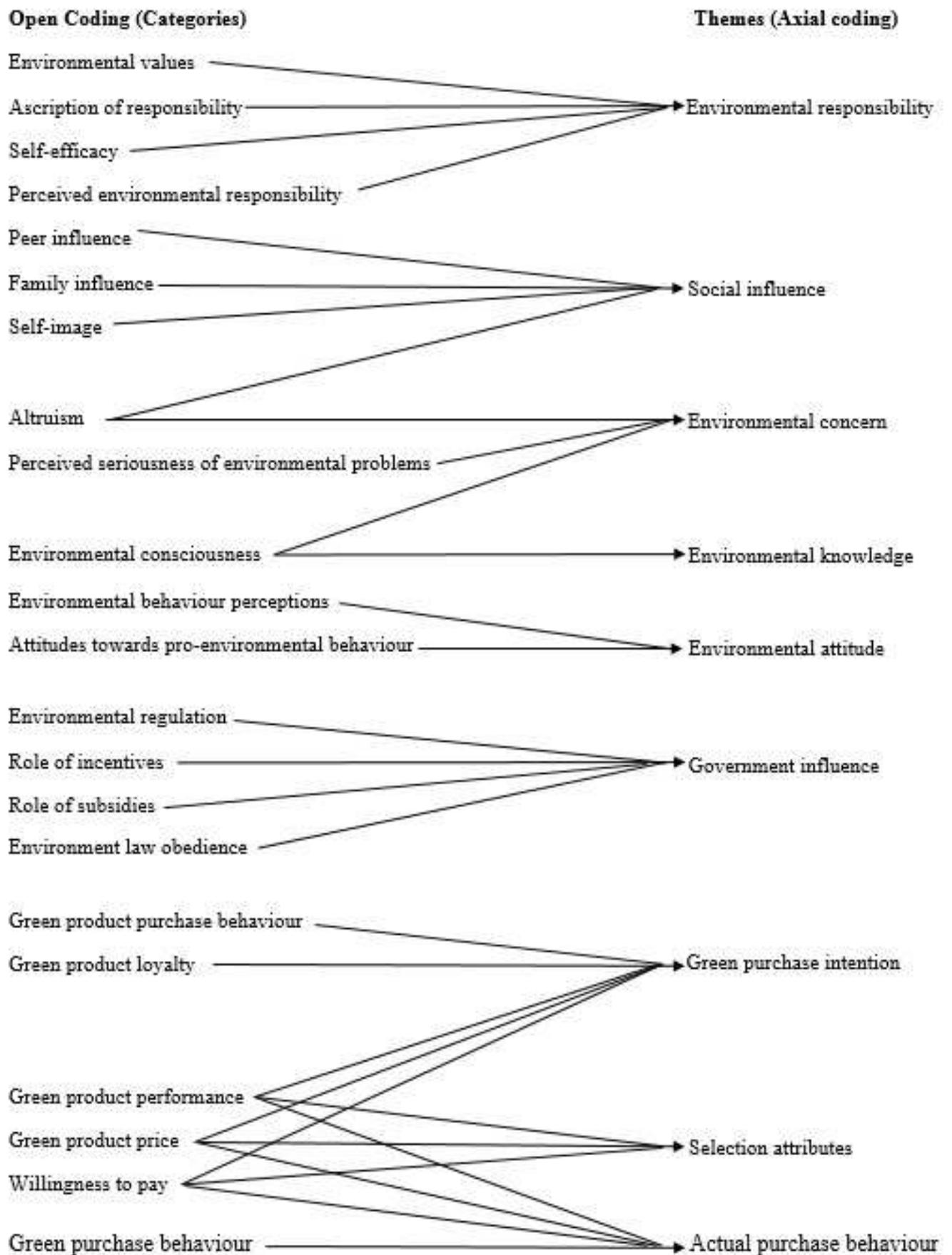


Figure 6.1: Refinement of categories into themes

Each of the emergent themes is discussed in detail to provide insights into the antecedents of green buyer behaviour and the selection attributes of Generation Y consumers. The theoretical underpinnings of each theme are provided after each corresponding theme. According to Gustafsson, Hassmen, Kentta and Johansson (2008:805), the depiction of research findings and analysis are closely intertwined in qualitative research. These two sections are therefore integrated to “avoid repetition and increase readability” (Gustafsson *et al.*, 2008:805). In the following sections, the eight themes that emerged from the analysis of the sixteen interviews are discussed.

6.4.2 Environmental concern

Environmental concern emerged as one of the main themes during interviews. Conceptually, environmental concern refers to the extent to which an individual is favourably inclined to engage in environmental protection initiatives (Rehman & Dost 2013:103). Based on the views of respondents, environmental problems such as droughts, rising temperatures and floods tend to heighten their affinity with the environment. The prevalence of environmental concern amongst respondents is encapsulated in the following excerpts:

“I remember the recent floods in Soweto they were very bad...it seems the poor suffer most...honestly I am worried about the state of our natural environment...talk of pollution, rhino poaching, droughts...water shortages especially in Limpopo my home area it’s a big problem...I must say I am prepared to do my part to protect the environment...” [Rose]

“I guess environmental problems are severe in South Africa...Stories of water shortages, droughts and rising temperatures are alarming...I am told we are the largest emitter of gases in Africa...and based on these problems I must say I am willing to do my part for the sake of our future...” [Lauren]

Drawing from the aforementioned verbalisations, it can be deduced that the seriousness of environmental problems tends to stimulate environmental concern and intentions to engage in pro-environmental behaviours, as in the case of Lauren. The relationship between environmental concern, the perceived seriousness of environmental problems and performance of pro-environment behaviour is also supported in green marketing literature (Lee 2009:92-93). Given this background, Sinnppan and Rahman (2011:135) suggest that marketers need to stimulate environmental concern by emphasising the seriousness of environmental problems.

Although almost all respondents were generally concerned about the well-being of the environment, it seems that there are subtle differences between male and female respondents

in their environmental concern. For instance, Forbes, Jones, Steven, Norman and Owen rated environmental problems below 5 out of 10. The importance assigned to environmental problems is captured in Jones' comment:

“I would rate environmental problems 3/10...I think problems such as poverty, unemployment, crime we face are more urgent...”

Based on the preceding excerpt, male respondents tend to prioritise alleviation of poverty, unemployment and crime and perceive environmental problems as distant. In contrast, female respondents seem to be more environmentally concerned than their male counterparts. Ruth's comment captures this view:

“...As females traditionally we carry the household burdens...collecting firewood, carrying water and we tend to be affected more by environmental problems than men...to me this makes environmental protection very important...”

As the quote from Ruth illustrates, the study depicts female respondents as more environmentally concerned than male respondents. In particular, the low ratings of environmental concern among male respondents also tend to lend credence to the supposition that females are more environmentally concerned than their male counterparts (Lee 2009:91). In the literature, justifications for gender variations in environmental concern are supported by the Gender Socialisation Theory (Gilligan 1982:81). The Gender Socialisation Theory posits that women display higher levels of altruistic behaviours than men do because their socialisation process has nurtured them to be considerate, helpful and more communal than men (Gilligan 1982:81). According to Zelezny and Bailey (2006:103), such behavioural traits translate into environmental conscientiousness. Similarly, Hirsh (2010:248) found that highly conscientious individuals are more likely than less conscientious individuals to engage in pro-environmental behaviour. On the other hand, Hawkins (2012:758) attributed the gender difference in environmental concern to value orientations, where women are said to possess higher biospheric orientations than men.

In addition to gender differences in environmental concern, the study also confirmed the prevalence of the gap between environmental concern and purchase behaviour. This view is aptly encapsulated in Helen's comment:

“...My concern about the environment does not influence what I buy that much...I consider myself as a rational consumer I consider price before I buy...now that we live in tough times...everyone wants to save...that's why sometimes I collect garbage for recycling for that extra rand...”

Helen's comment is congruent with green marketing theory that identifies a gap between environmental concern and green purchase behaviour (Kalamas, Cleveland & Laroche 2013:1; Nittala 2014:150; Sarigollu 2009:382). Similarly, a study by Bamberg (2003:30) maintains that the relationship between environmental concern and purchase behaviour tends to lie on the low-to-moderate end of the continuum. This finding underscores the importance of understanding the causes of the gap between environmental concern and purchase behaviour. To unravel the underlying causes of the aforesaid gap, Stern (2000:408) suggests the need to define environmental behaviour from an impact-oriented approach as opposed to an intent-oriented perspective as this has the potential to unearth environmentally significant curtailment behaviours. Ginsberg and Bloom (2004:80) also emphasise that segmentation of consumers based on their levels of environmental concern would be invaluable in enhancing the uptake of green products.

6.4.3 Environmental attitude

The study identified *environmental attitude* as one of the major themes. Environmental attitude is generally defined as a rational assessment of the value of preserving the environment (Lee 2009:88). In this study, the respondents expressed mixed views pertaining to their attitude towards the environment. Contrasting views are also evident in extant literature. For instance, Kotchen and Reiling (2000:104) perceive a strong relationship between environmental attitude and environmental behaviour, while other green marketing proponents such as Smith and Paladino (2010:101) characterise the relationship as moderate. The contrasting views on the effect of environmental attitude on environmental behaviour are captured by the following narratives:

“Honestly I don't know whether my attitude influences what I buy. Possibly it could be a very thin line...for those products I perceive as important for my health...I tend to buy them regularly...” [Neil]

“Personally I am willing to participate but I think companies must do more because they pollute more...I must say I'm willing to participate in environmental projects although activities such as recycling and looking for organic products are time-consuming considering the demands of my studies... [Ruth]

“...We all know that the price of environmental degradation is high in the long term...but honestly South Africans are more concerned with unemployment, crime, the cost of living...I mean those challenges we face on a day-to-day basis...” [Oscar]

Notably, Neil's comment aptly sums up the relationship between environmental attitudes and pro-environmental behaviour as unclear. This finding is consistent with that of Singh and Gupta (2013:5), which characterises environmental attitudes as complex, comprising cognitive, conative and affective components. The gap between environmental attitude and green consumer behaviour is also echoed in green marketing literature (Pickett-Baker & Ozaki 2008:287). In addition, evidence of the attitude-behaviour gap is also illustrated by Young, Hwang, McDonald and Oates (2010:20), who determined the gap to be approximately 30 percent. In agreement, Gadenne, Sharma, Kerr and Smith (2011:7691) attributed this behavioural inconsistency to the economic cost of green consumer behaviour. The view that the economic cost accounts for the attitude-behaviour gap is consistent with the work of Kollmus and Agyeman (2002:252), which found that people tend to be favourably inclined to engage in the least economically costly pro-environmental behaviours.

Singh and Gupta (2013:6) acknowledged that environmental attitudes tend to depend on situational factors that underpin market segments and therefore the influence of attitudes on purchase behaviour appears to be multi-faceted. Given this background Laroche *et al.* (2002:505) implore marketers to engender favourable attitudes towards the environment as attitudes are considered as the key driver of consumers' willingness to pay more for green products.

In addition, Neil's comment also suggests that the importance assigned to the product by the consumer tends to influence purchase behaviour. This finding is supported in the literature, with Bravo, Cordts, Schulze and Spiller (2013:67) stating that the value attached to organic food significantly influences purchasing behaviour. In the same vein, Cheah and Phau (2011:457) add that perceived product necessity influences purchase behaviour and increases the willingness to pay the premium price associated with green products.

6.4.4 Environmental responsibility

This theme discusses the ascription of responsibility for addressing environmental problems among key stakeholders, such as consumers, corporates and the government. Evidence from interviews suggests mixed views as to who needs to assume environmental responsibility. This view is captured in following comments:

"I am willing to participate but I believe my effort alone is not enough. It must be a collective effort...the way I see it our government is not doing enough to punish those companies that

are damaging the environment...even if you look at the environmental campaigns by the Department of Environmental Affairs...they appear lukewarm. To me they are not stimulating...” [Steven]

“Personally I am willing to participate but I think companies must do more because they pollute more...” [Pandy]

The foregoing excerpts tend to ascribe environmental responsibility to corporates and the government. This finding concurs with that of Sinnappan and Rahman (2011:136), which stresses the need for the government to assume the lead in environmentalism by generating environmental awareness and enforcing environmental laws.

Steven’s comment confirms the association between environmental responsibility and the concept of self-efficacy. Self-efficacy refers to the extent to which individuals believe that their efforts have the potential to mitigate the problem at hand (Bandura 1977:193). Consistent with the self-efficacy concept, Cheah and Phau (2011:459) found that unless the consumer believes that his or her actions will have the desired consequences, he/she has little incentive or motivation to engage in pro-environmental behaviour.

Similarly, Sinnappan and Rahman (2011:132) employ the term “perceived effectiveness of environmental behaviour” to suggest that individuals believe that their individual efforts have the potential to positively contribute to protect the environment. The perceptions of low self-efficacy are evident in the foregoing excerpts and result in ascription of responsibility to companies and the government. Given the background of low self-efficacy among the respondents, Laroche *et al.* (2001:514) advise marketers to structure green marketing messages that strengthen an individual’s feeling of self-efficacy as a way of promoting pro-environmental behaviours.

6.4.5 Social influence

Social influence is one of the dominant themes that emerged from interviews. The theme encompasses the effect of peers, family and social groups on an individual’s buying behaviour. The majority of the participants acknowledged that they were favourably influenced by the views of family members and peers to perform pro-environmental behaviours. The following narratives indicate the influence of social influence on green purchase behaviour:

“When I am at campus my friends influence me much on what to eat...we enjoy buying as a group...it appears our tastes are now converging ... but during vacations what to eat appears to be a family decision...whatever you buy it must be acceptable...my mother, in particular, likes organic foods...she says they reduce breast cancer and obesity...so I always buy what is preferred ...” [Esther]

“I think I have a role to play. I must say it’s something I was taught at home tending our garden...this year we celebrated earth day as a family...at college I’m a member of the recycling group...besides my friends are involved...It feels good to be involved...at campus my colleagues introduced me to organic chocolate.” [Prime]

“I regularly do shopping errands at home...we mainly buy organic foods...our groceries for basics is mainly from the free-range produce...my parents insists on that...they say it’s good for health.” [Norman]

The foregoing excerpts consolidate the importance of the role of family and peer influence in the purchase of green products. This finding reflects that of previous studies by Pickett-Baker and Ozaki (2008:289) and Lockie, Lyons, Lawrence and Grice (2004:145), who found that social environments and peer networks positively influence green product purchase decisions. Similarly, Lee (2011:303) acknowledges the role of family and peers as socialisation agents with the potential to impart environmental values and attitudes to their acquaintances. Ward (1974:2) defines consumer socialisation as the “processes by which young people acquire skills, knowledge, and attitudes relevant to their functioning as consumers in the marketplace.” The uptake of green products is thus likely to be enhanced if they are promoted through the use of social networks.

Although peers and family are central to the performance of pro-environmental behaviours, it appears that Generation Y consumers are struggling to balance the need to conform to their social circle and the quest for self-expression. This view is encapsulated in the following excerpt:

“I must say I wish to identify with my colleagues on almost everything I do...but sometimes I look at factors that affect me as an individual like my image, style, yeah something like that...I always try to make sure that my peers fit in whatever I do though...” [Owen]

The foregoing excerpt is supported in literature that characterises the purchase of green products as a social dilemma (Gupta & Odgen 2009:386). The social dilemma is evident when respondents strive to balance the quest for belongingness and self-identify. First, the need to fit into the social group is supported by the Social Comparison Theory (SCT). The SCT posits that individuals relate their behavioural actions to those of esteemed acquaintances to attest their affiliation (Festinger 1954:135). Based on the excerpt,

respondents tend to compare their product choices with those of their peers. Given the importance of social influence, Lee (2009:92) opines that young consumers tend to attach more importance to environmental messages that are communicated within their social networks.

Secondly, Owen's comment implies that consumers seem to be favourably inclined towards products that prop up their self-image. This is evident when respondents strive to buy products that enhance their self-image. This finding is consistent with that of Lee (2008:582), who found that young consumers are favourably inclined towards green products that assuage their self-image. This finding has theoretical roots in the Self-Image Congruity Theory (SICT). The SICT holds that individuals tend to prefer to buy products that are compatible with their image (Sirgy 1982:296). Similarly, the Self-Discrepancy Theory (Higgins 1987:330) posits that a significant mismatch between the product image and the individual's ideal image results in dissonance. However, Cheah and Phau (2010:457) cautioned that if the quest for self-gratification supersedes the desire to belong to a social group, the performance of pro-environmental behaviour may be suppressed. Thus, to promote green purchase behaviour among the ego-driven Generation Y consumers, marketers need to strive to align the green product's image with that perceived as important by consumers (Hume 2010:392).

