RESEARCH ARTICLE

The Influence of Customer Demographics on Greening Perceptions and Purchasing Behaviour

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Abstract

This article investigates the influence of customer demographics on greening perceptions and purchasing behaviour within the Nelson Mandela Bay region of South Africa. A quantitative research approach was followed. To be able to achieve the research objectives of this project a literature study was conducted which formed the theoretical framework for collecting the primary data. During the empirical investigation, a survey was conducted by means of 200 self-administered structured questionnaires being completed by the respondents. The impact of customer demographics on four dependent variables, namely environmental values and beliefs, environmental regulations, knowledge/eco literacy and green purchasing behaviour are assessed. A total of 28 null-hypotheses were formulated and tested by means of regression analysis. Some statistical significant relationships were found between the independent and dependent variables. Practical guidelines are provided to assist organisations in dealing with the impact of customer demographics on greening perceptions and purchasing behaviour.

Keywords: *Perceptions, Greening, Purchasing behaviour, Consumers, Demographics.*

"… Green products, which are viewed as products that cause less pollution in western countries, are viewed as specialty products whose prices are set higher than non-green products by Malaysian consumers … factors that strongly affect purchasing decisions and change non-green consumers to green consumers in western countries and Malaysian may not be the same. Green marketing strategies that achieve great success in western countries may not achieve the same result in Malaysia … companies must not only develop environmental strategies to address their most important global impacts, but they also need to be able to connect with consumers in a compelling and relevant way on a market-by-market basis … vital to explore how consumers view the environmental issues, and how they behave, especially in their attitudes towards green products or environmental friendly products."[1]

Introduction and Background

The pressure that rapid economic development exerted on the environment has gainedwidespread attention from various interest groups spanning from environmentalists, governments, labour unions and politicians[2]. The heightened awareness of the fragility of the earth has led to the acknowledgement of the unsustainability of business strategies and practices. It is evident that business activities and functions have largely contributed to the degradation of the earth [3] [4]. The burden to rectify unsustainable consumption and environmental degradation falls squarely on the shoulders of business entities [3] [5].By acknowledging the influence of business activity, and its resultant consumerism, on the natural environment it is imperative that businesses adjust their outlook towards sustainability and social responsibility. Businesses have adapted accordingly by going green which entails the implementation of "environmental management systems, waste minimisation and the integration of environmental issues into all organisational activities" [6]. Going green entails the pursuit of the triple bottom line which involves the pursuit of "economic prosperity, environmental quality, and social justice" [7]. This approach is seen as not only pursuing shareholder wealth maximisation but also balancing societal needs and acknowledging its impact on the environment.

Some businesses came to the realisation of the potential of adopting the green stance and therefore used it as a way of gaining a competitive advantage.Before a business adopts a green stance it needs to first gain a thorough understanding of consumer purchasing behaviour

and how it will be affected by this stance [8]. Consumer purchasing behaviour has been defined as the decision making process that a consumer undertakes before purchasing a product or service based on how effectively their needs and wants are met [9] [10].Although several international studies (see for example [11] [12] [13]) attempted to assess the impact of demographics on greening and purchasing behaviour, it appears that limited research in this regard has been done in South Africa. To this end, this article aims to investigatethe influence of customer demographics on greening perceptions and purchasing behaviour within the Nelson Mandela Bay region of South Africa.

The first part of this article covers the problem statement and objectives of the study, followed by a literature overview of greening and consumer purchasing behaviour. The next section outlines the research methodology of the study and the main empirical results. The last section highlights the main conclusions and recommendations of the study.

Problem Statement

Greening is very broad and can be applied in almost every industry such as service, construction and retailing. Standards that determine whether the business can be called "green"are formed in terms of how the business should operate and the environmental commitments that the business should make [14].

Green marketing is seen as the holistic management process responsible for identifying, anticipating and satisfying the needs of customers and society in a profitable and sustainable way [4]. Greening has gainedmuch respect lately by businesses because it has proven to lower overhead costs, improve productivity and strengthen the bottom line [15]. Consumers may be interested in greening, but cannot identify it. Many consumers cannot identify the steps a business had taken to go green [14].

