

**DETERMINANTS OF GREEN PURCHASE INTENTION IN NIGERIA: THE
MEDIATING ROLE OF PERCEIVED BEHAVIOURAL CONTROL
ENVIRONMENTAL CONSCIOUSNESS AND GREEN TRUST**



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MEDIATING ROLE OF PERCEIVED BEHAVIOURAL CONTROL
ENVIRONMENTAL CONSCIOUSNESS AND GREEN TRUST**



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CETIFICATION OF THESIS WORK





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ABSTRACT

Green purchase is a widely known phenomenon especially in developed countries and in some developing nations. However, this seemingly known practice is still slow in gathering momentum in places like Nigeria due to the low level of its awareness. The cogent rationale for this study was to examine the determinants of green purchase intention and the mediating effects of perceived behavioural control (PBC), environmental consciousness and green trust between the suggested determinants and green purchase intention using the theory of planned behavior (TPB). The framework was composed of nine (9) variables. The instrument was adopted from previous studies and had a total of fifty-four (54) items measured using the seven-point Likert scale. 754 respondents from three universities were selected and 502 responded indicating a 67% response rate. The Structural Equation Modeling (SEM) was used to examine the causal and mediating relationships. The finding showed that perceived behavioural control and environmental consciousness had a significant direct influence on green purchase intention. Also, the significant determinants of environmental consciousness were government regulations and perceived green knowledge. Green perceived value and green availability significantly predicted green trust. Significant determinants of PBC were green trust, green price sensitivity and green perceived value. Mediation results indicated that PBC mediated between trust and intention while environmental consciousness mediated between green knowledge, government regulations and intention. The TPB was found to be a robust underpinning theory in explaining the determinants of green purchase intention in Nigeria since the model achieved the goodness of fit by meeting the entire criterion. The implication of this study is that the finding provides valuable insight for the government to formulate stringent regulations to deal with environmental issues and strategic planning on how to market green products in Nigeria by the practitioners.

Keywords: green purchase intention, structural equation modeling, Nigeria, green products, theory of planned behaviour.

ABSTRAK

“Pembelian hijau” merupakan satu fenomena yang dikenali ramai terutamanya di negara-negara maju dan beberapa buah negara membangun. Walau bagaimanapun, amalan ini seolah-olah masih perlahan untuk mengumpul momentum di tempat seperti Nigeria kerana tahap kesedarannya yang rendah. Rasional yang meyakinkan bagi menjalankan kajian ini adalah untuk mengkaji penentuan niat pembelian hijau dan kesan pengantara kawalan tingkah laku anggapan(PBC), kesedaran alam sekitar dan keyakinan hijau (*green trust*) di antara penentu-penentu yang dicadangkan dan niat pembelian hijau dengan menggunakan teori tingkah laku terancang (TPB). Rangka kerja kajian terdiri daripada sembilan (9) pemboleh ubah. Instrumen diambil daripada kajian sebelumnya dan mempunyai sebanyak lima puluh empat (54) item yang diukur menggunakan skala tujuh mata Likert. 754 responden dari tiga buah universiti telah dipilih dan 502 maklum balas yang diterima menunjukkan kadar tindak balas sebanyak 67%. Permodelan Persamaan Berstruktur (SEM) telah digunakan untuk mengkaji penyebab dan pengantara dalam hubungan. Dapatan kajian menunjukkan bahawa kawalan tanggapan tingkah laku dan kesedaran alam sekitar mempunyai pengaruh langsung yang signifikan terhadap niat pembelian hijau. Penentu yang signifikan terhadap kesedaran alam sekitar adalah peraturan-peraturan kerajaan dan tanggapan pengetahuan hijau. Tanggapan nilai hijau dan ketersediaan hijau secara signifikan meramalkan keyakinan hijau. Penentu penting PBC adalah keyakinan hijau, sensitiviti harga hijau dan tanggapan nilai hijau. Keputusan pengantaraan menunjukkan bahawa PBC menjadi pengantara bagi keyakinan dan niat manakala kesedaran alam sekitar menjadi pengantara bagi pengetahuan hijau, peraturan kerajaan dan niat. TPB didapati menjadi teori asas yang kukuh dalam menerangkan penentuan niat pembelian hijau di Nigeria memandangkan model tersebut mencapai kebaikan suai dengan memenuhi keseluruhan kriteria. Implikasi bagi kajian ini adalah dapatan kajian memberikan pandangan yang berharga bagi kerajaan untuk menggubal peraturan-peraturan yang ketat bagi menangani isu-isu alam sekitar dan menyediakan pandangan kepada pengamal untuk membuat perancangan strategik mengenai cara untuk memasarkan produk-produk hijau di Nigeria.

Kata kunci: niat pembelian hijau, pemodelan persamaan berstruktur, Nigeria, produk hijau, teori tingkah laku terancang

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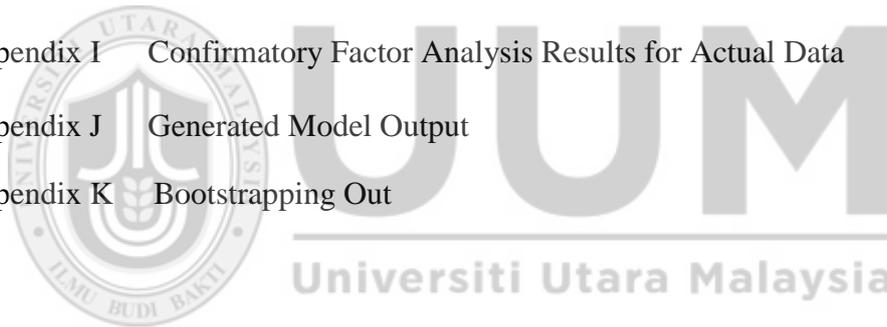
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LIST OF ABBREVIATIONS

AMOS	Analysis of Moment Structure
AVE	Average Variance Extracted
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CR= T	Critical Ratio (AMOS) T- Value (SPSS)
CR	Composite Reliability
CMIN/DF	Chi-Square Per Degree of Freedom
VE	Variance Extracted
DF	Degree of Freedom
EC	Environmental Consciousness
EFA	Exploratory Factor Analysis
GFI	Goodness of Fit Index
GOF	Goodness of Fit
GRN	Government Regulations
GPV	Green Perceived Value
GAV	Green Availability
GTS	Green Trust
GPST	Green Price Sensitivity
GPI	Green Purchase Intention
GM	Generated Model
MI	Modification Indices
P	P-value
B	Beta
PBC	Perceived Behavioural Control
R ²	R Square (SPSS)
RMSEA	Root Mean Square Error of Approximation
SIG	Significant
SEM	Structural Equation Modeling
SMC	Squared Multiple Correlation=R ²
SPSS	Statistical Package for Social Science
TLI	Tucker-Lewis Index
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
χ^2	Chi-Square
PNFI	Parsimonious Normed Fit Index

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- Appendix A Summary of Direct Determinants of Green Purchase Intention
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CHAPTER ONE

INTRODUCTION

1.0 Preambles

This chapter introduces the background and the main issues of this study. The issues are centred on low level of green purchase intention, environmental problems such as oil spillage, flood, waste pollution, desertification and deforestation which connote the lack of environmental consciousness and weak government regulation, lack of trust on green products, low knowledge and awareness towards green products. Furthermore, it covers the statement of the problems which are the bedrock of this study; research questions, objectives, significance of the research, justifications, scope, contributions and the chapter plan.

1.1 Background of the Study

In recent times, concern for the environment has increased steadily across the globe and has translated into consumers' awareness which is portrayed in their nutrition, health and quality of food in terms of purchase and consumption as most of them are now connecting the dots to their main lifestyle. The demands for green product became inevitable (Ali & Ahmad, 2012; Chen, 2010; Kalafatis, Polland, East & Tsogas, 1999; Paco & Raposo, 2009; Rashid, 2009), thus, the birth of green consumers.

Taking a look at what happens globally, there has been incessant increase in consumers who are environmentally concerned and this in turn has led to a drastic growth of green products market (Hunt & Dorfman, 2009). Gupta and Ogden (2009)

confirmed that green products market size was valued at USD 200 billion in 2006 and in another survey by natural (green) marketing institution, it was reported that over USD 200 billion market of lifestyle of health and sustainability (LOHAS) rose by 100% in 2010 and was expected to rise four times bigger by 2015 (Widger, 2007). Furthermore, Jose (2012) acknowledged that global market for green product marketing is expected to rise to USD 3.5 trillion by 2017 due to the alarming rise in awareness on environmental issues.

A good example of this is the growth in global baby food market which grows at the rate of 5% yearly (Quick Pulse Green Buying Survey, 2011). This exponential growth in green product market is reported only in some parts of the world, particularly in countries like Germany, Denmark, Sweden, Mexico, India, South Korean, Spanish, Chinese, Brazil and Russia in the last few years (Greendex, 2010; 2012; www.ecobuy.org.au; Synovate Survey, 2011). Further examples of this global consciousness is reported via a survey by Gallup in which 1,014 US consumers were used, and the result indicated that 76% of the respondents affirmed they looked for products which are better for the environment; 90% said they recycled, 28% are affiliated to political candidates who are environmentally concerned while 17% consult government officials on green issues (Morales, 2010).

Despite the increase of green purchase behaviour globally, in some developing countries this trend is quite new as some regions are still in the dark and low awareness about green products is an issue of concern. Relating it specifically to the Nigeria society, there is no record of significant impact of green product purchase as survey revealed that just 5% of Nigerians are engaged in green purchase behaviour

(Quick Pulse Green Buying, 2011). This is a worrisome situation especially in this environmental conscious era. Attesting to this, Olamiyu (2012) in an article titled “Preparing Nigerian Market for Green Products” opined that only those in the upper and upper-middle classes have started directing their brand choices towards green; and he further stressed that green is not yet a widespread phenomenon in Nigeria.

Nevertheless, Ubani (2012) traced the genesis of green marketing in Nigeria to the quest for green economy and linked this scenario to the launch of the National Policy on the Environment in the early 1990s. He stressed further that the policy had its loopholes as it failed to identify the strategies to be adopted in the implementation, advocacy and extenuation. Going by the recent report on the green agenda in African countries, South Africa, Kenya and Ghana tops the table when it comes to promote projects with environmental sustainability.

Nigeria therefore lags behind its counterparts as far as going green is concerned. Borrowing the words of a journalist, the researcher pens it that, no country in the world has a stronger case for green economic strategy than Nigeria with its multifaceted environmental problems (www.econigeria.com, www.unep.org/yeya). Green marketing is seldom talked about in Nigeria before now; the aspect of going green often emphasized in Nigeria is only related to energy supply. Green marketing is defined as activities undertaken by individuals and organisations concerned with environmental problems and thereby act and produce goods that are environmentally safe (Chen & Chai, 2010). Emphasis on this phenomenon can raise consumers’ purchase intention for green products (Chen, 2010) as long as the crusade continues. Green purchase intention explains a specific environmental friendly behavioural

intention disposition in buying by which consumers indicate their concern for the environment. Even though studies on green purchase intention have been conducted in different context, results cannot be generalized because of variations in cultural, socio- demographic, geographical setting and consumer behaviour complexity (Peattie, 1992). Reinforcing this, studies confirmed that demand and purchase behaviour towards environmental friendly products often differ on the basis of market and cultural factors (Elhan & Nabsiah, 2011; Ottman, 1992).

Consequently, the need for a study on green purchase intention in Nigeria is pertinent in order to examine the factors which affect green purchase intention using the theory of planned behaviour (TPB). The focal purpose for this study is to examine the factors which affect green purchase intention in Nigeria.

1.2 Problem Statement

This section discusses the research problems which are low level of green purchase intention, low environmental consciousness, weak government regulations, lack of green trust and limited studies on perceived behavioural control, environmental consciousness and green trust in green setting.

1.2.1 Low Level of Green Purchase Intention

The need for green purchase intention study in Nigeria is imperative because of the environmental dilapidation. Nigeria is beleaguered with numerous stupendous long standing problems. In a statement by the Nigerian Minister of Environment, she acknowledged that environmental problems have lingered in Nigeria due to none compliance to environmental laws by individuals and industries.

“Human activities and failure to adhere to regulations are responsible for the high level of environmental problems facing the country” Minister of Environment (2011).

Examples of such are problems the continuous occurrence of oil spillage which contaminates land and impacts negatively on the ecosystem by damaging large tracts of mangroves which are very sensitive and reactive to oil. Nigeria mangrove estimated to 5 to 10% has been destroyed either by oil (Okafor, 2011). Also, crops and aquacultures are affected through contamination of groundwater with oil and equally pollute the coastal environments which lead to decline in local fishing production which constitutes 80% of the protein food in the local communities (Ibaba, 2010). Roughly, 60% of these inhabitants depend on the polluted environment for their livelihood and other economic activities (Amnesty, 2009; Bassey, 2008; Baird, 2010; Okafor, 2011). This goes contrary to the concept of green marketing which advocates clean environment and pro-environmental conscious behaviour.

Furthermore, inadequate proper waste management scheme and control of industrial activities by the government has contributed greatly to the deep environmental problems in the country (Ugochekwu, 2011). Organisms from these wastes solid, liquid or gaseous tend to circulate bad and offensive odours in the atmosphere, damaging the aesthetic beauty of the environment, breeding insects and mosquitoes. The smoke also from the burning substances releases harmful toxic chemicals, ashes and cinder which have risk potentials to human health and the environment

(Adedibu, 1985; Alaaodura, 2006; Akande, 2008; Nwana, 2008; Ohakwe et al, 2011; Soyombo, 2008).

Although the presences of most diseases are highly linked to either biological organism, physical and mechanical, air borne, or other socio economic status of a society, improper waste disposal may fuel occurrence of some diseases such as lassa fever, plaque rat dermatitis, histoplasmosis; mosquito borne diseases like malaria, dengue fever, filariasis, helminthes infection like anklystomisis, enterobiasis, ascariasis (Environmental Health watch, 2011).

The increased rate of typhoid fever in Nigeria and other diseases like malaria, cholera outbreak and dysentery have been associated with unclean environment (Nwana, 2008; Aluko, 2010). These are all pointers to the fact that the country is in jeopardy of suffering large ecological and economic losses if these environmental challenges are not tamed and properly attended to (Aluko, 2010; Environmental Health watch, 2011).

The main reason for all of these is the slow adoption of green agenda and green marketing activities in Nigeria which has degenerated into a gross problem with different faces among which the low level of green purchase intention in Nigeria is one. Adopting the green agenda could lead to a shift to green behavioural intention whereby the society adopts green consumption behaviour, live a healthy lifestyle and have a clean work environment with natural and green foliage.

Evidences have shown the position of Nigeria when it comes to green purchase issues. Survey revealed that only 5% of Nigerians are engaged in green behaviour (Quick Pulse, 2011) and only the rich are conscious of their purchasing and consumption pattern for now in Nigeria (Olamiyu, 2012). The information on (Table 1.1) gives a vivid picture of the situation as compared to other countries.

Table 1.1

Green Purchase Behaviour by Region

Country	Area of Concern	Percentage
North American	Legitimacy of green products, Quality and Price	96%
Latin American	Quality and Legitimacy Price Natural Features Strong Brand Name Availability	96% 85% 50% 36% 76%
Pacific Rim	Strong Brand Name Availability	65% 48%
Europe (Turkey)	Quality Price	96% 80%
Russia, India, Central Asia	Natural Features Strong Brand Name	80% 63%
Nigeria	Nothing Specific	5%

Source: *Quick Pulse Survey, (2011)*.

With all these glaring consequences, it can be assumed that green concept has not been given serious considerations in policy implementation in Nigeria. The consumers' green behavioural intention is low compared to other regions of the world.

Previous studies on environmental issues indicated that Nigeria is plagued with environmental challenges and top most of these problems which have lingered on are have been aforementioned in the early discussion (Akapodigaga & Odjubo, 2010; Aluko, 2010; Bassey, 2008). Green purchase intention study is not given priority in the Nigeria context. There is need to create the consciousness for green among the Nigeria citizenry, activities that could have triggered a change in purchase behaviour in favour of green products is lacking.

An empirical investigation on the determinants of green purchase intention in Nigeria has been neglected and focus was more on waste disposal, oil spillage, pollution and flood (Anago 2002; Aluko, 2010; Bassey, 2008; Ohakwe, Nnorom & Iwueze, 2011). Thus, the level of green purchase intention was not determined nor is there empirical statistical data on green purchase to lay hold on any claim except for the global survey (Quick Pulse Green Buying, 2011).

1.2.2 Weak Enforcement of Government Regulation

The participation of government in drawing policies which are effective to encourage green behaviour cannot be overemphasized as this will certainly help in boosting green behavioural intentions. The success of environmental policies in most countries has been through the support of the government by putting stringent regulatory framework and enforcing such. The government of Nigeria though have such laws enacted however; the will power to back it up with supportive action is neglected (Adibe & Essagha, 1999; Baird, 2010; Olamiyu, 2012). Due to this, the Nigerian consumers are not motivated to green related issues as a collective practice. Regrettably, government regulations on the environment which should protect and

regulate the activities of companies, humans and other private sectors are not adequately enforced (Adibe & Essagha, 1999; Baird, 2010; Olamiyu, 2012).

The following quotations substantiate what has been explained:

“Nigerian regulations are weak and rarely enforced, allowing oil companies in essence to regulate their activities” (Baird, 2010).

“Although Regulatory Bodies at federal and local levels do exist to oversee Environmental issues it is a sad truth that these bodies and the policies they formulate in this regard lack the ability to police the environmental behaviour in the country” (Olamiyu, 2012).

“It is not surprising that neither industrial establishment nor agencies responsible for overseeing the industrial sector and government matters have the mechanism for monitoring and evaluating impacts of environmental pollution with a view to controlling and managing them” (Adibe & Essagha, 1999).

The Nigerian government in collaboration with the Economic Communities of West Africa States (ECOWAS) members develop a West African Climate Change Adaptation Strategy to come up with principal laws to regulate the environmental sector. One of such laws is the Environmental Standard and Regulation Enforcement and National Environmental Standards and Regulations Enforcement Agency (NESREA) Act, 2007. Unfortunately, industrial operations are apparently not guided by any environmental protection legislation. Though as seen above, they all exist but compliance and adherence are not monitored by the bodies, (Adibe & Essagha, 1999; Baird, 2010; Olamiyu, 2012).

Consequently, it has been noted with dismay that the level of commitment seems to be low compared to the degree of seriousness urgently needed to alleviate these problems; besides, the environmental regulations are flouted with no official authorizations to punish offenders (Bassey, 2013). The government of Nigeria has not put in place the necessary framework to tap the participation of citizens in green practices (Adibe & Essagha, 1999; Baird, 2010; Soyombo, 2010).

1.2.3 Low level of Environmental Consciousness

Despite the trend towards recycling of waste in the last few years, a consumer oriented society like Nigeria continues to generate huge amount of waste. These are dumped indiscriminately by individuals, government agencies and industries into rivers and streets in open sites; buried or burnt at the site they are disposed, most often around the residential areas. Eventually the air, environment and rivers which are the only source of portable water are polluted through liquid and solid toxic waste (Aluko, 2010; Anago, 2002; Soyombo, 2010).

In spite of pollution and global warming threats at domestic and international levels, it is a documented fact that there is the absence of environmental consciousness and environmental law enforcement in Nigeria to the point that organizations regulate their activities instead of the government (Baird, 2010). Furthermore, industrial establishments and agencies responsible for overseeing the industrial sector and government matters do not have the mechanism to monitor and evaluate impacts of environmental pollution in order to control and manage them (Adibe & Essagha, 1999).

The level of awareness on environmental issues in Nigeria and African at large is not adequate (Abari, 2008). Myung, McClare and Li (2012) further confirmed that only 5% of environmental research has been carried out in the entire African countries left alone in Nigeria. In spite of the awareness and sensitivity towards environmental issues across the globe, very few Nigerian consumers are informed of the need to be pro-environmental in their purchase behaviour. The green issue often mentioned and discussed in some developed and developing countries is just picking momentum in Nigeria (Olamiyu, 2012).

Globally, researchers on green issues have recorded a shift in the consumer buying behaviour to green purchase behaviour as a result of environmental apprehension (Manafi, Hooman, Hojabri & Borousan, 2011; Samarasinghe, 2012). The case of the Nigerian consumers is distinct because they are still at the initial stage of awareness of environmental problems (Nwafor, 2007; Ohakwe et al., 2011); the awareness level have not manifested to the degree to which it may influence purchase behaviour.

In another instance, to attest to the low level of environmental consciousness and awareness in Nigeria, the researcher draws from this quotation which indicates a recommendation for awareness campaign to be embarked on in Nigeria.

“Therefore, awareness and concern programs need to be created among people in order to make them willing to participant in any efforts aimed at controlling the rate of environmental deterioration such as recycling, ecological consumer goods, pay for environmentally friendlier goods and adoption of environmentally sustainable behaviour.”(Ohakwe et al., 2011).

The Nigerian consumers from the aforementioned lack sufficient consciousness about the environment which is expected to prompt a change in environmentally concerned direction. Besides, Abari (2008) described the level of awareness about global warming in Africa in general as being too low compared to its consequences.

The level of awareness in Nigeria therefore is inadequate as environmental consciousness and awareness means that the individual's logical sense is linked to different aspects of the environment and the level of action he/she adopts to protect the environment (Shabnam, 2013).

1.2.4 Lack of Trust on Green Products

Another problem which the writing of this thesis addresses is lack of trust on green products. This has often been associated with the quality and environmental performance of the product as acclaimed by the producers when compared with the conventional products; some consumers have double mind when it comes to purchasing green (Bonini & Oppenheim, 2008; Synovate, 2011; Quick Pulse Green Buying, 2011).

Consumers have contended with the issue of trust for green products; researchers across the globe have found out that consumers are becoming disenchanted and sceptical about green products, they not only doubt the quality of green products but also the greenness. This trend has been revealed by studies way back in 2007. An investigation for instance, by Terra Choice in 2007 in which they sampled 1,753 environmental product claims and found that all were false claims and misleading except one (Green Cone Consumer Track, 2011).

Accordingly, subsequent studies (King, 2012; Shelton, 2009) were conducted in line with this issue; the same result emerged as the percentage of such consumers increased year by year. People are uncertain on what to trust, so there's almost a 'buyers beware' attitude in the market when it comes to buying what is called "Green". Consumers feel they have to rely primarily on what they can read on the label, they want a trusted source for accreditation, one that is simple to understand (Shelton, 2009).

Closely following these studies, Kings (2012) also acknowledged that in a survey carried out in 2011; eight out of ten Americans do not believe companies are addressing all of their environmental impacts, consumers are getting more insight about products' environmental claims. He further stated that consumers want clear-cut messages which can aid them in decision making when it comes to green buying; survey have shown that 42% of Americans were already dispirited from buying because 27% say they no longer trust environmental claims by manufacturers of green products.

Trust however have been investigated in other contexts and was found to have significant influence on green purchase intention; this same variable has been proposed as direct determinant and also an intervening variable (Chen & Chang, 2012; Gupta & Dash, 2012; Ng & Paladino, 2009; Pornpratang et al., 2013; Paspalis, 2011; Rizwan et al., 2013). Although trust is one of the significant determinants of green purchase intention it is still a major bone of contention in the green setting as consumers are voicing out their discontent about the greenness of the products and

claims of the producers (Bonini & Oppenheim, 2008; Chen & Chang, 2012; Gupta & Dash, 2012; King, 2012; Paspalis, 2011; Pornpratang et al., 2013). This relationship has not been validated in the Nigeria context.

1.2.5 Limited Studies on the Mediating Effects of Perceived Behavioural

Control, Environmental Consciousness and Green Trust in Green

Studies on the mediating effects of perceived behavioural control, environmental consciousness and green trust as indicated from review of extant literature have not been empirically examined in the Nigerian context. Besides, studies which used these constructs as intervening variables came up with inconsistent findings. Environmental consciousness has been scarcely used in both direct and indirect relationships. However, Kim and Han (2010) investigated the mediating effect of environmental consciousness on the relationship between environmental concern, perceived customer effectiveness and green purchase intention. The findings showed that environmental consciousness mediated fully the relationship but had the weakest significance with green purchase intention amongst other variables that were. Nonetheless, this study does not consider any of the variables examined in their study.

Additionally, PBC has been mostly used as direct determinants of green purchase intention. Nevertheless, the mediation effect of PBC was investigated by a few studies (Giantari et al., 2013; Ng & Paladino, 2009). However, the mediation results were inconsistent for instance, Ng and Paladino (2009) found a negative result from their investigation on PBC, while another studies showed a positive result, though in non-green (Giantari et al., 2013).

Similarly, trust has been examined as a mediating variable (Giantari et al, 2013; Gupta & Dash, 2012; Pormpratang et al, 2013; Paspalis, 2011; Rizwan et al, 2013). They explored the mediation capacity of trust but could not produce full mediation, rather, partial effect (Chen & Chang, 2012; Gupta & Dash, 2012; Paspalis, 2011), while in the case of Terreggana et al. (2013), no mediation was established.

These however are limited when compared to the several direct relationship examined in this regard especially as mediation variables enhance relationship between two variables and explains why such relationships occur (Hair, Black, Babin & Anderson, 2010). The dissimilar findings reveals that results are still inconclusive and leaves a vacuum which needs to be filled by further investigation in order to establish the extent to which they exert mediating influence on the selected variables in relation to green purchase intention especially in Nigeria. Based on the research problems discussed, the research questions are aligned next.

In the meantime, Nigerian deep concern on the unsafe state of the environment is not holistic; equally, those engaged in climate change issues did not call for integration of these problems aforementioned into environmentally conscious behaviour and consumption pattern so as to stir the awareness among the public. Putting this in a few words, environmental advocates ignored a holistic approach to environmental problems especially in the Nigeria context.

Based on the above mentioned interrelated problems and current existing gap on empirical literature in Nigeria on determinants of green purchase intention; which is

an upshot of green marketing that emerged as a panacea on environmental problems, this study argues that greater efforts should be made to address the parlous state of the Nigerian environment by taking a holistic approach which this thesis is set to achieve.

The implication for Nigerians if issues remain as they are is the likelihood of the nation not to benefit from these opportunities, hence being exposed to environmental risks as the case is. The consequence of this is apparent on the wealth and health of the individuals and the nation, therefore the need to address the green adoption in Nigeria via this study on green purchase intention.