6.4.6 Government influence

Government influence emerged as one of most important themes during interviews. The theme espouses the role of the government in promoting pro-environmental behaviours through environmental regulations, generating environmental awareness and provision of incentives to enhance pro-environmental behaviour. Although there is consensus among respondents that environmental preservation is everyone's responsibility, it was apparent that participants appeared to transfer responsibility to the government. The view that the government needs to play a central role in promoting pro-environmental behaviours is captured in the following excerpt:

"...I think the government must do more to make green products affordable to the low-income markets and support companies that care for the environment...I believe there is a need to generate awareness on green marketing and environmental laws...and enforcement of these laws." [Forbes]

Forbes' comment suggests that participants in the study expected the government to play a central role in instigating environmental laws, including interventions in the pricing of green

products. This finding confirms the postulation that pro-environmental behaviour is more likely to occur if governments and corporates adopt a more sustainable stance (Zhao, Gao, Wu, Wang & Zhu 2013:5). Specifically, the government role in environmentalism revolves around formulation and enforcement of environment regulations, generating environmental awareness and monitoring the implementation of environmental certifications to enhance consumers' trust in green products (Carette *et al.*, 2012:476). In addition, Yates (2008:6) suggests that any government intervention needs to involve all key stakeholders, with the aim of developing green marketing best practices, including guidelines on implementation.

Also emanating from the interviews is the view that the government needs to generate awareness of environmental laws and their importance. This view is reflected in the following excerpt:

“Honestly despite those anti-dumping signs we see I don’t know much about environment laws ...it seems people need to be educated. In Soweto you find more litter exactly where the anti-dumping signs are...it seems people are not complying with laws.” [Pandy]

This view gains support in a previous study by Sinnappan and Rahman (2011:136), which found that enforcing environmental regulations through environmental education has the potential to enhance green purchase behaviour. Similarly, Thogersen (2005:145) laid the environmental responsibility at the door of national governments and companies by asserting that “governments and businesses are responsible for much of the external conditions limiting an individual consumer's freedom to choose and act, and therefore they also carry part of the responsibility for sustainable consumption”. In particular, respondents felt that the government needs to ensure that green products are affordable. This view is captured in the following citation:

“...it seems green products are beyond the reach of many...I think the purchase of green products can be improved if the government subsidises these products or considers giving support to companies that care for the environment...other than that, it remains a challenge for low-income earners...” [Helen]

This finding is supported by that of Caird *et al.* (2008:10), who found that the purchase of green products tends to be contingent on financial incentives such as discounts, grants and subsidies. However, this finding is in contrast with that of Gadenne *et al.* (2011:7692), which revealed that government policies and subsidies are not effective in promoting environmental behaviour. The possible explanation for this finding could be that consumers doubt the commitment of government to address environmental problems, especially against the

backdrop of inherent loopholes associated with the enforcement of environmental regulations.

While most respondents believe that protecting the environment is the responsibility of the government, Cleveland, Kalamas and Laroche (2005:200) caution that this perception has the potential to dilute environmental concern and the performance of pro-environmental behaviours among consumers.

6.4.7 Selection attributes

Another recurring theme that emerged from interviews was that of *selection attributes*. This theme encompasses the factors that influence consumers to select green products. This theme was prominent and includes issues that influence the selection of green products, such as price, quality, availability, taste and healthiness. An array of interesting insights emerged from the study regarding the factors that are considered important by consumers when making green purchase decisions. It is evident from respondents' responses that they strive to engage in pro-environmental behaviours but that they encounter a myriad of challenges. First, the perception that green products are expensive emerged repeatedly during interviews as one of the factors that reduce the purchase of green products. This view is encapsulated in the following excerpt:

"I regard myself as a price-sensitive consumer, price plays a big role in my purchase decisions, honestly I am not prepared to pay for the higher price, which in some cases its double that of non-green products...I believe it's too much...for example the green coffee is twice more expensive than the non-green one..." [Melisa]

This view resonates with those of Michaelidou and Hassan (2010:137) and Barrera and Sanchez (2010:267) that the perceived high prices of green products are the immediate deterrent to the uptake of green products, especially in repeat purchases (Marian, Chrysochou, Krystallis & Thøgersen 2014:57). Inherent in the foregoing excerpt by Melisa is the unwillingness to pay the premium price for green products. This view is prevalent in green buyer behaviour, where consumers tend to vary in their willingness to pay the premium price (De Pelsmacker, Driesen & Rayp 2005:381). For instance, research by Radman (2005:269) suggests that 70 percent of consumers would buy organic products if the price were reduced. Similarly, Kollmuss and Agyeman (2002:249) noted that the traditional emphasis on savings and frugality still impedes the purchase of green products. In the present study, a plausible reason for price sensitiveness could be that most students depend on money

from their parents, hence they tend to be price sensitive. Taking into account this perception that green products are perceived as expensive, Carrete *et al.* (2012:478) suggest that marketers need to investigate whether a low-cost pricing strategy has the potential to enhance actual purchase behaviour.

Apart from the expensive tag attached to green products, health concerns were expressed as one of the key drivers for the purchase of green products. The following excerpt confirms health considerations as a significant factor influencing the purchase of green products:

“...In terms of price green products are relatively expensive...but I believe the green products are good for my health...so I am prepared to pay the price...” [Lauren]

This finding concurs with extant literature, as health is considered a key driver of green product purchase intentions (Ozguven 2012:665). Health consciousness refers to “the degree to which health concerns are integrated into a person’s daily activities” (Jayanti & Burns 1998:10). This finding, however, is in contrast with that of Michaelidou and Hassan (2010:136), who refute health consciousness as a key driver for shaping attitude towards organic produce. In a similar study, Lockie, Lyons, Lawrence and Grice (2004:145) noted that perceptions of the healthiness of organic food do not influence purchase intentions. The plausible reason for these mixed views could be that green products are laden with credence qualities that make it difficult for consumers to effectively evaluate the benefits of green products.

The current study also found that respondents are not only influenced by health considerations but also by quality. In terms of quality, there are mixed views, as captured by the following excerpts:

“In terms of performance...the truth is that I do not really know...I remember my first experience with green coffee the taste was not good...together with my friends we decided to stop...I don’t know whether I will try it again...” [Pandy]

“I like the natural taste of these products the most... for those products I regularly buy such as green coffee, organic milk and free range chicken...I don’t have any complaints regarding their quality...I don’t mind paying the extra rand...” [Prime]

The mixed views regarding the quality of green products are mirrored in extant literature. For instance, Borin *et al.* (2013:124) and Tobler, Visschers and Siegrist (2011:680) regard green products as of poor quality, while in contrast, Wier, Jensen, Andersen and Millock (2008:406) regard green products as being of high quality. Kihlberg and Risvik (2007:471)

acknowledge the superior taste of green products. Given the prevalence of mixed views on the quality of green products, Hjelmar (2011:341) and Ness, Ness, Brennan, Oughton, Riston and Ruto (2010:108) opine that marketers need to emphasise the benefits of green products as unique selling propositions over non-green products when framing green marketing communications.

Considering the lack of consensus regarding the quality of green products, Cleveland *et al.* (2013:7) suggest that the expectation among consumers is that the environmental attributes of green products need to be complemented by quality. In addition, Gan *et al.* (2008:100) state that traditional product attributes such as price, quality, and brand are still the most important attributes that consumers consider when buying green products. Similarly, Ginsberg and Bloom (2004:80) suggested that consumers are not prepared to sacrifice traditional product attributes for the sake of going green.

Another perspective regarding the quality of green products relates to the consumer's first encounter with the product. For example, Prime's first experience with a green product resulted in dissonance. In line with Prime's comment, Phipps *et al.* (2013:1229) suggest that past behaviour affects future behavioural intentions. For instance, researchers have observed a "licensing effect" whereby negative outcomes of pro-environmental behaviours tend to lead to activations of anti-environmental behaviours (Mazar & Zhong 2010:498). Similarly, a study by Longoni, Gollwitzer and Oettingen (2014:163) revealed that negative feedback affects the performance of subsequent behaviour. It is noteworthy that the onset of anti-environmental behaviours has the potential to evolve into entrenched behaviour with the threat of negating any efforts to promote the adoption of pro-environmental behaviour (Jansson *et al.*, 2010:365).

In addition to concerns over the performance of green products, scepticism appears to be deeply ingrained in the minds of most respondents. The views of respondents also suggest that environmental claims are confusing and at times amount to being outright misleading. Specifically, respondents were sceptical about the environmental benefits of green products and the reasons why companies are going green. The following excerpts emanating from interviews epitomise the sentiments of scepticism associated with green products and green marketing communications:

“...To me benefits of these products to the environment remains a myth...it appears it’s a marketing gimmick...I regard it as a ploy to charge higher prices...just like the recent meat labelling scandal... without sound checks on those claims you can’t be sure ...” [Ruth]

“...it seems companies just slap a green label to their products...I think the government needs to do more to protect consumers...so honestly I don’t trust the so-called green products...”[Neil]

It can be inferred from the foregoing excerpts that respondents demand green marketing messages that are cogently expressed. Notably, there is an undertone suggesting that these respondents suspect marketers of a deliberate attempt to mislead. This finding reinforces the importance of justifying the environmental claims of green products and enhancing the integrity of environmental labels. This finding also dominates green marketing literature and scepticism is considered the major challenge faced by marketers in promoting the adoption of green products (Albayrak, Aksoy & Caber 2013:36). For instance, emotionally laden environmental messages have been criticised for misleading consumers on the magnitude of environmental problems, resulting in consumers being vulnerable to greenwashing (Koenig-Lewis, Palmer, Dermody & Urbye 2014:94). This finding implies that marketers need to invest in considerable marketing effort to change negative perceptions associated with green products. Without confidence in green products, consumers tend to be reluctant to buy them.

To ease scepticism and regain consumer trust, Bravo, Cordts, Schulze and Spiller (2013:67) suggest that marketers need to communicate accurate information about the environmental benefits related to the consumption of green products. Given the surge in unsubstantiated green claims, Peattie (2001:198) advocated the need to “return to rationality”, that is, refocusing on green marketing messages that are premised on honesty to restore consumer confidence in green products. Thus, fact-based communication of the environmental performance of green products has the potential to enhance trust in the green marketplace and ultimately lead to purchase behaviour.

Additionally, sceptical respondents tend to attach more risk to green products, as attested by the following excerpt:

“I buy the products I consider good regularly...green products are relatively new to me...I feel I don’t have enough information to consider buying them...because, I have formed a habit of things that I buy all the time, and I’d rather not put in the time and money, and somewhat cost difference for green products...”[Owen]

It is evident from the foregoing excerpt that perceptions of greenwashing tend to erode the formation of favourable attitudes towards green products. This finding endorses the recommendation by Atkinson and Rosenthal (2014:39) that marketers need to structure green marketing messages in a way that fosters consumer trust. Similarly, Young *et al.* (2010:29) also stressed the importance of the role of government in establishing clearer regulations to stamp out greenwashing claims by consumers.

In addition to risk perception, respondents face challenges in differentiating between green and non-green products. Respondents also felt that the purchase of green products demands considerable effort in searching for them and making a purchase decision. These views are captured by the following excerpts:

“When I heard my friend talking about green products...I made an attempt to buy...but honestly it took me considerable effort...visibility of these products is poor...sometimes the labelling is clumsy...I guess many consumers lack information to identify these products...the benefits of these products are not clear either...it’s difficult to an ordinary consumer to understand what is organic, natural, fair trade you name them...so now I tend to buy what is convenient... Why should I bother...” [Pandy]

Ruth echoed these sentiments:

“For me buying green products requires a bit of effort...you can only get these products in upmarket outlets...sometimes I think they are not meant for us ordinary people...you need extra transport money to access them...and making a purchase decision sometimes it’s not easy...”

It can be deduced from the foregoing excerpts that consumers are concerned with the magnitude of the physical and cognitive effort required to buy green products. This finding is supported by that of Hjelmar (2011:341), which characterises the green market as a “complex purchase setting” resulting in difficulties in making a purchase decision. For Pandy, green marketing terms such as fair trade and organic are not always clear. This finding concurs with that of Yates (2008:18) that revealed that 64 percent of consumers find it difficult to synthesise green marketing messages. This feeling of inadequacy is also replicated in a related study by Shafie and Rennie (2012:365) that revealed that consumers are not equipped to make green product purchase decisions.

The notion that consumers have a challenge differentiating green and non-green products suggests that marketers need to educate consumers (Lu *et al.*, 2013:8). Similarly, Laroche *et al.* (2001:515) emphasise the need for green brand differentiation. This is particularly

important given that lack of information on the environmental benefits of green products potentially reduces purchase intentions (Young, Hwang, McDonald & Oates 2010:29). The provision of relevant information on the attributes of green products enables consumers to distinguish between conventional and green products (Carrete *et al.*, 2012:475). Armed with relevant information, according to Rousseau and Vranken (2013:41), consumers are more likely to be willing to pay the premium price associated with green products.

Related to the challenge of differentiating between green and non-green products are respondents' concerns regarding environmental labels. It is apparent from interviews that respondents are concerned with the integrity of environmental labels. Oscar's comment reflects this view:

"I feel as a consumer I lack information to make a decision...the product labels are not helpful either...you don't know whether you are making a right decision or not ... to me there are no basis for comparisons...green products are touted as biodegradable...but who knows how it compares with a non-green product?"

This finding concurs with that of Carrete *et al.* (2012:476) that found the need to develop an all-encompassing certification process as a way of enhancing consumer trust. A coherent certification process has the potential to enhance the credibility of environmental labels. Gottschalk and Leistner (2013:140) also suggest the use of marketing cues that have the effect of enhancing direct comparison between a green and non-green product.

Apart from lack of information as to how to differentiate green products, many respondents underlined that the lack of green products in conventional outlets waters down their purchase intentions. The dissatisfaction expressed by respondents regarding the unavailability of green products is encapsulated by the following excerpt:

"I regularly buy green products provided they are available at the right price...as a young lady I want to watch my weight and lifestyle...the challenge is availability, green products are mainly found in upmarket outlets and sometimes people are not prepared to make an extra effort to find them...I end up buying what is available..."

Based on the preceding excerpt, the unavailability of green products influences respondents to purchase products that are readily available. The importance of availability is confirmed by a study by Nath *et al.* (2014:515), which found that the demand for organic food has the potential to boom if it is conveniently located in retail outlets. Theoretically, this finding is supported by the Motivation-Ability-Opportunity framework, which implies that unavailability of green products in conventional retail outlets impedes the purchase of green

products (Grunert, Hieke & Wills 2014:188). Similarly, extant literature emphasises that low availability of green products exerts a negative impact on consumers' attitudes towards green purchase behaviour (Bonini & Oppenheim 2008:6; Bravo, Cordts, Schulze & Spiller 2013:67). Thus, given that the purchase of green products that are part of the fast-moving consumer goods category tends to be routinised behaviour (Woods & Neal 2009:579), green products need to be readily available at the point of need to enhance habitual purchase behaviour (Hjelmar 2011:340).

6.4.8 Green purchase intention

Another theme that emerged from interviews was *green purchase intention*. In the context of this study, green purchase intention refers to the determination of the consumer to buy a green product and the likelihood of doing so. Although most of the respondents voiced intentions to buy green products, they noted certain inhibiting factors, as reflected in the following excerpt:

“Yeah it seems my loyalty now goes with companies and products that care for the environment...I now prefer green tea because of its environmental appeal...Although green products are not readily available and expensive...I will make an effort...As it is now I know where to get them ...” [Norman]

The foregoing excerpt illustrates that respondents may have strong intentions to purchase green products but that their efforts are constrained by high prices and unavailability. This finding accords with those in the literature that state that situational factors affect green purchase intentions (Bhate & Lawler 1997:462). For instance, the concept of perceived behavioural control holds that availability of supporting resources and the likelihood of achieving favourable outcomes influences the performance of pro-environmental behaviours (Albayrak, Aksoy & Caber 2013:29). The evidence from the excerpt also reinforces the idea that unavailability of green products, coupled with exorbitant prices, tends to impede the purchase of green products. According to Vermeir and Verbeke (2008:7), the existence of inhibiting situational factors may explain the gap between purchase intentions and actual purchase behaviour. To reduce the intention-behaviour gap, therefore, Laroche *et al.* (2001:514) suggest that marketers engage in promotional activities that induce individuals to act on their intentions.

6.4.9 Actual purchase behaviour

The final theme to emerge from interview transcripts involves respondents' actual purchase behaviour with regard to green products, which has become an important criterion for assessing the success of green products in the marketplace. Actual purchase behaviour refers to the propensity of consumers to translate their purchase intentions into actual purchase behaviour. Respondents raised contrasting views on the likelihood of translating their purchase intentions into actual purchase behaviour, as reflected in the following excerpts:

“After seeing a lot of environmental problems especially on my favourite programme 50/50 ... I always intend to buy green products...but I must admit it's not always the case...when I buy...sometimes my budget will not allow...if it is not the price...sometimes it's availability ...one day when I wanted to try organic milk there was none in the supermarke...” [Prime]

“...I consider myself as a responsible consumer...the messages I receive about the environment emboldens me...once I form an intention I act on it...I am now loyal to organic products...I must say I buy them more frequently...” [Lauren]

The mixed views on the relationship between intentions and behaviour are mirrored in extant literature. For instance, researchers exploring the purchase of organic food noted a correlation between purchase intention and purchase behaviour (Saba & Messina 2003:644). Yet, in contrast, a similar study by Grunert and Juhl (1995:59) concluded that consumers who professed purchase intentions did not always translate these intentions into purchase behaviour. As the gap between green purchase intentions and actual purchase behaviour continues to persist, Gleim *et al.* (2013:57) stressed that it is imperative that marketers examine the underlying causes of the gap in order to foster the purchase of green products.