Various researchers embarked on investigating the impact of demographics on greening and purchasing behaviour, yet limited research has been done in this regard in South Africa – hence the need for this study. This study will give highlight theinfluence of demographics on greening perceptions and purchasing behaviour of consumers in Nelson Mandela Bay of South Africa. In developed countries, such as Australia, more consumers and businesses are aware and concerned about the natural environment and it is important for businesses, government and

consumers in developing countries to follow this example by improving their perceptions of greening and its impact on consumer purchasing behaviour [6].The measures that have been used are socio-demographics such as sex, age, education, social class and personality measures [11]. Against this background, the main research question to be addressed in this study is: *What is the influence of customer demographics on greening perceptions and purchasing behaviour within the Nelson Mandela Bay region of South Africa?*

Research Objectives

The primary objective of this article is to investigate the influence of customer demographics on greening perceptions and purchasing behaviour within the Nelson Mandela Bay region of South Africa.To achieve the primary objective the following secondary objectives have been set:

- To conduct a literature review on greening in general and the purchasing behaviour of consumers.
- To conduct an empirical study by sourcing data from different consumers in the Nelson Mandela Bay area.
- To provide general guidelines to businesses regarding the green purchasing behaviour of consumers.

A Theoretical Overview of Greening and Consumer Purchasing Behaviour

• Greening

Greening is viewed as "the adoption of environmental management systems, waste minimisation and the integration of environmental issues into all organisational activities" Greening is also seen as a strategy whereby businesses engage in environmental education; as a result they put in place systems to reduce solid waste and make use of recyclable packaging for their product offerings [16]. It is further noted that greening is when sustainability or rather ecological concerns are permeated throughout the business [17].

• Environmental Values and Beliefs

Itis defined as worth that a community or society places on environmental goods or services such as aesthetic and recreational facilities and resources [18]. It is also viewed as a desirable trans-situational goal varying in importance, which serves as a guiding principle in the life of a person and provide an economically efficient instrument for describing and explaining similarities and

differences between persons, groups, nations, and cultures [19].The term "value" denotes preference in terms of an individual's setting of one thing before or above another because of a notion of superiority or excellence which the individual attaches to that thing [20].

• Environmental Regulation

It refers to a collective term describing international treaties, statutes, regulations, and common law or national legislation that operates to regulate the interaction of humanity and the natural environment, toward the purpose of reducing the impacts of human activity [21].Environmental regulation has proceeded at different paces between industrialised countries and developing countries. Governments should provide more training to businesses regarding the use of environmentally- friendly policies and practices; businesses should be encouraged to have an environmental management system to track their impact on the environment; businesses' annual integrated reporting should include environmental performance; and, businesses should adopt environmentally-friendly certification such as ISO 14001 [22].

• Environmental Knowledge

Environmental knowledge is defined as "a general knowledge of facts, concepts and relationships concerning the natural environment and its major ecosystems" [23]. It also involves what people know about the environment and the beliefs they hold about key environmental aspects and impact [24]. Iinstitutions can be used for self-learning through a network of farmers, consumers and facilitators with access to scientific and ecological knowledge [25]. There are various policies which make it harder to externalise environmental costs; for instance, financial support for facilitation, network activities, such as farmer meetings, the development of curricula for discovery learning, and the regulation of

environmental pollution, poisoning and destroying bio-diversity [26]. Eenvironmental educators often maintain that primary school education should endeavour to improve and protect the environment through producing an "environmentally informed, committed and active citizenry", yet existing research shows that the implementation of environmental education in primary schools is problematic and has had limited success [27].

• Green Purchasing Behaviour

A comprehensive definition of purchasing behaviour is "the study of how individuals and businesses make decisions to spend their available resources (time, money, effort) on consumer related items" [9].This decision-making process is undertaken so as to acquire need-satisfying products and services [10].Ggreen purchasing is also viewed as "the purchasing of procurement efforts which give preference to products or services which are least harmful to environmental and human health" [28]. Green purchasing behaviour also refers to the consumption of products that are beneficial to the environment, recyclable or conservable, sensitive or responsive to ecological concerns.