1.3 Research Questions

The present study attempts to examine reasons for the low purchase intention in Nigeria and to broaden the exponential knowledge and awareness on green product through the examination and analysis of the empirical model for this work. To do this, the following research questions are therefore articulated.

1. What are the factors (perceived behavioural control, environmental consciousness; trust, perceived green knowledge, government regulations, perceived value, price sensitivity and green availability) that affect green purchase intention in Nigeria?
2. What are the factors (environmental consciousness, perceived green knowledge, government regulations, green perceived value, price sensitivity and green availability) that affect perceived behavioural control in Nigeria?

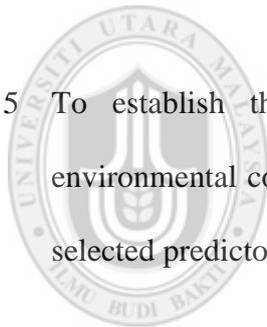
3. What are the factors (perceived value, price sensitivity and green availability) that affect the trust for green purchase intention in Nigeria?
4. What are the factors (perceived green knowledge, government regulations and green perceived value) that affect environmental consciousness among Nigerian consumers?
5. What are the mediating factors (perceived behavioural control, environmental consciousness and green trust) that influence the relationship between these determinants (perceived green knowledge, government regulations perceived value, price sensitivity and green availability) and green purchase intention?

1.5 Research Objectives

Essentially, this study seeks to ascertain the paramount determinants of green purchase intention in Nigeria and thereafter, employ the structural equation modelling analysis to investigate the extent to which the intervening variables (perceived behavioural control, environmental consciousness and green trust) exert influence on the relationship between the predictor and criterion variable. The following research objectives were meticulously put down.

1. To examine the determinants (perceived behavioural control, environmental consciousness, trust, perceived green knowledge, government regulations, perceived value, price sensitivity and green availability) which influence green purchase intention in Nigeria.

2. To investigate the determinants of perceived behavioural control (environmental consciousness, perceived green knowledge, government regulations, green perceived value, price sensitivity and green availability) among the Nigerian consumers.
3. To examine the factors (government regulations, green perceived value and perceived green knowledge) which affect environmental consciousness in Nigeria.
4. To establish the determinants (perceived value, price sensitivity and green availability) of green trust among consumers in Nigeria.
5. To establish the mediating effects of perceived behavioural control, environmental consciousness and green trust on the relationship between the selected predictors and green purchase intention.



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Table 1.2

Summary of Research Problems, Research Questions and Research Objectives

Research Problems	Research Questions	Research Objectives
Low level of green purchase intention	What are the factors (PBCL, ECC, GTST, PGKL, GPV, GPST, GRN & GAV) that affect green purchase intention in Nigeria?	To examine the determinants of green purchase intention in Nigeria.
Weak government regulations	What are the factors (ECC, PGKL, GRN, GPST & GAV) that affect perceived behavioural control in Nigeria?	To investigate the determinants of perceived behavioural control among consumers in Nigeria.
Lack of environmental consciousness	What are the factors (GRN, PGKL & GPV) that affect environmental consciousness in Nigeria?	To establish the determinants of environmental consciousness in Nigeria
Lack of Trust	What the factors (GPV, GPST & GAV) that influence trust for green products in Nigeria?	To establish the determinants of green trust in green in Nigeria.
Limited study on mediation in green in Nigeria	What are the mediating factors (PBC, ECC & GTST) that influence the relationship between the determinants and green purchase intention?	To establish the mediating effects of perceived behavioural control, environmental consciousness and green trust on the selected variables with green purchase intention

1.6 Significance of the Research

The significance of the research cannot be overemphasized; any effort made on green marketing issues is seen as a solution to environmental problems, it is a step taken towards solving the global warming endemic threat. This study is immensely significant to the following category of people.

1.6.1 Government

The upshot will engender the implementation of environmental strategies and possibly induce the government to adopt a measure which will ensure drastic compliance with environmental policies. According to Karna, Hansen and Juslin (2003), environmental issues are solely considered as the responsibility of the government. Furthermore, they opined that proactive marketing strategies and government support can assist in building environmental sustainability.

The model used in this study certainly will heighten adoption of green purchase intention in the green agenda of Nigeria. The government through this could initiate and support environmental activities which may stimulate green consumption and ultimately increase the formation of green purchase intention.

1.6.2 Practitioners

Kinoti (2012) acclaimed that organizations that wish to succeed in this era would definitely have to reorganize, restructure and redesign most of their process and systems. In line with this statement the study becomes pertinent to practitioners in order to enjoy competitive advantage in businesses. Repeatedly, researchers have declared that consumers have lost trust and are skeptical about green because most times, what appeared to be green have often proved to be a kiss of death (Bonini & Oppenheim, 2008). There is the need for organizations to take consumers through the whole process of purchasing the products; making them aware of the product, informing them of the pros and cons, and convincingly, make them see the need to be willing to pay for green products.

1.6.3 Academicians

Considerably, this study will indicate the direct and indirect influence of the determinants of green purchase intention and this will significantly enhance green literatures. Thus, it will indicate the direction of relationship which eventually will clear the beclouded issue on inconsistencies in prior findings and fragmentation in models.

The existing literature in green marketing and green purchase intention will be boosted significantly in a new dimension since the study will close the existing gaps of scanty literature in Nigeria. Additionally, considering perceived behavioural control, environmental consciousness and green trust as mediating variables which were sparsely done in previous studies in green purchase intention will actually explain in explicit terms their level of influence on the relationship between the independent and the dependent variables.

Again, the review of extant literature somehow failed to reveal mediating relationship between government regulations and environmental consciousness, perceived value and environmental consciousness, green availability, price sensitivity and green trust. This study by incorporating these variables will enrich green literature with its outcome after the mediating influence of these variables is tested.

1.6.4 Consumers

Consumers and the Nigerian populaces in general will be adequately informed about green products; in addition, it will enlighten consumers on the value of green

products. Increased in their level of knowledge of green will enable the consumers to make better decisions in their purchases and also in favour or disfavour of companies who contribute to societal well-being or not. This will be a stepping stone to improve their green purchase intention. Moreover, some consumers are still in the dark concerning green products especially in Nigeria (Olamiyu, 2012). The study will unveil the glory in green products and consequently, a positive directional change in behaviour towards green products will be achieved.

1.6.5 Methodology

The quantitative method of analysis adopted in this study will provide empirical finding based on the fact that the present study seeks to ascertain reasons which has hampered the formation of purchase intention for green products in Nigeria. Moreover, the use of mediating variables in this particular study and the outcome from analysis by the use of SEM as the methodological contribution will provide directions and validation of existing instruments used to measure constructs adapted. This study therefore becomes invaluable especially with the Nigerian situation on green issues as a recapitulation of the discussions in the background will remind us of the ugly sites of environmental problems in Nigeria. In addition, this may foster the interest in green issues and attenuate environmental problems.

1.7 Scope of the Study

The scope of this study is limited to three universities in Abuja in the federal capital city of Nigeria and situated in North Central zone. These represent the green consumers as the unit of analysis (Adomi, Ayoa & Nakpodia, 2013; Bwalya, Plessis & Rensleigh, 2014; Qader & Zainuddin, 2010). The reason for choosing this sample

to be investigated is due to the fact that the researcher believes there could be effective response from the sample because of their exposure to green marketing awareness at individual level. Additionally, the university staffs are made up of strata which have variations in income and status. This reflects that the industry selected is the education industry while consumers are the main unit of analysis.

Theoretically, this research work is essentially focused on green purchase intention as the dependent while perceived green knowledge, perceived value, green price sensitivity, government regulation and green availability are the independent variables are. The mediating constructs are perceived behavioural control, environmental consciousness and green trust. The study leans on the underpinning theory of planned behaviour (TPB) and uses Structural Equation Modelling to analyse the variables.

1.8 Chapter outline of the Study

In the course of writing this research, the entire work will be organized into six segments; they are explained below respectively. The first chapter presents the following sub-topics: general introduction, background and statement of problems. The research questions and objectives, research significance, justification and scope of the study are all discussed under this chapter; the chapter closes with organization of the research and the summary. The second chapter focuses on introduction, purchase intention background, the underpinning theory along with the review of past literatures on green purchase intention.

The research framework and the development of the hypotheses are presented in the third chapter. Furthermore, the fourth chapter covers the methodology; explaining the research design, population and the sampling frame for the study, measurement items, method of data analysis are elaborated under this chapter. Analysis of data which have been gathered via the instrument mentioned is the main focus of this chapter five.

Moreover, editing and entering of data, screening for missing data values, normality and treatment of data using statistical package for social sciences (SPSS) software, Analysis of Moment Structures (AMOS) and Structural Equation Model (SEM) statistical technique were used to analyse the data. Lastly, chapter six of the study includes introduction, discussion on data findings, contributions and recommendations or implication. Possible limitations of the study and suggestions for future researchers will be embedded into this section. The summary of chapter one is presented in Figure 1.1

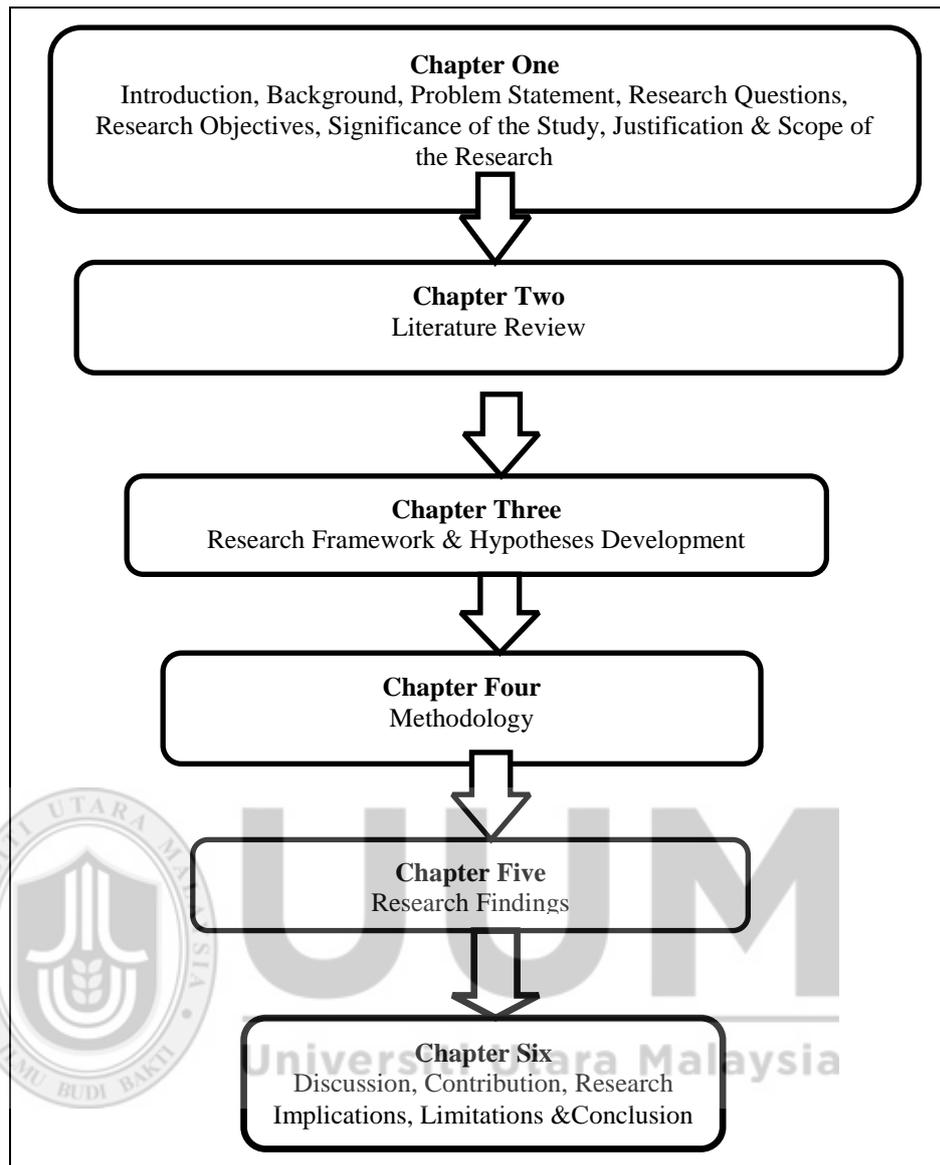


Figure 1.1 *Chapter Plan of the Study*

1.9 Summary of Chapter

In summary, the chapter presented the research, background which highlighted the motivation for the study, bringing to light issues such as environmental problems which have stirred up a concern and deep consciousness in consumers purchase behaviour. Consequently, this led to the demand for green product growth and subsequently the increase in green product market. Unfortunately, this trend have not been experienced in Nigerian as survey (Quick Pulse, 2011) indicated that just 5% Nigerians are explained to have manifested green consciousness in their purchase

behaviour. Coupled with this are the research problems which are low level of purchase intention, lack of environmental consciousness, weak government regulations, issues of trust towards green products. Based on this the study identified five research questions and objectives. It also reflects the significance of the study and finally presents the description of the six chapters of the study.



CHAPTER TWO

LITERATURE REVIEW

2.0 Preambles

This chapter presents discussions on various sub-topics pertaining to the extant literature which opens with the background of green purchase intention, a brief overview of Nigeria and discusses the history of green marketing. This is preceded by the underpinning theory and consequently the determinants of green purchase intention as reviewed in previous literatures related to this study and green purchase models which were emulated in selecting the variables adopted for this framework. These are perceived behavioural control, environmental consciousness, green trust, perceived green knowledge, perceived value, green price, government regulations and green availability. Thereafter, the study advances further to consider the mediating effects of perceived behavioural control, environmental consciousness and green trust on the relationship between green intention and the variables mentioned above.

2.1 Green Purchase Intention (GPI)

The aim of this sub-section is to explain green purchase intention which is the dependent variable for this study. Green purchase intention is a specific environmental friendly action portrayed by the consumer indicating that they have a concern for the environment. The purchase intention is a fundamental factor which could predict the consumer behaviour (Ajzen & Fishbein, 1975); it also reveals the possibility that a person is willing to buy a certain product in given future time. While Bagozzi (1983) suggested that a wilful state of mind in which the person

makes a choice or a statement for a future course of action. It is a very significant factor which serves as proxy to actual purchase, (Ramayah, Lee & Mohammed, 2010).

Likewise, Fishbein and Ajzen (1975) explained that the intention is a subjective likelihood about a person's estimation on how he/she will carry out a specific behaviour. This notwithstanding, consumer's intention however is totally under his or her volition and thus the consumer may use the information in a systematically organised manner and make decisions which are based on the outcome of the action taken (Dodd & Supa, 2011; Mei et al., 2012).

These definitions all have similar key variable in their content, denoting a common view. Fishbein and Ajzen (1975) talked about subjective likelihood, Bagozzi (1983) points out wilfulness to make a choice; Wu et al. (2013) also mentioned wilfulness. All authors have the same opinion of intention and linked it to future action of the consumer to be involved in particular behaviour.

Nonetheless, Ajzen (2002) elucidated further that behavioural intentions reveal human activities that are guided by three different types of considerations which are (1) behavioural belief: associated with beliefs about the likely outcomes of behaviour and the evaluation of the results by consumer, (2) normative belief: deals with the expectations of others and the desire to comply with expectations of others and (3) control belief: explains the presence of factors which could enhance or inhibit the carrying out of certain behaviour and the control power of such factors over the individual consumer.

Therefore, bringing these definitions together we therefore posit that green purchase intention is the wilful state of mind indicating that there is the possibility that environmentally concerned individual will have the purchase intention for the green product in a given future time. The concept of green purchase intention in this study is explained as the possibility and willingness of an individual to give preference to brands of products, services or houses which have environmentally safe characteristics in their purchase decision.

Studies on green purchase intention showed that intention is an influential predictor of green purchase behaviour because the purchase intention strongly affects the likelihood of decision to buy the product (Chen, 2010). Moreover, the theory of planned behaviour by Ajzen (1991) explained that green purchase intention is a crucial element in ascertaining the real or actual buying behaviour of an individual. The higher the intention of a person towards green product, there is the probability that such a one would buy the product.

In the meantime, past studies revealed that consumers who have high level of concern for the environment and are not sceptical about green products tend to portray positive attitude, norms and high degree of perceived behavioural controls (Albayrak, Aksoy & Caber, 2013). In affirmation to this, researchers who examined this variable have proved that it exerts strong and significant influence on actual purchase of green; this buttressed the fact that someone with positive intention is likely to go for the green product when compared with a person with low intentions (Ali, Khan, Ahmad & Shahzad, 2011).

This notwithstanding, the outcome of these studies cannot be globally generalized due to cultural, socio-economic, psychological and other factors which vary from region to region (Rahbar & Wahid, 2011). Kotler (2004) also opined that demands and attitudes of consumers towards green products cannot be the same globally because of differences in culture and market factors. Equally significant here is the level of consciousness and awareness about the environmental problem. The extent to which it has been stirred up in different parts of the globe can determine the level of intention conceived by the individual or the people in such community.

In this wise, it is obvious that the degree of concern ascertained in an individual or group elucidates the extent to which awareness and consciousness are aroused. This also portrays the willingness to participate in activities aimed at reducing environmental problems either at individual or group level. Intention thus, is the main point/pivot on which behaviour revolves. Ajzen (1991) further stated that it captures the motivational factors which impacts behaviour.

Even though green products have grown exponentially in recent times, this phenomenon is still new in Nigeria. Consumer purchase behaviour is yet to be redirected towards green products. Therefore, based on the notion that intention has been explained to mean subjective judgment of how the individual will behave in the future; thus, providing a connection between the consumer and the product to be purchased (Ajzen & Madden, 1986). Consequently, this study proposes that intention to purchase green product might be influenced by the variables under study. Although our study does not measure actual purchase behaviour for lack of statistical data on actual green purchase in Nigeria, we hope that the intention to purchase green

product will explain the actual purchase behaviour. Consequently, purchase intention will be examined via five independent variables (perceived green knowledge, perceived value, government regulations, price sensitivity and green availability) and three mediating variables (perceived behavioural control, environmental consciousness and green trust).

2.2 Green Product

Green product although is vague and denote different things to different people, one of its encompassing definitions is that it has ecological features, political, have corporate social responsiveness, fair trade, conservation, non-profit, new-consumerism, sustainability and equity (Dangelico & Pontrandolfo, 2010). From the consumers' point of view, Ottman (1992) opined that consumer accepts product to be green only if their needs for performance, quality, convenience and affordability were met and they presume that the product can help to solve their environmental problems.

Therefore, consumers will often view green products as those with minimal negative impact on the environment. With this in mind, it is significant to note that harmful contents of a product becomes one of the factors which may inhibit purchase decisions in any given circumstance for environmentally conscious consumers. Therefore, no consumer product has zero negative consequences on the environment (Othman, 2006). The word 'green product' is usually used to explain those products which strive to protect or conserve the natural resources, reducing or eliminating the

use of toxic substance, pollution and waste (Ottman, 2006, cited in Gunawardena, 2012). Examples of such products are shown in Figure 2.1.

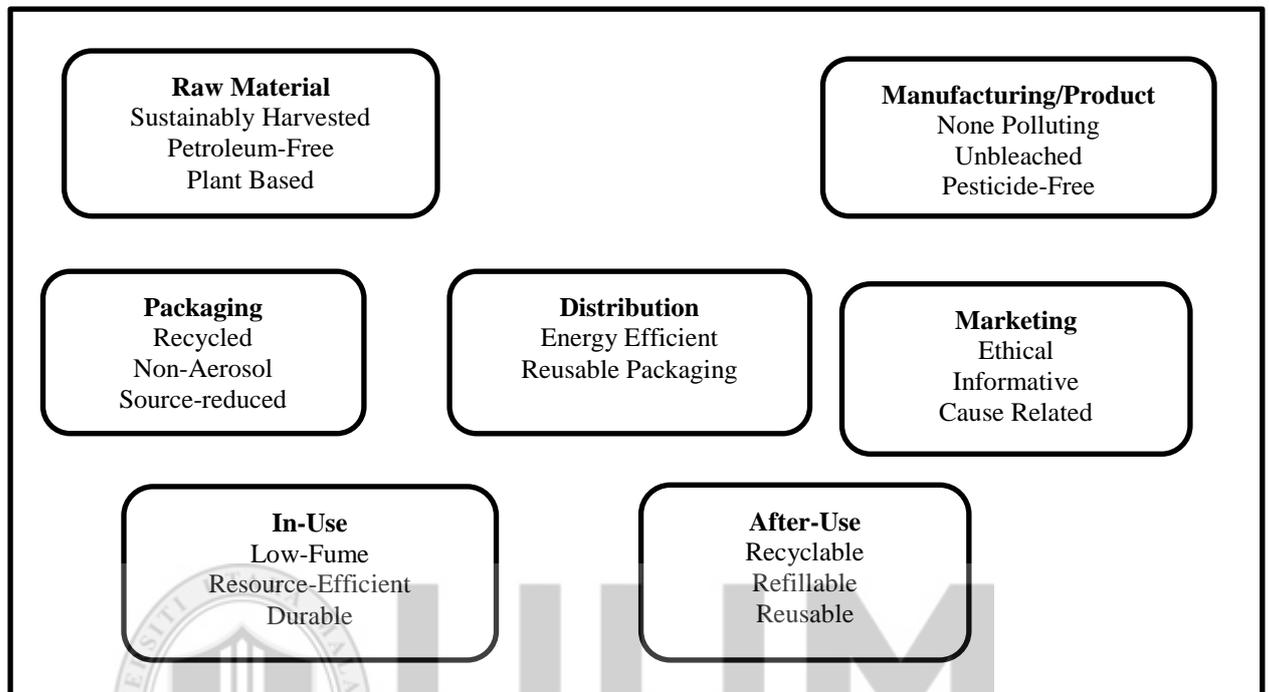


Figure 2.1 *Green Products Types (Othman, 2006)*

Following the drastic change in consumer awareness towards green products, a demand has been placed on businesses to create products which should provide greater ecological benefits and impose minimal damage and environmental cost than traditional brands of the same products (green). Consumers these days want to purchase more responsible environmental products due to the unprecedented rise in concern towards different types of environmental problems, but in spite of this burning desire towards green products, the consumers are still sceptical about green label, certification and advertising (King, 2012).

Considering all that have been said, it may be posited that consumers have a great aspiration that all products offered should be ecologically sound without the need to sacrifice the product quality. The green consumers will not step down on product quality. Thus, organizations need to build on product quality as well as taking into cognizance the environmental benefits (D'Souza, Taghian & Lamb, 2006).

Besides, Ali, Khan, Ahmed and Shahzad (2011) argued that environmental concerns are not the main reasons for which consumers buy environmental friendly products and also, do not trade a better environment for other products attributes. That product features like brand, price and quality are still top most reasons for their purchase decision (Gan, Wee, Ozanne & Kao, 2008). This shows that most consumers will not forgo vital benefits derived from buying and consuming a product, as such green products must compete effectively in the market place.

Even though the environment and consumer health could be the underlying reason for green product, this may not be the sole reason why consumers may choose company's brand over those of competitors (Ottman, 2011). The knowledge of the greenness of the product can be an influencing factor in all aspects of buying process of the consumer (Gosavi, 2013).

It is therefore, pertinent for producers to offer ecological products which do not contaminate the environment, but can also protect and if possible, liquidate the already existing environmental damages. Henceforth, encouraging and promoting environmental responsible consumption behaviour like the purchasing of green products will reduce the direct and indirect impacts of individual consumption on

environmental degradation, especially with the population explosion which leads to increased urbanization and changing lifestyle in Nigeria. Awareness of green product gives importance to green marketing concept which is discussed next.

2.3 Green Marketing

Several definitions of green marketing have emerged since the birth of the concept; but a more current definition is that activities are made to create products and services, promoting them to satisfy customers who prefer products of quality, performance and convenience at an affordable cost and which at the same time have no negative consequences on the environment (Mishra & Sharma, 2012). This author shares the same heart beat with Polonsky (1994) as he contended that green marketing is activities aimed at generating and facilitating exchanges to satisfy human wants and needs should be carried out with minimal detrimental impact on the environment and the occupants.

Green marketing first started in 1962 when Carson's monumental book on the harmful effects of the pesticides, dichloro-diphenol-trichlorethane (DDT) sparked off the wave of environmental concern in the United States which lasted until the 70s. Thus, in 1970, the idea of green marketing was celebrated as the Earth's day (Henion & Kinnear, 1976). It was within this time that environmental legislation stemmed from concerns raised by people, and this ushered in the concept of ecological marketing. In 1975, the American Marketing Association (AMA) held its virgin workshop on ecological marketing and Henion & Kinnear (1976) published their first book Eco-Marketing. Since then green marketing continued to gain acceptance and

popularity as a result of concern on climate change; this nevertheless went through three stages to get to this level of prominence (Figure 2.2).

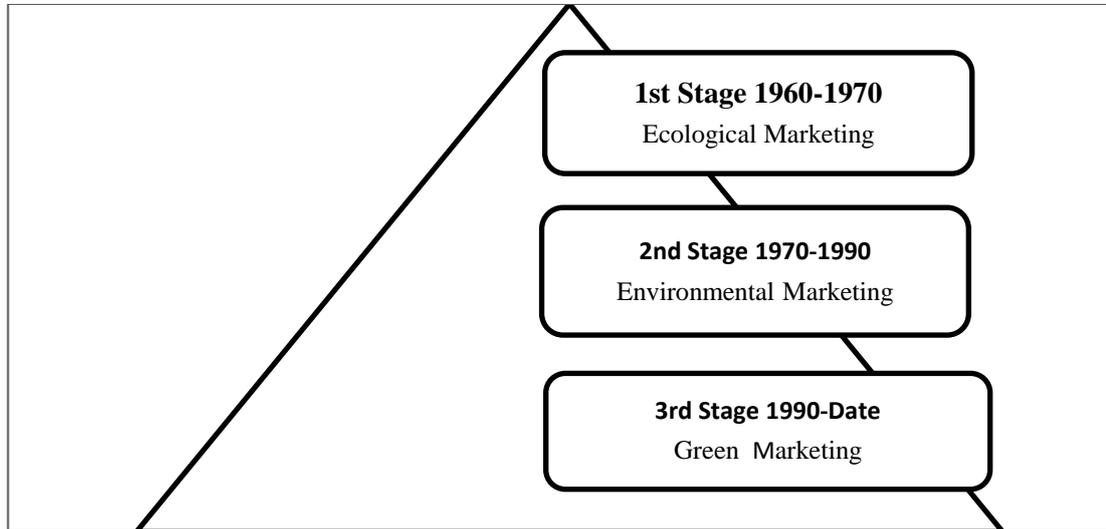


Figure 2.2
Stages in Green Marketing History

The first stage was referred to as ecological marketing and activities in this era were focused on how to help the environment and to solve environmental problems. This concept gained first eminence late 1980s and 1990s after the proceedings of the AMA workshop.