In sum, the qualitative study identified environmental concern, environmental attitude, environmental responsibility, social influence, selection attributes, government influence and green purchase intention as the main antecedents of green purchase behaviour. The study also confirmed the existence of the gap between intentions and purchase behaviour, which may be attributed to price, availability, quality and taste – referred to here as selection attributes. In line with the methodology used in the study, the next section presents the findings of the quantitative study in an attempt to corroborate these findings.

6.5 QUANTITATIVE DATA ANALYSIS PROCEDURES

The data that were collected from respondents through the administration of a structured, self-administered questionnaire were analysed using descriptive and inferential statistics. The

procedures for quantitative data analysis were as follows: firstly, the coding process was explained, followed by the assessment of the normality of data; secondly, the study described the demographic profile of the sample; thirdly, the Mann-Whitney Test and Kruskal-Wallis Test were performed to compare gender differences in green purchase behaviour, using validity and reliability measures to assess the accuracy of the measurement instrument; fourthly, the measurement model was evaluated using CFA; thereafter, the fitness of the structural model was ascertained by employing SEM; and finally, path analysis was conducted to explain the hypothesised relationships in the study. Figure 6.2 depicts the statistical procedures employed in the present study.

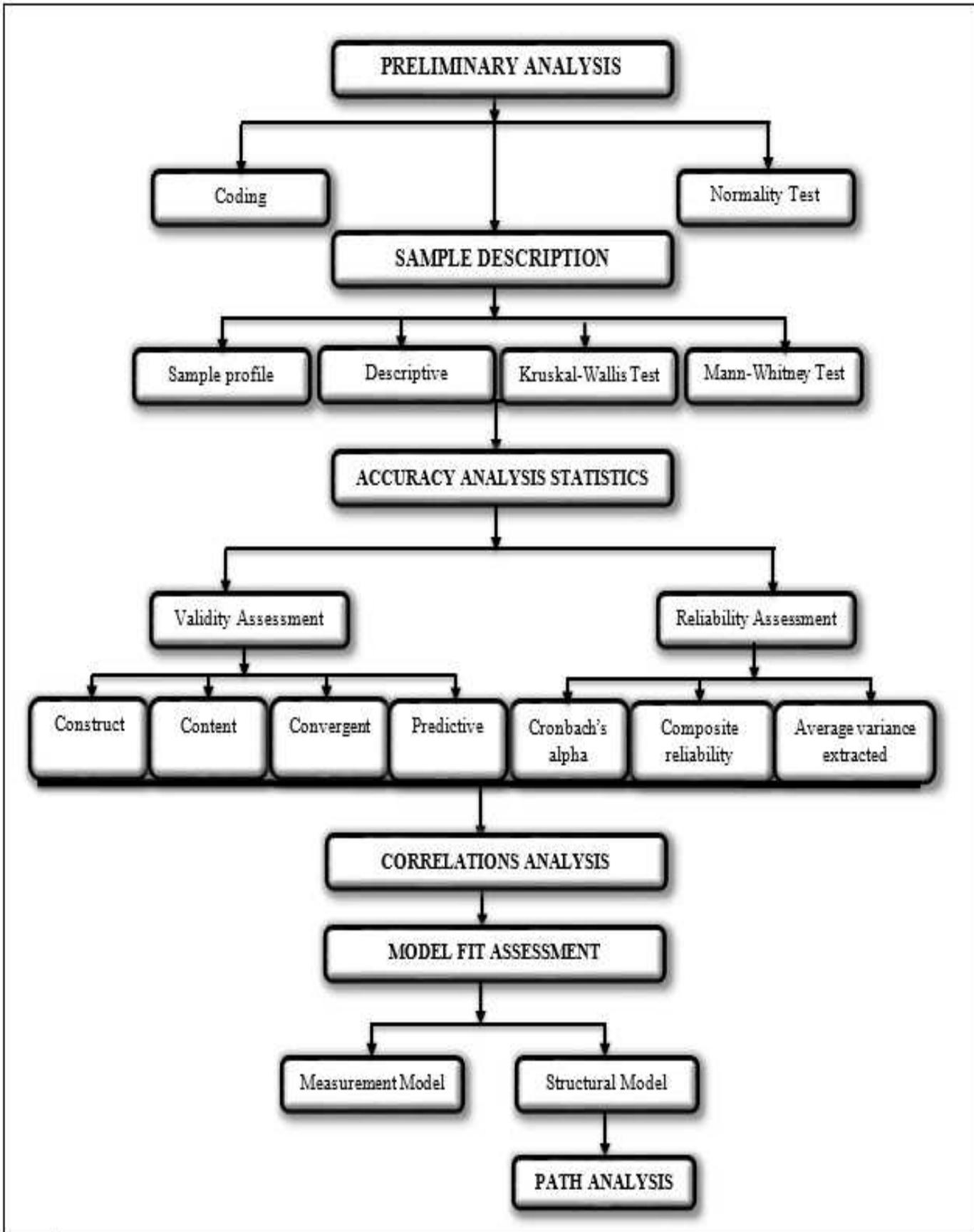


Figure 6.2 Statistical procedures

6.6 THE CODING PROCESS

The coding process was conducted by assigning labels to all constructs in the study and numeric values to each of the responses. The questionnaire utilised in this study was composed of five sections: Section A (Demographic Profile), Section B (Antecedents of Green Buyer Behaviour), Section C (Green Purchase Intention), Section D (Selection Attributes) and Section E (Actual Purchase Behaviour). All measurement items in Sections B, C, D and E were measured on a 5-point Likert scale: 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree) and 5 (strongly agree). The following questionnaire items were reverse coded: B4, B5, B15 and B20 as per the questionnaire (Appendix D). Table 6.4 provides the codes for Section A and assigned response values.

Table 6.3 Coding

Section	Item	Code	Variable	Response values
A	1	A1	Gender	Male (1), Female (2)
	2	A2	Age	19-25yrs (1), 26-32 yrs (2), 33-39 yrs (3)
	3	A3	Educational level	Diploma (1), Degree (2), postgraduate (3)
	4	A4	Ethnic group	African (1), Coloured (2), Indian (3)
	5	A5	Environment club membership	Yes (1), No (2)

6.7 NORMALITY TEST

The fulfilment of the assumption of normality was considered a pre-condition for the use of inferential statistical techniques, as recommended by Pallant (2011:59). The normality of the data set was ascertained by computing the skewness and kurtosis statistics, using SPSS 22.0. The skewness values of all constructs ranged from 0.098 to 0.336, while the values for kurtosis were between -0.400 to 0.986, as shown in Table 6.4.

Table 6.4 Skewness and kurtosis values

	EA	SI	ER	EC	GI	GPI	SA	APB
Valid cases	386	386	386	386	386	386	386	386
Missing cases	0	0	0	0	0	0	0	0
Skewness	.272	.336	.252	.174	.109	.098	.230	.271
Std. Error of Skewness	.124	.124	.124	.124	.124	.124	.124	.124
Std. Error of Kurtosis	.007	-.313	-.047	-.400	-.185	-.136	.188	.986

EA=Environmental attitude; SI= Social Influence; ER=Environmental Responsibility; EC=Environmental concern; GI=Government Influence; GPI= Green Purchase Intention; SA=Selection Attributes; APB= Actual Purchase Behaviour.

As depicted in Table 6.4, the skewness and kurtosis values are all well above the baseline value of zero suggested by Tabachnick and Fidell (2007:80), indicating that the scores are not normally distributed. To complement the skewness and kurtosis values, the Kolmogorov-Smirnov test of normality was computed. Table 6.5 provides the Kolmogorov-Smirnov results.

Table 6.5 Tests of normality

Constructs	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Environment Attitude	0.200	386	.000	0.912	386	.000
Social Influence	0.212	386	.000	0.903	386	.000
Environmental Responsibility	0.201	386	.000	0.910	386	.000
Environmental Concern	0.205	386	.000	0.924	386	.000
Government Influence	0.187	386	.000	0.920	386	.000
Green Purchase Intention	0.207	386	.000	0.920	386	.000
Selection Attributes	0.202	386	.000	0.914	386	.000
Actual Purchase Behaviour	0.193	386	.000	0.912	386	.000

Pallant (2011:63) recommends that a significance value of greater than 0.05 indicates the normality of distribution scores. Based on the results presented in Table 6.5, the Kolmogorov-Smirnov statistic yielded significant values of .000 for all constructs, implying the violation of the assumption of normality. However, Pallant (2011:63) also notes that the condition of normality is known to be susceptible to large sample sizes, as is the case with the present study, where a sample size of 386 was utilised.

6.8 SAMPLE COMPOSITION

A total of 420 questionnaires were administered to Generation Y consumers using the convenience sampling method in a period of one month (15 July to 15 August 2014). Of the 420 questionnaires which were administered, 398 were returned. After accounting for 12 incomplete questionnaires, a total of 386 questionnaires were deemed valid for empirical analysis. Thus, the usable questionnaires culminated in a sample size of 386, which is within the range used in similar studies (Bamberg 2003:24; Erdogan, Akbunar, Asik, Kaplan & Kayir 2012:3244; Gupta & Ogden 2009:382; Haws, Winterich & Naylor 2013:5).

Within the final sample, more than 50 percent of the respondents were female (52.1 percent; $n = 201$) and 47.9 percent ($n = 185$) were males. In terms of age distribution, the majority were aged 19 to 25 years, accounting for 89.1 percent ($n = 344$) of the sample, followed by the 26-32 age category with 8.0 percent ($n = 31$) and finally, subjects aged between 33 and 39 years made up 2.8 percent of the sample ($n = 11$).

In terms of educational level, approximately 51.6 percent ($n = 199$) of the respondents were diploma students, 46.4 percent ($n = 179$) were degree students and 2.1 percent ($n = 8$) were postgraduate students. With regard to ethnicity, 97.2 percent of the respondents were black Africans ($n = 375$), 2.1 percent ($n = 8$) were Coloured and 0.8 percent ($n = 3$) were Indians. The population distribution in this study is consistent with the population distribution statistics in South Africa (RSA 2011:9). With reference to environmental membership, 94.6 percent of the respondents ($n = 365$) were not affiliated to any environmental club and only 5.4 percent ($n = 21$) claimed membership in environmental clubs. Table 6.6 provides the demographic profile of the sample.

Table 6.6 Sample descriptions

Demographic variable	Characteristics	Frequency	Percent (%)
Gender	Male	185	47.9
	Female	201	52.9
Age	19-25 years	344	89.1
	26-32 years	31	8
	33-39 years	11	2.8
Education level	Diploma	199	51.6
	Undergraduate	179	46.4
	Postgraduate	8	2.1
Ethnicity	African	375	97.2
	Coloured	8	2.1
	Indian	3	.8
Environmental Membership	Yes	21	5.4
	No	365	94.6

6.9 DESCRIPTIVE STATISTICS OF VARIABLES UNDER STUDY

The study also computed descriptive statistics for all constructs in the study. All the constructs in this study were measured on a 5-point Likert scale. The mean scores and the standard deviations of all variables are provided in Table 6.7. The mean score of environmental attitude towards green purchase intention was 3.76 out of a maximum score of 5. This result implies that Generation Y consumers have a generally positive attitude towards the well-being of the natural environment. Social influence yielded the greatest mean score of 3.78, compared with other constructs in the study. This score indicates that Generation Y consumers are socially oriented and significantly influenced by shared information in the formation of green product purchase intentions.

The summated mean of environmental responsibility, at 3.64, was low compared with other constructs in the study. This result suggests that Generation Y consumers appear to be polarised and reluctant to assume individual responsibility to address environmental

problems. Environmental concern had a relatively high mean score of 3.71 in comparison with other constructs in the study, implying that respondents shared a common view pertaining to their environmental responsibility. This result portrays Generation Y consumers as an environmentally concerned cohort. This finding is supported in extant literature that identifies the Generation Y cohort as the forerunners of pro-environmental behaviours (Williams & Page 2011:8). The mean score of government influence is generally low at 3.68 when compared with the mean scores of other antecedents of green purchase intention (EC, EA, ER and SI). This result denotes that government initiatives are moderately low in enhancing green purchase intentions among Generation Y consumers.

The mean score of selection attributes was 3.66, implying that there is a variation in the criteria used by Generation Y consumers when purchasing green products. The green purchase intention construct had a mean score of 3.64, indicating that the intent to buy green products differs among Generation Y consumers. Finally, the actual purchase behaviour reported the lowest mean score of 3.59 as compared with other constructs in the study, signifying that there are significant variations among Generation Y consumers in terms of actual purchase of green products. It is also important to note that the mean scores of environmental concern and attitude are higher than those of actual purchase behaviour, implying that Generation Y consumers do not translate their favourable environmental attitudes and concerns into actual purchase of green products. In sum, all constructs reported mean scores above 3, implying that there was general consensus among respondents on items included in the survey instrument. Table 6.7 illustrates the mean scores and standard deviations of all constructs in the study.

Table 6.7 Mean scores and standard deviations of research variables

Construct	N	Maximum	Mean score	Std.dev	\bar{x} rank
Environmental Attitude	386	5.00	3.76	.657	2
Social Influence	386	5.00	3.78	.675	1
Environmental Responsibility	386	5.00	3.64	.703	6
Environmental Concern	386	5.00	3.71	.730	3
Governmental Influence	386	5.00	3.68	.704	5
Selection Attributes	386	5.00	3.66	.724	4
Green Purchase Intention	386	5.00	3.64	.678	7
Actual Purchase Behaviour	386	5.00	3.59	.587	8

6.10 GENDER DIFFERENCES IN GREEN PURCHASE BEHAVIOUR

Given the importance of demographic variables in green buyer behaviour (Do Paco & Reis 2012:150), the present study also determined whether green purchase intentions and actual purchase behaviour varied with gender among Generation Y consumers. To this end, the Mann-Whitney U Test, an alternative to the parametric independent-samples t-test, was computed. The Mann-Whitney U Test statistic was employed because the data were not normally distributed.

As suggested by Pallant (2011:230), the effect size statistic (r) was calculated by dividing the Z value by the square root of the sample size ($n = 386$). The results showed that there are significant differences between female Generation Y consumers and their male counterparts as regards green purchase behaviour. In terms of environmental attitude, the results revealed a small to moderate difference in the environmental attitude levels of females with an effect size of ($p = 0.000$; $r = 0.205$).

The results of the Mann-Whitney U Test also revealed that Generation Y female consumers are more likely than males to be influenced by peers in terms of their green purchase intentions with an effect size of ($p = .000$, $r = 0.222$). However, no significant difference was found between females and males ($p = .117$, $r = 0.080$) in terms of environmental responsibility. Pertaining to environmental concern, female consumers scored significantly higher than males ($p = .000$, $r = 0.401$). This finding is consistent with the earlier findings of

the qualitative study that found that Generation Y female consumers are more environmentally concerned than Generation Y male consumers. This result is also supported by the findings of Elliott (2013:309), which reported higher levels of environmental concern among young female consumers than young male consumers.

In terms of government influence, the study found no significant difference in government influence levels in female and male Generation Y consumers ($p = .215$, $r = 0.063$). This finding is similar to that in the preceding qualitative study, where respondents felt that the government is not doing enough in generating environmental awareness and enforcing environmental laws. In terms of purchase intention, female consumers are moderately inclined to express green purchase intentions compared to male consumers ($p = .000$, $r = 0.210$). However, with regard to selection attributes, that is, the criteria used by consumers in decision making, the study showed no significant differences between female and male consumers ($p = .167$, $r = 0.070$). Lastly, the study revealed a small difference in actual purchase behaviour of females and male consumers ($p = .003$, $r = 0.152$). The results of the Mann-Whitney U Test are reported in Table 6.8.

Table 6.8 Mann-Whitney U Test statistic of EA, SI, SI, EC, GI, SA, GPI, APB and Gender

Construct	Gender	N	Mean rank	Sum of ranks	Md	U	Z	R	P
EA	Male	185	169.95	31440.50	3.6	14235.5	-4.031	.205	.000
	Female	201	215.18	43250.50					
SI	Male	185	167.98	31076.50	3.6	13871.5	-4.369	.222	.000
	Female	201	216.99	43614.50					
ER	Male	185	184.35	34104.50	3.6	16899.5	-1.568	.080	.177
	Female	201	201.92	40586.50					
EC	Male	185	147.54	27294.00	3.5	10089	-7.876	.401	.000
	Female	201	235.81	47397.00					
GI	Male	185	186.25	34457.00	3.6	17252	-1.241	.063	.215
	Female	201	200.17	40234.00					
GPI	Male	185	169.39	31336.50	3.75	14131.5	-4.145	.000	.210
	Female	201	215.69	43354.50					
SA	Male	185	185.42	34303.00	3.6	17098	-1.382	.167	.070
	Female	201	200.94	40388.00					
APB	Male	185	176.07	32572.50	3.5	15367.5	-2.98	.003	.152
	Female	201	209.54	42118.50					

EA=Environmental attitude; SI= Social Influence; ER=Environmental Responsibility; EC=Environmental concern; GI=Government Influence; GPI= Green Purchase Intention; SA=Selection Attributes; APB= Actual Purchase Behaviour.