Some examples of these products are household items manufactured with postconsumer plastics or paper, recyclable or reusable packaging, energy-efficient light bulbs, and detergents containing ingredients that are biodegradable, non-polluting, and free of synthetic dyes or perfumes [13]. These types of ecologically safe products are just a few of the many items, currently available, that can facilitate the long-term goal of protecting and preserving our natural habitat [29]. A green consumer is also regarded as a consumer who is highly environmentally concerned.This is characterised as buying green products whenever they see an opportunity to do so while green consumption can be described as a process that has led to individuals feeling both responsible for and empowered in dealing with risks to both themselves and to the wider environment [30].

Figure 1 illustrates the theoretical framework or model of this study.
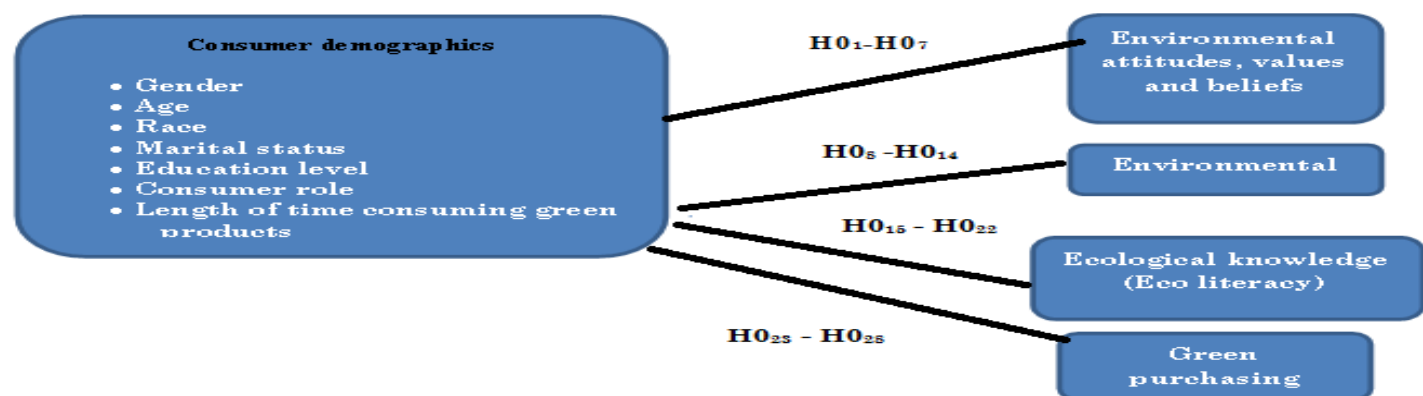
Fig 1: Proposed theoretical model of the study: Impact of consumer demographics on greening perceptions and purchasing behavior
Source: Own construction

The above model demonstrates the impact of consumer demographics on greening perceptions and green purchasing behaviour. These factors also formed the theoretical framework for developing the measuring instrument (see for example [31-33]).

Influence OF Demographics on Greening Perceptions and Purchasing Behaviour

There has been extensive public debate about organisations turning to sustainability and becoming environmentally-friendly and many efforts have been made to define green consumers, often with conflicting results [24]. Empirical results regarding demographical differences are often ambiguous [34].However, intrinsic factors such as demographics could impact on consumer's environmental awareness and purchasing behaviour [35]. It is further argued that consumer demographics play an important role in the segmentation of potential consumer's purchase intentions [36]. However, [29] found limited evidence that consumer demographics impact on green buying.This ambiguity in demography literature is due to the fact that demographic diversity often leads to a wide divergence of opinions [37].

Several demographical characteristics serve as data classification (independent) variables in this study. Based on the above-mentioned reasoning, various null-hypotheses are tested in this study. A total of 28 null-hypotheses were initially formulated and tested. The fourdependent variables tested were: environmental values and beliefs; environmental regulations; ecological knowledge/literacy and green purchasing behaviour. The seven independent demographical variables were: gender, age, race, marital status, education level, consumer role and length of time consuming green productsminimising harm. Only those variables that showed statistically significant relationships are reported in the results section of this article.

- $H0_1$ -$H0_7$: There is no relationship between *consumer characteristics* (as measured by gender, age, race, marital status, education level, consumer role and length of time consuming green products) and perceptions regarding *environmental values and beliefs*.