The second stage surfaced within the year 1990 focusing on the need to drift from ecological to clean technology. This involved the designing of innovative new products which can take care of pollution and waste issues (Alam, Almotairi & Gaadar, 2012). This phase was named environmental marketing, signifying high and hopeful predictions concerning the emergence of a “Green Tide” of consumers and new products (Vandermerwe & Oliff, 1990).

Unfortunately, this hope was dashed as it was significantly a failure. The forecast made did not materialise. Consumers were disenchanted as most of the newly launched products by the proponents of green products left the market sooner. The rapid growth of such products suddenly declined and to worsen the situation, the firms were reluctant in carrying out promotion for fear of being labelled “green washers”.

Consequently, the third stage swept through the entire world as a result of the fears of global warming, loss of the earth’s protective ozone layer, destruction of tropical rain forests and changing perceptions of mankind’s place in the world. This stage was referred to “*Green Marketing*,” the most radical approach which seeks to meet the full environmental cost of production and consumption to create sustainability (Peattie 2001). This period began in 1990-2000 and have already created a global concern for environmental quality. Since then, green marketing concept has been used interchangeably with ecological marketing, environmental and sustainability marketing to describe similar activities (Coddington, 1994; Polonsky, 1994).

In the light of the aforesaid, green marketing therefore, is the utmost need of this hour and not just another approach to societal issues. What distinguishes the concept from other societal talks is that it advocates for a concrete environmental norms to be established in order to curb global and national ecological problems and promote green consumption patterns which will engender green lifestyle in a given society.

2.4 Underpinning Theory

The Theory of Planned Behaviour (TPB) was developed from the theory of reasoned action (TRA) originally propounded by Fishbein and Ajzen (1975). The behavioural change theory is an impetus to understand why behaviours crop up or come about and suggest ways on how acquired knowledge can be converted into long-standing behavioural change (Kollmuss & Agyeman, 2002).

Theory of reasoned action suggested that people assess behaviour as positive (attitude) and whereby they think important people to them want them to carry out the behaviour (subjective norm); this in turn leads to higher intention (motivations) and present likelihood to perform the behaviour. There is a strong correlation between attitudes, subjective norms and behavioural intention and to behaviour subsequently.

In TRA, the individual takes into considerations the outcome (in terms of benefit sought) of the behaviour before the enactment; thus, the inclusion of a new variable “Perceived Behavioural Control” (PBC) in the TRA model and is referred to as the Theory Planned Behaviour.

2.4.1 Theory of Planned Behaviour Model

The TPB model could explain better why an individual may change his or her current behaviour to suit more trendy circumstances such as green purchase intention. It proposes that the occurrence of actual behaviour performance is relative to the level of control the individual possesses over the behaviour and the potency of the individual’s intention in carrying out the desired behaviour.

This study adopts the TPB by Ajzen (1991) due to several reasons. Firstly, it has been widely used and accepted in attitude – behaviour relationship (Eagly & Chaikin, 1998; Olson & Zanna, 1993; Sheppard, Hartwick & Warshaw, 1988). Secondly, studies have proved that it has a good predictive validity based on the analytical support derived from their studies by adopting TPB in SEM analysis (Armitage & Conner, 1999). The theory will be used to test the conceptual framework of this study in order to boost the research work by using the statistical tool called Structural Equation Modelling (SEM). The third reason is that the TPB model has constructs that link between beliefs and behaviour which may positively or negatively affect an individual’s formation of green purchase intention. For a more vivid understanding of these constructs, they are presented diagrammatically and elucidated in Figure 2.3.

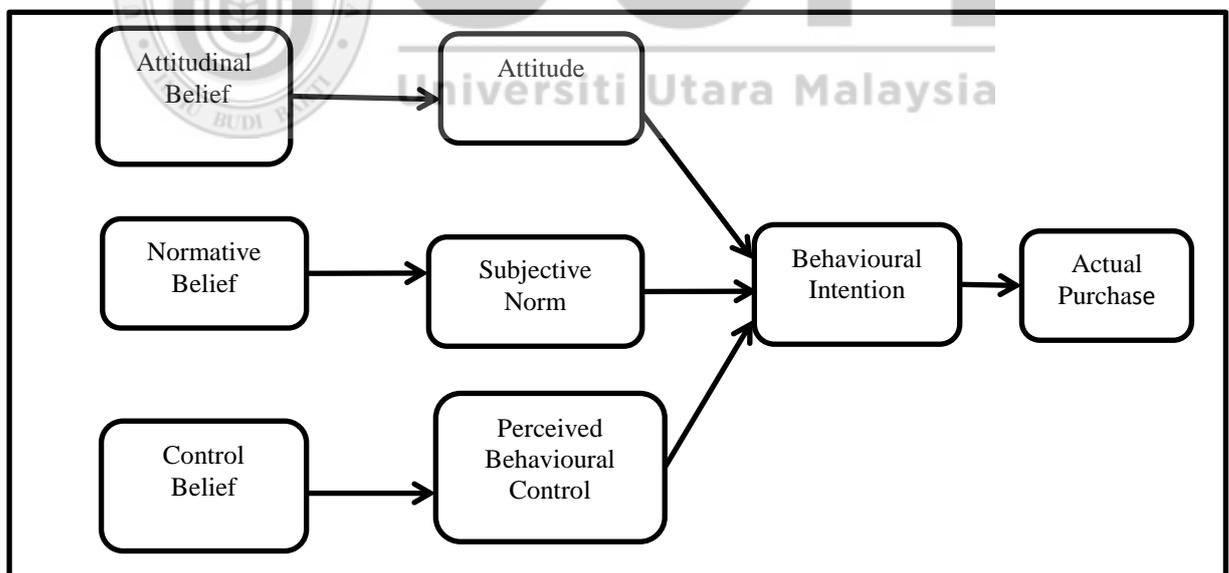


Figure 2.3

Theory of Planned Behaviour Model (Ajzen, 1991)

2.4.2 Constructs of TPB

This sub-section aims at explaining the constructs which the theory of planned behaviour consists of as well as shedding more light on their interaction and how they explain the human behaviour. These constructs consists of attitude, attitudinal beliefs, subjective norms, normative beliefs, perceived behavioural control and control beliefs.

2.4.2.1 Attitude

The individual's attitude towards the purchase or consumption of a certain product goes a long way to forecast and indicate why the individual chooses that product or service among others. It is one's outstanding belief about behaviour, the notion about attitude is that an individual believes that a particular behaviour result to a definite outcome and also that a person will make a general assessment of the results in a positive or negative way (Ajzen, 1991).

Individuals who have a commitment towards the environment and have the feeling of personal responsibility with moral obligation to contribute to activity intended to remedy the environment will have a positive attitude towards green product and green purchase intention. By the indication of an attitude, the intention towards green purchase intention can be predicted because attitude is the psychological construct that proves the enthusiasm of the person to act or decline from a behaviour.

Therefore, it is fundamental to note that the stronger and more favourable an attitude is towards behaviour, the clearer it becomes that there is the intention to carry out the behaviour as long as the person envisage the benefits associated with making such

purchase. Thus, consumers' attitude can be influenced to achieve the overall shift by pointing out the positive inherent benefits of indulging in green purchase. Fundamentally, the green attributes in products or services should be spelt out clearly and convincingly attractive.

2.4.2.2 Attitudinal Belief

These associates with beliefs about the likely outcomes of behaviour and the evaluation of the outcomes gained or skipped by consumer which is strengthened through increased evaluation related to the belief.

2.4.2.3 Subjective Norms

This depicts the idea of how people who are more important in life perceive that they should exhibit a certain kind of behaviour and the motive behind such behaviour (Ajzen & Fishbein, 1980). The individual's impression about the specific behaviour influenced by the views of other people or objects significant to them describes the concept of subjective norms. They could be the immediate reference group, either primary, aspiration or secondary.

These social influences are pressures which can cause an individual to perform or not to perform a given behaviour because of the importance they assign to their perception on the behaviour. The notion on whether to complete a behaviour or not solely depends on whether the salient referent wants the individual to act or not act.

Purchasing intention, therefore, can strongly be influenced by the perception of others on the individual, especially the immediate reference group.

Subjective norm is based on salient beliefs referred to as normative beliefs about whether a particular referent thinks the respondent should or not carry out the specific behaviour. It is initiated by the craving to act as others think you should and not because you think you should act that way. Thus, intention to purchase green product by the consumer may have to be influenced by the messages from environmental pressure groups who claim that packaging and product can adversely affect the environment positively or negatively.

2.4.2.4 Normative belief

Normative belief deals with the expectations of others and the desire to comply with expectations of others. It is the likelihood that people or group who are important to one might support or disagree with one forming a behavioural intention. Normative belief strength is fuelled by a person's increased motivation to comply with such important persons.

2.4.2.5 Perceived Behavioural Control

The construct denotes the individual's view on the degree to which he or she can carry out a stipulated behaviour (Ajzen, 1991). The beliefs about how the consumer or the individual accesses resources such as the ability, skills and acquired knowledge and given the opportunities required to perform certain action or behaviour (Taylor & Todd, 1995). The behaviour of an individual is basically determined by the confidence that the person has reposed on him/herself to carry out

such behaviour. Most often, people's behaviours are influenced significantly by their confidence in the ability to perform the behaviour.

Accordingly, other factors aside individual control which might influence human behaviour are facilitating factors like the content of opportunity, resources and or action control (Triandis, 1977). Lindenberg and Steg (2007) asserted that behavioural control construct is the consumer's perception of the limit to which he can perform a distinct activity and the level of confidence he displays in performing the task or behaviour successfully. Given that the individual accesses the resources to undertake the action with ease, then the intention to perform that behaviour will be higher.

Besides, Barr, Gilg and Shaw (2006) suggested that those who are committed to environmental issues are more inclined and willing to display an environmental friendly behaviour because they perceive that it is easy and convenient. Elucidating further on perceived behavioural control, they proposed that prominent factors which make up the PBC component are internal and external. The internal factors are requisite skills, confidence, ability and adequate planning to perform the behaviour (Kidwell & Jewell, 2003). This is, however liken to the concept of self- efficacy in Bandura (1991).

On the other hand, the external factor reflects the concept of facilitating conditions which involve the state of the actor and any environmental situations which makes the act easy or difficult to perform (Triandis, 1977). The factors (internal or external) which are most likely to influence behaviour will be more frequent and strong; if that occurs, then there is the tendency that the individual has the intention to perform the

behaviour. In the absence of any inhibiting factor, repeated behaviour which discloses an intention will obviously lead to green purchase intention.

2.4.2.6 Control belief

Explains the individual's belief concerning the presence of factors which could enhance or inhibit the carrying out of certain behaviour and the control power of such factors over such a one (Ajzen, 2001).

2.4.3 Theory of Planned Behaviour Applied In Green Purchase Intention

Studies

This theory has been used in several studies of green purchase intention and was successful in predicting the intention to perform behaviour. In the study conducted by Tan (2013), the theory was applied to measure Malaysian green and sustainable homebuyer's intention. The model was extended to capture self-identity; the result showed that by the extension that TPB can improve the ability to predict intention to adopt green practices (Table 2.1).

Furthermore, Rezai, Teng, Mohammed and Shamsudin (2012) authenticated the validity of TPB in predicting the consumption intention towards green foods. Their result explained that attitude, subjective norm and perceived behavioural control contribute to create awareness and more consciousness about green products. In addition to the aforesaid, Sadati and Mohammadi (2012) affirmed from their investigation of 154 consumers in Iran to determine the main values that affect consumer's intention towards organic food. The result showed that the goodness of fit model shows high predictive power of TPB constructs; explaining further that

behavioural intention is predicted by attitude, while attitude, subjective norm and perceived behavioural control are predicted by behavioural beliefs, normative beliefs and control beliefs.

Additionally, Zhen and Mansori (2012) investigated motivation for purchase of organic food among young female in Malaysia applying the TPB theory. They suggested that acceptability, awareness and affordability are factors which significantly influence purchase intention of the consumers. Moreover, Lien et al, (2012) concluded in their study to find out what determines green consumption cognition of behavioural intention of consumers in restaurants and behavioural intention was significantly influenced by the TPB constructs namely; consumption attitude, green subjective norm and perceived behavioural control.

In another research by Mahesh and Ganapathi (2012), the TPB was employed to study what influences consumer' socio-economic characteristics and attitude towards green product purchase and the result indicated that the intention to buy green product was influenced by attitude, subjective norm and perceived behavioural control.

Expounding further on the application of theory of planned behaviour in green purchase intention, it is worthwhile to mention that Numraktrankul et al. (2011) examined factors which affect purchase of green house. Subjective norm was found to be the most influential factor in predicting intention to purchase green house, though attitude was found to be significant but the coefficient was not as high as subjective norms; perceived behavioural control was equally significant. Besides,

Maya, Lopez and Munuera (2011) studied organic food consumption in Europe using the theory of planned behaviour; they established that the model gives a good fit to the data and exerts strong and significant influence on purchase intention on the countries which were tested, namely, Denmark, Finland, Germany, Greece, Italy, Spain, Sweden and UK; but influential amongst the constructs was subjective norm.

In the same vein, Kim and Chang (2011) examined purchase intention for organic personal care products on 207 online panel members. They avowed that TPB positively affect the intention to purchase organic personal care product while past experience with organic products also affect the intention of the individuals to purchase organic care products.

Still looking at studies in green purchase intention which applied TPB model to carry out their investigations, the work of Wu and Teng (2011) presented that the model is significant in understanding behavioural intentions in visiting hotel and concluded that attitude, subject norm and perceived behavioural control affect positively, consumers intention to visit hotels. Also, Qader and Zainuddin (2010) looked at how media exposure impacts intention to purchase green electronic products amongst lectures. TPB supported the result of the study by showing that media exposure positively impacts purchase intention and further suggested that purchase intention which is correlated with motivational part of the theory includes information about behaviour; thus motivation will lead to performing the behaviour.

Lastly, Ng and Paladino (2009) confirmed that TPB is reliable influential predictive framework to examine the motivational factors in the purchase of eco-friendly

electronics. This they deduced based on their examination of factors which affect intention to buy green mobiles among Australian young consumer (Table 2.1).

Table2.1

Theory of Planned Behaviour Applied in Green Purchase Intention Studies

Author	Samples	Constructs	Comments/Results
Tan(2013)	252 potential homebuyers	Intention, Attitude, Subjective norm, Perceived behavioural control and Self identity	The result indicated that TPB can improve the ability to predict intention; also that the interrelation amongst psychosocial variables are vital extension of TPB to predict intention to buy green products.
Sadati & Mohammed (2012)	154 consumers	Intent, Attitude, Subjective norm and Perceived behavioural control	The study suggested that there was model fit between research model and empirical data; result sustained TPB.
Zhen & Mansori (2012)	144 female consumers	Intention to purchase products, Acceptability, Affordability, Availability, Awareness, consumer innovativeness.	The model explained the strength of TPB in expressing the positive influence of acceptability, awareness and affordability in influencing purchase intention
Maya, Lopez & Munuera (2011)	8014 consumer	Intention to buy Attitude, Subjective norms and Perceived behavioural values.	Subjective norm was the main underlying driving factor of consumer behaviour. Overall, model goodness was fit.
Kim & Chung(2011)	207 online panel	Intention to buy organic skin care Attitude, Subjective norm, Perceived behavioural control , Past experience with organic products , Consumer values.	TPB correlates with purchase intention while past experience positively affects intention.
Wu & Teng (2011)	250 consumers	Behavioural Intention, Attitude, Subjective norm, PBC, Past behaviour.	TPB was found to be vital in understanding behavioural intentions

Cont'd Author	Sample	Constructs	Comments/Results
Qader & Zainuddin (2011)	170 lectures	Purchase intention, Media exposure, safety and health concern, perceived government legislation, efficacy/environmental attitude.	TPB supported the result of the study by showing that media exposure significantly influenced purchase intention; purchase intention is correlated with motivational part of the theory which leads to motivation in performing the behaviour.
Ng & Paladino (2009)	175 undergraduates	Intention to buy green mobiles, Subjective norms (friends), Subjective norm (experts), Attitudes towards green mobiles, Perceived behavioural control, Environmental concern, Altruism, Risk aversion, Price consciousness, Involvement, Perceived brand parity, Perceived brand trust, Objective knowledge, Subjective knowledge, Knowledge of Action.	TPB was found to be reliable influential framework which be used to examine the factors which motivate purchase intentions of eco-friendly electronic products.

2.4.3.1 Justification for adopting Theory of Planned Behaviour

The theory is chosen to provide the theoretical framework for this study because of its potency in predicting consumers' behaviour though the main focus of this study is to predict purchase intention. This has been occasioned by the absence of statistical data to show actual behaviour on green purchase in the context of this study.

The TPB model has been widely used in social science studies to explain specific consumer behaviour in certain environment and the outcomes indicated that it has a high predictive capacity of factors which may influence intention (Table 2.1). It has also successfully predicted and explained diverse behaviours not only in green behaviour [Ajzen (1991); cited in Conner & Armitage (1998)]. More so, studies which applied the TPB in the green setting discovered that attitude, subjective norm

and perceived behavioural control accounted largely for the variance in green behavioural intention (Lien et al., 2012; Kim & Chang, 2011; Mahesh & Ganapathi, 2012; Numraktrakul et al., 2011; Wu & Teng, 2011).

Considering this, intention is clearly the central turning point of behaviour; the action of the individual is backed up by the intention to perform the act (Ajzen, 1991). This notwithstanding, the extent to which the individual or group of people are insistent on taking up behaviour depends on the presence of elements which can spur them to inculcate and push in the behaviour to occur. Adopting the TPB model therefore, makes it easier for such motivational elements to be identified since TPB already has constructs which can be used to examine behavioural intentions.

Also, in a specific situation where certain variables need to be examined, they could be superimposed on the TPB model as it is done in this study and many others in this way. Thus the model provides impetus to measure and explains further how such behavioural intentions could be instilled in the society or individual. Therefore, the factors suggested in this study which are potential determinants of behavioural intentions are perceived behavioural control, environmental consciousness, green trust, perceived green knowledge, green perceived value, green price sensitivity, government regulations and green availability.

2.5 Simple Green Purchase Intention Models

Apparently, the review of extant literature indicated that models are simple and have direct relationship with only a few independent variables proposed to have impact on green purchase intention Figures 2.4- Figures 2.18. Looking at this in summary, the

models investigated direct relationships only, for example: environmental attitude, self-efficacy, store image, role of sales person, willingness to pay (Ling, 2013); health consciousness, environmental attitude, environmental labelling and environmental knowledge were studied in another model (Azizan & Suki, 2013); attitude, subjective norm, perceived behavioural control, self-identity (Tan, 2013).

In other models, the following variables were examined as direct determinants of green purchase intentions; health consciousness, education and knowledge, habit and attitude, environmental consciousness, government support and policy, perceived value (Shamsollahi et al., 2013); price, socio-demographic variables, environmental advertising, ecological packaging (Pornpratang et al., 2013); green awareness, green perceived value, green trust, green perceived risk, environmental responsibility (Rizwan et al., 2013); environmental knowledge, environmental attitude, government initiatives, pressure, eco-label (Mei et al., 2012).

Furthermore, the variables organisational green image, environmental concern, environmental knowledge were also researched into (Mansor et al., 2011); environmental benefit, benefit-to-self, comparative cost, attainable cost are seen on another model (Ali & Ahmad, 2012). In subsequent models social influence, environmental concern, pro-environmental behaviour, price sensitivity, personal value were examined (Lee et al., 2012); corporate environmental contribution, consumer' awareness, corporate contribution, local community (Lee & Shin, 2008); acceptability, affordability, availability, awareness, innovativeness (Zhen & Mansori, 2012).

In addition to the models aforementioned, Numraktrakul et al. (2011) investigated attitude towards behavioural, subjective norm, perceived behavioural control, environmental consciousness, economic factor, government role on their model.

Lastly, perception towards organic products, awareness on government action and support, beliefs about product safety for use, beliefs about information on product location, beliefs about friendliness to the environment, availability of product information (Ahmad & Juhdi, 2010). Due to the fact that these authors take a different stand when it comes to selecting the determinants of green purchase intention, the models have most of the time been fragmented with no holistic standard for what should be called green purchase intention determinants nor model. These models are presented in figures 2.4 to figures 2.18 as examples of fragmented and simple models of green purchase intention from previous studies.

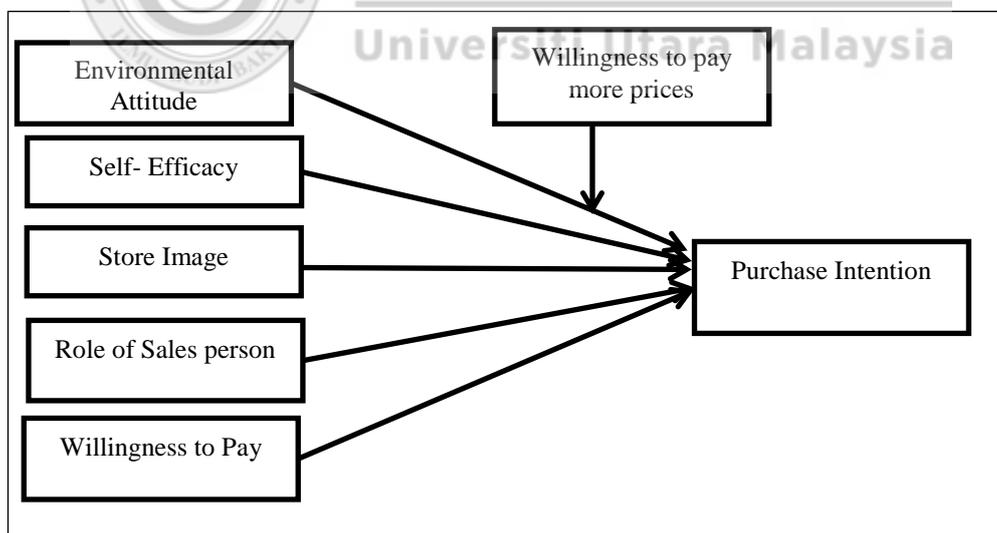


Figure 2.4

Purchase Intention (Green) Model 1 (Ling, 2013)

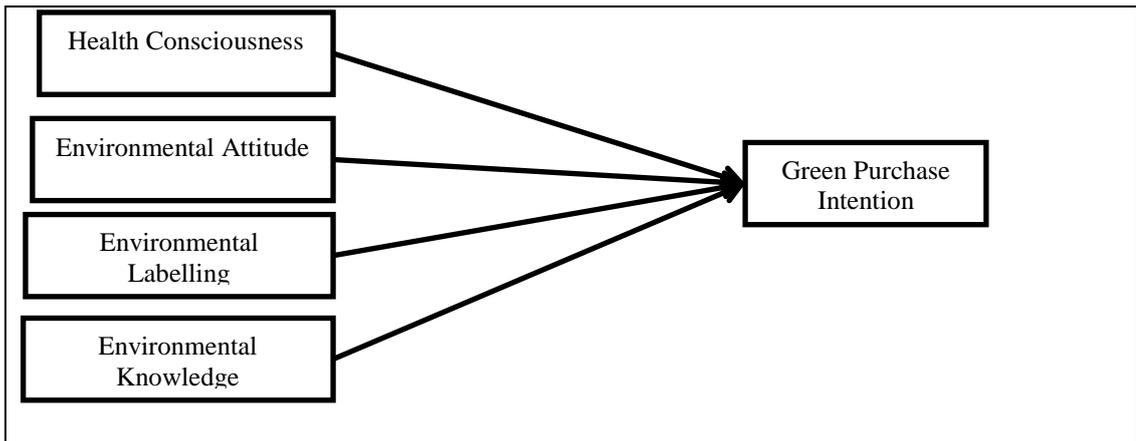


Figure 2.5

Green Purchase Intention Model 2 (Azizan & Suki, 2013)

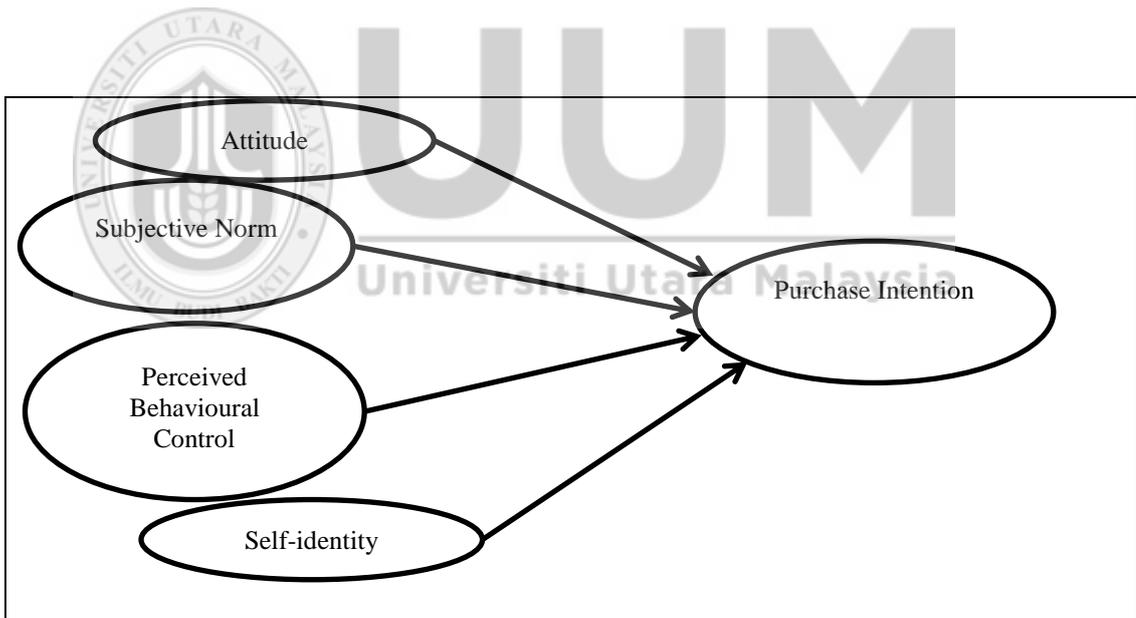


Figure 2.6

Purchase Intention (Green) Model 3 (Tan, 2013)