In summary, the results presented in Table 6.5 indicated that Generation Y female consumers are more likely to engage in pro-environmental behaviour than their male counterparts. To corroborate the results of Mann-Whitney U Test, the Kruskal-Wallis Test was conducted.

6.11 KRUSKAL-WALLIS TEST

In order to determine whether there were any substantial variations between female and male consumers in terms of green purchase behaviour, the Kruskal-Wallis Test, which is the non-

parametric alternative of one-way-analysis of variance (ANOVA), was computed. The Kruskal-Wallis Test revealed a statistically significant gender difference in environmental attitude, social influence, environmental concern, green purchase intention and actual purchase behaviour. The Kruskal-Wallis Test also showed no significant gender difference in environmental responsibility, government influence and selection attributes among Generation Y consumers. The Chi-square value, the degrees of freedom (df) and the significance and the mean rank emanating from the Kruskal-Wallis Test are reported in Table 6.9.

Table 6.9 Kruskal-Wallis Test statistic of EA, SI, ER, EC, GI, SA, GPI, APB and Gender

Construct	Gender	N	Mean rank	Chi-square	Df	Asymp. Sig.
EA	Male	185	169.95	16.249	1	.000
	Female	201	215.18			
SI	Male	185	167.98	19.089	1	.000
	Female	201	216.99			
ER	Male	185	184.35	2.458	1	.117
	Female	201	201.92			
EC	Male	185	147.54	62.029	1	.000
	Female	201	235.81			
GI	Male	185	186.25	1.539	1	.215
	Female	201	200.17			
GPI	Male	185	169.39	17.183	1	.000
	Female	201	215.69			
SA	Male	185	185.42	1.911	1	.167
	Female	201	200.94			
APB	Male	185	176.07	8.889	1	.003
	Female	201	209.54			

EA=Environmental attitude; SI= Social Influence; ER=Environmental Responsibility; EC=Environmental concern; GI=Government Influence; GPI= Green Purchase Intention; SA=Selection Attributes; APB= Actual Purchase Behaviour.

Overall, the findings of the Mann-Whitney U Test and the Kruskal-Wallis Test confirmed that there are gender differences in green purchase behaviour. As indicated by the significance values in Table 6.9, gender differences among Generation Y consumers in pro-environmental behaviours are more pronounced in environmental attitudes, social influence, environmental concern, green purchase intentions and actual purchase behaviour. This finding is consistent with the findings of past studies (Erdogan *et al.*, 2012:3248; Smith & Brower 2012:546; Suki 2013:733). From a theoretical standpoint, the finding reaffirms the assertions of the Gender Socialisation Theory that posits that women are more inclined to

perform altruistic behaviours than men (Gilligan 1982:81). Thus, based on this finding, the second empirical objective, which sought to understand whether there are gender differences in green purchase behaviour, was achieved.

The present study confirmed that there are significant differences between female and male Generation Y consumers in terms of green purchase behaviour. However, it is important to note that this finding contradicts a plethora of previous studies conducted by Chen and Chai (2010:33), Shen and Saijo (2008:8), Zhao, Gao, Wu, Wang and Zhu (2014:147), which found insignificant differences between males and females in terms of performance of pro-environmental behaviours. In addition, Diamantopoulos, Schlegelmilch, Sinkovics and Bohlen (2003:477) noted that, in general, demographic variables such as gender lack the capacity to predict purchase behaviour and need to be complemented by psychographic variables. To substantiate this view, a study conducted by Olli, Grendstad and Wollebaek (2001:195) revealed that demographic variables accounted for only approximately 10 percent of the environmental behaviour of the participants. Thus, to profile green consumers, marketers need to consider the effect of both demographic and psychographic variables.

6.12 RELIABILITY AND VALIDITY

The accuracy and integrity of the survey instrument was assessed through reliability and validity assessments. The study reports first on the reliability of the survey instrument and then on approaches employed to enhance validity.

6.12.1 Reliability of the pilot study

Prior to data collection, a two-stage process was applied to ensure the reliability of the survey instrument. In the first stage, the questionnaire was assessed by two experts in consumer buyer behaviour in respect of its clarity and comprehensiveness and the appropriateness of the items employed to operationalise the constructs. Based on the experts' opinion, minor modifications to the questionnaire were effected. In the second stage, a pilot study was conducted using a convenience sample of 50 respondents who were not part of the main survey. The pilot study attained Cronbach alpha coefficients ranging from 0.704 to 0.889, signifying the attainment of internal consistency of the questionnaire (Hair, Black, Babin, Anderson, Tatham & Black 2010:641). Appendix E provides the Cronbach's alpha coefficients of the pilot study. The questionnaire was therefore deemed fit to measure the

antecedents of green buyer behaviour and the selection attributes of Generation Y consumers in South Africa.

6.12.2 Reliability of the main survey

In order to verify the reliability of the questionnaire for the main survey, the Cronbach's alpha coefficient, the item-to-total values and composite reliability were computed. The Cronbach's alpha value measures the internal consistency of the measurement items that constitute the measurement instrument. In addition, higher inter-item correlations suggest a higher degree of cohesiveness among the measurement items. The results of reliability assessment are presented in Table 6.10. Overall, the Cronbach's alpha coefficients were satisfactory, ranging from 0.881 to 0.905, and therefore surpassing the minimum cutoff of 0.6 recommended by Zikmund & Babin (2010:248). Moreover, the item-to-total values ranged from 0.637 to 0.810, which is well above the baseline value of 0.5 (Anderson & Gerbing 1988:411). These results confirmed the ability of the survey instrument to measure all constructs in the study consistently.

Another measure of internal reliability employed in this study is composite reliability. In general, the minimum requirement for composite reliability is 0.7 (Hair, Anderson, Tatham & Black 2006:38). The index of composite reliability was computed using the formula suggested by Fornell and Larcker (1981:45) as follows:

$$CR\eta = (\sum\lambda_{yi})^2 / [(\sum\lambda_{yi})^2 + (\sum\epsilon_i)]$$

Where $CR\eta$ = Composite reliability,

$(\sum\lambda_{yi})^2$ = Square the sum of the factor loadings;

$(\sum\epsilon_i)$ = Sum of error variances.

The results of composite reliability are shown in Table 6.10. Again, the composite reliability (CR) values for all constructs ranged from 0.885 to 0.906, which is above the recommended threshold of 0.7, signifying the attainment of satisfactory levels of composite reliability. Table 6.10 summarises the measures of reliability. Furthermore, it was imperative to ascertain whether the validity of the survey instrument utilised in this study was acceptable.

6.13 VALIDITY ANALYSIS

The validity of the survey instrument was enhanced through content, convergent, discriminant and predictive validities.

6.13.1 Content validity

Prior to the development of the questionnaire, a detailed literature review was conducted to ensure that the antecedents of green consumer behaviour and the selection attributes of Generation Y consumers were comprehensively covered. Furthermore, the questionnaire was scrutinised by experts in consumer buyer behaviour to assess its suitability. In addition, the questionnaire was pilot-tested as suggested by Malhotra (2007:287), using 50 respondents. Based on the results of pilot-testing minimum adjustments were effected resulting in a more refined and respondent-friendly questionnaire.

6.13.2 Discriminant validity

To ensure discriminant validity, Fornell and Lacker's (1981:46) measure of average variance extracted (AVE) was employed. Using this approach, discriminant validity was assessed by comparing the square root of the AVEs with the correlations between the construct and other constructs that form the research model. For instance, the square roots of the AVEs for environment attitude and social influence are 0.794 and 0.811 respectively, as shown in Table 6.10, which is more than the corresponding inter-construct correlation estimate of 0.304 between them, as shown in Table 6.10, demonstrating that there is discriminant validity between environmental attitude and social influence. As indicated in Table 6.10, the square roots of AVEs of all constructs are greater than the correlations among all constructs in Table 6.11.

Another method of demonstrating discriminant validity involves the procedure of comparing the average variance extracted (AVE) for each construct with the highest shared variance between constructs. As indicated in Table 6.10, the AVEs are greater than the shared variance of all constructs, indicating the existence of discriminant validity.

Finally, discriminant validity was also assessed by inspecting the inter-construct correlation matrix. As shown in Table 6.11, the inter-construct correlation values are less than the rule of thumb of 0.8 (Fraering & Minor 2006:284), with the highest correlation value between

constructs of 0.582, thereby providing evidence of discriminant validity. Thus the requirements of discriminant validity were satisfied in this study.

6.13.3 Convergent validity

First, the average variance extracted was used to evaluate convergent validity. The average variance extracted of the eight constructs are all greater than 0.5, thereby indicating convergent validity in this study. The AVEs reported in Table 6.10 range from 0.564 to 0.670, which confirms the convergent validity of constructs. Secondly, convergent validity was assessed by computing the Spearman's rho coefficients. The study reported significant and positive coefficients between constructs from $r = 0.113$ to $r = 0.582$ ($p < 0.01$, $p < 0.05$), as shown in Table 6.11, and thus all measurement items converged well in measuring their respective constructs.

Thirdly, convergent validity was assessed by inspecting the factor loadings of all measurement items. As shown in Table 6.10, convergent validity was demonstrated as all estimated factor loadings for all measurement items were above the minimum threshold of 0.5, as recommended by Fornell & Lacker (1981:46).

6.13.4 Predictive validity

Predictive validity was assessed by inspecting the path coefficients and t-values. Causality was explained by small-to-significant relationships of environmental attitude, environmental concern, social influence and environmental responsibility with green purchase intention, green purchase intention with selection attributes and green purchase intention with actual purchase behaviour, as shown in Table 6.14. This result confirms the prevalence of acceptable levels of predictive validity in the study. Table 6.10 summarises the measures of reliability and validity.

Table 6.10 Accuracy analysis statistics

Research construct		Descriptive statistics		Cronbach's test		CR	AVE	AVES/Root	Shared variance	Factor loadings
		Mean	SD	Item-total	α Value					
Environmental Attitude (EA)	B1	3.76	.657	.733	.893	.895	.630	.794	.118	.786
	B2			.741						.798
	B3			.729						.793
	B4			.727						.787
	B5			.753						.806
Social Influence (SI)	B6	3.78	.675	.732	.905	.906	.658	.811	.300	.780
	B7			.757						.810
	B8			.755						.799
	B9			.754						.812
	B10			.809						.854
Environmental Responsibility (ER)	B11	3.64	.703	.747	.902	.903	.651	.807	.175	.802
	B12			.736						.777
	B13			.739						.784
	B14			.744						.802
	B15			.810						.867
Environmental Concern (EC)	B16	3.71	.730	.745	.890	.890	.669	.818	.339	.789
	B17			.761						.834
	B18			.748						.801
	B19			.778						.847
Research construct		Descriptive statistics		Cronbach's test		CR	AVE	AVES/Root	Shared variance	Factor loadings
		Mean	SD	Item-total	α Value					
Government	B20	3.68	.704	.773	.902	.902	.649	.806	.044	.828

Influence (GI)	B21			.761						.807
	B22			.739						.781
	B23			.747						.795
	B24			.760						.815
Green Purchase Intention (GPI)	C1	3.66	.724	.765	.881	.890	.670	.819	.339	.835
	C2			.747						.823
	C3			.686						.772
	C4			.775						.842
Selection Attributes (SA)	D1	3.64	.678	.740	.898	.900	.642	.801	.167	.792
	D2			.729						.781
	D3			.700						.750
	D4			.781						.835
	D5			.791						.845
Actual Purchase Behaviour (APB)	APB1	3.59	.587	.684	.886	.885	.564	.751	.024	.732
	APB2			.669						.716
	APB3			.665						.697
	APB4			.681						.725
	APB5			.733						.795
	APB6			.770						.832

In summary, as indicated in Table 6.10, the survey instrument used in the present study showed satisfactory evidence of reliability and validity.

6.14 CORRELATION COEFFICIENTS BETWEEN CONSTRUCTS

The Spearman's rho coefficients were computed to examine the presence of multicollinearity, strength and direction of relationships between constructs. Table 6.11 provides the Spearman's rho correlation matrix for the variables in the study.

Table 6.11 Spearman's rho inter-construct correlation matrix

Construct		EA	SI	ER	EC	GI	GPI	SA	APB
EA	Correlation Coefficient	1.000							
	Sig. (2-tailed)	.							
SI	Correlation Coefficient	.304(**)	1.000						
	Sig. (2-tailed)	.000	.						
ER	Correlation Coefficient	.150(**)	.256(**)	1.000					
	Sig. (2-tailed)	.003	.000	.					
EC	Correlation Coefficient	.265(**)	.386(**)	.294(**)	1.000				
	Sig. (2-tailed)	.000	.000	.000	.				
GI	Correlation Coefficient	.274(**)	.102(*)	.179(**)	.152(**)	1.000			
	Sig. (2-tailed)	.000	.046	.000	.003	.			
GPI	Correlation Coefficient	.344(**)	.548(**)	.418(**)	.582(**)	.209(**)	1.000		
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.		
SA	Correlation Coefficient	.113(*)	.308(**)	.424(**)	.324(**)	.089	.409(**)	1.000	
	Sig. (2-tailed)	.026	.000	.000	.000	.080	.000	.	
APB	Correlation Coefficient	.174(**)	.161(**)	.159(**)	.202(**)	.145(**)	.163(**)	.156(**)	1.000
	Sig. (2-tailed)	.001	.002	.002	.000	.004	.001	.002	.

** Correlation is significant at the 0.01 level (2-tailed), * Correlation is significant at the 0.05 level (2-tailed).
 EA=Environmental Attitude; SI= Social Influence; ER=Environmental Responsibility; EC=Environmental Concern; GI=Government Influence; GPI= Green Purchase Intention; SA=Selection Attributes; APB= Actual Purchase Behaviour.

6.14.1 Multicollinearity

Multicollinearity refers to a high degree of inter-correlation between constructs (Shen & Gao 2008:517). Based on the Spearman's rho inter-construct correlation matrix, Table 6.11, there

is no evidence of multicollinearity as all correlations are below +0.80 and -0.80 (Grewal, Cote & Baumgartner 2004:527). Again, as shown in Table 6.11, all reported correlations are below 1 or -1, signifying the absence of perfect multicollinearity within the data set.

6.14.2 Relationship between variables

The Spearman's rho was employed to examine the interrelationships between constructs in the study. The correlation analysis guidelines recommended by Cohen (1988:79-81), as shown in Table 5.5, were used to interpret relationships between constructs. Generally, the correlation results presented in Table 6.11 showed that constructs in this study are positively correlated with each other.

Environmental concern showed the highest association with green purchase intention ($r = 0.582$, $p < 0.01$). This finding concurs with Hartmann and Apaolaza-Ibanez's (2012:1260) study, which found environmental concern to be the second most important factor influencing green purchase behaviour. Similarly, Sinnppan and Rahman (2011:135) contend that pro-environmental behaviour can be promoted only if consumers are concerned about the well-being of the environment. However, it is important to note that there was a weak association ($r = 0.202$, $p < 0.01$) between environmental concern and actual purchase behaviour. This result suggests that most Generation Y consumers are not translating their environmental concern into actual purchase behaviour. This finding resonated with the earlier finding in the qualitative study which revealed the existence of a gap between environment concern and actual purchase behaviour.

Social influence also showed strong association with green purchase intention ($r = 0.548$, $p < 0.01$). This finding concurs with Lee (2008:578), who found that social influence is an important predictor of green purchase behaviour among young consumers in Hong Kong. However, the correlation between social influence and actual purchase behaviour was weak ($r = 0.161$, $p < 0.01$), suggesting that at the point of purchase social influence plays a minimum role. The weak positive association between social influence and actual purchase behaviour also gained support from the preceding qualitative study, which revealed that Generation Y consumers struggled to balance the quest for self-image and for social approval when buying green products. Similarly, a study by Gupta and Ogden (2009:83) depicts the purchase of green products as a social dilemma among young consumers.

The study revealed a moderate association between environmental responsibility and green purchase intention ($r = 0.418$, $p < 0.01$). This finding is consistent with the finding of Sinnappan and Rahman (2011:135) that perceived environmental responsibility is positively associated with green purchase behaviour. This shows that South African Generation Y consumers understand their role in preserving the environment. However, with regard to actual purchase behaviour, environmental responsibility has a small effect ($r = 0.159$, $p < 0.01$), signalling the existence of a gap between environmental responsibility and sustainable consumption among Generation Y consumers. The weak correlation between environmental responsibility and actual purchase behaviour is consistent with the results of the qualitative study. For instance, the majority of the respondents in the qualitative study were non-committal, evasive and rather coy about their sustainable consumption patterns, the dominant view being that the government should assume the prime role in environmental protection.