- $H0_8$– $H0_{14}$: There is no relationship between *consumer characteristics* (as measured by gender, age, race, marital status, education level, consumer role and length of time consuming green products) and perceptions regarding *environmental regulations*.

- $H0_{15}$– $H0_{21}$: There is no relationship between *consumer characteristics* (as measured by gender, age, race, marital status, education level, consumer role and length of time consuming green products) and perceptions regarding *ecological knowledge / literacy*.

- H_{22}-$H0_{28}$: There is no relationship between *consumer characteristics* (as measured by gender, age, race, marital status, education level, consumer role and length of time consuming green products) and perceptions regarding *green purchasing behaviour*.

Research Methodology

The following section provides a brief overview of the research methodology followed in this study.

Research Paradigm

This study utilises the quantitative approach as it aims to ascertain the perceptions of consumers towards environmentally conscious businesses. This approach best fits the study as it attempts to establish the causal relationships which exist between the demographical variables (independent) and greening perceptions and consumer purchasing behaviour (dependent).

Research Approach

Two main research approaches were used in this study. Descriptive research describes the impact of consumer demographical factors on perceptions regarding greening and consumer purchasing behaviour. Exploratory research is aimed to gain greater clarity of the prevailing impact of consumer demographics on greening perceptions and purchasing behaviour in Nelson Mandela Bay.

Population

For the purpose of this study, the population refers to all consumers within the Nelson Mandela Bay area of South Africa.

Sampling

Non-probability sampling was used by means of a convenience method, based on accessibility and availability.

Data Collection

The study used both secondary and primary data. Secondary data refers to data collected from books, journal articles, newspapers and magazines. Primary data is data collected from the population through the survey method, using self-administered questionnaires. A total of 250 questionnaires were handed out to respondents and 200 useable questionnaires were returned. Reminder emails, messages and calls were made to increase the response rate. The response rate of the study is therefore 80%. The type of

information required (data specification decisions) for the study can be classified as follows:

- *Type of data* – research data are numeric and non-verbal (questionnaires).
- *Sources of data* – both secondary and primary data (survey) were collected.
- *Nature of data* – data was collected at a single point in time (cross-sectional study).
- *Form of data* – non-overt data by means of questionnaires.

Questionnaire Design

The measuring instrument (questionnaire) is composed of two sections.

- Section A investigated perceptions regarding greening and consumer purchasing behaviour and contains 45 variables. It uses a five-point Likert-type ordinal scale. These variables are grouped into the following predetermined factors: environmental values and beliefs, environmental regulations, knowledge/eco-literacy and green purchasing behaviour.

- Section B focuses on the biographical data of the respondents and contains seven variables using a nominal scale.

Data Analysis

The following statistical techniques were employed through the use of Microsoft Excel spread sheets.

- Descriptive statistics will be used to analyse the data collected from the quantitative study so that an inference concerning the total population can be made (mean tendency, variability and frequency distributions).
- Reliability testing by means of Cronbach's alpha values.
- Regression analysis to test the relationship between the dependent and independent variables.

Validity and Reliability of the Measuring Instrument

• *Validity*

Face and content validity were used. Face validity ensures the measuring instrument actually measure what it intends to measure by means of expert judgement and content validity was ensured by means of a pilot study among 20 consumers from the designated population.

• *Reliability*

For the purpose of this study, Cronbach's alpha values were calculated to measure the internal consistency/reliability of the variables.

Empirical Results

Demographic Profile of Respondents

Table 1 provides a summary of the personal information of the respondents of this study.

Table 1: Demographic information pertaining to the respondents

Characteristic	Category	%
Gender	Male	56
	Female	44
Age	18-24	48
	25-34	21
	35-44	16
	45-54	11
	55-64	3
	>65	1
Population group (Race)	White	23
	Black	51
	Coloured	16
	Asian	9
	Other	1
Marital status	Single	64
	Married	25
	Divorced	7
	Other	4
Level of education	< Grade 11	1
	Grade 12 or equivalent	15
	National certificate/diploma	21
	Bachelor's degree/diploma	38

	Postgraduate degree/diploma	25
Consumer role mostly played	Influencer	12
	Decision-maker	11
	Buyer	38
	User	34
	Disposer	5
Number of years purchasing green products	< 1 year	50
	1-5 years	31
	6-10 years	11
	11-15 years	2
	16 years +	6

It is evident from Table 1 that the majority of the respondents are males (56%) in the age category 18 to 24 (48%). The majority of the respondents were from the black population group (51%), single (64%) and have a bachelors or post-graduate degree/diploma (63%). In terms of consumer roles played, it appears that most of the respondents played the role of buyer (38%) and user (34%) respectively. It is also evident that the majority have been purchasing green products for less than one year (50%) or for between one and five years (31%).