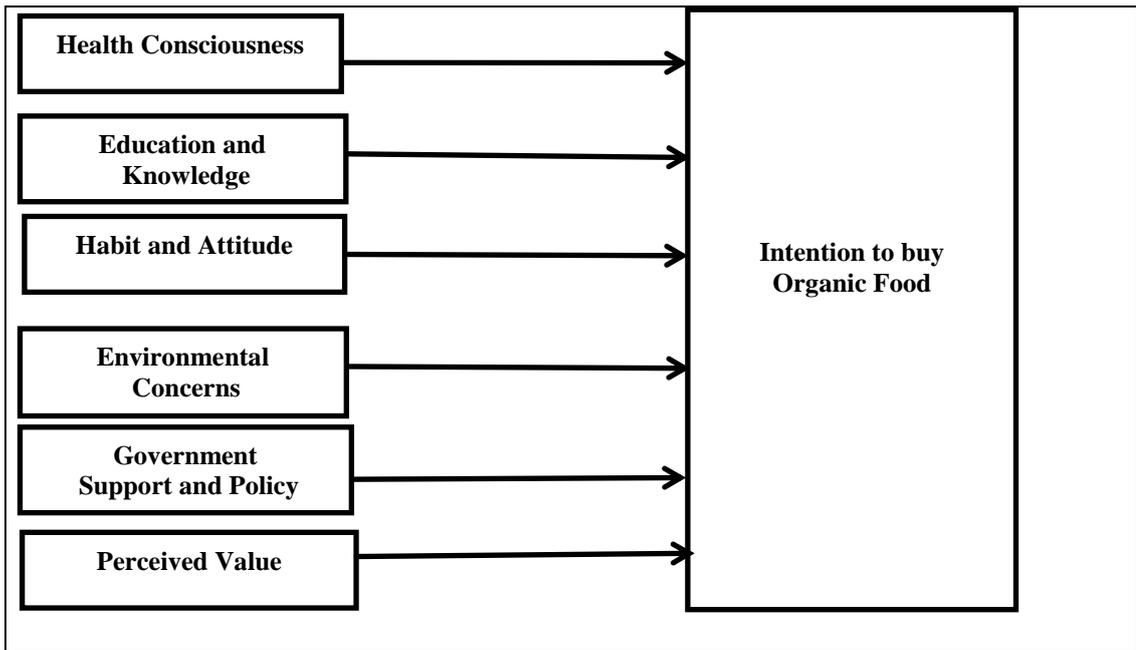


Figure 2.7

Intention to Buy Organic Food Model 4 (Shamsollahi et al., (2013)

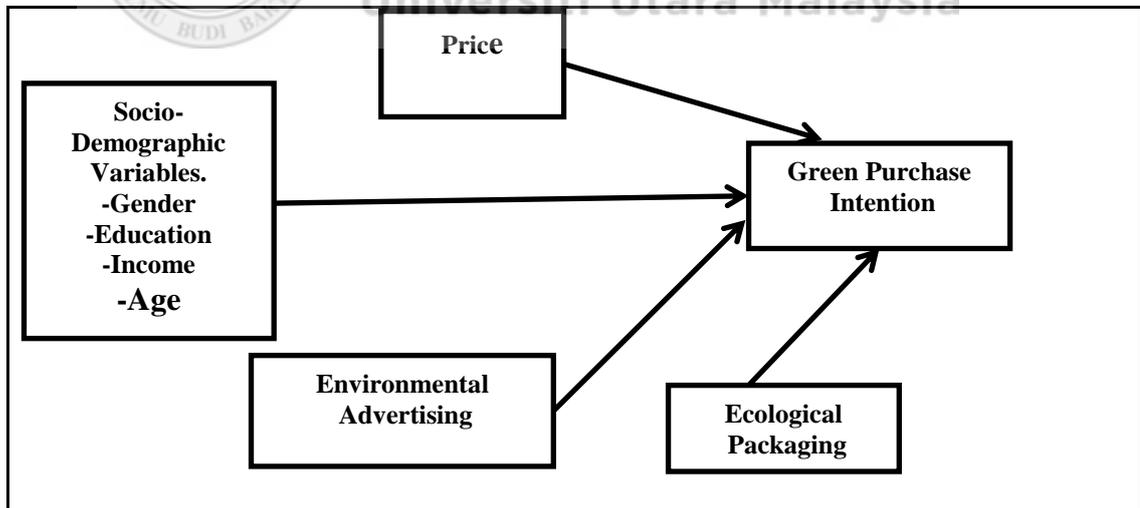


Figure 2.8

Green Purchase Intention Model 5 (Ansar, 2013)

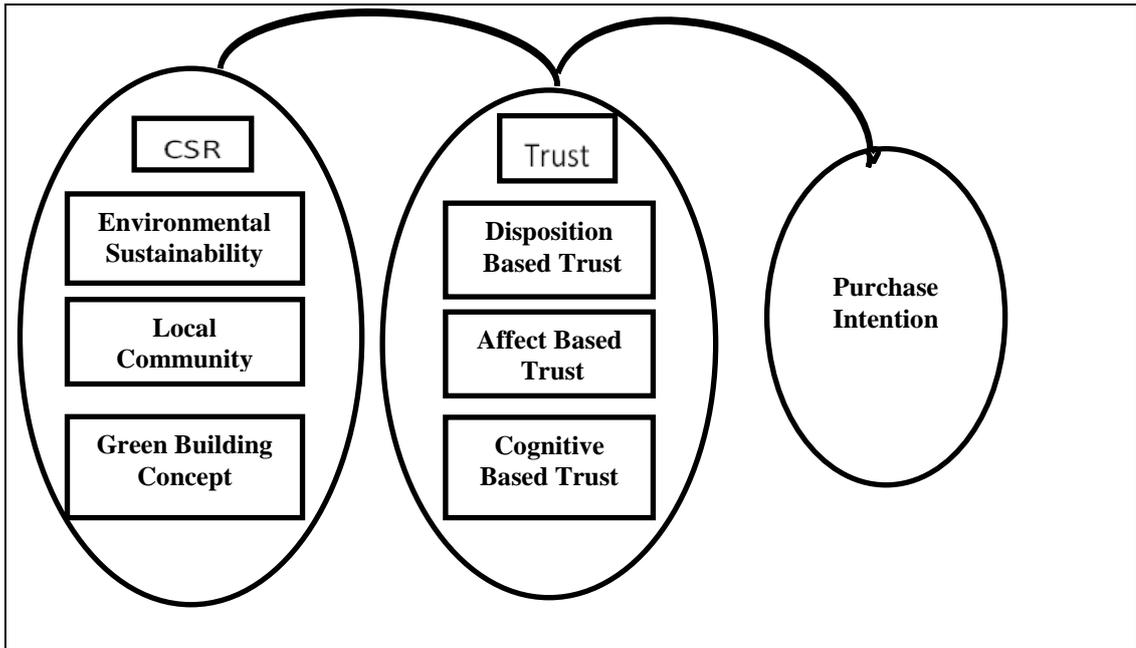


Figure 2.9

Purchase Intention (Green) Model 6 (Pornpratang et al., (2013)

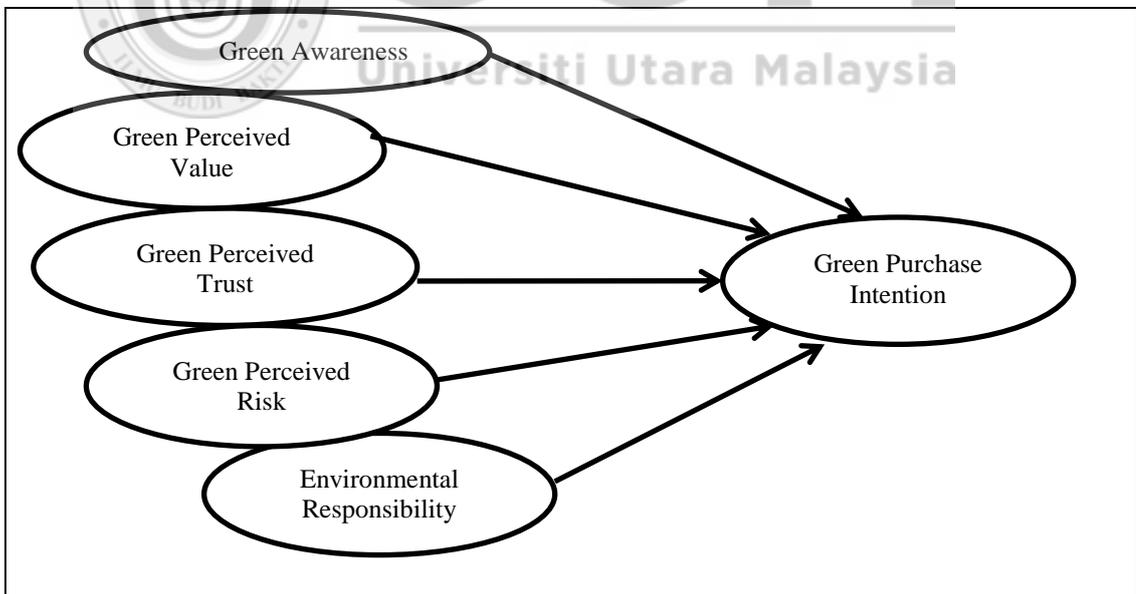


Figure 2.10

Green Purchase Intention Model 7 (Rizwan, Asif et al., (2013)

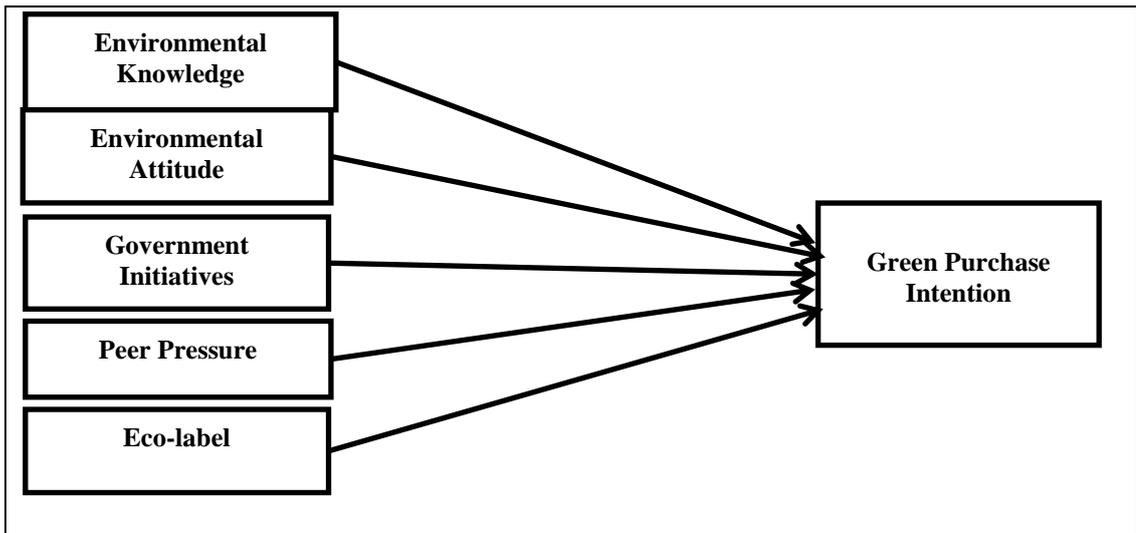
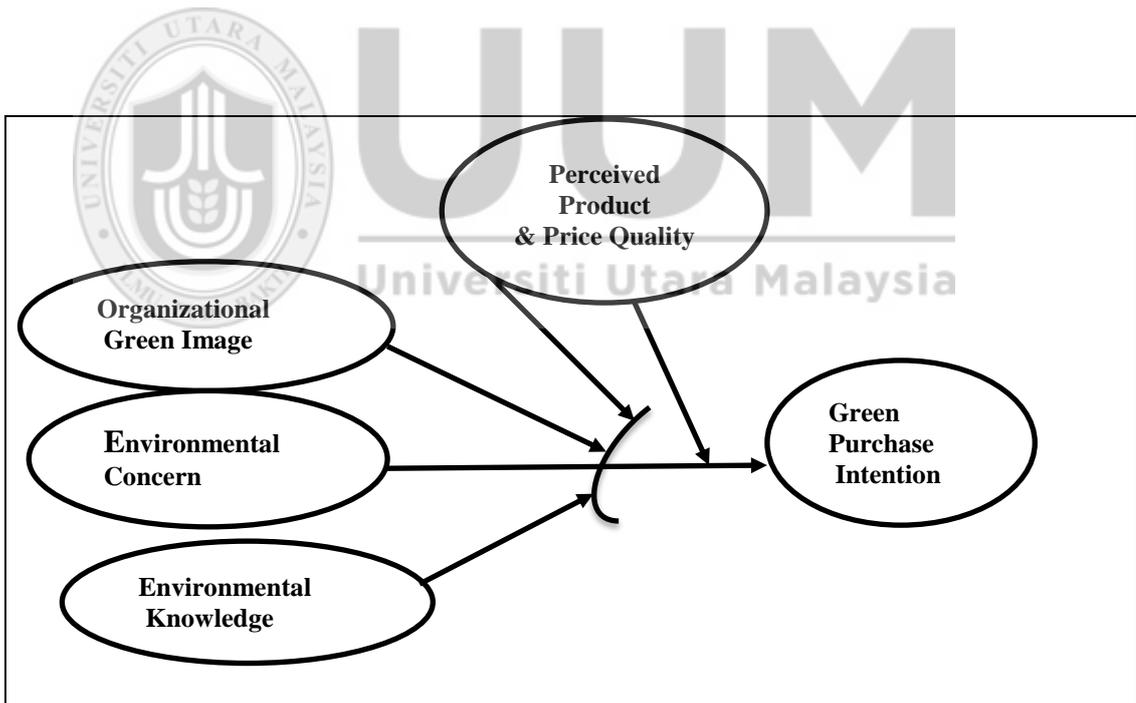


Figure 2.11

Green Purchase Intention Model 8 (Mei et al, 2012)



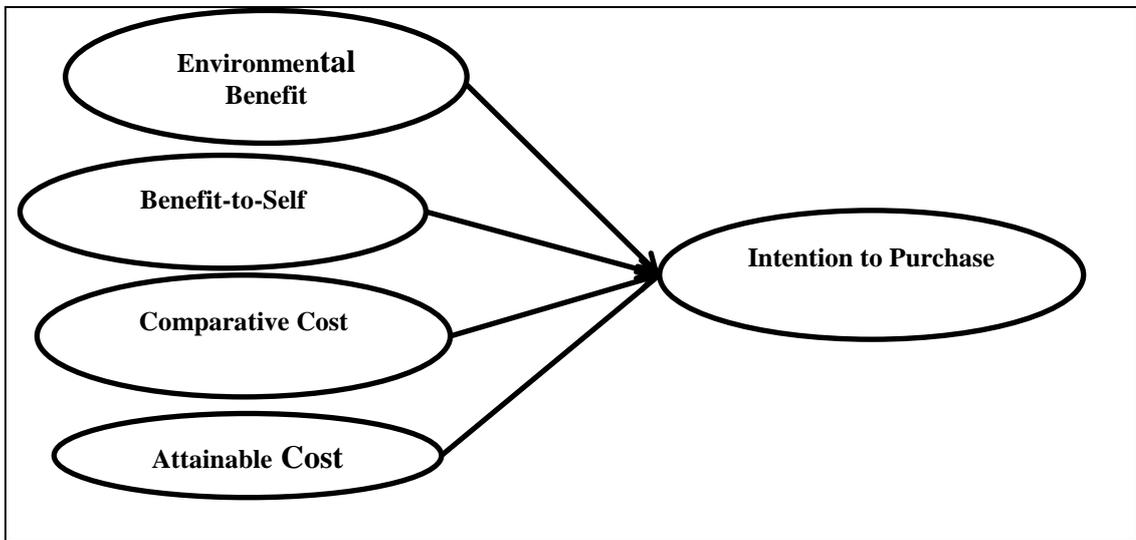


Figure 2.13

Purchase Intention (Green) Model 10 (Mansor, Yahaya, Nizan & Aman, 2011)

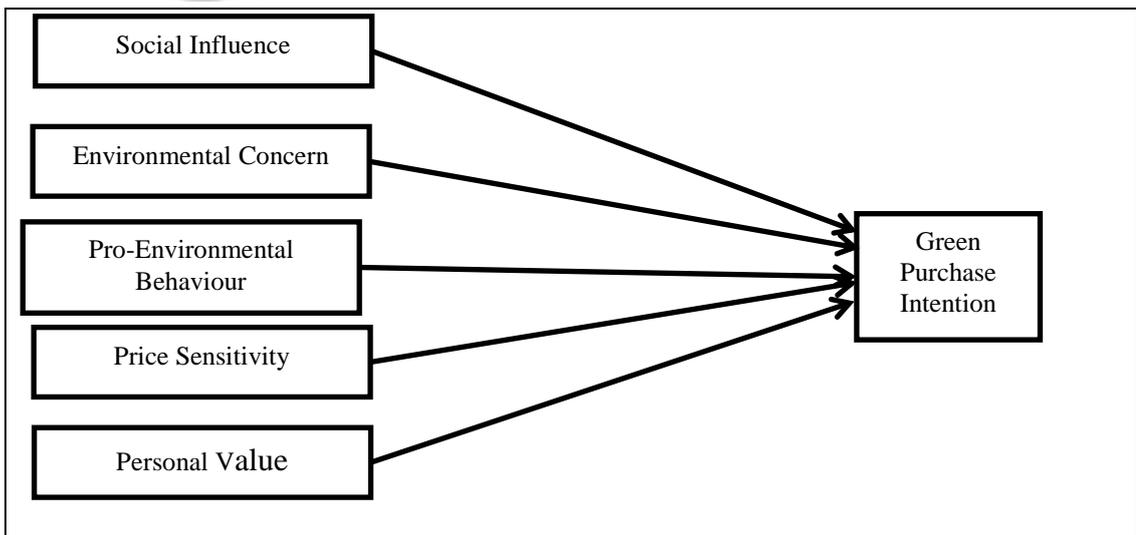


Figure 2.14

Green Purchase Intention Model 11 (Lee et al., 2012)

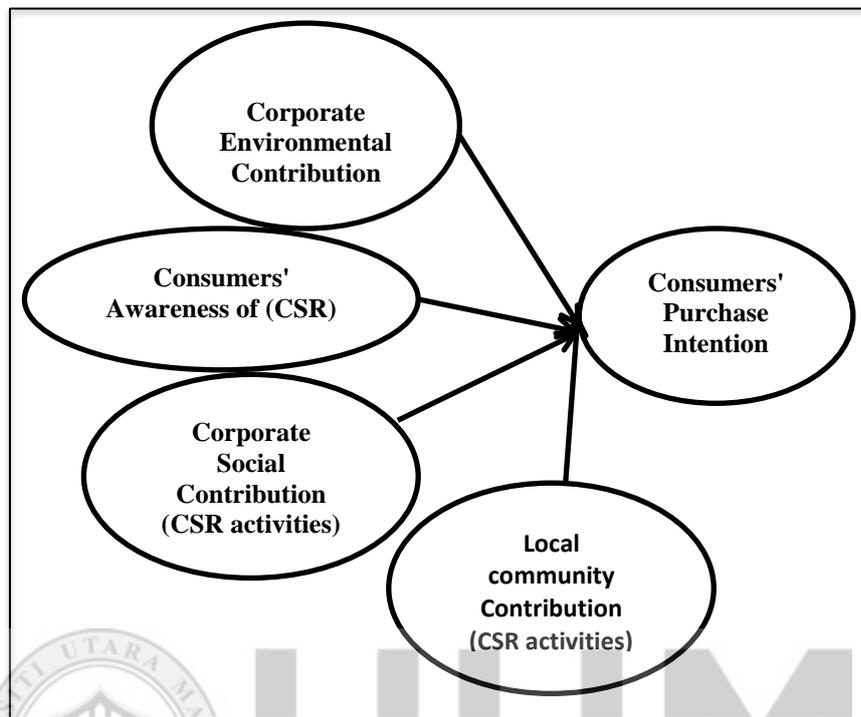


Figure 2.15
Consumers' Purchase Intention (Green) Model 12(Lee & Shin, 2008)

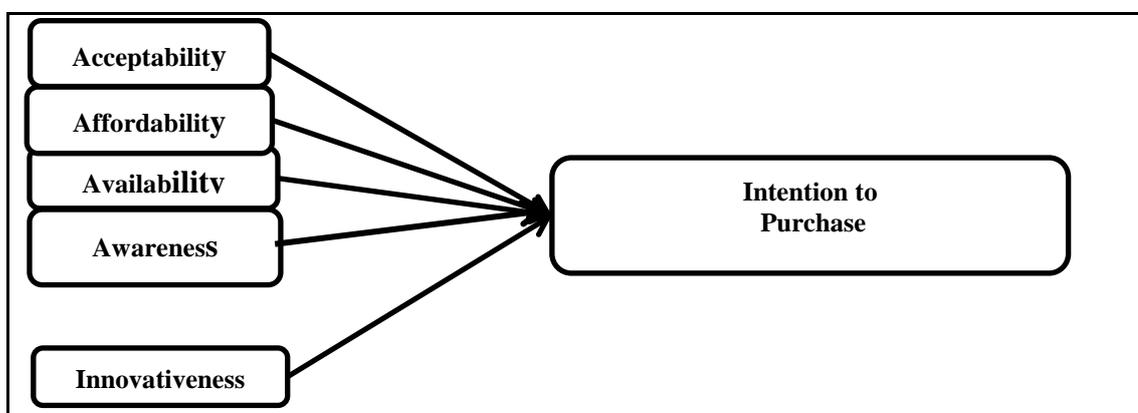


Figure 2.16
Purchase Intention (Green) Model 13 (Zhen & Mansori, 2012)

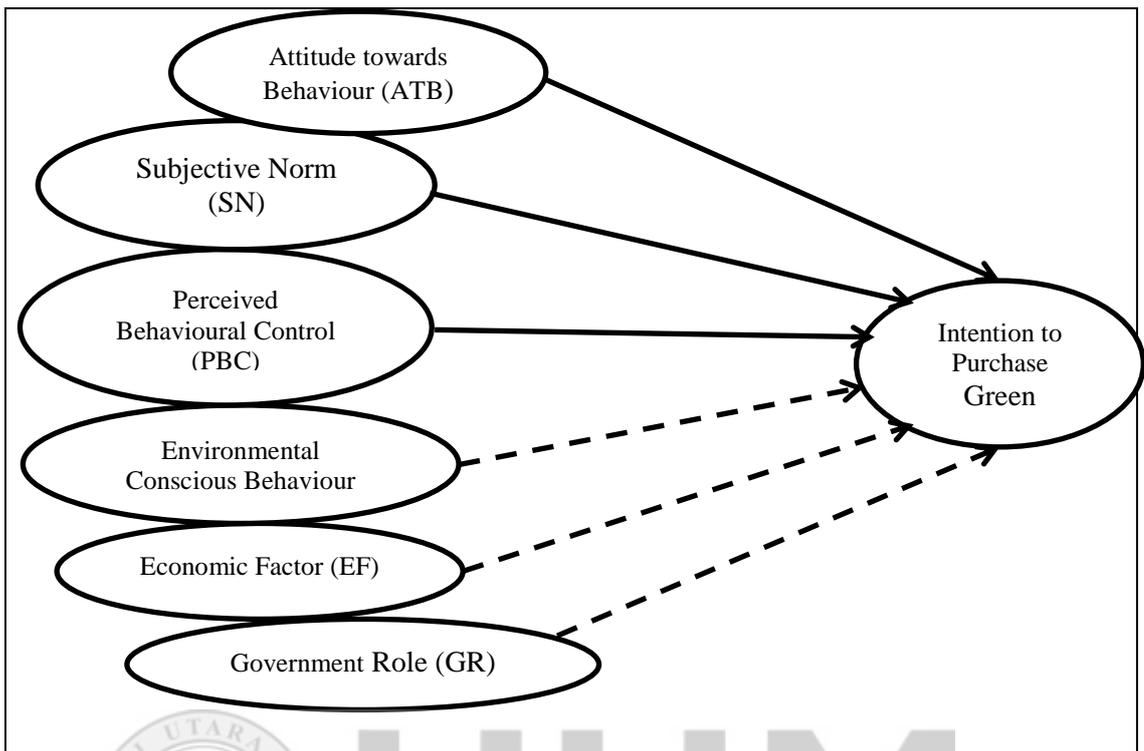


Figure 2.17

Intention to Purchase Green Model 14 (Numraktrakul et al., (2011))

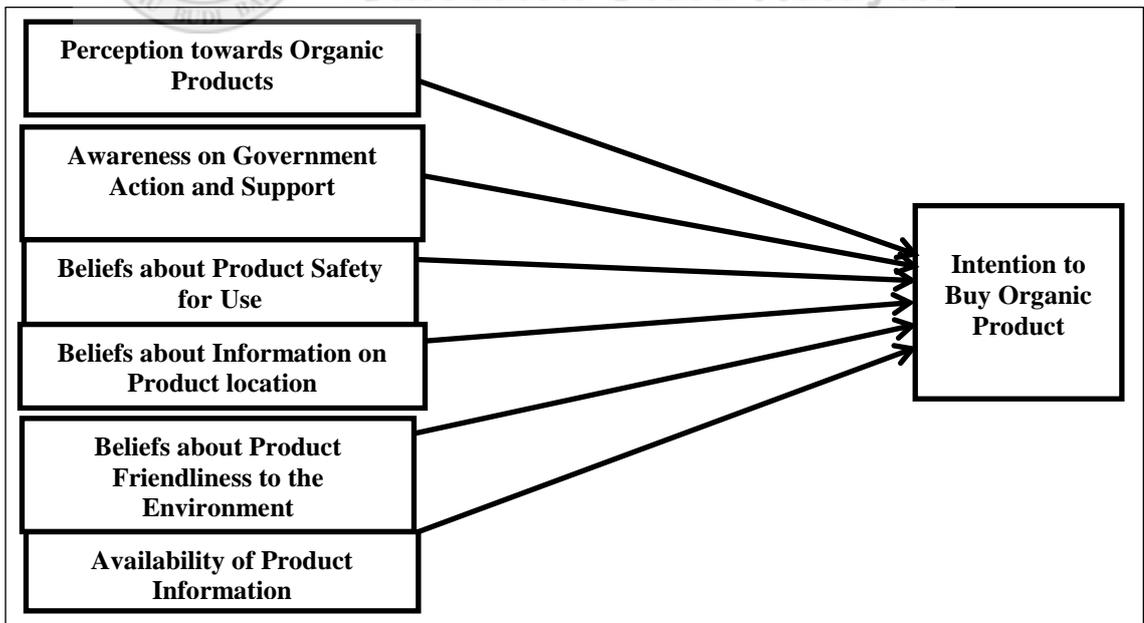


Figure 2.18

Intention Buy Organic Product Model 15 (Ahmad &Juhdi, 2010)

2.6 Complex Green Purchase Intention Models

Reviewing additional literatures, the models appear to be complex and are fragmented too. This can be proved from the variables in models (Figures 2.19-2.31). Models in these studies contrary to the previous ones discussed included intervening variables; some of the models have just one mediating variable while others have two or three mediators.