The fourth factor that influenced the green purchase intentions of Generation Y consumers with a moderate positive association was selection attributes ($r = 0.409$, $p < 0.01$). In this study, selection attributes refer to the criteria used by Generation Y consumers in the process of buying green products. This finding concurred with the findings of the qualitative study, where respondents emphasised that price, availability, performance and convenience significantly influenced their green purchase behaviour. Similarly Barber, Bishop and Gruen (2014:220) observed that consumers are not prepared to sacrifice traditional product attributes such as quality and price for the sake of buying green products.

The fifth factor that also influenced green purchase intention with a moderate positive association was environmental attitude ($r = 0.344$; $p < 0.01$). This result suggests that favourable attitudes towards the environment among Generational Y consumers are instrumental in stimulating green purchase intentions. However, it is noteworthy that the correlation between environmental attitude and actual purchase behaviour was relatively small ($r = 0.174$, $p < 0.01$). The weak relationship between environmental attitude and actual purchase behaviour echoed the findings of the qualitative study, in which respondents revealed that contextual factors rather than environmental attitude significantly influenced their purchase behaviour. The existence of the attitude-behaviour gap that characterises the performance of pro-environmental behaviours is also confirmed in a study by Gleim, Smith, Adrews and Cronin (2013:44). This result suggests that the challenge confronted by

marketers is to translate the favourable environmental attitudes of Generation Y consumers into actual purchase of green products.

The sixth factor that influenced green purchase intention with a weak positive association was government influence ($r = 0.209$, $p < 0.01$). This result suggests a moderate influence of government environmental initiatives on Generation Y consumers. This finding is also replicated in the qualitative study, where respondents feel that the government is not doing enough in generating environmental awareness and enforcing environmental laws. The sentiment that the government needs to take more responsibility in promoting pro-environmental behaviour is also echoed by Thøgersen (2005:145), who asserted that: “...governments and businesses are responsible for much of the external conditions limiting an individual consumer's freedom to choose and act, and therefore they also carry part of the responsibility for sustainable consumption.”

Finally, the study revealed a weak yet positive association between green purchase intention and actual purchase behaviour ($r = 0.163$, $p < 0.01$). This result gives credence to the findings of the qualitative study where Generation Y consumers indicated their unwillingness to engage in a laborious search for green product information and to pay the high prices associated with green products.

6.15 MEASUREMENT MODEL FIT ASSESSMENTS

In line with the two-stage process recommended by Anderson and Gerbing (1988:418), with the aid of AMOS 22.0, CFA was conducted prior to the testing of hypotheses using the maximum estimation likelihood to assess the fitness of the measurement model. The measurement model fitness was examined using absolute fit indices that included the chi-square value over degree of freedom (χ^2/df), Goodness-of-Fit Index (GFI), Root Mean Square Error of Approximation (RMSEA) and incremental fit indices, that is, the Comparative Fit Index (CFI), Incremental Fit Index (IFI) and Tucker-Lewis Index (TLI).

The goodness-of-fit indices of CFA showed that the measurement model fitted well with the data set. The study revealed that the chi-squared value normalised by the degrees of freedom ratio was 2.350, the GFI = 0.817, RMSEA = 0.059, CFI = 0.912, IFI = 0.913 and TLI = 0.903. All reported indices are within the recommended thresholds, thereby confirming the fitness of the measurement model. The measurement model fit indices and acceptable thresholds are reported in Table 6.12.

Table 6.12 Measurement model fit indices

Fit index	Acceptable threshold	Model fit results
CMIN/DF	< 3.000	2.350
GFI	≥ 0.800	0.817
RMSEA	≤ 0.080	0.059
IFI	≥ 0.900	0.913
CFI	≥ 0.900	0.912
TLI	≥ 0.900	0.903

As shown in Table 6.12, the measurement model yielded values that are consistent with guidelines for good model fit (Bagozzi & Yi 2012:15; Fornell & Larcker 1981:46 Hu & Bentler 1999:27). The attainment of acceptable model fit indices demonstrated that the proposed measurement model fitted well with the data set and potentially explained the phenomenon under study. After the validation of the measurement model, the next stage was the assessment of the structural model.

6.16 STRUCTURAL MODEL FIT ASSESSMENT

To ascertain the fitness of the structural model, SEM with the maximum likelihood estimation was conducted using AMOS 22.0. The inspection of model indices indicated an acceptable fit for the structural model. The structural model fit assessment results corroborated the results of the measurement model that confirmed the fitness of the data set of the present study. Table 6.13 provides the structural model fit results.

Table 6.13 Structural model fit indices

Goodness of fit indices	Acceptable threshold	Model fit results
CMIN/DF	< 3.000	2.253
GFI	≥ 0.800	0.826
RMSEA	≤ 0.080	0.057
IFI	≥ 0.900	0.918
CFI	≥ 0.900	0.917
TLI	≥ 0.900	0.910

Overall, as shown in Table 6.13, the structural model fit indices are above the minimum acceptable threshold of greater than 0.8 for GFI, CFI, TLI and less than 0.08 for RMSEA (Anderson & Gerbing 1988:418; Bagozzi & Yi 2012:15). This suggests that the the proposed research model has the potential to explain the antecedents of green buyer behaviour and the selection attributes of Generation Y consumers in South Africa.

6.17 RESULTS OF HYPOTHESIS TESTING

Following the satisfactory results of the assessment of the measurement and structural models, the next stage involved the process of testing the hypothesised relationships in the study. The study utilised SEM to verify the posited hypotheses by employing AMOS 22.0. The path coefficients that emanated from SEM were utilised to explain all of the posited hypotheses. Table 6.14 summarises the SEM hypotheses testing results.

Table 6.14 SEM hypotheses testing results

Paths	P-values	Path coefficients	Standardised estimates	t-values	Hypotheses results
EA→GPI	0.008	0.115	0.044	2.635	H1:Supported p < 0.05
SI →GPI	0.000	0.470	0.046	6.163	H2:Supported p < 0.000
ER→ GPI	0.000	0.202	0.041	4.947	H3:Supported p < 0.000
EC→GPI	0.000	0.281	0.052	9.010	H4:Supported p < 0.000
GI→GPI	0.817	0.08	0.036	0.231	H5:Not supported
GPI→SA	0.000	0.540	0.054	9.986	H6:Supported p < 0.000
GPI→APB	0.165	0.074	0.053	1.389	H7:Not supported
SA →APB	0.009	0.139	0.053	2.609	H8:Supported p < 0.05

The **first hypothesis (H₁)** posited that there would be a positive relationship between environmental attitude and green purchase intention. This hypothesis was partially supported with a direct effect (path coefficient = 0.115, t-value = 2.635, p < 0.08). In particular, the t-value (critical ratio) was 2.635, a value slightly higher than the recommended threshold of 1.96 (Hair, Hult, Ringle & Sarstedt 2014:172), suggesting that environmental attitude does in part influence green purchase intention. This finding was also mirrored in the preceding qualitative study that revealed mixed views pertaining to the influence of environmental attitudes on purchase behaviour. This result is consistent with the finding of the study conducted by Lee (2008:580) that showed a weak relationship between environmental attitude and green purchase behaviour. In addition, a similar study Alwitt and Berger (1993:189) revealed that almost 70 percent of those who reported favourable attitudes towards the environment are often reluctant to buy green products. In a related study, Young *et al.* (2010:20) estimated the attitude-behaviour gap to be approximately 30 percent.

Bamberg (2003:27) attributes the weak relationship between environmental attitude and green purchase intention to the inability by marketers to distinguish between general and specific attitudes. Furthermore, Bamberg (2003:27) asserts that only specific environmental attitudes, as opposed to general attitudes, have the potential to stimulate green purchase intentions. Moreover, an inspection of the correlation between environmental attitude and actual purchase behaviour showed a small effect ($r = 0.174$, $p < 0.01$), thereby confirming the existence of the gap between environmental attitude and purchase behaviour. In similar vein,

Kim (2011:74) hints that favourable attitudes towards the environment may result in the performance of pro-environment behaviour only if accompanied by high perceptions of self-efficacy among consumers.

The **second hypothesis (H₂)** predicted that social influence positively influences the purchase intentions of Generation Y consumers. The empirical results provided ample evidence that social influence positively influenced the purchase intentions of the respondents (path coefficient = 0.470, t-value = 6.163, $p < 0.01$). This finding was supported by a high correlation of $r = 0.548$ between social influence and green purchase intentions. This result appears to validate the findings of Lee (2010:32) and Rezai *et al.* (2013:14) that social influence was the most important factor influencing the green purchasing behaviour of young consumers. This finding implies that Generation Y consumers in this study are susceptible to social influence in the formation of green purchase intentions.

Although H₂ was confirmed, this finding is in contrast with that of the qualitative study, where mixed views emanated on the effect of social influence on green purchase behaviour. The overriding sentiment from the qualitative study was the quest by respondents to balance the desire for social approval by peers and for enhancing self-identity. The finding of the qualitative study is supported in the literature, where green purchase behaviour is characterised as a social dilemma (Polonsky 2011:1312; Steg, Bolderrdijk, Keizer & Perlaviciute 2014:104). Empirically, it appears that the finding of the qualitative study is supported by the weak association between social influence and actual purchase behaviour ($r = 0.167$). The weak correlation reflects that, although social influence stimulates green purchase intentions, its influence on actual purchase behaviour is relatively small. The mixed results signify the potential challenges faced by marketers when marketing green products. Thus, to promote pro-environmental behaviour, green products need to appeal to Generation Y consumers' desired self-image.

The **third hypothesis (H₃)** proposed a positive relationship between environmental responsibility and green purchase intention. As predicted in the study, H₃ was supported (path coefficient = 0.202, t-value = 4.947, $p < 0.01$). This result was also strengthened by a moderate association ($r = 0.418$, $p < 0.01$) between environmental responsibility and green purchase intention. This finding suggests that Generation Y consumers perceive a high internal locus of control and are confident of their individual efforts to address environmental

problems. This finding is consistent with that of Sinnappan and Rahman (2011:135), who reported high levels of environmental responsibility among respondents.

Conversely, the qualitative study yielded mixed views pertaining to respondents' responsibility towards the environment. Remarkably, the majority of participants in the qualitative study perceived that their individual efforts were not enough to address environmental problems and that the government needs to assume more environmental responsibility. Thus, in line with the Self-Efficacy Theory (Bandura 1977:193), to enhance pro-environmental behaviour, marketers need to re-enforce the self-efficacy beliefs of Generation Y consumers. This is important because, if individuals have a high perception of external locus of control, they tend to doubt the effectiveness of their actions, in this case to avert environmental harm (Tobler *et al.*, 2012:199).

The **fourth hypothesis (H₄)** predicted that there would be a positive relationship between environmental concern and green purchase intention. The empirical results revealed that environmental concern exerts significant influence on the green purchase intentions of Generation Y consumers (path coefficient = 0.281, t-value = 9.010, $p < 0.01$), implying that hypothesis 4 was supported by the data. The relationship between environmental concern and green purchase intention was also corroborated by the existence of a strong positive association ($r = 0.582$, $p < 0.01$) between the two constructs, as shown in Table 6.11. It can be inferred from this result that environmental concern exerts a great influence on the formation of green purchase intentions among Generation Y consumers. This finding was also confirmed in a related study conducted by Lee, Kim, Kim and Chi (2014:2102).

Drawing from Lee's (2008:578) conceptualisation that environmental concern refers to the emotional attachment of consumers towards the environment, the implication of this finding is that Generation Y consumers' green purchase intentions tended to be driven by emotional drivers (environmental concern) rather than by cognitive drivers (environmental attitude). Environmental concern also refers to the extent to which individuals are aware of environmental problems (Dunlap & Jones 2002:485). Thus this finding implied that Generation Y consumers understood the magnitude of environmental problems in South Africa.

However, it is important to note that, in terms of actual purchase behaviour, a low correlation ($r = 0.202$, $p < 0.01$) was reported between environmental concern and actual purchase

behaviour. This finding implies that, in spite of high environmental concern, Generation Y consumers are indifferent to the actual purchase of green products. This finding is consistent with that of Bamberg (2003:27), who found that consumer apathy dominates green product markets despite consumers' reported environmental concern. In agreement with this result, Ohler and Billger (2014:11) noted that pro-environmental behaviours tend to suffer from the "tragedy of the commons" as consumers are unable to translate environmental concern into actual behaviour even if the benefits of doing so are evident.

The **fifth hypothesis (H₅)** posited a positive relationship between government influence and green purchase intention. The results of the study found no significant relationship between government influence and green purchase intention (path coefficient = 0.08, t-value = 0.231, $p < 0.817$). This finding appears to validate that of the qualitative study in which respondents were of the view that government environmental programmes are not effective in stimulating the performance of pro-environmental behaviours. This finding resonates with that of Sinnappan and Rahman (2011:136), identifying the government role as the last predictor of green purchase behaviour. Thus, this finding suggests that the South African government needs to step up efforts to promote the performance of pro-environmental behaviours.

The **sixth hypothesis (H₆)**, which proposed that there would be a positive relationship between green purchase intention and selection attributes, was confirmed. The selection attributes emerged as the most important factor positively affecting the formation of green purchase intentions among Generation Y consumers (path coefficient = 0.540, t-value = 9.986, $p < 0.01$). This result supports the findings of the qualitative study, which revealed that price, quality, convenience, availability and performance primarily influence green purchase intentions. This finding accords with that of Chen and Chan (2010:36), who found that traditional product attributes such as price and quality are central to the market acceptance of green products. For instance, a study by Ozaki (2011:3) identified price as the major impediment to the purchase of green products. The support found for the hypothesis underscores the need by marketers to take cognisance of the importance of selection attributes when marketing green products. The understanding of the evoked set of Generation Y consumers is particularly important in light of the observation by Szmign, Carrigan and McEachern (2009:228) that the performance of pro-environmental behaviour is "...dependent on...factors such as price, quality, convenience, taste and the desires of others close to them..."

The **seventh hypothesis (H₇)** predicted that there would be a positive association between green purchase intention and actual purchase behaviour. However, the study found no relationship between green purchase intentions and actual purchase behaviour and H₇ was therefore rejected (path coefficient = 0.074, t-value = 1.389, $p < 0.165$). In addition, the correlation analysis also yielded a weak association ($r = 0.163$; $p < 0.01$) between green purchase intention and actual purchase behaviour. This finding suggests that green purchase intentions do not always translate into actual purchase behaviour. This result was also reflected in the qualitative study. Although participants expressed well-intentioned comments about green products, they hinted that, at the point of purchase, contextual factors such as price and availability influenced their purchase behaviour. In addition, Marian *et al.* (2014:57) observed that repeat purchase behaviour tends to be low on premium-priced green products.

Similarly, the gap between green purchase intention and actual purchase behaviour was also reported in a study conducted by Carrington, Neville and Whitwell (2014:2764). The reported gap between green purchase intention and green purchase behaviour suggests that the performance of pro-environmental behaviours is susceptible to contextual factors. Thus, the implicit challenge confronted by marketers is to delineate the causes of intention-behaviour gap.

The **eighth hypothesis (H₈)** predicted that there is a positive relationship between selection attributes and actual purchase behaviour. This hypothesis was supported in the present study with a weak causal effect. Firstly, the correlation analysis revealed a relationship between selection attributes and actual purchase behaviour ($r = .156$, $p < 0.01$). Secondly, the results of hypothesis testing showed a weak causal relationship between the two constructs (path coefficient = 0.139, t-value = 2.609, $p < 0.05$). This result suggests that, although selection attributes are central to the purchase of green products, other factors such as purchase intention should also be considered. This reasoning is consistent with the proposition of the Theory of Planned Behaviour that states that intention drives performance of the behaviour (Ajzen 1991:181).

Finally, **the ninth hypothesis (H₉)** posited that selection attributes moderate the relationship between green purchase intention and actual purchase behaviour. First, the study revealed a weak direct relationship (path coefficient = 0.139, t-value = 2.609, $p < 0.05$) between selection attributes and actual purchase behaviour. The correlation analysis also showed a

weak association ($r = 0.156$, $p < 0.01$) between selection attributes and actual purchase behaviour. Notably, the relationship between green purchase intentions and selection attributes was positively stronger (path coefficient = 0.540, t -value = 9.986, $p < 0.01$). The possible explanation for the weak association between selection attributes and actual purchase behaviour is that selection attributes are more likely to trigger actual purchase behaviour if they are supported by green purchase intention. This view gains support from the tenets of the Theory of Planned Behaviour that posits that intention precedes behaviour (Ajzen 1991:181). Based on these findings, it can be inferred that selection attributes moderate the relationship between green purchase intention and actual purchase behaviour. The hypothesised relationships and the resultant path coefficients are shown in Figure 6.3.