Descriptive Statistics

The descriptive statistics are summarised in Table 2.

Table 2: Descriptive statistics of the dependent variables (n =200)

Factor	Mean	Std. deviation	Skewness	Kurtosis	% Disagree	% Neutral	% Agree
Environmental values and beliefs	3.50	1.09	-0.44	-0.49	18	27	55
Environmental regulations	3.51	1.02	-0.41	-0.52	18	25	57
Knowledge/eco literacy	3.49	1.03	-0.40	-0.54	19	25	56
Green purchasing behaviour	3.64	0.97	-0.32	-0.43	12	31	57

For the purpose of this study responses on the five-point Likert scale are categorised into disagree (1-2), neutral (3) and agree (4-5).

The *environmental values and beliefs factor* of Section A of the questionnaire comprises of items A1-A10 and reported a mean score of 3.50 with the majority (55%) of respondents agreeing with the statements that environmental values and beliefs affect greening perceptions and have an impact on consumer purchasing behaviour (27% of the respondents were neutral and 18% disagreed). The standard deviation score for this factor is 1.09. The scores of this distribution are negatively skewed with a value for *sk* of -0.4396 indicating that the bulk of the values lie to the right of the mean. The kurtosis measures the peakedness of distribution and is -0.4894 and could be regarded as a platykurtic distribution.

The *environmental regulations factor* of Section A of the questionnaire comprises of items A11-A20 with a mean score of 3.51. Fifty-seven per cent of the respondents agreed with the fact that environmental regulations have impacted on businesses' and customers' greening perceptions while 25% and 18% of the respondents were neutral and disagreed respectively. The standard deviation of 1.02 is above one, which shows that scores do vary from each other. The scores of this distribution are negatively skewed with a value of *sk*-0.41which indicates that the bulk of the values lie to the right of the mean. The *ku* for this distribution is -0.52 and is therefore a platykurtic distribution.

The *knowledge/eco literacy factor* of Section A of the questionnaire encompasses variable items A21-A30 with a mean score of 3.49 and the majority (56%) of the respondents agree that knowledge and eco literacy affect the greening perceptions of consumers and their purchasing behaviour (25% were neutral and 19% disagreed). The standard deviation is 1.03 which indicates a high variation in responses. The scores of this distribution are negatively skewed with the value of -0.40. The distribution also has a *ku* of -0.54 and is therefore a platykurtic distribution.

The *green consumer behaviour factor* of Section A of the questionnaire encompasses variable items

A31-A45. For this factor the value for the mean score is 3.64. The measures of central tendency cluster around point 3 of the scale which indicates that the majority of the respondents were neutral towards the statement that greening perceptions have an impact on consumer purchasing behaviour. The standard deviation score is 0.97 and 57% of respondents agreed that greening perceptions impact consumer purchasing behaviour and the rest, (31%) and (12%), of the respondents were neutral and disagree, respectively. The distribution is negatively skewed, sk = -0.32, and the ku-value for green consumer behaviour factor is -0.43; it is negative hence it is a platykurtic distribution.

Reliability Results

Section A of the questionnaire investigates perceptions regarding greening and its impact on consumer purchasing behaviour and makes use of four factors with various statements grouped under them accordingly. These factors along with their corresponding statement numbers and their Cronbach's alpha values are presented in Table 3.

Table 3: Cronbach's alpha values for the factors in section A of questionnaire

Factor	Statement number	Cronbach's alpha
Environmental values and beliefs	A1-A10	0.70
Environmental regulations	A11-A20	0.73
Knowledge/eco-literacy	A21-A30	0.80
Green purchasing behaviour	A31-A45	0.90

The Cronbach's alpha coefficients for all the factors are above 0.7 thus confirming the internal reliability of the measures used in this study.