The models were investigated following the selection of constructs which the authors perceived could act as mediating variable to the determinants. For instance, environmental knowledge and environmental concern as direct determinants and attitude as mediator (Aman et al., 2012); green consumption cognition as predictor of three mediators; green consumption, green subjective norm, green perceived behavioural control as intervening (Lien et al., 2012); attitude towards organic food and knowledge familiarity were explored using attitude to mediate between knowledge familiarity and green purchase intention (Sakthirama & Venkkatran, 2012).

Seemingly, three models were studied using one intervening variable. In one of the models, consumer's response to green advertising, response to companies, credibility of green claims were mediated by attitude towards green advertising while credibility was tested as direct determinant of green purchase intention (Zhu, 2013). The second model looked at perceived government legislation, media exposure, health safety; these three constructs were tested with attitude as the criterion variable (Qader & Zainuddin, 2010). The third model used trust to mediate the relationship between

green perceived values, green perceived risk and green purchase intention (Paspalis, 2011). Similarly, consumer trust, attitude, purchase intention, perceived quality, individualism, collectivism value made up the model investigated and trust, attitude and perceived quality were mediators (Terrengana et al., 2013).

In the ensuing models, both used the TPB constructs as mediators; Sadati and Mohammed (2012) had attitude, subjective norm and perceived behavioural control mediating between behavioural beliefs, normative beliefs, control beliefs and behavioural intentions. On the other hand, past experience was depicted as direct determinant of behavioural intentions and also predictors of attitude, subjective norm and perceived behavioural control (Wu & Teng, 2011).

Accordingly, models presented in a few more studies have shown that green perceived value, green perceived risk and green trust were investigated with green trust as intervening variable (Chen & Chang, 2012); in the same vein, green experiential value (economic, hedonic, social, altruistic value) were all predictors of green trust (Gupta & Dash, 2012); green behaviours, product labels, corporate social responsibility (mediator) (D'Souza et al., 2009); perceived green risk, perceived green value and attitude as mediator between perceived risk and perceived value (Chen et al., 2012).

Lastly, one of the complex model in review of extant literature shows that ten (10) direct determinants of green purchase intention were examined (environment concern, altruism, price consciousness, risk aversion, involvement, perceived brand parity, perceived brand trust, objective knowledge, subjective knowledge and

knowledge of action with three mediators (subjective norms friends, subjective norms experts, attitude toward green, perceived behavioural control (Ng & Paladino, 2009). Examples of these models are depicted in Figures 2.19-Figures 2.31.

2.6.1 Examples of Complex Models in Green Purchase Intention Studies

The models discussed are presented accordingly in Figures 2.19-Figures 2.31.

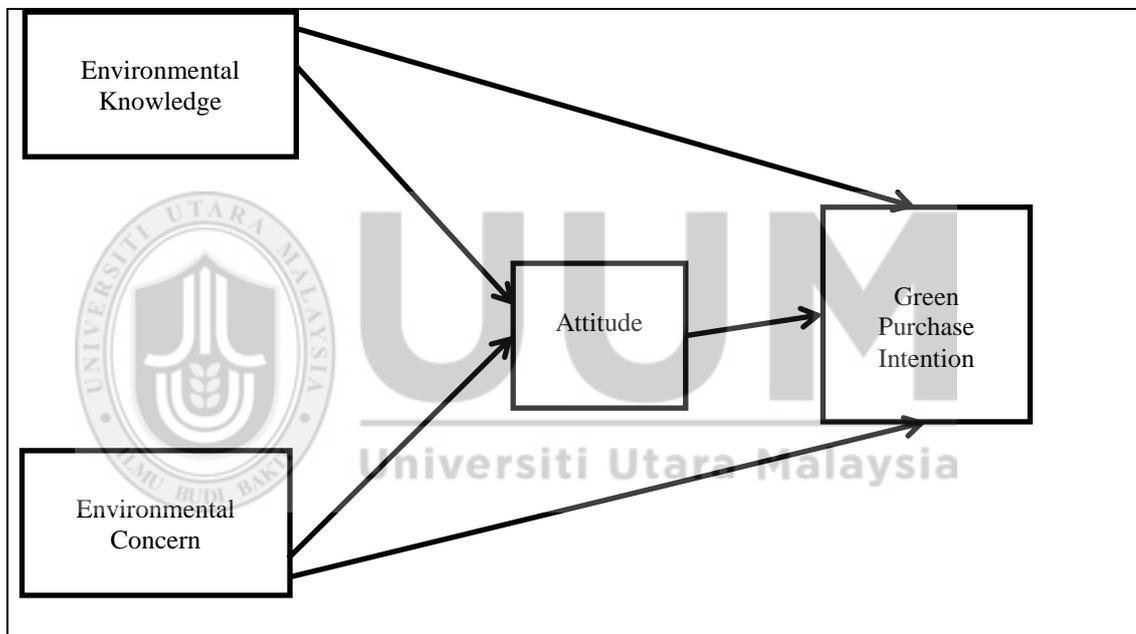


Figure 2.19

Green Purchase Intention Model 16 (Aman et al., 2012)

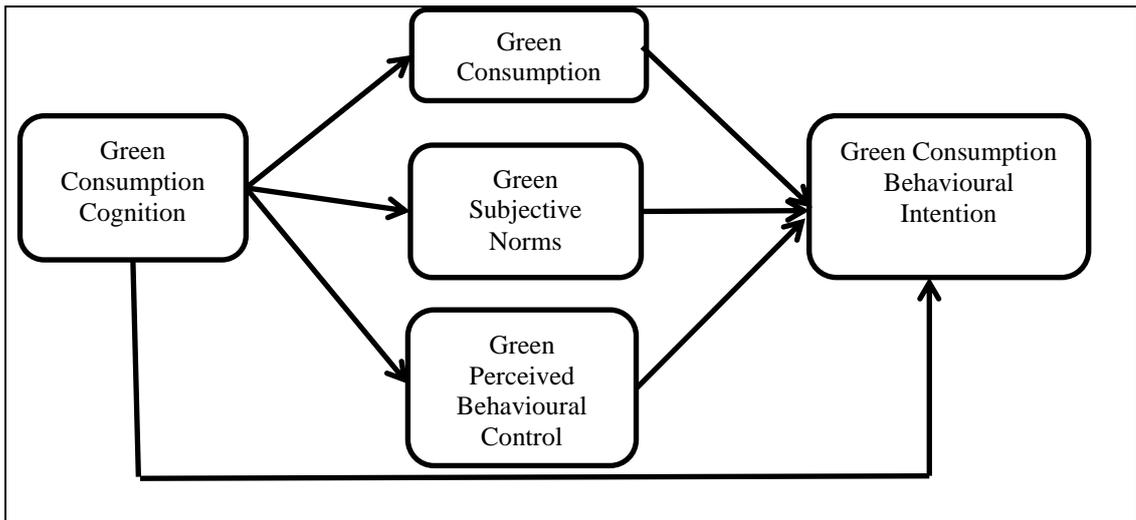


Figure 2.20

Green Consumption Behavioural Intention Model 17 (Lien et al., 2012)

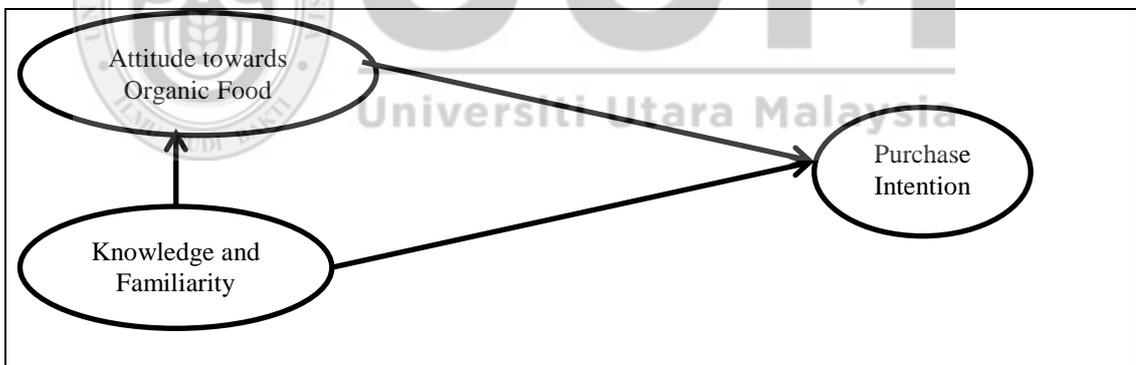


Figure 2.21

Purchase Intention (Green) Model 18 (Sakthirama & Venkatran, 2012)

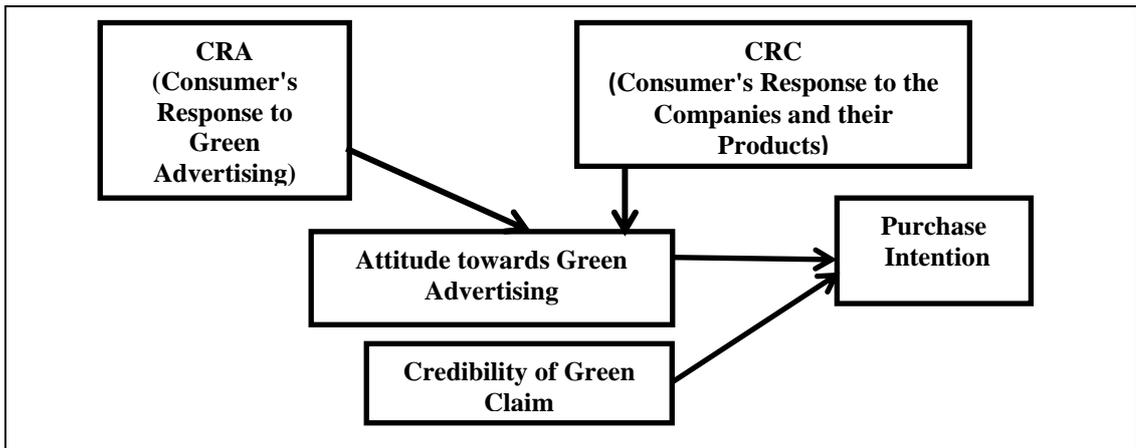


Figure 2.22

Purchase Intention (Green) Model 19 (Zhu, 2013)

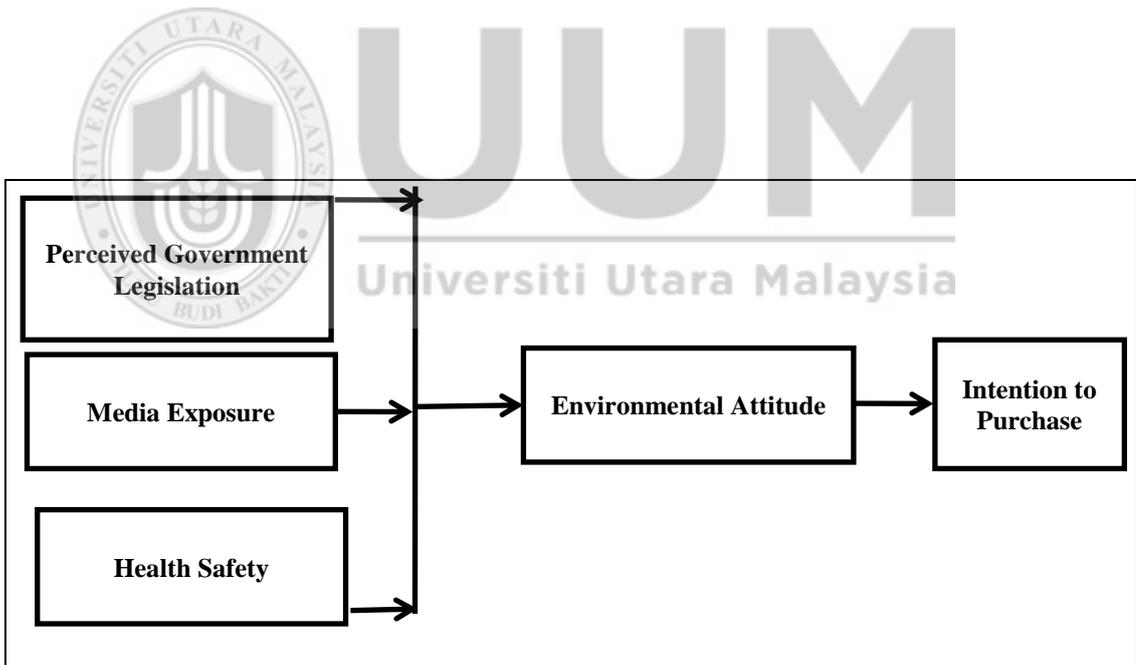


Figure 2.23

Intention to Purchase (Green) Model 20 (Qader & Zainuddin, 2010)

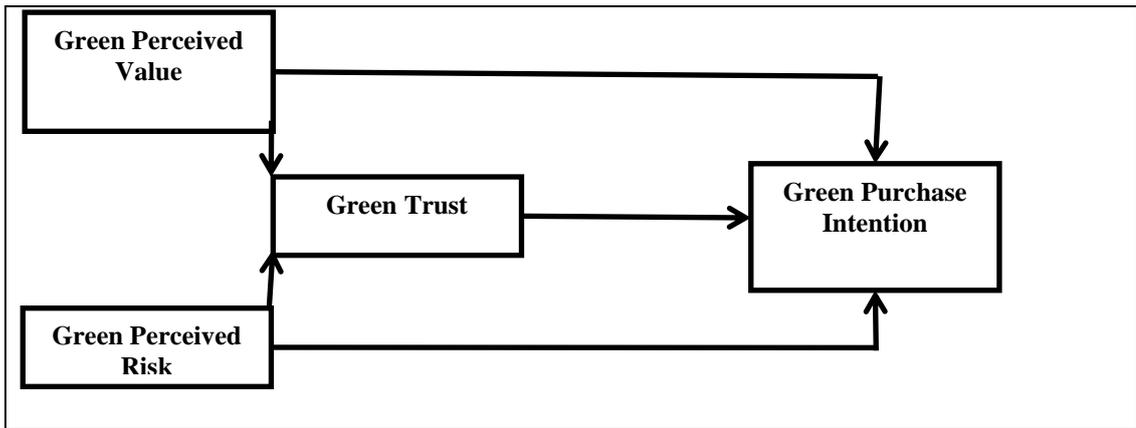


Figure 2.24

Green Purchase Intention Model 21, (Paspalis, 2011)

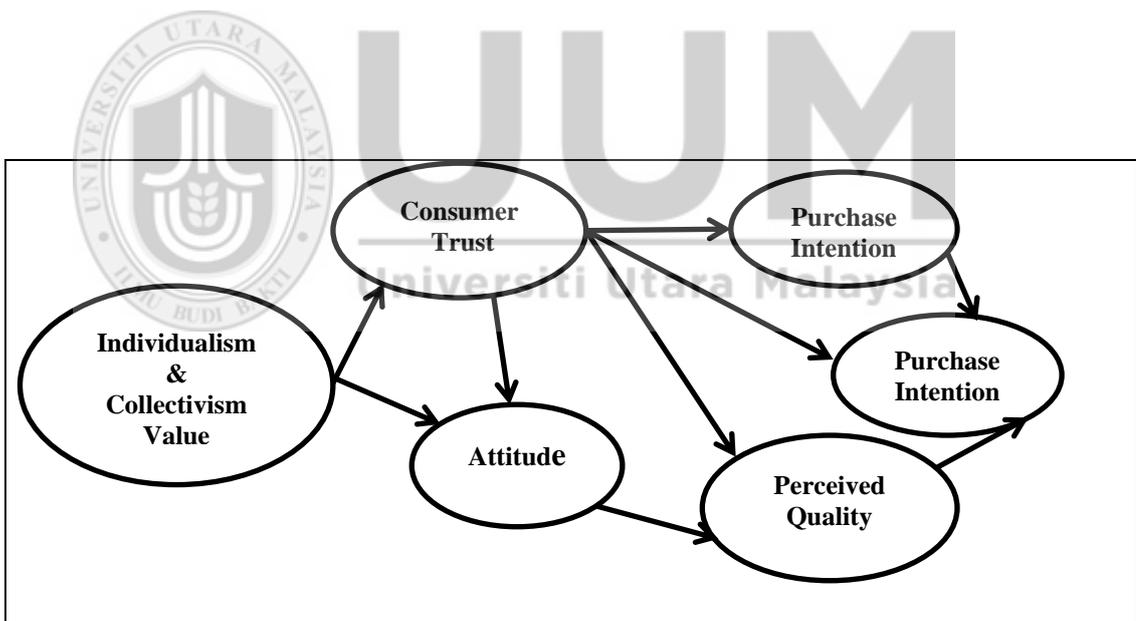


Figure 2.25

Purchase Intention (Green) Model 22 (Terrengana et al., 2013)

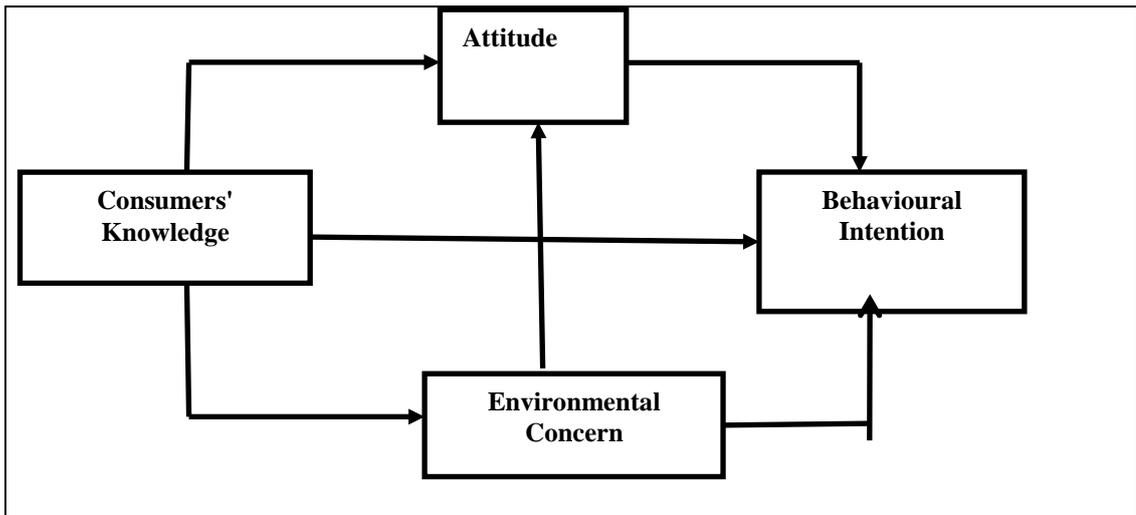


Figure 2.26

Behavioural Intention (Green) Model 23 (Wu et al., 2013)

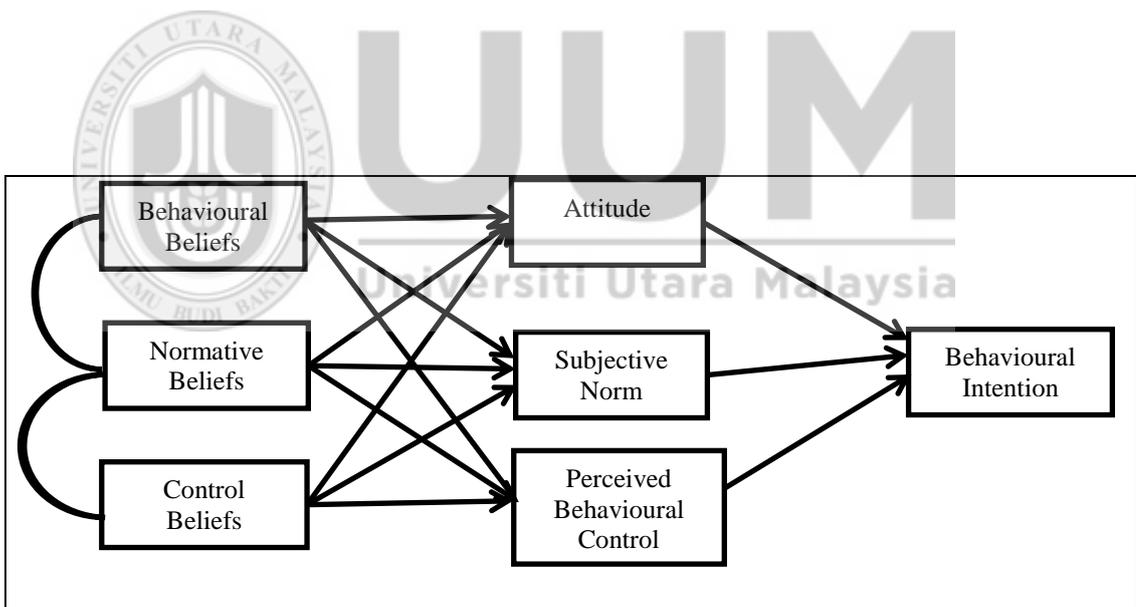


Figure 2.27

Behavioural Intention (Green) Model 24 (Sadati & Mohammadi, 2012)

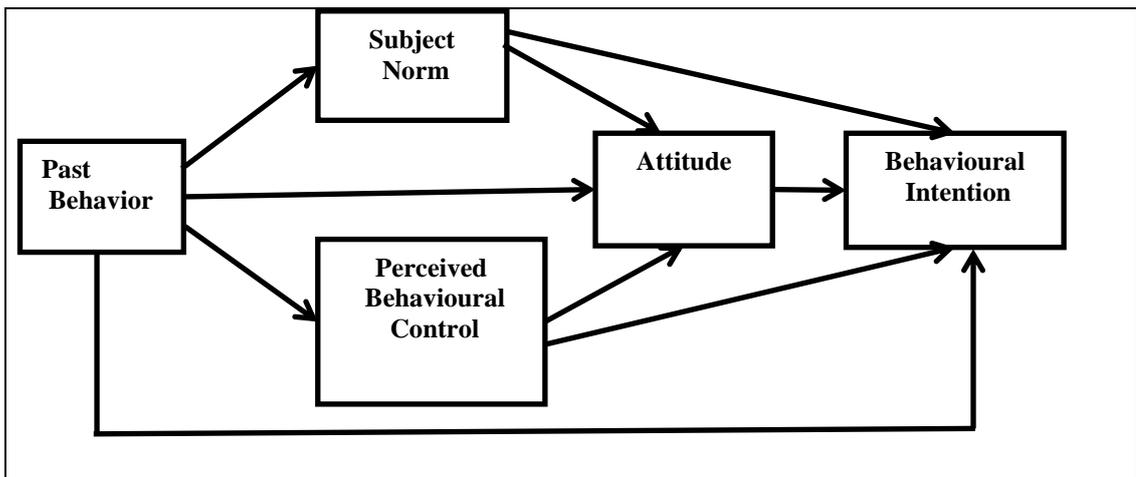


Figure 2.28

Behavioural Intention (Green) Model 25 (Wu & Teng, 2011)

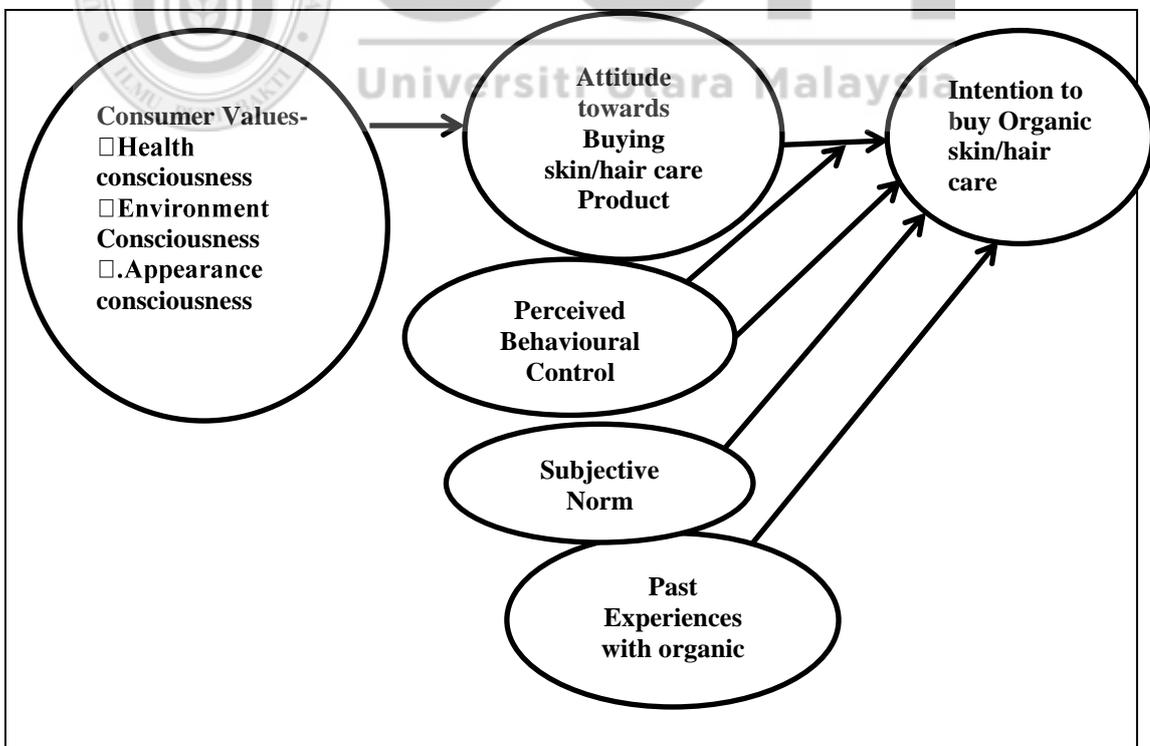


Figure 2.29

Green Purchase Intention Model 26 (Kim & Chung, 2011)