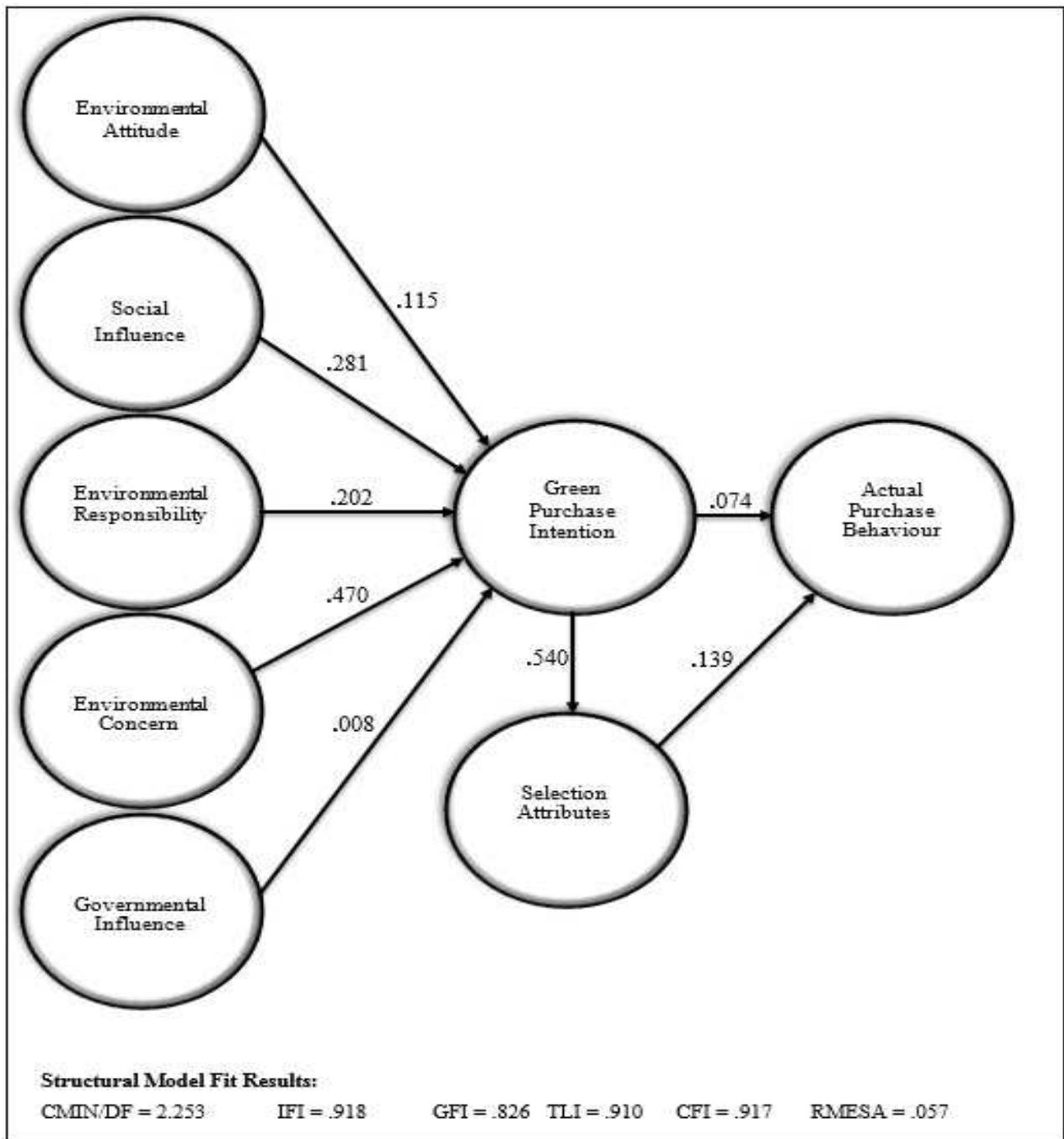


Figure 6.3 Hypothesised relationships results

In sum, the SEM results revealed that environmental attitude, environmental concern, social influence and selection attributes were positively related to Generation Y consumers' green purchase intentions. However, the study indicated that there is no relationship between government influence and green purchase intentions. The study also found that selection attributes moderate the relationship between green purchase intentions and actual purchase

behaviour. A detailed SEM model that includes the hypothesised relationships and factor loadings is illustrated in Appendix F.

6.18 CHAPTER SUMMARY

The aim of the chapter was to present and interpret the findings of the study. First, the results of the qualitative study were presented. The analysis of qualitative data was conducted through the use of content and thematic analyses. In line with the methodology of the study, the themes that emerged from qualitative data analysis were used to develop the questionnaire for the quantitative study. Prior to questionnaire administration, a pilot study and a pre-test were conducted to improve the accuracy of the survey instrument.

The collected quantitative data were analysed using the SPSS 22.0 and AMOS 22.0. The preliminary analysis took the form of coding and a normality test to check the distribution of scores. The results of the normality test revealed that the data were not normally distributed and non-parametric statistics were employed for correlation analysis and the testing of gender difference in green purchase behaviour. The means and standard deviations were employed to report on the profile of data. The Mann-Whitney U Test and the Kruskal-Wallis Test revealed that Generation Y female consumers tend to engage in pro-environmental behaviours more than Generation Y male consumers do.

The accuracy of data was assessed for reliability and validity. The Spearman rho correlations were computed to assess the relationship between variables under study. Prior to testing the hypothesised relationships, confirmatory factor analysis and structural equation modelling were conducted to assess the fitness of the measurement and structural models. The measurement and structural model fitted well with the data. Thereafter, the study proceeded with hypothesis testing. The relationships between environmental concern, environmental attitude, social influence, selection attributes, environmental responsibility and green purchase intention were deemed significant. The hypothesised relationships between government influence and green purchase intentions, green purchase intentions and actual purchase behaviour were not supported. The following chapter provides the conclusions drawn from the research findings, discusses the implications of these findings, makes recommendations for green marketing, identifies the limitations of the study and suggests possible directions for future studies.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

The preceding chapter empirically tested the antecedents of green consumer buyer behaviour and the selection attributes of Generation Y consumers. Structural equation modelling was conducted in order to verify the posited hypotheses. The results of hypotheses testing indicated that environmental concern, environmental attitude, social influence, environmental responsibility and selection attributes are the main antecedents of green purchase behaviour. In addition, the study found no significant relationships between government influence, green purchase intention and actual purchase behaviour. Based on the literature reviewed and the empirical evidence, the present chapter provides the conclusions and of the study and makes recommendations for marketers of green products.

Firstly, the chapter highlights the primary and empirical objectives of the study. Secondly, the attainment of theoretical objectives is evaluated. Thirdly, conclusions are drawn by comparing the empirical objectives with the results of the study. Fourthly, the chapter discusses the implications and limitations of the study and makes recommendations. Finally, the study suggests future research directions and presents the overall conclusion of the study.

7.2 PRIMARY RESEARCH OBJECTIVE

The primary purpose of the present study was to examine the antecedents of green consumer buyer behaviour, the selection attributes of Generation Y consumers and the relationship with future behavioural intentions. To achieve the primary objective, the study formulated a set of theoretical and empirical objectives.

7.3 EVALUATION OF THEORETICAL OBJECTIVES

A number of theoretical objectives were formulated for the study. These were achieved through a detailed review of relevant literature. The literature sources included textbooks, research journals and published environmental reports. The **first theoretical objective** was to understand the evolution and growth of green marketing. The objective was achieved through a detailed literature review, as presented in Chapter 2 in Sections 2.3.1, 2.3.2 and 2.3.3. Based

on the literature reviewed, ecological marketing, environmental marketing and sustainable marketing were identified as the main phases that characterised the evolution and growth of green marketing.

The second theoretical objective was to conduct a literature review on the challenges and future directions of green marketing. The objective was addressed in Chapter 2 in Sections 2.7 and 2.8. The literature reviewed identified the major challenges confronting marketers as consumer cynicism, failure to structure effective green marketing messages, inability to measure environmental performance, variability in demand of green products, failure to manage the transition towards sustainability and exorbitant investment costs in green technologies. Population growth, unemployment, health concerns, ecosystems damage, food shortages and fuel prices were identified as the key factors that shape the future directions of green marketing.

The third theoretical objective was to conduct a literature review on the profile of green consumers. The objective was covered in Chapter 3 in Section 3.2. Based on the literature reviewed, age, gender, education level, income level and family size were identified as demographic variables that are important in profiling green consumers. The Shades of Green segments and Lifestyles of Health and Sustainability (LOHAS) were identified as the main approaches employed by marketers to segment green markets. The key issues that emanated from the literature reviewed included the realisation that generational differences influence the adoption of pro-environmental behaviours, that there are contradictory views on gender differences in green purchase behaviour, that environmental awareness tends to vary with educational levels, that the purchase of green products seems to vary with family size and that income levels significantly influence consumers' willingness to pay for premium-priced green products.

The fourth theoretical objective was to understand the antecedents of green buyer behaviour. This objective was realised in Chapter 3, in Sections 3.3 and 3.4. Environmental attitude, environmental concern, environmental values, social influence, ethical and cultural orientations, government influence and green atmospherics were identified as the main antecedents of green purchase behaviour. The overriding view that emerged from the literature reviewed was that antecedents of green consumer buyer behaviour tend to vary across global markets based on the level of economic growth, culture and value orientations.

The **fifth theoretical objective** was to understand the selection attributes of Generation Y consumers and behavioural intentions towards green products. The objective was addressed in Chapter 4. Based on the literature reviewed, price, performance, quality and availability were identified as the selection attributes that influence the purchase of green products. The quest by Generation Y consumers to create a balance between peer approval and enhancing self-identity was also evident in the literature reviewed. It was also noted that traditional product attributes such as price, quality, availability and performance still play a significant role in the purchase of green products.

7.4 EVALUATION OF EMPIRICAL OBJECTIVES

To address the research problem, a set of empirical objectives was formulated. To achieve the empirical objectives, a mixed-methods approach that encompassed a qualitative study (in-depth interviews) and a quantitative study (questionnaire survey) was employed. The findings of the present study in relation to each of the empirical objectives are summarised as follows:

7.4.1 To understand the antecedents of green consumer buyer behaviour through a qualitative study

The **first empirical objective** was to identify the antecedents of green buyer behaviour and the selection attributes of Generation Y consumers through a qualitative study. Based on the results that emerged from in-depth interviews, *environmental concern, environmental attitude, government influence, social influence, environmental responsibility, selection attributes and green purchase intention* are the main determinants of green purchase behaviour. Table 6.2 provided a summary of the interview excerpts and the themes that emerged from qualitative data analysis.

The determinants of green purchase behaviour that stemmed from the qualitative study are consistent with the antecedents of green consumer buyer behaviour revealed in similar studies (Lee 2009:91; Lee 2008:579; Sinnappan & Rahman 2011:134). Based on the findings of the qualitative study, the present study concludes that environmental concern, environmental attitude, social influence, environmental responsibility, government influence, selection attributes and green purchase intention are the dominant factors that influence the purchase of green products among Generation Y consumers in South Africa.

7.4.2 To determine whether male and female Generation Y consumers differ in terms of green purchase behaviour

The **second empirical objective** was to determine whether male and female Generation Y consumers differ in terms of green purchase behaviour. The findings of the qualitative study portrayed female Generation Y consumers as more environmentally concerned, with a higher propensity to purchase green products than their male counterparts. In addition, the findings of the Mann-Whitney U Test (Table 6.8) and the Kruskal-Wallis Test (Table 6.9) also showed that there are subtle distinctions in green purchase behaviour between female and male Generation Y consumers. Thus, the study concludes that there are significant differences between female and male Generation Y consumers in terms of green purchase behaviour

7.4.3 To determine the influence of environmental attitude on green purchase intention

The **third empirical objective** was to determine the influence of environmental attitude on green purchase intention. The results of the qualitative study showed that the prevalence of positive environmental attitudes among Generation Y consumers enhance green purchase intentions. The correlation analysis, as shown in Table 6.11, confirmed the existence of a statistically significant positive association between *environmental attitude* and *green purchase intention* ($r = 0.418$, $p < 0.01$). Despite this significant positive association, the hypothesis testing results confirmed that there is a positive yet weak relationship between *environmental attitude* and *green purchase intention* (path coefficient = 0.115, t -value = 2.635, $p < 0.08$). Based on the hypothesis testing results, it can be concluded that that environmental attitude partly influences green purchase intention.

7.4.4 To determine the influence of social influence on green purchase intention

The **fourth empirical objective** was to determine the influence of social influence on green purchase intention. The study produced mixed findings on this empirical objective. First, the qualitative study found that the effect of social influence on green purchase intention is moderated by the quest for self-identity among Generation Y consumers. However, the quantitative study showed a strong positive relationship between *social influence* and *green purchase intention* ($r = 0.518$, $p < 0.01$). The results of hypothesis testing also confirmed that social influence has a positive significant influence on green purchase intention (path

coefficient = 0.470, t-value = 6.163, $p < 0.01$). Based on the findings of the quantitative study, which employed a sizeable sample, it can be concluded that social influence plays an integral role in fostering green purchase intentions in Generation Y consumers.

7.4.5 To determine the influence of environmental responsibility on green purchase intention

The **fifth empirical objective** was to ascertain the influence of environmental responsibility on green purchase intention. The qualitative and quantitative study found that environmental responsibility among Generation Y consumers was instrumental in driving green purchase intentions. The correlational analysis revealed a significant positive association between *environmental responsibility* and *green purchase intention* ($r = 0.408$, $p < 0.01$), as shown in Table 6.11. In addition, the hypothesis testing results confirmed the existence of a significant, direct positive relationship between environmental responsibility and green purchase intentions (path coefficient = 0.202, t-value = 4.947, $p < 0.01$). Based on the results of the study, it can be concluded that environmental responsibility stimulates green purchase intention among Generation Y consumers.

7.4.6 To determine the influence of environmental concern on green purchase intention

The **sixth empirical objective** was to determine the influence of environmental concern on green purchase intention. The qualitative and quantitative study found that environmental concern among Generation Y consumers was instrumental in driving green purchase intentions. The correlation analysis also revealed a significant positive association between *environmental concern* and *green purchase intention* ($r = 0.518$, $p < 0.01$), as shown in Table 6.11. In addition, the hypothesis testing results confirmed the existence of a significant, direct positive relationship between environmental concern and green purchase intention (path coefficient = 0.281, t-value = 9.010, $p < 0.01$). Thus, this study concludes that environmental concern triggers green purchase intentions in Generation Y consumers.

7.4.7 To determine the influence of government influence on green purchase intention

The **seventh empirical objective** was to determine the effect of government influence on green purchase intention. The qualitative study found that the effect of government initiatives

is relatively low in shaping green purchase intentions. In the quantitative study, the correlation analysis revealed a weak relationship between *government influence* and *green purchase intention* ($r = 0.208$, $p < 0.01$), as shown in Table 6.11. In addition, the hypothesis testing results confirmed the existence of an insignificant relationship between green purchase intention and government influence (path coefficient = 0.08, t-value = 0.231, $p < 0.817$). Based on these results, the study concludes that government initiatives in South Africa are not effective in stimulating green purchase intentions among Generation Y consumers.

7.4.8 To determine the influence of selection attributes on green purchase intention

The **eighth empirical objective** was to ascertain the influence of selection attributes on green purchase intention. The qualitative study found that selection attributes are influential in driving green purchase intentions among Generation Y consumers. In the quantitative study, the correlation analysis also revealed a significant positive association between *selection attributes* and *green purchase intention* ($r = 0.408$, $p < 0.01$) as shown in Table 6.11. In addition, the hypothesis testing results confirmed the existence of a significant, direct positive relationship between green purchase intentions and selection attributes (path coefficient = 0.540, t-value = 9.986, $p < 0.01$). Thus, the study concludes that selection attributes play a central role in stimulating green purchase intentions in Generation Y consumers.

7.4.9 To determine the influence of green purchase intention on actual purchase behaviour

The **ninth empirical objective** was to determine the influence of green purchase intention on actual purchase behaviour. The qualitative study found that a gap exists between green purchase intention and actual purchase behaviour. The correlation analysis also revealed a weak association between *green purchase intention* and *actual purchase behaviour* ($r = 0.163$; $p < 0.01$), as shown in Table 6.11. In addition, the hypothesis testing results confirmed the existence of a gap between green purchase intention and actual purchase by revealing an insignificant relationship between the two constructs (path coefficient = 0.074, t-value = 1.389, $p < 0.165$). Thus, the present study concludes that green purchase intention does not always translate into actual purchase of green products.

7.4.10 To determine the influence of selection attributes on actual purchase behaviour

The tenth empirical objective was to determine the influence of *selection attributes* on *actual purchase behaviour*. Firstly, the correlation analysis revealed a relationship between selection attributes and actual purchase behaviour ($r = .156$, $p < 0.01$). Secondly, the hypothesis testing results showed a weak causal relationship between the two constructs (path coefficient = 0.139, t -value = 2.609, $p < 0.05$). Thus, the study concludes that selection attributes partly influence the purchase of green products by Generation Y consumers.