Regression Analysis

Table 4 highlights the regression analysis results between perceptions regarding greening and purchasing behaviour and the independent variables (demographic data).

Table 4: Regression analysis results

Independent variables	Dependent variables			
	Environmental values and beliefs	Environmental regulations	Environmental knowledge/literacy	Green purchasing behaviour
	$H0_1$-$H0_7$	$H0_8$-$H0_{14}$	$H0_{15}$-$H0_{21}$	$H0_{22}$-$H0_{28}$
Gender	0.2983	0.3732	0,9139	0.8057
Age	**0.0325***	0.6815	**0.3246***	0.7154
Race	**0.0004***	0.3894	**0.0300***	0.3919
Marital status	**0.0001***	**0.0132***	0.1439	0.5318
Level of education	0.4781	0.5732	**0.0177***	0.1616
Consumer role	0.0893	0.3837	0.2350	0.4282
Length time purchasing green products	0.6778	0.0556	**0.0246***	**0.0426***

(* p value < 0.05)

Table 6 indicates the relationship between the dependent and independent variables and testing of the hypotheses. A total of nine null-hypotheses out of a total of 28 could be rejected. It appears that there is a statistical significant relationship (p < 0.05) between perceptions regarding environmental values and beliefs of respondents and their age, race and marital status (H0$_2$, H0$_3$and H0$_4$ rejected and alternative hypotheses accepted). Perceptions regarding environmental regulations and marital status seems to be significantly related (H0$_{11}$ is thus rejected and the alternative hypotheses, H$_{11}$accepted as the p-value is < 0.5). It also appears that perceptions regarding environmental knowledge/literacy and age (H0$_{16}$), race (H0$_{17}$), level of education (H0$_{19}$) and length of time purchasing green products (H0$_{21}$) seem to be significantly related. There is also a statistically significant relationship between perceptions regarding green purchasing behaviour and length of time consumers have been purchasing green products (H0$_{28}$rejected).

Conclusions and Recommendations

The concept is viewed as pursuing consumer needs and wants profitably, while taking into account the impact of operations on the natural environment. The object is to minimise the business footprint on the environment while remaining profitable, that is, the pursuit of the triple bottom line.The specific operational areas that can be "greened" include the products and/or services offered, the complete logistics channel, the education and training of the workforce, buildings which house operations and information and technology systems.

Consumer behaviour is increasingly garnering attention as its impact on profitability and therefore business success is being recognised by all. It is defined as the behavioural patterns that consumers exhibit when making need-satisfying purchases. The factors that influence the general purchasing behaviour of consumers fall under these two categories: individual factors, which are unique to an individual, and group factors which are external to a consumer and result from their interaction with the people surrounding them.It should be noted that the factors that affect green purchase are different. However, amongst those that influence purchase behaviour in general are: eco-labelling, environmental attitudes, values and beliefs, environmental regulations, ecological knowledge (eco-literacy) and recycling. Businesses should take these factors into account when developing green product/service offerings so as to come up with need-satisfying, profitable offerings.

The following main conclusions from the empirical study are highlighted below:

- It appears that there is a statistical significant relationship ($p < 0.05$) between perceptions regarding environmental values and beliefs of respondents and their age ($H0_2$ rejected). People of different age groups have varying perceptions regarding environmental values and beliefs. Organisations need to take notice of the values and beliefs of different age groups of employees towards the natural environment and adopting green business practices.

- There is a statistical significant relationship ($p < 0.05$) between perceptions regarding environmental values and beliefs of respondents and their ethnic classification or race ($H0_3$rejected and alternative hypotheses accepted). Different ethnic groupings in the organisation might have different perceptions regarding environmental values and beliefs.

Policies of the organisations should thus reflect these differences and should be ethnic sensitive.

- Respondents being single, married or divorce have different perceptions regarding environmental values and beliefs ($H0_4$ rejected). A person not being married or not having children thus might have varying perceptions regarding environmental values and beliefs as compared to a person being married with children. Educational programmes regarding environmental values and beliefs should thus cater for all types of marital status groups in the organisation.