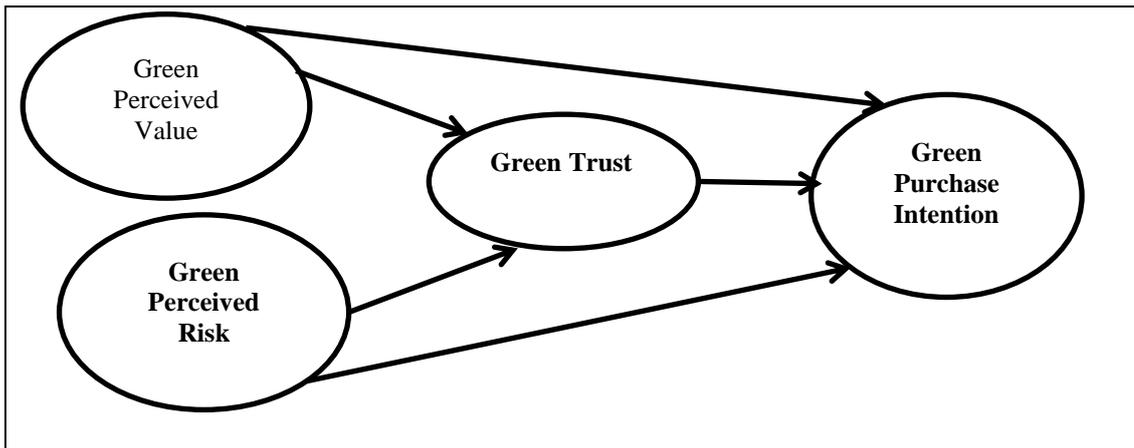


Figure 2.30

Green Purchase Intention Model 27 (Chen & Chang, 2012)

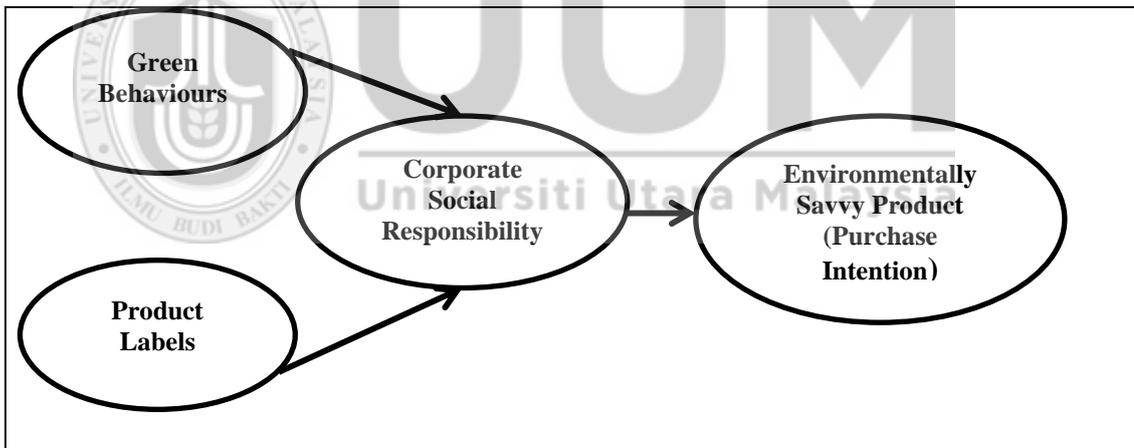


Figure 2.31

Environmentally Savvy Products; (Purchase Intention) (Green) Model 28 (D'Souza et al., 2009)

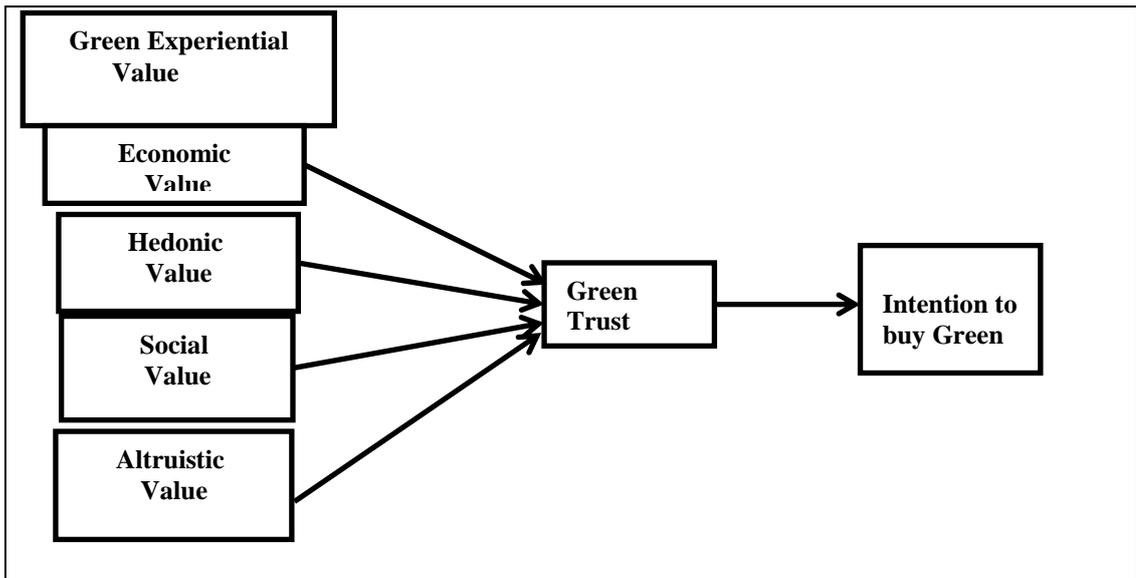


Figure 2.32

Intention to Buy Green Model 29 (Gupta & Dash, 2012)

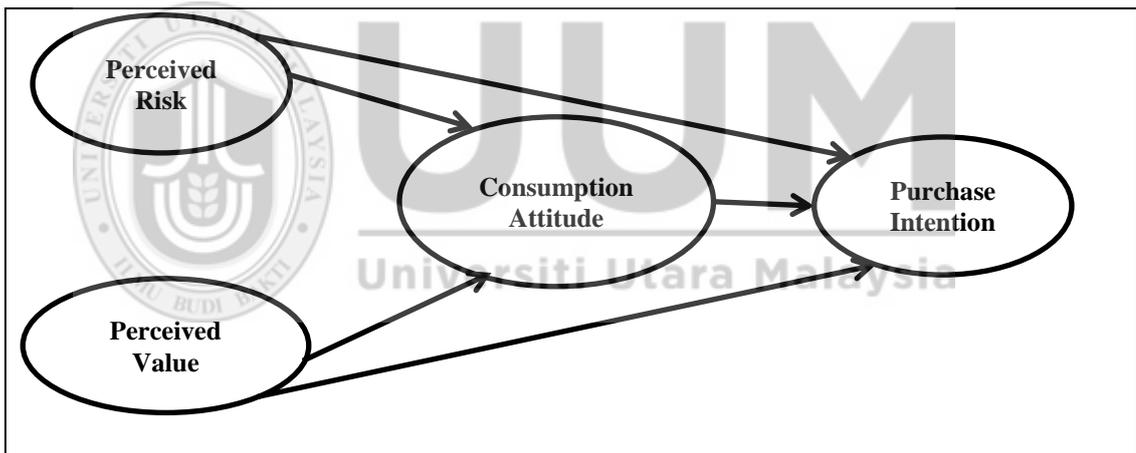


Figure 2.33

Purchase Intention (Green) Model 30 (Chen et al, 2012)

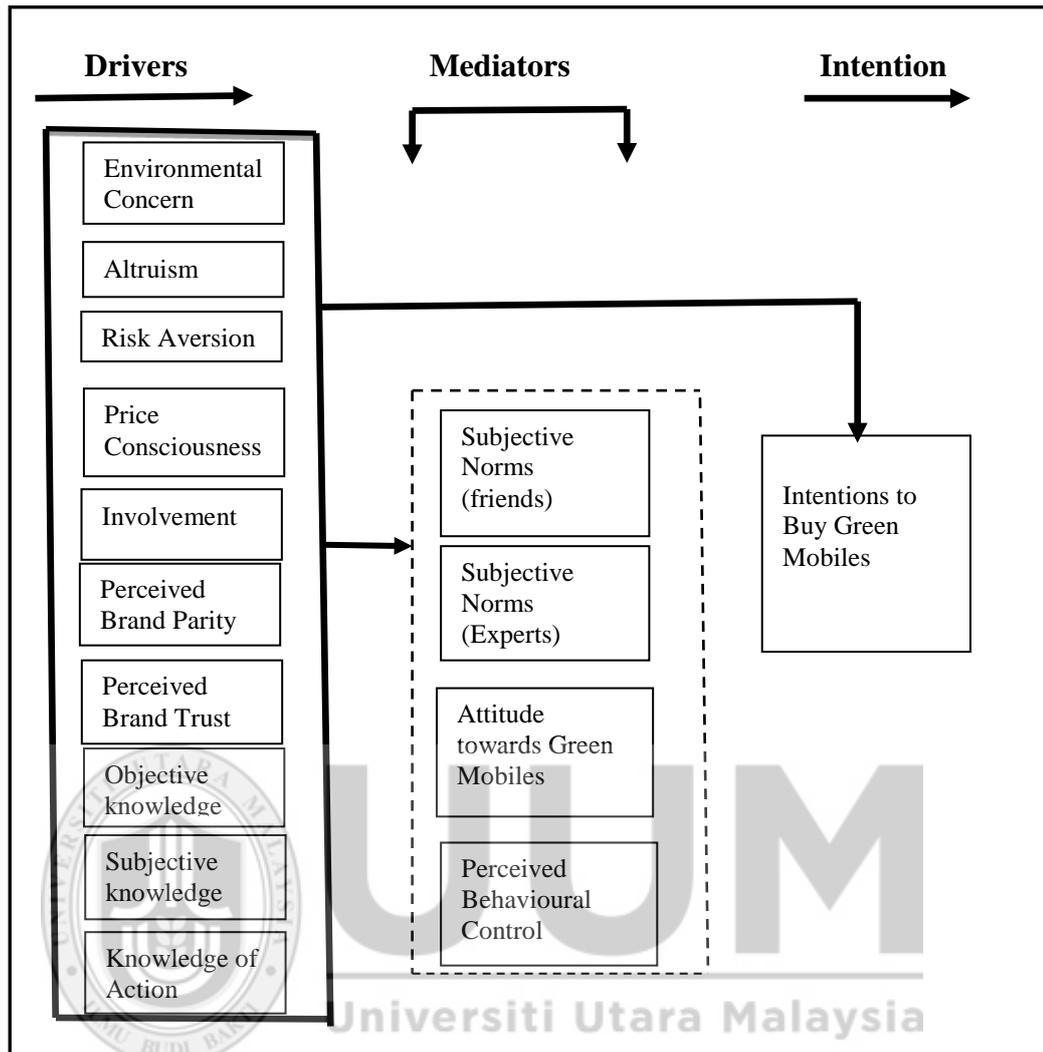


Figure 2.34

Intentions to Buy Green Mobiles Model, 31 (Ng & Paladino, 2009)

In conclusion, by assessing these thirty one (31) simple and complex models, a clear issue of fragmentation and inconclusive findings is diagnosed. In addition to that, observations from these models shows that the relationships between government regulations and perceived behavioural control, environmental consciousness and green perceived value, green price sensitivity and green trust, green trust and perceived behavioural control which could be significant tools in fostering green behaviour were sparsely examined in the green literature.

Similarly, green availability is also important in the consumers' decision making on whether to buy or not to buy the product was sporadically examined. Most importantly, was the conspicuous absence of model in Nigeria context in the green setting. These strongly necessitate having a study of this nature to fill the gap by expanding knowledge and literature in this sensitive area of research in Nigeria.

Nevertheless, in spite of the fragmentation, the framework for this study was arrived at by following the path of some of the models discussed using a more complex model with five independent variables, three mediators and one dependent variable. The variables were selected based on the need of this study and these author's examples were followed; government support and policy, education and knowledge (substituted with perceived green knowledge), (Shamsollahi et al., 2013). Environmental consciousness (Kim & Han, 2010) and trust (Gupta & Dash, 2012; Pornpratang et al., 2013) are part of the constructs validated in their study. On the other hand, availability and affordability are included in the model which Zhen and Mansori (2012) explored. Green perceived trust & green perceived value (Rizwan et al., 2013); price sensitivity (Ansar, 2013; Lee, et al., 2012). Attitude being substituted with green trust (Chen et al., 2012; Wu et al., 2013) and lastly, perceived behavioural control (Lien et al., 2012).

2.7 Direct Determinants of Green Purchase Intention

Observations from the exemplified models explained in section (2.6) shows clearly the fragmentation of the models and the diversities of the green purchase intention determinants. Table 2.2 elaborates further the diversities and inconsistencies of the results regarding determinants of green purchase intention. The determinants of

green purchase intention ranges from attitude (Azizan & Suki, 2013; Mei et al., 2012; Tan, 2013; Zakersalechi & Zakersalechi, 2012; Zhu, 2013); consumer knowledge (Aman et al., 2012, Ali & Ahmad, 2012; Wu et al., 2013); environmental concern (Lee et al., 2012; Kim & Han, 2010); perceived behaviour control (Manesh & Ganapathi, 2012; Maya et al., 2011); perceived value (Chen & Chang, 2012; Rizwan et al., 2013; Paspalis, 2011) and trust (Gupta & Dash, 2012; Pornpratang et al., 2013) CSR (D'Souza et al., 2009; Lee & Shin, 2008).

The findings on direct relationship from the fragmented models and diversification in use of variables resulted in conflicting results. For example, environmental concern, PBC, perceived value, perceived risk, price, health consciousness, product availability, government role, environmental label, altruism, demographic have insignificant relationship with green purchase intention in some of the context in which the investigation was done. At a glance, one could see that the relationships between these variables are inconsistent (Table 2.2). For example Ng and Paladino (2009) found green trust to be insignificant determinant of green purchase intention opposing other scholars who found positive significant relationship (Chen & Chang, 2012; Gupta & Dash, 2012; Kim, 2015; Pornpratang et al., 2013).

Similarly, PBC also showed inconsistent result when Ng and Paladino(2009), found insignificant relationship compared to significant finding by others (Kim & Han, 2010; Kim & Chung, 2011; Numraktrakul et al., 2011; Sadati & Mohammed, 2012; Tan, 2013). In additionally, other inconsistencies can be observed in the relationship between green availability, government role, green awareness and willingness to pay with green purchase intention.

Moreover, empirical investigation on willingness to pay is found to have significant and positive relationship with green purchase intention (Ansar, 2013; Ali & Ahmed, 2012; Ling, 2013; Mansor et al., 2011; Menahem et al., 2010; Zhen & Mansori, 2012). This contradicts the finding by Ng and Paladino (2009) who found price consciousness and green purchase intention to be insignificant. In a similar vein, government regulation equally showed inconsistent finding. This triggers avenue for further research in these area and on these variables to establish this relationship.

Table 2.2
Summary of Relationship on the Direct Determinants of Green Purchase Intention with Findings

Direct Determinant	Author	Country	Area	Findings
Attitude	Zakersalechi & Zakersalechi (2013)	Malaysia	Green Packaged Foods	Significant
	Rezai et al. (2013)	Malaysia		
	Wu et al. (2013)	Taiwan	Green Products	Significant
	Zhu (2013)	China	Green Products	Significant
	Azizan & Suki (2013)	Malaysia	Green	Significant
	Tan (2013)	Malaysia	Green Home	Significant
	Shamsollahi et al.(2013)	Malaysia	Organic	Significant
	Aman et al. (2012)	Malaysia	Green Products	Significant
	Mei et al.(2012)	Malaysia	Green Products	Significant
	Sakthirama & Venkrtam (2012)	Coimbatore	Green Organic	Significant
Lien et al.(2012)	Taiwan	Green Restaurant	Significant	
Shah (2012)	Pakistan	Green Products	Significant	
Manesh & Ganapathi (2012)	Chennai	Green Products	Significant	
Pino et al.(2012)	Italy	Green Organic Foods	Significant	

Cont'd

Determinants	Author	Country	Area	Finding
	Chen et al. (2012)	Malaysia	Condominium Green Product	Significant
	Wu & Teng (2011)	Malaysia	Green Product	Significant
	Kim & Chung (2011)	USA	Green Organic	Significant
	Feng (2012)	China	Green	Significant
Attitude	Numraktrakul et al. (2011).	Taiwan	Green Consumption	Significant
	Kim & Han (2010)	US	Green Product	Significant
	Sung et al. (2008)	Malaysia	Green Product	Significant
	Michaclidou & Hasan (2008)	Chennai	Green	Significant
	Samarasinghe (2012)	Sri Lanka	Green Home	Significant
Consumer Knowledge	Wu et al. (2013)	Iran	Green Product	Significant
	Azizan & Suki (2013)	Malaysia	Green	Significant
	Shamsollahi et al.(2013)		Green (Organic)	Significant
	Aman et al.(2012)	Malaysia	Green	Significant
	Lee et al.(2012)	Malaysia	Green	Significant
	Mei et al.(2012)	Malaysia	Green	Significant
	Sakthirama & Venkatram (2012)	Coimbatore	Green (Organic food)	Significant
	Ali & Ahmad (2012)	Pakistan	Green	Significant
	Ng & Paladino (2009)	Australian	Green Mobile	Insignificant
Environmental Concern	Wu et al.(2013)	Taiwan	Green	Significant
	Shamsollahi et al.(2013)	Malaysia	Green (Organic)	Significant
	Aman et al.(2012)	Malaysia	Green	Significant
	Lee et al. (2012)	Malaysia	Green	Significant

Cont'd

Determinants	Author	Country	Area	Finding
	Hartmann & Apaolaza-Ibanez. (2011)	North Spain	Green	Significant
	Azhari et al.(2011)	Malaysia	Green	Significant
	Kim & Chung (2011)	USA	Green (Organic)	Significant
	Kim & Han (2010)	US	Green Hotel	Significant
Perceived Behavioural	Sadati & Mohammadi (2010)	Iran	Green	Significant
	Ng & Paladino (2009)	Australian	Green Mobile	Insignificant
	Tan (2013)	Malaysia	Green Home	Significant
Control (PBC)	Manesh & Ganapathi (2012)	Chennai	Green	Significant
	Sadati & Mahammadi (2012)	Iran	Green (organic)	Significant
	Phiphithrankarn (2012)	Thailand	Green (Organic)	Significant
	Maya et al.(2011)	European Countries	Green (Organic)	Significant
	Kim & Chung (2011)	USA	Green (Organic Hair/skin care)	Significant
	Teng et al. (2011)	Malaysia	Green	Significant
	Wu & Teng (2011)		Products Green Hotel Hotel	Significant
	Numraktrakul et al. (2011).	Taiwan	Green House	Significant
	Kim & Han (2010)	US	Green Hotel	Significant
	Subjective Norm	Tan (2013)	Malaysia	Green Home
Lien (2012)		Taiwan	Green Consumption	Significant
Manesh & Ganapathi (2012)		Chennai	Green	Significant
Phiphithrankarn (2012)		Thailand	Green (Organic)	Significant
Kim & Chung (2011)		USA	Green (Organic Hair/skin care)	Significant
Feng (2012)		China	Green Water-saving	Significant
Wu & Teng (2011)			Green Hotel Hotel	Significant
Kim (2011)		South Korea	Green Restaurant	Significant
Teng et al. (2011)		Malaysia	Green	Significant
Numraktrakul et al. (2011).		Taiwan	Green House	Significant

Cont'd

Determinant	Author	Country	Area	Finding
Perceived Value	Kim & Han, (2010)	US	Green Hotel Green Mobile	Significant
	Ng & Paladin (2009)	Australian		Significant
	Rezwani et al. (2013)	Pakistan	Green	Significant
	Rajput et al.(2014)	India	Green	Insignificant
	Chen & Chang (2012)	Taiwan	Green	Significant
	Gupta & Dash (2012)	Delhi	Green Hotel	Significant
	Chen et al. (2012)	Taiwan	Green Electronic Motorcycle	Significant
Perceived Trust	Paspalis (2011)	Pakistan	Green	Significant
	Rizwani et al. (2013)	Pakistan	Green Product	Significant,
	Terenggana et al.(2013)	Indonesia	Green Environmental Friendly Air condition	Significant,
Perceived Risk	Zhu (2013)	China	Green Advertising	Significant
	Pompratana et al.(2013)	Bangkok	Green Condominium	Significant
	Gupta & Dash (2012)	Delhi	Green Hotel	Significant
	Rezwani et al.(2013)	Pakistan	Green Product	Significant
Willingness to Pay	Rizwani et al.(2013)	Pakistan	Green	Insignificant,
	Chen & Chang (2012)	Taiwan	Green	Insignificant
	Paspalis (2011)	Pakistan	Green	Insignificant
	Ansar (2013)	Pakistan	Green	Significant
Health Consciousness	Ling (2013)	Malaysia	Green	Significant
	Zhen & Mansori (2012)	Malaysia	Green (Organic)	Significant
	Ali & Ahmad (2012)	Pakistan	Green	Significant
	Mansor et al. (2011)	Malaysia	Green Automobiles	Significant
	Menahem et al. (2010)	Israel	Green House	Significant ,
	Ng & Paladino (2009)	Australia	Green Mobile	Insignificant
Health Consciousness	Azizan & Suki (2013)	Malaysia	Green	Significant
	Shamsollahi et al. (2013)	Malaysia	Green (Organic)	Significant
	Pino et al. (2012)	Italy	Green	Insignificant

Cont'd

Determinant	Author	Country	Area	Finding
	Surapto & Wijaya (2012)	Indonesia	Green (Organic)	Significant
	Phiphithrankarn (2012)	Thailand	Green(Organic)	Significant
	Kim & Chung (2011)	USA	Green(Organic)	Significant
	Sadati & Mohammed (2010)	Iran	Green	Significant
Product Availability	Michaclidou & Hasan (2008)	Scotland	Green (Organic)	Insignificant
	Ragavan & Mageh (2013)	Chennai	Green (Organic)	Insignificant
	Zhen & Mansori (2012)	Malaysia	Green (Organic)	Insignificant
Green Awareness	Rizwan et al. (2013)	Pakistan	Green	Significant,
	Zhen & Mansori (2012)	Malaysia	Green (Organic)	Significant
	Samarasinghe (2012)		Green Home	Significant
Government Role	Ragavan & Mageh (2013)	Chennai	Green (Organic)	Insignificant
	Shamsollahi et al. (2013)	Malaysia	Green (Organic)	Significant
	Mei et al. (2012)	Malaysia	Green	Significant
	Azhari et al. (2011)	Malaysia	Green Products	Significant
Corporate Social Responsibility	D'Souza et al. (2009)	Australia and Portugal	Green Products	Significant
Past Experience	Wu & Teng (2011)	Taiwan	Green Hotel	Significant
	Kim & Chung (2011)	USA	Green (Organic)	Significant
Product Involvement	Ng & Paladino (2009)	Australia	Green Mobile	Significant
Ecological Packaging	Ansar (2013)	Pakistan	Green	Significant
Environmental Label	Azizan & Suki (2013)	Malaysia	Green	Insignificant
Acceptability	Zhen & Mansori (2012)	Malaysia	Green (Organic)	Significant
Core Brand Image Brand Attitude	Shah (2012)	Pakistan	Green Products	Significant
	Shah (2012)	Pakistan	Green Products	Significant

Cont'd

Determinants	Author	Country	Area	Finding
Altruism	Ng & Paladino (2009)	Australia	Green Mobile	Not supported
Beliefs about product friendliness to the environment	Ahmad & Juhdi (2010)	Malaysia	Green Organic	Significant
Beliefs about product safety for use	Ahmad & Juhdi (2010)	Malaysia	Green Organic	Significant
Perceived Customer Effective Demographic	Kim & Han (2010)	US	Green Hotel	Significant
	Rezai et al. (2013)	Pakistan	Green Products	Significant
	Ansar (2013)	Pakistan	Green Products	Insignificant
	Manesh & Ganapathi (2012)	Chennai	Green	Significant
	Teng et al. (2011)	Malaysia	Green	Significant
Perception towards green	Ragavan & Mageh (2013)	Chennai	Green (Organic)	Significant
	Jeong (2010)	US	Green	Significant
	Ahmad & Juhdi (2010)	Malaysia	Green Organic	Significant
Product Quality	Terrengana et al. (2013)	Indonesia	Environmental Friendly Air Condition	Significant

2.8 Review of Past Studies on Determinants of Green Purchase Intention

This section reviews each determinant that have been studied empirically with green purchase intention such as PBC, environmental consciousness, green trust, perceived green knowledge, perceived value, green price sensitivity, government regulation and green availability.

2.8.1 Perceived Behavioural Control and Green Purchase Intention

The concept of perceived behavioural control has been referred to as the degree of controlling one's own behaviour (Numraktrakul et al., 2011), while Tan (2013)

asserted that this reflects the individual's acumen of the difficulty of performing a given behaviour. Explaining this construct, Ajzen and Madden (1986) postulated that perceived behavioural control showed previous experience and expected impediments in performing behaviour. Individual who however, have control over resources and the chances or favourable atmosphere with minimal hindrances may exercise greater control over behaviour. The reflection of beliefs that the individual have about the access to needed resources (information, equipment, ability, money, time) and opportunities he requires for the specific behaviour execution is explained as perceived behavioural control (Chen, 2007).