7.4.11 To determine whether selection attributes moderate the relationship between green purchase intentions and actual purchase behaviour

The eleventh empirical objective was to determine whether selection attributes moderate the relationship between green purchase intention and actual purchase behaviour. First, the study revealed a weak relationship (path coefficient = 0.139, t -value = 2.609, $p < 0.05$) between selection attributes and actual purchase behaviour. The correlation analysis also showed a weak association of ($r = 0.156$, $p < 0.01$) between *selection attributes* and *actual purchase behaviour*. Notably, the hypothesis testing results revealed a strong positive relationship between selection attributes and green purchase intention (path coefficient = 0.540; t -value = 9.986, $p < 0.01$). Based on these results, the present study concludes that selection attributes moderate the relationship between green purchase intention and actual purchase behaviour.

7.5 EVALUATION OF POSITED HYPOTHESES

The hypotheses posited in Chapter 1 Section 1.6 were tested using SEM and the outcomes are illustrated in Table 6.14. Based on the SEM hypotheses results, six of the posited hypotheses were confirmed and two were rejected. The findings of this study confirm that environmental attitude, environmental concern, social influence, environmental responsibility and selection attributes are the most important determinants of green purchase intention. Furthermore, the study revealed that the relationship between green purchase intentions and actual purchase behaviour is moderated by selection attributes.

The study also found no relationship between government influence and green purchase intentions, implying that government environmental initiatives have no effect on the

formation of green purchase intention in Generation Y consumers. Moreover, the study revealed an insignificant relationship between green purchase intention and actual purchase behaviour, confirming the existence of a gap between green purchase intentions and actual purchase behaviour.

Overall, based on the results of the study, it can be concluded that environmental attitude, environmental concern, social influence, environmental responsibility and selection attributes drive green purchase intentions among Generation Y consumers. In addition, the study confirmed the existence of the gap between green purchase intentions and actual purchase behaviour. Finally, the study concludes that selection attributes moderate the relationship between green purchase intentions and actual purchase behaviour.

7.6 RECOMMENDATIONS

Based on the findings of the study presented in Chapter 6 and the literature reviewed in Chapters 2, 3 and 4, the following recommendations are provided for marketers and green marketing proponents.

7.6.1 Recommendations based on the qualitative study

7.6.1.1 Gender-based green market segmentation

The study revealed that female Generation Y consumers are more apt to engage in pro-environmental behaviours than males. This result suggests the importance of gender-based segmentation in green markets. As female Generation Y consumers exhibit more pro-environmental behaviour than males, it may be opportune for marketers to tap into the empathetic orientation of female consumers towards the environment and utilise them to endorse green products in the marketplace. Based on the concept of opinion leadership, female Generation Y consumers have the potential to be effective change agents with the ability to inculcate environmental values in their male counterparts (Lee 2009:53). To enhance green purchase intentions, Cornelissen, Pandelaere, Warlop and Dewitte (2008:54) also suggest that marketers need to target market segments that are receptive to environmental messages and integrate them when formulating green marketing messages. Thus, gender-based green market segmentation is recommended as a strategic option for marketing green products to Generation Y consumers in South Africa.

7.6.1.2 Enhancing self-efficacy beliefs

One of the key findings to emerge from the qualitative study was the perception of low self-efficacy among respondents in addressing environmental problems. For instance, the apportionment of environmental responsibility to the government and large companies was apparent during the interviews. In view of this finding, the study recommends that marketers, environmentalists and policy makers need to enhance self-efficacy beliefs among Generation Y consumers. This is important since a low level of self-efficacy reduces the likelihood of consumers engaging in pro-environmental behaviour (Wesley, Lee & Kim 2012:42). Within the theoretical context, the Self-Efficacy Theory posits that the perceptions of favourable or unfavourable outcomes influence behaviour performance (Bandura 1977:191). In the context of the present study, self-efficacy perceptions may be enhanced in consumers through the provision of objective environmental knowledge and environmental awareness campaigns (Ling 2013:14504). Green marketing tools such as environmental labels and rational green product messages have the potential to enhance self-efficacy in Generation Y consumers. Alternatively, marketers may formulate marketing messages that reinforce the importance of the individual contribution in preserving the environment.

7.6.1.3 Enhancing the market appeal of green products

The qualitative study revealed that price, quality, performance and availability influenced the purchase of green products among Generation Y consumers. In order to create and sustain competitive advantage, it is recommended that the green marketing strategy be focused on setting competitive prices and enhancing the quality and availability of green products relative to non-green products. Chen and Chang (2012:503) noted, for instance, that the demand for green products is often hurt by the perception that they are more highly priced than conventional alternatives. Therefore, setting competitive prices relative to non-green substitutes may be an important factor in enhancing green purchase behaviour among price-sensitive Generation Y consumers.

This recommendation gains support from the observation of Jamilah *et al.* (2012:94) that willingness to pay for green products is dependent on the performance of green products and on clear environmental benefits. Similarly, Roberts and Bacon (1977:87) noted that traditional product attributes such as price, quality and availability still play an integral role in the purchase of green products. Based on the view of Roberts and Bacon (1997:87),

marketers need to realise that the greenness of products does not on its own guarantee sales. It therefore follows that to enhance the purchase of green products, more effort is needed to improve quality, functionality and environmental benefits.

Marketers should also realise that green products can sustain competitive advantage in the market only if they offer benefits superior to those of non-green products (Dangelico & Pujari 2010:481). In addition, consumers who are loyal to conventional products are not usually prepared to incur the cognitive costs associated with the purchase of green products, such as information search, evaluation of alternatives and the management of post-purchase dissonance associated with the purchase of new products (Gleim *et al.*, 2013:46). Accordingly, it is recommended that marketers adopt a customer-centric approach that involves providing competitively priced green products of high quality with an environmental image that is compatible with the image sought by Generation Y consumers.

7.6.1.4 Enhancing the credibility of green marketing claims

The findings of the qualitative study revealed that credibility of advertisements for green products is central to the purchase of green products. For instance, the majority of the respondents considered green product advertising as confusing and misleading, resulting in post-purchase dissonance. Based on this result, it is recommended that marketers formulate accurate communication messages relating to the benefits of green products. According to Do Paco and Reis (2012:153), such green marketing messages need to empower with a detailed environmental schema that helps consumers to distinguish between authentic and misleading environmental messages. This recommendation stems from the work of Peattie (2001:198), which emphasised the importance of employing rational rather than emotional appeals in green marketing messages. In addition, Leonidou, Leonidou, Hadjimarcou and Lytovchenko (2014:681) and Kheiry and Nakhaei (2012:171) consider that marketers need to prioritise the authenticity and specificity of green product claims in order to enhance the uptake of green products. Given that unsubstantiated green marketing claims diminish the demand for green products (Do-Paco & Reis 2012:154), it is recommended that green marketing messages be structured around the actual benefits of products designated as green, the manufacturing process and how such products compare with conventional products.

7.7 RECOMMENDATIONS BASED ON THE QUANTITATIVE STUDY

7.7.1 Improving the effectiveness of government environmental initiatives

The quantitative study showed an insignificant causal relationship between government influence and green purchase intention. This result suggests that government initiatives are not effective in promoting the adoption of pro-environmental behaviours among Generation Y consumers. Since the government is generally perceived as a reliable source of environmental information (Atkinson & Rosenthal 2014:40), in order to enhance green purchase intention, it is recommended that the South African government should focus on investing more in environmental awareness campaigns, rigorous enforcement of environmental laws, subsidising green products, granting tax concessions to environmentally conscious companies, penalising anti-environmental behaviour such as pollution, provision of more green marketing infrastructure such as recycling facilities and adopting green procurement strategies in all government departments. These recommended interventions are documented as the key government responsibilities in promoting pro-environmental behaviour (Kaufman 2014:502; Fernando *et al.*, 2014:234; Stern 1992:292). Alwitt and Pitts (1996:50) add that environmental regulation appears to be the best method of encouraging pro-environmental behaviour, since environmental concern is failing to stimulate actual purchase behaviour.

Moreover, Bhattacharya (2011:71) stressed that national governments need to proactively promote the balancing of ecological and economic activities through regulation and spearhead the transformation of production and consumption practices in line with global trends. It is also recommended that the South African government put more effort into stamping out misleading environmental claims in order to avert the escalating scepticism towards green products.

7.7.2 Tapping into the favourable effect of social influence on Generation Y consumers

The quantitative study found that social influence significantly influenced the green purchase intention of Generation Y consumers. As green purchase behaviour appears to be socially patterned and embedded, it is therefore recommended that marketers utilise the power of peer networks and interpersonal communication to market green products. Robelia, Greenhow and Burton (2011:553) recommended the social media and “green” celebrities as effective

channels for enhancing environmental knowledge and kindling Generation Y consumers' emotional attachment towards green products. These recommendations also gain support from green marketing researchers such as Hume (2010:392), Hjelmar (2011:341), Lee (2008:578) and Gupta and Ogden (2009:387).

7.7.3 Integrating environmental concern in marketing efforts

The study showed that Generation Y consumers are concerned about the well-being of the environment. This finding offers an opportunity to marketers to incorporate environmental concern in green marketing messages. Since environmental concern is defined as emotional attachment to the environment (Sinnappan & Rahman 2011:136), marketers are recommended to blend rational appeals with emotional appeals to enhance pro-environmental behaviour. As female Generation Y consumers were found to be more environmentally concerned than males, marketers should invoke their affective emotions and stress the importance of individual responsibility in order to enhance commitment and involvement in preserving the environment.

7.7.4 Understanding the causes of the attitude-behaviour gap

The study also confirmed the existence of the gap between environmental attitude and actual purchase behaviour. It is therefore recommended that marketers attempt to delineate the underlying factors that are responsible for this gap. It is recommended that marketers inculcate positive environmental attitudes among Generation Y consumers, as Lee (2009:95) contends that this has the effect of entrenching pro-environmental behaviour. Identifying the underlying causes of the gap between attitude and actual purchase behaviour may increase the potential to foster the adoption of sustainable consumption lifestyles.

7.7.5 Closing the gap between environmental concern and actual purchase behaviour

The study noted that environmentally concerned consumers do not translate their concern into actual purchase behaviour. While environmental concern results in green purchase intentions, actual purchase behaviour is not evident. For this reason it is recommended that the reasons why environmental concern fails to trigger actual behaviour be analysed by experts. This can be through meetings, seminars and workshops.

7.8 IMPLICATIONS OF THE STUDY

The study has important implications for marketers, policy makers and environmentalists. From a broader perspective, the findings of the study add to the body of knowledge on green purchase behaviour and the selection attributes of green products. By employing the Theory of Reasoned Action and Theory of Consumption Values, the study identified environmental concern, social influence, selection attributes, environmental attitude and environmental responsibility as the main determinants of green purchase behaviour among Generation Y consumers in South Africa. Thus, marketers need to structure green marketing messages around these key factors.

Secondly, the study reaffirms the importance of selection attributes in green purchase behaviour. Green products need to perform better than conventional alternatives and offer environmental benefits without compromising on traditional attributes such as price, quality, performance and convenience. Green products need to be competitively priced to enhance consumers' willingness to pay. This is important since Generation Y consumers are not prepared to sacrifice product quality for the sake of buying green products.

Thirdly, there is an urgent need by marketers to refrain from green marketing myopia. Green products need to be positioned in the market with benefits that resonate with those valued by Generation Y consumers, such as convenience, instant gratification, quality and performance. In this context, green products are likely to result in Generation Y consumer satisfaction if they appeal to the quest for both self-identity and social approval.

Finally, the study confirmed that the credibility of green product advertising is central to stimulating green purchase behaviour. Marketers need to address the prime sources of scepticism towards green products, such as unsubstantiated green product claims and misleading eco-labels. To enhance green purchase behaviour, green marketing messages should be based on proven facts and eco-labels need to be endorsed by renowned third-party organisations. There is also an urgent need to create a green product standard framework to address the greenwashing concerns of consumers. In addition, Mishra and Sharma (2010:11) stressed the importance of understanding customer needs, consumer education, explicitness in framing green marketing messages and affordable pricing as the best practices in the effective implementation of green marketing.

Although the present study offers valuable insights pertaining to the antecedents of green consumer buyer behaviour and the selection attributes of Generation Y consumers in South Africa, it is prone to limitations that offer avenues for future research. Firstly, the present study utilised non-probability sampling methods that included purposive and convenience sampling to select respondents. The study also employed a self-reporting method of data collection that involved the use of questionnaires and interviews. This increased the chances of the study being susceptible to sampling and social desirability bias. Caution needs to be exercised, therefore, when interpreting the study's findings. Future research efforts may employ probability sampling methods and multiple data collection methods to enhance the external validity of the findings.

Secondly, the results of the study are limited to the Generation Y consumers enrolled at higher education institutions in the Gauteng Province in South Africa, and thus the findings of the study may not adequately represent the antecedents of green consumer buyer behaviour of all Generation Y consumers and other generational cohorts in South Africa. It would therefore be enlightening to examine antecedents of green consumer buyer behaviour and selection attributes using a broader heterogeneous sample frame that includes other generational cohorts in order to enhance the generalisability of the findings across a wider population. In addition, Nittala (2014:141) contends that a positive association may exist between educational level and green purchase behaviour. To investigate this possibility, future research may be focused on examining differences in green purchase behaviour between a student sample and a non-student sample within the Generational Y cohort. It is anticipated that such a study may assist in green market segmentation and in the targeting and formulation of strategies for positioning green products.

Thirdly, the present study was focused on low-involvement green products in the fast-moving consumer goods category. As a result, the findings of this study may not be generalised to green products in the high-involvement category. Thus, future research should seek to investigate antecedents of green buyer behaviour and selection attributes in the context of high-involvement green products. Such a study focusing on high involvement products is important, as Dens and Pelsmacker (2010:50) noted that purchase intention is significantly influenced by the level of product involvement. For instance, a study by Kong and Zhong (2013:439) revealed that green advertising messages are more effective in enhancing

purchase intentions for low-involvement green products than high-involvement ones. Further research needs to be conducted, therefore, to investigate the influence of the Product Involvement Theory on green purchase behaviour.

Fourthly, the hypothesised relationships in the present study were verified using a cross-sectional survey design. The cross-sectional design limits the ability of the researcher to observe the changes in antecedents of green buyer and selection attributes of Generation Y consumers over time. Future research could employ a longitudinal research design to investigate variations in antecedents and selection attributes of Generation Y consumers over time. Such an immersive longitudinal study may include additional variables such as environmental values, cultural and ethical orientations, scepticism and green atmospherics to gain detailed insight into the antecedents of green consumer buyer behaviour and the selection attributes of Generation Y consumers.

The study also found that there is a gap between environmental attitude and actual purchase behaviour. Based on this finding, a future study is proposed to explore the underlying causes of the gap between environmental attitude and actual purchase behaviour. The suggested study may be focused on understanding the effects of attitude components such as cognitive, affective and conative on actual purchase behaviour. For instance, Lee (2014:232) also recommended a future study that focuses on consumers' attitudes towards a specific product category. It is expected that the study may provide an answer to the question of why consumers are not translating favourable environmental attitudes into actual purchase behaviour.

The unsupported hypothesised relationship between government influence and green purchase intentions also provides an avenue for further study. By virtue of its role as a regulator and as a major buyer in industrial markets, a detailed understanding of the influence of government in promoting pro-environmental behaviour has the potential to promote mainstream pro-environmental behaviours. The findings of the study also revealed the prevalence of gender differences in pro-environmental behaviour. In particular, future research endeavours may be focused on understanding the underlying factors that cause male Generation Y consumers to be indifferent towards the performance of pro-environmental behaviours. Such a study has the potential to assist marketers in their efforts to promote mainstream green consumerism.

Lastly, the results of the qualitative study characterised the purchase of green products as a “social dilemma” where Generation Y consumers struggled to balance the need for social approval and self-identify through their purchase behaviour. Given this background of a conflict between the need for self-identity and for social approval, future research efforts could probe the effect of the social dilemma on the green purchase behaviour of Generation Y consumers in South Africa. It is expected that such a study may be invaluable in explaining the effect of Social Dilemma Theory on green purchase behaviour.

7.10 CONCLUDING REMARKS

The main objective of the present study was to examine the antecedents of green buyer behaviour and the selection attributes of Generation Y consumers in South Africa. Out of the eight posited relationships, six were deemed significant. Based on the results from correlational analysis and hypotheses testing, the present study identified environmental concern, environmental attitude, social influence, environmental responsibility and selection attributes as the antecedents of green purchase behaviour among Generation Y consumers. This finding suggests that marketers may need to incorporate these dimensions in crafting effective green marketing strategies to emphasise the delicate balance between the environment and consumption.

The findings of the study also confirmed the prevalence of gender differences in green purchase behaviour among Generation Y consumers. In particular, the study indicated that female Generation Y consumers display more environmental concern, environmental attitudes and green purchase intentions than their male counterparts. This result points to the appropriateness of gender-based marketing segmentation as a tool to define and to appeal to green markets.