- Perceptions regarding environmental regulations and marital status seem to be significantlyrelated (p-value< 0.5). $H0_{11}$ is thus rejected and the alternative hypotheses, H_{11} accepted. Different marital status groups thus have varying perceptions regarding the degree of government regulation in terms of environmental protection laws and certification. Government and organisations should thus consult widely with all when formulating environmental policies and certification programmes.

- It also appears that perceptions regarding environmental knowledge/literacy and age of respondents are statistically significant related ($H0_{16}$ rejected). People of different age groups have different levels of knowledge regarding eco literacy and environmental issues. Training programmes in the organisation should thus cater for all knowledge levels regarding eco literacy.

- There is a statistical significant relationship ($p < 0.05$) between environmental knowledge/literacy and ethnic classification and level of education of respondents ($H0_{17}$and $H0_{19}$ rejected). Respondents of different ethnic groups and levels of education thus have varying degrees of eco knowledge. Training and educational programmes should thus cater for different ethnic groups and employees with varying levels of knowledge regarding environmental issues and green business practices.

- Perceptions regarding environmental knowledge/literacy and green purchasing behaviour and length of time purchasing green products seem to be significantly related ($H0_{21}$ and $H0_{28}$rejected). People purchasing green products for longer periods of time seems to more environmentally literate as compared to

people who have not used it at all or just started using these products. Organisations should thus attempt to identify these early adopters of green products and use them as role models and opinion leaders for adopting green products.

Table 5 which stems from Section A of the questionnaire, presents some general guidelines and recommendations on managing green consumer purchasing behaviour.

Table 5:Guidelines for managing green consumer purchasing behaviour

No.	Guideline/recommendation
1	Humans should not modify the natural environment to suit their own needs if it causes destruction to the environment.
2	Businesses should stop abusing and exploiting the natural environment.
3	Societies must have limits to industrialisation and expansion.
4	The government should enforce organic labelling for all green products.
5	The government should put enough laws in place to deter businesses from polluting the environment.
6	Environmentally-friendly certification for businesses, such as the ISO 14001, should be adopted by all businesses.
7	Government should provide more training to businesses regarding the use of environmentally friendly policies and practices.
8	Government should adopt best practices from other countries regarding environmental regulations.
9	Businesses' annual integrated reporting should include environmental performance.
10	Businesses should have an environmental management system to track their impact on the environment.
11	More efforts must be made to educate consumers regarding being environmentally-friendly.
12	Government should provide more information and training regarding environmental issues.
13	Businesses should provide more and clearer information regarding greening on their product packaging and labelling.
14	Consumers need to stop purchasing products that could potentially damage the environment.
15	Consumers need to buy energy-efficient household appliances.
16	Consumers must make a conscious effort to limit the use of products that are made of or use scarce resources.
17	Consumers must stop buying products from businesses that are ecologically irresponsible.
18	Consumers need to convince family and friends not to buy products which are harmful to the environment.
19	Consumers should purchase green and organic products even if it is more expensive.
20	Consumers should purchase products that are low on pollutants.

Limitations of the Study

The following limitations are acknowledged:

- A convenience sample was drawn from the target population, mainly in Nelson Mandela Bay region of South Africa, which could have impacted on the representativeness of the sample.
- Gender and ethnic disparities in the sample could have influenced perceptions of respondents and the final results.

The following extract seems appropriate to conclude this article with:

"… there appear more and more so called green consumers who cannot be disregarded by modern companies striving both to maximize profit and to search for solutions to society problems … heightened awareness and changing preferences of consumers is also a driving force that is necessitating the transformation for businesses to become better environmental stewards … an environmentally sophisticated consumer is becoming a competent and demanding buyer … a consumer's knowledge of the environmental issues does not necessarily indicate he or she will make the decision to buy green products. Green purchase intention, arguably, depends on consumer's altruism and the way they can be motivated. Knowledge on environmental issues is the significant predictor of consumer behaviour to be responsible towards environment … further theoretical study of the conception of a green consumer and its attributes becomes relevant, especially when being aware that the number of green consumers is rapidly increasing in the market …" [38]

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