Depicting the extent of the relationship which exist between perceived behavioural control and green purchase intention, prior studies used different methods of analysis such as the structural equation modelling (Lien et al., 2012; Haruna-Karatu & Nik Mat, 2015b; Kim & Chung 2011; Tan, 2013; Sadati & Mohammed, 2012; Wu & Teng, 2011) descriptive statistics (Rezai et al, 2013) while the others used regressions to support the role PBC plays as a significant factor in predicting behavioural intentions (Mahesh & Ganapathi, 2012; Haruna-Karatu & Nik Mat, 2015a; Kim & Han, 2010; Ng & Paladino,2009; Paladino & Ng, 2013).

Moreover, Tan (2013) posited that consumers are likely to purchase green homes with available resources and opportunities. He concluded this from the result of the

252 potential Malaysian green home buyers. Likewise, Sadati and Mohammed (2012) confirmed that price which is financial resource available to the consumer can enhance green purchase intention. Similarly, Lien et al. (2012) emphasized on education of consumers on green consumption. In the same vein, explaining the reason for their finding, they pointed to the level of awareness, income and education of their respondents (Rezai et al., 2013). Move over, in other studies they identified environmental consciousness, appearance consciousness, concern for food safety, protection of the environment are seen as supporting factors which affect their purchase intention (Mahesh & Ganapathi, 2012; Kim & Chung 2011).

On the contrary, Haruna-Karatu and Nik Mat (2015a) argued that perceived behavioural control do not have significant influence with green purchase intention. Similarly, Ng and Paladino (2009) argued that insignificant relationship exist between perceived behavioural control and purchase intention in their study on 175 undergraduates. Explaining further, they claimed that the Australian youths are most concerned with expressing themselves through the phone; they attributed this to the lack of information on the product and its availability. A similar study was conducted by the same authors in 2013 using a sample of 175 young business students; the findings still produced an insignificant relationship between perceived behavioural control and the purchase of green mobiles.

The reviewed literatures all laid path to congruence except two studies which had insignificant result (Haruna-Karatu & Nik Mat, 2015a; 2015b; Ng & Paladino, 2009; Paladino & Ng, 2013). This relationship nonetheless is still uncovered in the Nigeria background. Consequently, in the light of this vagueness in finding, this study

incorporates the variable to further examine it in order to validate its significant role in relation to green purchase intention among Nigerian citizenry.

Table 2.3

Summary of Studies on Perceived Behavioural Control and Green Intention

Author/Year	Country	Analysis Method	Respondents	Findings
Haruna-Karatu & Nik Mat (2015b)	Nigeria	SEM	400	Significant
Haruna-Karatu & Nik Mat (2015a)	Nigeria	Regression	104	Insignificant
Tan (2013)	Malaysia	SEM	252 Potential Home Buyers	Significant
Paladino & Ng (2013)	Australia	Multiple regression	175 Business students	Insignificant Significant
Lien et al. (2012)	Taiwan	SEM	435 Consumers	Significant
Mahesh & Ganapathi (2012)	Chennai	Regression	300 Consumers	Significant
Sadati & Mohammadi (2012)	Iran	SEM	154 Consumers	Significant
Kim & Chung (2011)	USA	Multiple Regression	202 Consumers	Significant
Wu & Teng (2011)	Taiwan	SEM	250 Customers	Significant
Kim & Han (2010)	US	SEM	389 Hotel Customers	Significant
Ng & Paladino (2009)	Australia	Multiple regression	175 Under-Graduates	Insignificant

2.8.2 Environmental Consciousness and Green Purchase Intention

Environmental consciousness as one of the variables selected for this study has been considered by different authors to indicate the level of alertness consumers or a society have towards environmental problems. Zelezny and Schultz (2000) for instance saw it as the element of belief system which refers to specific emotional factors that affect their inclination to partake in pro-environmental behaviour. Lending support to this definition, Bohlen, Schlegelmilch and Diamantopoulos (1993) proposed it is a multidimensional concept that comprises of cognitive and affect

components; at the cognitive level, they opined that environmental consciousness has to do with knowledge which the consumer possess on the consequences of their action in connection to the environment in which they live, while affect component according to them reflects the concern of the person over the environment or perceived environmental degradation.

Furthermore, environmental consciousness can be manifested through certain behaviours (Sharma & Bansal, 2013). Shedding more light on this, they claim that behavioural outcomes may be greatly expressed in the form of general pro-environmental behaviours or towards a specific product which all depends on the level of consciousness about the environment that the individual has.

Subsequently, Numrakutrakul et al. (2011) is also of the opinion that consumers will be spurred to purchase environmentally safe products if they are convinced that the product is essential in curbing environmental problems. Such behaviours may be translated into environmental problem conscious behaviour and can subsequently become part and parcel of one's everyday life style activities (Lu et al., 2014; Kim & Han, 2010; H'Mida, 2009; Thompson, Anderson, Hansen, & Kahle, 2009; Urban & Zverinova, 2009).

Environmental consciousness directs the individual in making purchase decision; this consciousness about the environment can lead consumers or nations to consider greener decision in their purchases (Peattie, 2001). This assertion supports that of Chase (1991) in which he avowed that in most cases, consumers who are environmentally conscious are ever ready to change in their purchase behaviour so as

to enhance the environment. Furthermore, Irianto (2015) concur that this type of consciousness encourages individuals to form a positive approach towards green products.

Accordingly, giving strength to the above opinions, environmentally conscious consumers demonstrate their awareness of green in association with a product or service and their desire to lessen those effects through their purchase choices (Schwepker & Cornwell, 1991). Such consumers sometimes usually through their premeditated actions, boycott manufacturers and retailers who are not green conscious and keenly support the protection of the planet through their anti-consumption attitude (Chen & Chai, 2010)

These types of consumers also tend to seek for products made in a sustainable way and usually consider spending money on such products a worthy purchase because they believe they will enhance their personal health. Thus, this behaviour is referred to as Life of health and sustainability, (LAHOS) (Kotler & Keller, 2008). In the same vein they see environmental consciousness as a desired societal behaviour (Kumar, Philip & Sharma, 2014).

This construct however though sometimes referred to as environmentally significant behaviour, environmentally friendly behaviour and environmentally responsible behaviour (Urban & Zvenrinova, 2009) has limited studies in which its relationship with green purchase intention was tested. In the study of Sharma and Bansal (2013) they confirmed that lifestyle-based investigation of environmentally conscious

consumers is an area which is widely not explored, not only in green but in none-green area.

The review of extant literature indicate a few studies looked into the relationship between environmental consciousness and green purchase intention (Akehurst, Afonso & Goncalves, 2012; Haruna-Karatu & Nik Mat, 2015a; Kim, 2015; Irianto, 2015; Kim & Chang, 2011; Kim & Han, 2010; Lu, 2014; Numraktrakul et al., 2011). Considering the studies, their findings revealed that environmental consciousness is a positive predictor of green purchase intention (Numraktrakul et al., 2011; Kim & Han, 2010). Numraktrakul et al. (2011) investigated what factors affected green housing purchase using six variables in direct relationship. They found that a significant relationship does exist between environmental consciousness and green purchase intention though it had the least value compared to the other constructs. They attributed the reason for this outcome to the fact that green home concept is not a widely known concept and that Thai consumers are still uncertain about the demand for it.

Furthermore, Kim and Han (2010) explained that environmental consciousness positively influenced the intention to pay conventional price for green hotel based on their survey of the 389 hotel customers in US. Buttressing their finding, they declared that individual's sensitivity to the different environmental problems and their perceived usefulness in environmentally friendly activities aimed at curbing the problems can influence proactive environmentally conscious behaviours in their everyday life.

Even though Kim and Chang (2011) examined environmental consciousness in their study, it was investigated as a dimension of consumer values and mediated by consumer attitude towards buying organic body/hair care product. A positive relationship equally ensued portraying the fact that environmental consciousness significantly affected attitude and attitude was found to positively influence green purchase intention.

Using the term perceived environmental behaviour to denote environmental consciousness; a study came out with a significant relationship between ecological conscious consumer behaviour (environmental consciousness) and green purchase intention (Akehurst, Afonso & Goncalves, 2012). The reason they gave for the outcome of their finding is that high ecological consciousness reduces the gap between green purchase intention and green purchase behaviour. They further explained that a clear understanding of green consumer profiles and behaviour give firms better standing to respond to challenges on green.

Contrariwise, a few authors found out that environmental consciousness does not have significant influence on green purchase intention (Lu, 2014; Haruna-Karatu & Nik Mat, 2015a; Samarasinghe, 2012). Samarasinghe (2012) asserts that the people of Sri Lankan are more consciousness of comfort rather than safety and this he attributes to low income and poor living condition. These by implication makes the respondents prefer to remain in their comfort zone then look for an expensive home. Additionally, Kim (2015) posits that environmental concern, under which he tested consciousness of environmental issues, is related in a significant and positive direction to green purchase intention.

The outcomes from the two studies were found to be positive in spite of the fact that they were done in different settings with different population and method of analysis. Having these equivocal findings therefore necessitates for investigation to establish the relationship between environmental consciousness and green purchase intention.

Table 2.4

Summary of Studies on Environmental Consciousness and Green Purchase Intention

Author/Year	Country	Analysis Method	Respondents	Findings
Kim (2015)	Korea	SEM	317	Insignificant
Lu (2014)	Malaysia	Regressions	458 Workers	Insignificant
Akehurst et al. (2012)	Portugal	Multiple Linear Regressions	186Consumers	Significant
Samarasinghe (2012)	Sri Lankan	Linear Regression	200 Consumers	Insignificant
Numraktrakul et al. (2011)	Thailand	Multiple Regressions	200 student Consumers	Significant (Positive)
Kim & Han (2010)	US	SEM	389Hotel Customers	Significant (Positive)

2.8.3 Green Trust and Green Purchase Intention

Trust is one element that is fundamental in business and sustainable development and enhances long-term relationship or loyalty between the owners of the business and their customers or client. The sets of beliefs, desire and accumulated assumptions over time which is directed towards a brand explains what trust stands for (Swean & Chumpitaz, 2008). Elucidating further, they stated that it can be viewed from three perceptive; perceived reliability, integrity and benevolence. Chen and Chang (2012) allied their definition of trust from this point of view by saying that it is the

willingness to rely on one object or person based on the belief or anticipation resulting from credibility, benevolence and ability about the environmental performance. These three ingredients (credibility, benevolence and ability) affect the formation of trust.

Many authors in the past acknowledged that green trust is a strong determinant of purchase intention (Chen & Chang, 2012; Gupta & Dash, 2012; Kim, 2015; Liang & Chaipooirutana, 2014; Rizwan, Mahmood, Siddiqui &Tahir, 2014; Rizwani et al., 2013; Prompratana et al., 2013; Paspalis, 2011; Terenggana et al., 2013). These authors came up with a positive outcome which implied that significant relationship existed between trust and green purchase intention even though their studies were from different background, method of analysis and with varying populations as sample size.

Other authors from the same background used regression, both studies utilized 150 sample size (Rizwan et al., 2013; Paspalis, 2011). Sample size used in the study by Terrengana et al. (2013) is 291 consumers from Italy while Chen and Chang (2012) used 285 consumers from Taiwan and both authors used SEM. Similarly, Gupta and Dash (2012) handled the role of green trust and green experience in encouraging green consumption in the hotel setting by applying multivariate regressions in analysing data sourced from 105 hotel guests in Delhi.

Also, some studies concur that trust and green purchase intention are positively and significantly related (Kim, 2015; Liang & Chaipooirutana, 2014; Rizwan et al., 2014. Liang and Chaipooirutana (2014) explained the basis for their result by

capitalizing on the fact that trust in the product of the provider will spur purchase intention among the Beijing consumers. On the other hand, Rizwan et al. (2014) are of the opinion that trust in the message of the advertiser on green product will lead to credibility which in turn will create purchase intention.

Following the same path, Rizwan et al. (2014) expounds that messages at different lifecycle of the green product is viewed by respondents in different ways and can result in different levels of trust and green purchase intention. On the whole, the results of the authors proved that trust has a positive influence on green purchase intention.

Contrariwise, the study of Ng and Paladino (2009) suggested that there is insignificant relationship between perceived brand trust and the intention to buy green mobile phone hence the hypothesis was not supported. The Australian youths according to them are more concerned about using the product as a tool to express themselves rather than evaluating the environmental quality and performance of the product to form intention.

Moreover, the findings from these researchers (Table 2.5) are inconclusive and cannot be generalized to be symmetrical in all background as difference could occur based on the level of awareness of environmental problems and other factors associated with consumer's evaluation. This variable will be explored in the Nigeria context to empirically establish the role of trust in influencing green purchase intention.

Table 2.5

Summary of Studies Showing Relationship between Green Trust and Green Purchase Intention

Author	Country	Sample	Analysis Method	Findings
Kim (2015)	Taiwan	969 university students	One-way ANOVA	Significant
Rizwan et al. (2014)	Pakistan	150	SPSS	Significant
Liang & Chaipoo Pirutana (2014)	Beijing	450	Pearson Correlation	Significant
Rizwan et al. (2013)	Pakistan	150	Regression	Significant
Pompratong et al. (2013)	Thailand	600 potential buyers	Multiple Regression	Significant
Terrenggana et al. (2013)	Italy	291 consumers	SEM	Significant
Cheng & Chang (2012)	Taiwan	285 consumers	SEM	Significant
Gupta & Dash (2012)	Delhi	105 hotel guests	Multivariate Regression	Significant
Paspalis (2011)	Pakistan	150 university students	Regression	Significant
Ng & Paladino (2009)	Australia	175 undergraduates	Multiple Regression	Not supported

2.8.4 Perceived Green Knowledge and Green Purchase Intention

This portion considers perceived green knowledge which has been viewed as the ability of the individual consumer to define or identify certain symbols, concepts and behaviour which are connected to environmental problems. It is also defined as how much the consumer feels he or she knows about environmental or green issues (Chan, 1999). Consumers will often make purchase choices based on their perceived knowledge irrespective of whether they have the right information or not (Knight, 2005). Basically, consumer's green knowledge will affect to a great extent what they do and what they purchase (Ellen, 1994).

Knowledge in general is believed to be the features that can impact the entire phase of decision making by an individual (Shabnam, 2013). Furthermore, it has been

considered as a pertinent and weighty variable which influences the way consumers collect and bring together information (Alba & Hutchinson, 1987) and also how much of the information is used in making decision (Brucks, 1985).

On the other hand, awareness means the consciousness of the individual about the phenomenon (Zhen & Mansori, 2012). Elucidating on this, Kotler (2004) declared that from the marketing point of view, awareness is the consumer's consciousness while knowledge of particular product permits the consumer to make the best choice in purchase decision.

Thus, connecting knowledge and awareness, Kaiser, Wolfing and Fuherr (1999) explained that knowledge and awareness about current environmental problems are prerequisites for formation of attitude towards the environment, environmental problem, person's role in the problem and the impacts of their environmental performance (Frick, Kaiser & Wilson, 2006).

Commenting on this, D'Souza et al. (2006) suggested that knowledge about environmental issues revolves around two angles; one being that the consumers need to be educated in order to understand the overall impact of the product produced in environmentally acceptable standards. Secondly, they added that the consumer should have knowledge concerning environmental pollution regulations and its consequences on the environment. This according to them would lead to increase in the level of their awareness and thereby promote a favourable attitude towards green product and can eventually stimulate purchase intention.

Consequently, this variable is a viable potential resource in tackling the challenges of green products, low awareness level and the consumer's dilemma about the green concept. The potentials of this variable have not been explored in the Nigerian context; it is indispensable to transmit knowledge about a new phenomenon such as green products in countries like Nigeria especially now that the product is in its infancy stage. Thus, this explains the rationale for incorporating this variable as one of the major contributions of this study.

Putting the Nigerian situation aside, previous studies empirically have investigated green knowledge by surrogating the term with environmental awareness, environmental knowledge and ecological knowledge to explain their relationship with green purchase intention (Azizan & Suki, 2013; Aman et al., 2012; Ali & Ahmad, 2012; Feng, 2011; Mei et al., 2012; Haryanto, 2014; Paladino & Ng, 2013; Rizwan et al., 2014; Rizwan et al., 2013; Shamsollahi et al., 2013; Sakthirama & Venkatran, 2012; Wu et al., 2013). Different analysis methods used which ranged from SEM, regression and descriptive analysis and all the outcomes were significant.

Supporting their findings, Rizwan et al. (2014) emphasized on the fact that respondents believe environmental advertisement boosts knowledge on green. Also other scholars put forward that understanding the issues which relate to environmental problems is important in producing a significant impact on consumer's purchase intention (Azizan & Suki, 2013; Aman et al., 2012). Furthermore, when there is increased in knowledge, the consumer becomes more informed and knowledgeable and this raises high possibility of the purchase intention (Aman et al, 2012; Shamsollahi et al., 2013). In addition, Sakthirama and Venkatran

(2012) suggested that knowledge and familiarity being significant factors which impact purchase intention should be considered in the marketing of organic foods.

Following Feng's (2012) findings, the author explained that since ecological knowledge influenced attitude, it was in turn significant in affecting the purchase intention for the green water saving product. However, Ali and Ahmad (2012) stated that though environmental knowledge was significant, it had the lowest value amongst the other variables tested. This they attributed to the low level of environmental knowledge among the sample examined.

Paladino and Ng (2013) investigated the influence of environmental knowledge on the purchase intention of green mobile phones with young business students as their population. The relationship was found to be positive and significant, indicating that knowledge increases intention to purchase. In essence, consumers need basic knowledge on environmental issues, this comprises terminologies and environmental concepts, and secondly action based environmental knowledge (Darnall, Pointing & Vazquez-Brust, 2012).

Therefore, by carrying out this work, the Nigerian consumers will be informed about green products. In order to cultivate green knowledge, increase the cognizance about environmental problems and bring about the desired change in behaviour of the Nigerian consumers, knowledge and awareness are strong tools which can be used to effectively increase the possibility of green purchase intention. This is in line with the statement that knowledge on environmental related issues have always been associated with increasing awareness towards product choices (D'Souza et al., 2006)

and have played a significant role in affecting consumers' attitude and behaviour towards buying green products (Kumar & Ali, 2011).

Table 2.6

Summary of studies showing Relationship between Green Knowledge and Green Purchase Intention

Author/Year	Country	Measurement	Analysis Method	Respondents	Findings
Rizwan et al., (2014)	Pakistan	NA	SPSS	150	Significant
Wu et al., (2013)	Taiwan	36 Items	SEM	254 Consumers	Significant
Azizan & Suki (2013)	Malaysia	18 Items	Multiple Regressions	430 Consumers	Significant
Paladino & Ng (2013)	Australia	NA	Multiple Regressions	175 Young business students	Significant
Rizwan et al., (2013)	Pakistan	N.A	Multiple Regressions	Adolescents	Significant
Shamsollahi et al.(2013)	Malaysia	6 Items	Multiple Regressions	200 Consumer	Significant
Sakthirama & Venkatran (2012)	India	19 Items	SEM	200 Consumers	Significant
Mei et al. (2012)	Malaysia	4 Items	Multiple Regressions	230 Consumers	Significant
Aman et al. (2012)	Malaysia	N.A	Regression	384 Consumers	Significant
Ali & Ahmad (2012)	Pakistan	N.A	Regression	377 Students	Significant
Phiphitharan (2012)	Thailand	N.A	Linear Regression	622 Consumers	Significant
Feng (2012)	China	N.A	Descriptive and Pearson Analysis	400 Household Consumers	Significant
Ng & Paladino, (2009)	Australia		Multiple Regression	175 Young Students	Insignificant

2.8.5 Government Regulations and Green Purchase Intention

Most often, people assume that environmental issues are solely government's burden to bear, to some extent, this may be true. Chen and Chai (2010) avowed that government plays a vital role to support consumption and sustainable development by undertaking different social marketing strategies to arouse the awareness of the public on the significance of the environment to man and other earthly and sea creatures [Stanton & Futrell, (1987), cited in Qader & Zainuddin (2010)]. They defined government regulations as "*Established regulations designed to control the amount of hazardous wastes produced by industries*"

Government inventiveness on environmental related subject matter shows that it can be a strong tool to spur green behaviour (Punitha & Rahman, 2011). Even though some consumers may have ecological concern, they still feel that the protection of the environment is exclusively the responsibility of the government (Chyong, Phang, Hasan & Buncha, 2006). Conclusions from prior research points to the fact that there is inconsistencies in findings on the connection between government role and green purchase intention (Azhari, Rahman, Othman & Wahab, 2011; Mei et al., 2012; Numraktrakul et al., 2011; Shamollahi et al., 2013) supported the significant role of government in influencing purchase intention (Table 2.7).

Contrary to what has been revealed in the aforementioned studies, some authors affirmed that government role and support does not have any significant influence on green purchase intention (Ahmed & Juhdi, 2010; Ragavan & Mageh 2013; Qader & Zainuddin 2010). Ragavan and Mageh (2013) opined that regardless of government activities to show concern towards the environment, some individuals would go

ahead to decide on purchasing organic products. This according to them could be attributed to their perceived personal benefit from the consumption or usage of such products.

Additionally, Qader and Zainuddin (2010) argued that the insignificant result could be explained by the government's inability to control environmental law and policy. Likewise, Ahmed and Juhdi (2010) argued that the information on organic food and action taken by government to create awareness have not aroused consumers' interest.

Since there is inconclusive stand on this relationship due to inconsistent findings, there is a need for further research on this linkage. Furthermore, there is the need to validate this relationship using SEM since past studies have only employed regressions analysis. This variable is also selected in the context of this study since there is weak government support and lack of environmental consciousness in Nigeria.

Table 2.7

Summary of studies on the relationship between Government Regulations and Green Purchase Intention

Author/Year	Country	Analysis Method	Respondents	Findings
Shamsollahi et al. (2013)	Malaysia	Multiple Regressions	200 consumers	Significant
Ragavan & Mageh (2013)	Chennai	Multiple Regressions	300 consumers	Insignificant
Mei et al. (2012)	Malaysia	Multiple Regressions	230 consumer	Significant
Azhari et al. (2011)	Online	N.A		Significant
Numraktrakul et al. (2010)	Thailand	Multiple Regression	200 workforce	Significant
Qader & Zainuddin (2010)	Malaysia	Regression	170 lecturers	Insignificant
Ahmad & Juhdi (2010)	Malaysia	Multiple Linear Regressions	177 consumers	Insignificant

2.8.6 Green Perceived Value and Green Purchase Intention

Perceived value is very essential for purchase intention whereby a consumer tries to evaluate a product or service before making a purchase decision. The definition of perceived value has been viewed from the lens of different authors. For instance, perceived value is the consumer's entire assessment of the complete benefit of the product based on his/her appraisal and desire of what is expected (Chen & Chang, 2012; Rizwani et al., 2013).

Consumer's perceived value is crucial in marketing performance because organizations could foster consumer purchase intention via product value (Zhuang et al., 2010; Steenkamp & Geyskens, 2006). Sheth, Newman and Gross (1991) defined perceived value as social value, emotional value, functional value, conditional value

and epistemic value. Similarly, Sweeney and Sontar (2001) suggested that perceived value has three dimensional values; these are functional, social and emotional values. The later however, did not include the conditional and epistemic in their definition.

Since values are guiding principles which direct individuals to seek for objects which bring satisfaction for what he or she attaches great importance, previous research in Table 2.8 indicated that perceived value and green purchase intention has a positive interaction (Chen & Chang, 2012; Chen et al., 2012; Gupta & Dash, 2012; Haruna-Karatu & Nik Mat, 2015b; Kong, Harun, Sulong & Lily, 2014; Liang & Chaipoopirautana, 2014; Rajput, Kaura & Khanna, 2014; Rizwan et al., 2014; Rizwani et al., 2013; Paspalis, 2011). From their explanations it can be concluded that consumers expect value for the extra premiums that they pay for green products.

However, the methods of analysis in these studies differ; a few of the authors adopted the structural equation modelling but the others applied regressions, still they produced similar finding (Chen & Chang, 2012; Chen et al., 2012). On the other hand, Rajput et al. (2014) put forth that green perceive value does not contribute to green purchase intention stressing that consumers in Delhi are of the opinion that the conventional products are better than the environmental safe products. This reflects that there are still inconsistencies in the findings on the relationship between perceived value and green purchase intention.

Due to the inconsistencies, the current study therefore found it indispensable to have it integrated in this study. The variable so far has not been adopted in any green study in the Nigerian setting, though in non-green it was handled in relation to re-purchase

intention (DV) towards consumer goods (soap), they found positive outcome (Onwumere et al., 2012). Hence, there is need to investigate the extent of influence of perceived value on green buying intention of Nigerians.

Table 2.8

Summary of studies showing the Relationship between Perceived Value and Green Purchase Intention

Author/Year	Country	Measurement	Analysis Method	Respondents	Findings
Haruna-Karatu & Nik Mat (2015b)	Nigeria	6 items	SEM	400 Consumers	Significant
Rizwan et al., (2014)	Pakistan	5 items	SPSS	150 Consumers	Significant
Liang & Chaipoo Pirautana, (2014)	Beijing	-	Pearson Correlation	450	Significant
Rajput et al. (2014)	India	-	Multiple regressions & ANOVA	383	Insignificant
Kong et al. (2014)	Malaysia	5 items	Multiple regressions	159 Consumers	Significant
Rizwan et al. (2013)	Pakistan	5 items	Regression	150 Consumers	Significant
Chen & Chang (2012)	Taiwan	5 items	SEM	258 Consumer	Significant
Gupta & Dash (2012)	Delhi	-	Multiple Regression	105 Guest	Significant
Chen et al., (2012)	Taiwan	4 items	SEM	468 Adults	Significant
Paspalis (2011)	Pakistan	5 items	Regression	150 University Students and Professionals	Significant

2.8.7 Green Price Sensitivity and Green Purchase Intention

Price denotes the monetary value fixed on a product in the light of a company's policy on pricing strategy and creates a perfect match between revenue and profit.

The American Marketing Association (AMA) defined price as the formal ratio that

indicates the amount of money needed to acquire a given quantity of goods or service (www.marketingpower.com). Price premium is the additional amount paid for product instead of the usual price which could indicate consumer's willingness to pay for green product (Numraktrakul et al., 2011). On the other hand, Zhen and Mansori (2012) asserted that consumer's attitude and perception are correlated with their willingness to purchase.