The findings of the study also showed that selection attributes moderate the relationship between green purchase intention and actual purchase behaviour. This suggests that traditional product attributes such as price, quality and performance appear to be ingrained in green purchase behaviour among Generation Y consumers, as they play a critical role in translating green purchase intentions into actual purchase behaviour. Moreover, the study confirmed that fact-based green marketing messages are central to the consumption of green products.

It is important to remember, moreover, that the green marketing concept does not override the economic aspect of marketing. Specifically, green marketing needs to be construed as a comprehensive phenomenon aimed at balancing consumption, production and environmental sustainability. It is worth noting that the adoption of green marketing is costly in the short run owing to the variability of demand, unfavourable consumer perceptions and massive investment in technology, research and development. In the long term, green marketing may result in sustainable competitive advantage due to enhanced corporate image, reduction of wastage, increased market share, and improved financial performance, and, ultimately, in sustainable development. The rapid increase in environmental concern and the adoption of sustainable consumption patterns are compelling drivers for the adoption of green marketing by corporates.

It should also be borne in mind that green marketing is not a panacea for all organisational challenges. The effectiveness of green marketing depends on a well-articulated green strategy and on company philosophy, objectives, resources, target market and competitive conditions. Green marketing benefits vary by industry, but it is acknowledged that early adopters of green marketing have the advantage of creating and sustaining competitive advantage in the market. All key stakeholders such as businesses, consumers and policy makers need to play their roles if the transition to green consumerism is to be realised.

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APPENDIX A
REQUEST TO CONDUCT RESEARCH

VAAL UNIVERSITY OF TECHNOLOGY



FACULTY OF MANAGEMENT SCIENCES

PERMISSION TO CONDUCT RESEARCH

Permission is hereby requested to conduct research at your organisation. Details of the researcher, supervisor and research project are as follows:

Researcher/Student: A. Muposhi (073 278 9785)

Supervisor/Promoter: Prof M. Dhurup (016 950 6886)

Purpose of Research: To understand the antecedents of green buyer behaviour and selection attributes of Generation Y consumers.

Duration of Research: 60-90 minutes for the qualitative study and 15-20 minutes for the quantitative study.

Procedures to

Be followed: Respondents/participants at your organisation will be requested to complete a questionnaire independently and honestly within the allocated timeframe. By completing the questionnaire it is assumed that the respondent/participant is aware of the purpose of the study and has given consent to participate in the study. In focus group interviews and in-depth interviews, consent from both the organisation and the participants has to be received before proceeding with the interview.

Risk Involved: The risk involved in participating in this research is minimal. If any of the questions are found embarrassing, offensive or of a sensitive

nature, the respondent may choose not to answer them. However, the answers to the questionnaires are confidential (see confidential section).

Benefits Involved: The information that is obtained from the study will be used for academic purposes only. It is expected to contribute to the body of knowledge and create opportunities for further research.

Confidentiality: Questionnaires are completed anonymously, and the researcher and his statistician are the only persons who will see the results of the questionnaires. The researcher will not have knowledge of which scores belong to which person as aggregate scores will be analysed. The data from this study will be presented in the dissertation/thesis. However, at no time will the name of the organisation or respondent or any identifying information be reported in the presentation of this research unless permission is obtained in writing to do so.

Participants Withdrawal: Participation in this study is completely voluntary and participants are free to withdraw or terminate at any time.

Contact Person:

Signature and

Acknowledgement: My signature below indicates that I have read the above information and have had the opportunity to ask questions about the purpose of the research. I understand that the information gathered from these questionnaires will be used for the purpose of research only. I acknowledge having received a copy of this agreement.

Name of Manager/Director (printed): _____

Signature of Manager/Director: _____

Date: _____

Company Stamp

APPENDIX B

COVER LETTER FOR INTERVIEW GUIDE

Interviewee address

Date

Dear Sir /Madam

Re: Invitation for a research interview

My name is Asphat Muposhi, a DTech Marketing student at Vaal University of Technology. As part of the requirements for my research, a series of interviews are to be conducted as follows:

Purpose of the interview: To understand the antecedents of green consumer buyer behaviour.

Duration of the interview: 60-90 minutes

Interview Procedure: You will be requested to participate voluntarily and independently in the interview. The interview will be recorded to avoid missing out valuable views during the interview analysis stage. Your participation amounts to your implied consent and you may choose not to participate at any time without any penalty.

Risk involved: There are no any known risks associated with participation in this interview. All contributions will be used for academic purposes only and will be treated with confidentiality. Results will be reported as aggregated data and no individual responses will be reported.

You may contact me on the contact details below to confirm or discuss your participation:

PC Training & Business College

76 Jorrisen Street, Braamfontein 2000

Telephone: 011 403 1801-4/ 073 278 9785

Email: asphatm@pctrainingonline.co.za

I thank you in advance for agreeing to participate and I offer you my best regards.

Yours faithfully

Asphat Muposhi

APPENDIX C

INTERVIEW GUIDE

Interview Grid	Note for the interviewer
<p><u>Introduction:</u></p> <p>Thank you for agreeing to participate in this interview. I guarantee your anonymity and confidentiality. The interview is part of a research study on antecedents of green buyer behaviour in South Africa.</p>	<p>Introduction of the interview topic and an invitation for the interviewee to participate.</p>
<p><u>Green marketing awareness/ environmental concern:</u></p> <p>Let me start by asking you about your understanding of the term green marketing?</p> <ul style="list-style-type: none"> • In your opinion what makes green marketing topical in today's marketing environment? • How willing are you to participate in environmental protection initiatives? • To what extent does your green marketing knowledge influence your purchase behaviour? <p>How serious do you think environmental problems are in South Africa?</p> <p>How much responsibility do you think you have in environmental protection?</p>	<p>Accompany the interview by:</p> <ul style="list-style-type: none"> • showing interest • avoiding interrupting the interviewee • asking for examples, descriptions of possibilities were applicable • gauging the attitude of the interviewee towards environmental problems • noting the ascription of responsibilities for environmental problems • noting the key participants • noting whether environmental concern is integrated in purchase decisions
<p><u>Determinants of green purchase behaviour</u></p> <ol style="list-style-type: none"> 1. How often do you buy green products? 2. May I have examples of green products you usually buy? 3. What influences your decision to buy green products? 4. How do you rate green products compared to non-green products? 5. What is your opinion regarding the price, availability and quality of green products? 	<ul style="list-style-type: none"> • Probe further the rationale for a positive or negative rating. • If the answer is no, ask why? Ask for examples. • Check whether the frequency of purchase is in tandem with the green product rating.

<p>6. Do you trust the information you are given about green products?</p> <p>7. To what extent does the level of product category and involvement influence your green purchase behaviour?</p>	
<p><u>Effectiveness of environmental behaviour:</u></p> <p>1. To what extent does your participation in environmental protection influence your peers or family?</p> <p>2. How often do you share information about the environment with peers or family members?</p>	<ul style="list-style-type: none"> • Probe further based on the factors mentioned.
<p><u>Challenges of green marketing</u></p> <p>1. What challenges do you encounter in an attempt to practise green marketing in South Africa?</p> <p>2. In your opinion who is responsible for addressing environmental problems in South Africa?</p> <p>3. What are your recommendations for the practice of green marketing in South Africa?</p>	<ul style="list-style-type: none"> • Rephrase what the interviewee has said for clarification purposes e.g., “If I understand well you are telling me that...”
<p>Our interview is now coming to an end; do you have any other contribution/comments?</p> <ul style="list-style-type: none"> • In the absence of any other comments will you kindly sign the interview confirmation sheet? 	<p>Thank the interviewee for participation.</p>

APPENDIX D

QUESTIONNAIRE

ANTECEDENTS OF GREEN CONSUMER BUYER BEHAVIOUR AND SELECTION ATTRIBUTES OF GENERATION Y CONSUMERS

This questionnaire examines the factors that influence your decision to buy green products and the attributes that you consider important in the selection of green products. By completing this questionnaire you will assist marketers and policy makers to better understand the antecedents of green buyer behaviour and selection attributes of Generation Y consumers. Below are a number of descriptors about these factors and selection attributes. Please select the response that best describes how important you think these variables are to you when making a decision to buy or not to buy.

SECTION A: Demographic Profile

In this section, we would like to find out more about the characteristics of consumers who buy green products. Please place a cross (X) in the appropriate block.

A1	Your gender	Male		Female		
A2	Age category	19-25 years		26-32years	33-39 years	
A3	Educational level	Diploma		Undergraduate	Postgraduate	
A4	Ethnic group	African	Coloured	Indian	White	Other (specify)
A5	Environmental Club Membership	Yes		No		

SECTION B: Antecedents of Green buyer behaviour

In this section, we would like to find out factors that influence your decision to buy or not buy green products. Below are statements that seek to assess your *environmental attitude*. Please indicate the extent to which you agree or disagree with each statement by encircling the corresponding number between 1 (Strongly disagree) and 5 (Strongly agree).

B1	It is important to promote green living in South Africa	Strongly disagree	1	2	3	4	5	Strongly agree
B2	I believe more work is needed on environmental protection in South Africa	Strongly disagree	1	2	3	4	5	Strongly agree

B3	It is very important to raise environmental awareness in South Africa	Strongly disagree	1	2	3	4	5	Strongly agree
B4	Environmental issues are none of my business	Strongly disagree	1	2	3	4	5	Strongly agree
B5	It is unwise for the South African government to spend a lot of money on environmental protection	Strongly disagree	1	2	3	4	5	Strongly agree

Below are statements about the effect of *social influence* on your green product purchase behaviour. Please indicate the extent to which you agree or disagree with each statement by encircling the corresponding number between 1 (Not at all) and 5 (Always).

B6	I learn so much about environmental products from my friends	Not at all	1	2	3	4	5	Always
B7	I learn so much about environmental issues from my friends	Not at all	1	2	3	4	5	Always
B8	I often buy green /organic products with my friends	Not at all	1	2	3	4	5	Always
B9	I often share information regarding green / organic products with my friends.	Not at all	1	2	3	4	5	Always
B10	I often share information about environmental issues with my friends	Not at all	1	2	3	4	5	Always

We would like to find out a little more about your *environmental responsibility*. Please indicate the extent to which you agree or disagree by encircling the corresponding number between 1 (Strongly disagree) and 5 (Strongly agree).

B11	Environmental protection starts with me	Strongly disagree	1	2	3	4	5	Strongly agree
B12	I should take much responsibility in protecting the environment in South Africa	Strongly disagree	1	2	3	4	5	Strongly agree
B13	I have taken responsibility for environmental protection since I was young	Strongly disagree	1	2	3	4	5	Strongly agree

B14	I am willing to take responsibility to protect the environment in South Africa	Strongly disagree	1	2	3	4	5	Strongly agree
B15	Environmental protection is the responsibility of environmental organisations, not me	Strongly disagree	1	2	3	4	5	Strongly agree

We would like to find out more about the level of your *environmental concern*. Please indicate the extent to which you agree or disagree by encircling the corresponding number between 1 (Not at all) and 5 (Extremely concerned).

B16	I am worried about the worsening of the quality of South Africa's environment	Not at all	1	2	3	4	5	Extremely concerned
B17	South Africa's environment is my concern	Not at all	1	2	3	4	5	Extremely concerned
B18	I am emotionally involved in environmental protection issues in South Africa	Not at all	1	2	3	4	5	Extremely concerned
B19	I often think about how environmental quality in South Africa can be improved	Not at all	1	2	3	4	5	Extremely concerned

We would like to find out a little more about your perceptions of *government influence* on green product purchase behaviour. Please indicate the extent to which you agree or disagree by encircling the corresponding number between 1 (Strongly disagree) and 5 (Strongly agree).

B20	Environmental protection is the responsibility of South African government, not me	Strongly disagree	1	2	3	4	5	Strongly agree
B21	Government must encourage learning institutions to offer environmentally related courses to all learners	Strongly disagree	1	2	3	4	5	Strongly agree
B22	Government must subsidise green products	Strongly disagree	1	2	3	4	5	Strongly agree
B23	Government should enforce environmental rules	Strongly disagree	1	2	3	4	5	Strongly agree

B24	Government should enforce environmental regulations	Strongly disagree	1	2	3	4	5	Strongly agree
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SECTION C: GREEN PURCHASE INTENTION

In this section, we would like to find out a little more about your intention to buy green products. Please indicate the extent to which you agree or disagree by encircling the corresponding number between 1 (Definitely unlikely) and 5 (Definitely likely).

C1	I consider buying products because they are less polluting	Definitely unlikely	1	2	3	4	5	Definitely likely
C2	I intend to buy products because they are less polluting	Definitely unlikely	1	2	3	4	5	Definitely likely
C3	I consider switching to other brands for ecological reasons	Definitely unlikely	1	2	3	4	5	Definitely likely
C4	I intend to switch to other brands for ecological reasons	Definitely unlikely	1	2	3	4	5	Definitely likely

SECTION D: SELECTION ATTRIBUTES

In this section, we would like to find out a little more about attributes you consider important when making a decision to buy or not to buy green products. Please indicate the extent to which you agree or disagree by encircling the corresponding number between 1 (Not at all) and 5 (Always).

D1	I buy green products even if they are more expensive than non-green products	Not at all	1	2	3	4	5	Always
D2	I have switched products for ecological reasons	Not at all	1	2	3	4	5	Always
D3	When I have a choice between two equal products, I purchase the one that is less harmful to the environment	Not at all	1	2	3	4	5	Always
D4	I have avoided buying a product because it has potentially harmful environmental effects	Not at all	1	2	3	4	5	Always
D5	I make a special effort to buy products that are environmentally friendly	Not at all	1	2	3	4	5	Always

SECTION E: ACTUAL PURCHASE BEHAVIOUR

In this section, we would like to find out a little more about what influences your green purchase behaviour. Please indicate the extent to which you agree or disagree by encircling the corresponding number between 1 (Not at all) and 5 (very high).

APB1	I frequently buy green /organic products	Not at all	1	2	3	4	5	Very high
APB2	The amount of money spent on buying green products	Not at all	1	2	3	4	5	Very high
APB3	The total number of products purchased in the last month	Not at all	1	2	3	4	5	Very high
APB4	I try to discover the environmental effects of the product before I buy	Not at all	1	2	3	4	5	Very high
APB5	I only buy a product if the company that sells it is environmentally responsible	Not at all	1	2	3	4	5	Very high
APB6	I prefer green products over non-green when their qualities are similar	Not at all	1	2	3	4	5	Very high

Thank you for time and your cooperation. Your views are much appreciated.

APPENDIX E
RELIABILITIES FOR PILOT STUDY

Construct	Measurement items	No. of items	Cronbach Alpha (α)
Environmental Attitude	<p>It is important to promote green living in South Africa</p> <p>I believe more environmental protection work is needed in South Africa</p> <p>It is very important to raise environmental awareness in South Africa</p> <p>Environmental issues are none of my business</p> <p>It is unwise for the South African government to spend a lot of money in environmental protection</p>	5	0.807
Social influence	<p>I learn so much about environmental products from my friends</p> <p>I learn so much about environmental issues from my friends</p> <p>I often buy green /organic products with my friends</p> <p>I often share information regarding green / organic products with my friends</p> <p>I often share information about environmental issues with my friends</p>	5	0.807
Environmental Responsibility	<p>Environmental protection starts with me</p> <p>I think I should have so much responsibility in protecting the environment in South Africa</p> <p>I have taken responsibility for environmental protection since I was young</p> <p>I am willing to take responsibility to protect the environment in South Africa</p> <p>Environmental protection is the responsibility of environmental organisations, not me.</p>	5	0.847

Environmental concern	<p>I am worried about the worsening of the quality of South Africa's environment</p> <p>South Africa's environment is my concern</p> <p>I am emotionally involved in environmental protection issues in South Africa</p> <p>I often think about how environmental quality in South Africa can be improved</p>	4	0.806
Government influence	<p>Environmental protection is the responsibility of South African government not me</p> <p>Government must encourage learning institutions to offer environmentally related courses to all learners</p> <p>Government must subsidise green products</p> <p>Government should enforce environment rules</p> <p>Government should enforce environment regulations</p>	5	0.766
Green Purchase Intention	<p>I consider buying products because they are less polluting</p> <p>I intend to buy products because they are less polluting</p> <p>I consider switching to other brands for ecological reasons</p> <p>I intend to switch to other brand for ecological reasons</p>	4	0.720
Selection attributes	<p>I buy green products even if they are more expensive than non-green products</p> <p>I have switched products for ecological reasons</p> <p>When I have a choice between two equal products, I purchase the one that is less harmful to the environment</p> <p>I have avoided buying a product because it has potentially harmful environmental effects</p> <p>I make a special effort to buy products that are environmentally friendly</p>	5	0.889

<p>Actual Purchase Behaviour</p>	<p>I frequently buy green /organic products</p> <p>The amount of money spent on buying green products</p> <p>The total number of products purchased in the last month</p> <p>I try to discover the environmental effects of the product before I buy</p> <p>I only buy a product if the company that sells it is environmentally responsible</p> <p>I prefer green products over non-green when their qualities are similar</p>	<p>6</p>	<p>0.704</p>
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APPENDIX F: SEM MODEL