There have been negative perceptions of green product prices. Specifically, consumers complain of high prices of eco-friendly products (Grail research, 2010; D'Souza, 2007). They affirmed that consumers have the notion that green products are highly priced in comparison to conventional ones. Though concern for the environment will induce purchase decision, high price can inhibit the actual purchase because consumers are price sensitive (Synovate Survey, 2012; Quick Pulse Green Buying Survey, 2011).

Even so, the discussions on the studies of previous researchers have thrown light on the relationship between green price and purchase intention, confirming that green price significantly influenced purchase intention of consumers (Ahmad, Yousef, Shabbier & Imam, 2014; Ali & Ahmad, 2012; Ansar, 2013; Lee, Ling et al., 2012; Rasheed, Farhan, Zahid, Jived & Riaan, 2014; Mansor, Yahaya, Nezam & Aman; 2011; Menahem, Boxer & Resettle, 2010; Rajput et al., 2014; Zhen & Mansori, 2012). Furthermore, Ansar (2013) in his investigation on how green marketing impacts consumer purchase intention in Pakistan using 384 consumers suggested that environmentally conscious consumers still go for environmentally safe products even when it is expensive (Table 2.8).

While in another opinion, it was established that if businesses can offer same price and quality for green products as for the conventional ones, consumers who have positive feeling towards protecting the environment will have high purchase intention for green products (Ali & Ahmad, 2012; Lee, et al, 2012).

On the contrary it is suggested that high price will reduce purchase intention for organic food while low price will push it up (Mansor et al., 2011; Zhen & Mansori, 2012). They further claimed that consumers would want to spend on green automobiles only if the prices are reasonable and affordable. In the same manner, Menahem et al. (2010) acknowledged that price positively influences purchase intention for green sheltered homes. Arguing this out, they opined that the stronger the intention, the higher the willingness to pay.

Looking at another scenario, Rajput et al. (2014) found that the relationship between price consciousness and purchase intention is significant. Buttressing this outcome, the authors declared that most of the respondents are income earners and thus willing to pay extra for environmental products.

This notwithstanding, Ng and Paladino (2009) and Rasheed et al., (2014) did not concur with the findings in the studies discussed earlier. Ng and Paladino (2009) contended that price does not inhibit the formation of green purchase intention especially where subjective norm prevails over the subjects in the investigation on Australian adolescents. Rasheed et al. (2014) however, argued that consumers are

more attracted to products with low price. The finding of this relationship like others is equivocal as some found positive result while others are opposed to the linkage.

Table 2.9

Summary of Studies showing Relationship between Green Price Sensitivity and Green Purchase Intention

Author/Year	Country	Measurement	Analysis Method	Respondents	Findings
Rasheed et al., (2014)	Pakistan	N.A	Regressions	160 Consumers	Insignificant
Rajput et al., 2014	Indian	5items	Regressions ANOVA	382 Consumers	Significant
Ahmad et al., 2014	Pakistan	5items	Regressions	213University Students	Significant
Ansar (2013)	Pakistan	N.A	Inferential Descriptive	384 Residents Of Karachi	Significant
Ali &Ahmad (2012)	Pakistan	N.A	Regression	377 Students Consumers	Significant
Zhen & Mansori (2012)	Malaysia	3 Items	Multiple Regression	144 Female above 21years	Significant
Mansor et al., (2011)	Malaysia	19 Items	Regression	196 Automotive users	Significant
Menahem et al., (2010)	Haifa (Israel)	N.A	Regression	54 Green Shelter buyers	Significant
Ng & Paladino (2009)	Australia	N.A	Multiple Regression	175 Undergraduates	Insignificant

A recapitulation of the problem statement shows that green product is not yet a widespread phenomenon in Nigeria (Loamy, 2012). The issue of its acceptability and the perception of high price of green products by the consumers are still not investigated. As it was rightly observed, that while preparing Nigerian market for green products, the question is whether Nigerian consumers are ready to pay for the high cost of green products (Loamy, 2012)? Because of the inconsistencies in findings on price coupled with consumer's discontent with green prices, the study

therefore investigates price sensitivity as one of the variables which may affect green purchase intention.

2.8.8 Green Availability and Green Purchase Intention

Place comprise of the channels, coverage, assortments, location and inventory and also the process of moving finished and semi-finished goods to the customers (Kotler & Keller, 2008). Putting this more succinctly, consumer's perceived green availability is how easily he/she thinks the product can be obtained or accessible (Zhen & Mansori, 2012; Olivia, 2011; Tarkieanen & Sundqvist, 2005).

Non-availability of green products can negatively affect the intention to buy especially if there was initial motivation for the product (Laroche, Bergerom & Barbaro-Forleo, 2001). In a confirmation to this, Vermier and Verbeke (2004) forwarded that even if there was the intention to purchase a product and the consumer discovers that the product is out of store, he/she becomes discouraged and the behaviour becomes difficult to perform. Translating intention into actual purchase becomes impossible based on the mere fact that accessibility is difficult. Most often, the availability of products in designated channels and adequate information on location can enhance consumes effort to locate and make purchases or be forced to change outlets or switch to other brands (Bhate & Lawler, 1997).

In order to determine the impact of this variable on purchase intention, the findings in the few literatures reviewed presented ambiguity in results (Ahmad & Juhdi, 2010; Haruna-Karatu & Nik Mat, 2015b; Rasheed et al., 2014; Rajput et al., 2014; Ragavan & Mageh, 2013; Zhen & Mansori, 2012) (refer to Table 2.9). Expounding on their

results, they claimed that availability was not a strong factor to affect purchase intention (Ahmad & Juhdi, 2010; Zhen & Mansori, 2012).

Similarly, Ragavan and Mageh (2013) who found insignificant linkage explained that the young female consumers are very much aware of the high quality of organic food products, its benefit to their health and safety in consumption so they look for the products because they are well informed. The analyses of the aforesaid studies which were done using the same method (Regressions) all laid paths to congruence, which is having insignificant finding in relation to green purchase intention. Contrary to the above findings Haruna-Karatu and Nik Mat, (2015b) confirmed in their study that green availability has significant relationship with green purchase intention when analysed using SEM.

Table 2.10
Summary of studies showing Relationship between Availability and Green Purchase Intention

Author/Year	Country	Measurement	Analysis Method	Respondents	Findings
Haruna-Karatu & Nik Mat (2015b)	Nigeria	6 items	SEM	400	Significant
Rasheed et al. (2014)	Pakistan	N.A	Regression	160 Consumers	Insignificant
Rajput et al. 2014	Indian	5 items	ANOVA	382 Consumers	Insignificant
Ragavan & Mageh (2013)	Chennai		Multiple Regression	300 consumer	Insignificant
Zhen & Mansori (2012)	Malaysia	3 Items	Regression	144 female Consumers	Insignificant
Ahmad & Juhdi (2012)	Malaysia	N.A	Multiple Regressions	177 consumer	Insignificant

These results cannot be generalized anyway because of the differences in cultural and social-economic factors in backgrounds. Furthermore, the glaring inconsistencies

deserve further empirical examination on this linkage. Hence, the main purpose for its inclusion in this piece of work is to validate the relationship and test its significant influence on green purchase intention in a developing nation like Nigeria.

2.9 Other Direct Determinants of Green Purchase Intention

Although several determinants of green purchase intention have been presented in prior literatures, not all of them are actually used in this study (Appendix A). Reasons for their non-inclusion are explained as follows: attitude for instance has been studied extensively and most findings are positive and significant (Azizan & Suki, 2013; Kim & Chung, 2011; Mei et al., 2012; Numraktrakul et al., 2011; Tan, 2013). However, the aspect of attitude focused in this study is trust.

Health consciousness though becoming a prominent factor in shaping people's attitude towards to green products these days (Suprpto & Wijaya, 2012) does not however form part of the variable for this study because from our perspective it denotes why an individual buy green or organic product where actual purchase is in

practice and better be examined in such settings. Additionally, perceived usefulness and risk are fitted most in technological based studies while past experience does not fit in, as there is little or no experience with green product in the case of Nigerian consumers. In the meantime, perceived quality is explained by the variable perceived value which is included in the study. In order to avoid duplication of variables therefore perceived service quality is omitted. It is remarkable to mention that promotion and past experience will be explained in knowledge thus the reason for omitting these constructs.

Moreover, corporate social responsibility (CSR) is also viewed as direct determinant of green purchase intention and mostly related in studies that use organisations as their unit of analysis. The current study uses consumers as unit of analysis hence CSR is replaced with environmental consciousness.

2.10 Determinants of Perceived Behavioural Control

The few studies which tested this relationship utilized the variables such as behavioural beliefs, normative beliefs, control beliefs (Sadati & Mohammadi, 2012). Other variables are external factors (Mahesh & Gapanathi, 2012), green consumption cognition (Lien et al., 2012), social-demographic (Rezai et al., 2013), past behaviour (Wu & Teng, 2011) and experience (Giantari et al., 2013). Likewise, other determinants of PBC are environmental concern, altruism, risk aversion, price consciousness and involvement, perceived brand parity, perceived brand trust, objective knowledge, subjective knowledge and knowledge action (Ng & Paladino, 2009). These variables were all examined and produced significant results, except for the variables tested by Ng and Paladino (2009) which were found to be insignificant.

In this study determinant of perceived behavioural control such as perceived green knowledge, green perceived value, green trust, government regulations and green availability are examined. Most of these determinants have not been empirically tested which necessitates their inclusion in this study.

2.10.1 Perceived Green Knowledge and Perceived Behavioural Control

Studies which linked perceived green knowledge and perceived behavioural control in relation to green purchase intention proved to be limited except two studies. One study that tested the relationship between environmental knowledge and PBC in green purchase setting found significant relationship (Paladino & Ng, 2013). Contradictorily, the second study that tested the influence of perceived green knowledge on perceived behavioural control of Nigerian consumers found insignificant result (Haruna-Karatu & Nik Mat, 2015b). It has become obvious that there is lack of studies on this linkage and the only few support have opposing findings. Thus, the need to examine this relationship cannot be overemphasized in order to bridge this gap and to boost green literature.

2.10.2 Government Regulation and Perceived Behavioural Control

Government in a bid to enhance green purchase intention may enact strong policies and urge the citizens to consider possible environmental consequences and lay emphasis on curbing environmental challenges (Lee & Quazi, 2001). This relationship becomes pertinent in this study as prior studies ignored to investigate the direct relationship between government regulation and perceived behavioural control. From the review of extant literatures in green related area, studies have only shown the direct relationship between government relationship and green purchase intention (Yeow, Ng, Jee & Goh, 2014; Ragavan & Mageh, 2013; Azhari et al., 2011). An attempt however was made to examine this relationship and the result is insignificant (Haruna-Karatu & Nik Mat, 2015b). Hence, this relationship lacks empirical validation and deserves further research. Investigating this relationship in

Nigeria will also heighten government regulations on green issues since Nigeria has lagged behind its counterparts in green activities.

2.10.3 Green Trust and Perceived Behavioural Control

Review of literature on this relationship showed that the linkage is not widely researched into. However, trust has been discussed as perceived barriers which may inhibit behavioural intentions (Aertsens, Verbeke, Mondelaers and Huylenbroeck, 2009; Liang & Chaipoo Pirutana, 2014). Ng and Paladino (2009) confirmed that trust do not have positive and significant relationship with perceived behavioural control, So far this path needs to be further validated especially in the context of this study due to scarcity of study on the linkage.

2.10.4 Green Price Sensitivity and Perceived Behavioural Control

Price could be considered as the variable which represents control belief. Some authors found that control belief or the individual's believe regarding the presence of factors which could heighten or constrain the carrying out of certain behaviour and the control power of such factors over an individual, predicts perceived behavioural control significantly (Aertsens et al., 2009; Sadati & Mahommadi, 2012). Haruna-Karatu and Nik Mat (2015b) found that there is a significant and positive relationship between green price sensitivity and perceived behavioural control. In contrast, a study posits that there is no significant direct relationship between green price sensitivity and perceived behavioural control (Ng & Paladino, 2009). The ability to afford a product is closely associated with cost and the search for the product (Kim, 2015; Voon et al., 2011). This relationship to the best of the researcher's scope of

search is limited and shows inconsistent finding thus, necessitating further research to establish the relationship.

2.10.5 Perceived Green Value and Perceived Behavioural Control

Past studies have shown that perceived green value is one key factor for successful marketing and competitive advantage (Ranjbarian, Kabuli, Sanyaei & Hadadyan, 2012). Hence, it is vital for marketers of green products to consider making green products valuable by stressing the attributes since consumers behavioural intention is affected by this factor (Hermann, Xia, Monroe & Huber, 2007). Tariq, Nawaz, Butt and Nawaz (2013) suggested that quality of product should be improved continuously to enhance consumer's inclination towards green. Apparently, consumers purchase intention could be hampered if they perceived that the value do not meet their environmental needs. This is in line with the TPB assumption that perceived behavioural control measures how effective an individual consumer carries out behaviour either with ease or difficulty (Ajzen, 1991).

Studies with this linkage are limited, nonetheless, few studies confirmed that there is insignificant relationship between green perceived value and perceived behavioural control (Haruna-Karatu & Nik Mat, 2015b; Ng & Paladino 2009). Hence, this linkage deserves further examination due to limited studies.

2.10.6 Green Availability and Perceived Behavioural Control

Product availability describes the extent of how easy or difficult the consumer finds green product. The difficulty with which the consumer assesses the product stands as a huge deterrent to his or her motivation to opt for green (Aertsens et al., 2009). This

linkage too is scarcely tested; the relationship nevertheless is proposed by Shabnam (2013) and is not empirically validated. However, the same is tested in the Nigerian context and remarkably, perceived behavioural control and green availability are related significantly (Haruna-Karatu & Nik Mat, 2015b). The summary of the determinants of perceived behavioural control is presented in Table 2.10.

Table 2.11

Summary of Determinants of Perceived Behavioural Control

Author	Country	Determinant	Analysis Method	Findings
Haruna-Karatu & Nik Mat, (2015)	Nigeria	Green Availability	SEM	Significant
Giantari et al., (2013)	Online	Experience	-----	Significant
Rezai et al.(2013)	Pakistan	Socio-demographic	Descriptive Analysis	Significant
Ng & Paladino,(2013)	Australia	Environment Knowledge	Regression	Supported
Sadati & Mohammadi, (2012)	Iran	Control Beliefs	SEM	Significant
Mahesh & Ganapathi (2012)	Chennai	External Factors		Significant
Lien et al.,(2012)	Taiwan	Green Consumption	SEM	Significant
Wu & Teng, (2011)	Taiwan	Past Behaviour	SEM	Significant
Ng & Paladino, (2009)	Australia	Environmental Concern	Regression	Not supported
		Risk Aversion	Regressions	Not supported
		Price		Not supported
		Consciousness		Not supported
		Involvement		Not supported
		Perceived brand parity		Not supported
		Perceived brand trust.		Not supported
		Objective Knowledge.		Not supported
		Subjective Knowledge of		Supported
		Action		Not supported

2.11 Determinants of Environmental Consciousness

Studies on environmental consciousness have been limited in the green setting and from the few which were carried out, one used the environmental consciousness as a direct determinant of green purchase intention (Numraktrakul et al., 2011). Another study on environmental consciousness as mediator is on the relationship between perceived customer effectiveness, environmental concern and intention to pay conventional price at green hotels (Kim & Han, 2010), (Figure 2.37).

2.11.1 Perceived Green Knowledge and Environmental Consciousness

In general, researchers have observed that knowledge is directly related to how consumers make their purchase decisions (Barber, Taylor & Strick, 2009). Thus, a very vital aspect of consumer environmental conscious behaviour is to increase their knowledge of green products and the environment (Barber et al, 2009). Few studies however looked into this relationship and found insignificant relationship (Haruna-Karatu & Nik Mat, 2015a). This leaves a gap in this regards and needs to be investigated.

2.11.2 Government Regulations and Environmental Consciousness

The linkage between environmental consciousness and government regulation has not been empirically tested directly as far as the researcher's knowledge is concerned. However, denoting environmental consciousness as individual attitude towards environmental issues, government regulation was found to have insignificant relationship with attitude (Qader & Zainuddin, 2010). Due to limited empirical study which examined this linkage directly, the need arises to make this investigation to validate the relationship between the two constructs.

2.11.3 Green Perceived Value and Environmental Consciousness

Environmental consciousness is denoted as attitude disposition in its capacity as a multi-dimensional construct (Sanchez & Lafuente, 2010). Consumers that are environmentally conscious have positive attitude towards green products. The concept of perceived value is when the consumer assesses the whole value of the product he/she opts for on the basis of their perceived environmental benefits and what they pay to get such products (Zeithaml, 1988). Kim and Chang (2012) tested environmental consciousness as a dimension of consumer value and have significant influence on attitude. The search for literature failed to reveal study on green perceived value and environmental consciousness. This again points to the lack of empirical study on this linkage and necessitate for future research.

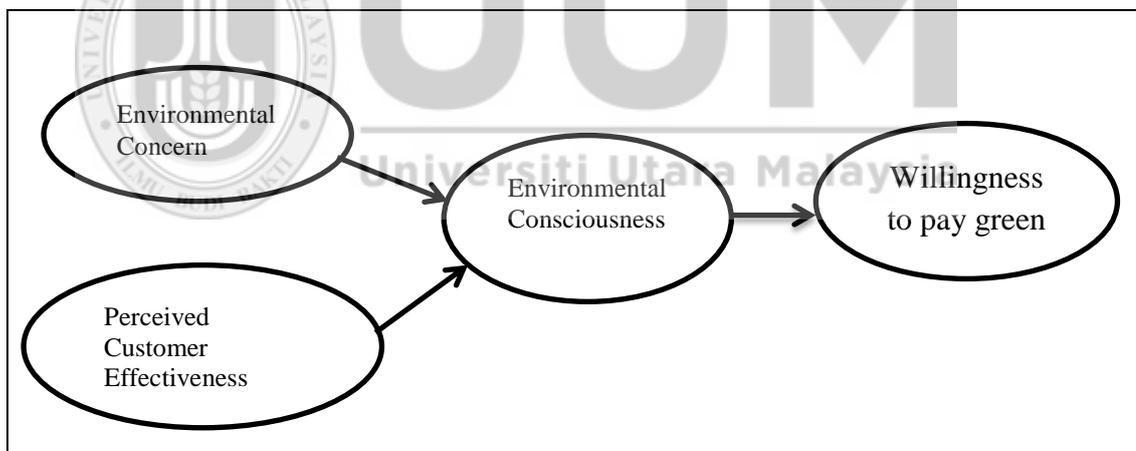


Figure 2.35

Determinants of Environmental Consciousness Model 32 (Kim & Han, 2010)

2.12 Determinants of Green Trust

Determinants of green trust in green purchase intention studies ranged from perceived value, perceived risk, CSR, green experiential value (economic, hedonic, social and altruistic value), individualism/collectivism and experience. Based on the available studies perceived value has been tested to have direct positive influence on green trust (Chen & Chang, 2012; Gupta & Dash, 2012; Paspalis, 2011; Terenggana et al., 2013). This goes down to the fact that consumers will always want to evaluate the attributes of the product to compare its worth with their expectation. This will determine whether or not they will have the intention for the purchase of the product.

Similarly, studies on CSR have proved that it has a direct impact on trust. This reflects that CSR perception can enhance consumer trust (Pornpratang et al., 2013). Another determinant of green trust as revealed in the literature reviewed is perceived risk, however, all the authors who examined this relationship attested that there is insignificant relationship between green trust and perceived risk (Chen & Chang, 2012; Paspalis, 2011). This study do not look at all the determinants of green trust previously studied rather focus is made on green perceived value, green price sensitivity and green availability. Green perceived value have been examined in relation to green trust and there is inconsistency in result, but green price sensitivity and green availability is barely studied connecting them to green trust.

2.12.1 Green Perceived Value and Green Trust

Several previous researches have validated the relationship between green perceived value and green trust (Chen & Chang, 2012; Gupta & Dash, 2012; Paspalis, 2011). Their findings indicate that green perceived value and green trust has significant

relationship. On the other hand, the investigation conducted by Terrengana et al. (2013) did not show any significant result. This linkage has not been empirically tested in green in the context of this study hence to bridge the existing gap in literature in Nigeria this linkage is explored.

2.12.2 Green Price Sensitivity and Green Trust

Price sensitivity or consciousness implies that consumers react to high prices and may avoid buying when prices are high (Ahmad et al., 2014). The relationship between green trust and price sensitivity is rare. Most studies examined trust with green perceived value and perceived risk while price sensitivity is most commonly tested as direct determinant of green purchase intention in green setting (Ansar, 2013; Ling, 2013).

Xie and Chirapanda (2012) considered price under beliefs in product attributes (attitude) with two dimensions, evaluations and behavioural beliefs. Price had significant relationship with attitude; which is denoted by trust. On the other hand, Hanzaee and Jalalian (2012) declared that price consciousness has no significant relationship with trust. This reveals that finding on this relationship is vague and also that authors in green have ignored to explore the relationship between green price sensitivity and green trust as both of these studies are in non-green. Thus, the vacuum still remains and thus, the need to bring this relationship to light is eminent.

2.12.3 Green Availability and Green Trust

A few authors in past studies explored green availability in relation to green purchase intention. The relationship between green availability and green trust somehow is limited in green literature. Nonetheless, in non-green studies, it is validated empirically that availability and trust have significant relationship (Sergios, Erifili & Christos, 2012; Xie & Chirapanda 2012). Xie and Chirapanda (2012) examined this linkage under beliefs in product attributes in relation to attitude. Believes in product attribute (availability) has strong influence on attitude. This could imply that availability and trust are positively related. The two studies however are in non-green; this gives a strong rationale for investigating this linkage in green in order to bridge the gap. The summary of green trust determinants discussed is depicted in Table 2.12 and Figure 2.36.

Table 2.12

Summary of Determinants of Green Trust

Author	Country	Analysis Method	Determinant	Findings
Terenggana et al., (2013)	Indonesia	SEM	Perceived Value	Not Significant
Chen & Chang,(2012)	Taiwan	SEM	Perceived Value	Significant
Gupta & Dash, (2012)	Delphi	Multivariate Regression	Experiential Value- (Economic, Hedonic, Social, Altruistic value)	Significant
Paspalis, (2011)	Pakistan	Regression	Perceived Value	Insignificant
Pornpratang et al., (2012)	Bangkok	Multiple Regressions	CSR	Significant
Rizwan et al., (2013)	Pakistan	Regression	Perceived Risk	Insignificant
Chen & Chang, (2012)	Taiwan	SEM	Perceived Risk	Insignificant
Paspalis, (2011)	Pakistan	Regression	Perceived Risk	Insignificant

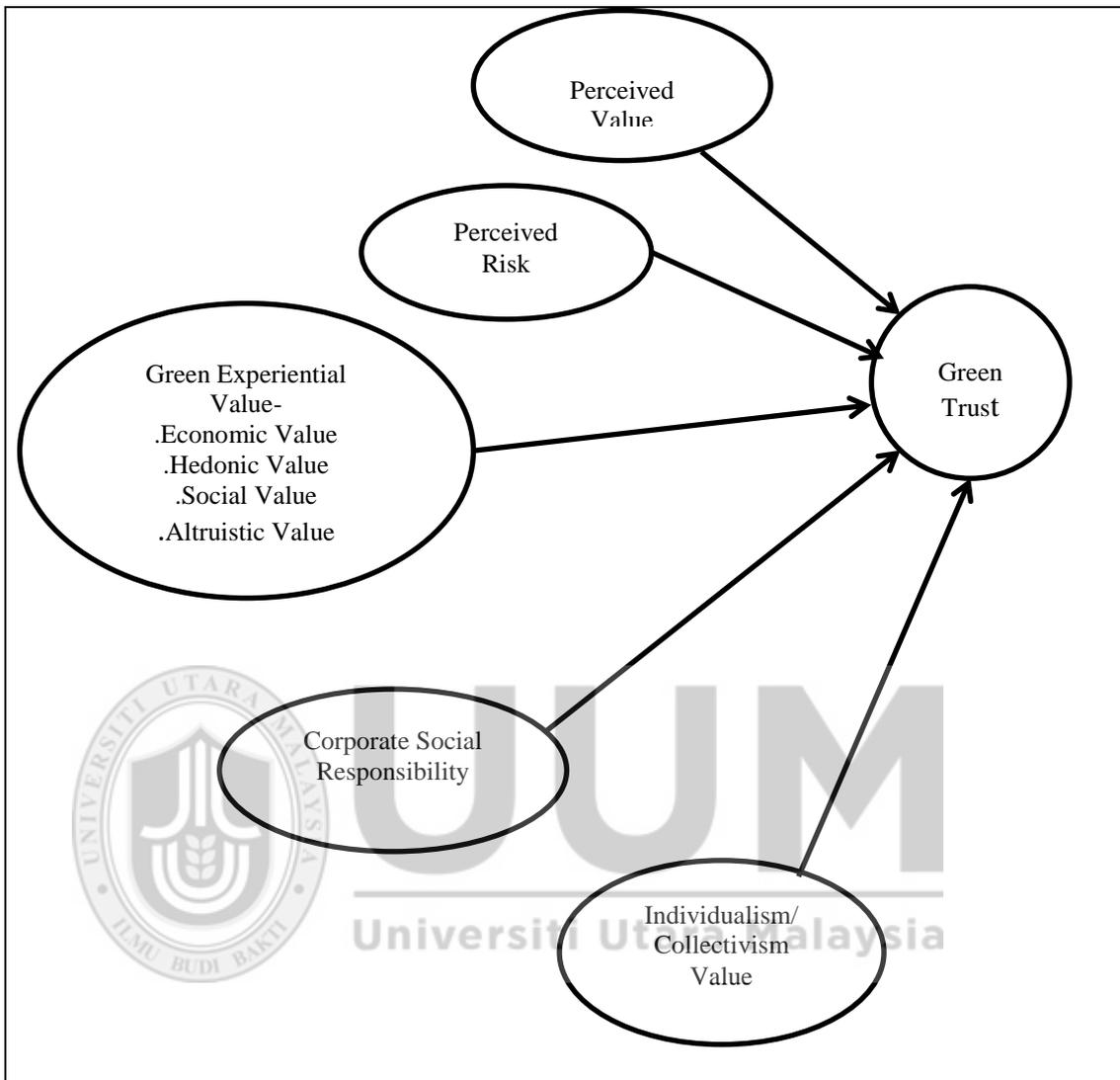


Figure 2.36

Determinants of Green Trust in previous studies Model 33

2.13 Mediating Variables

The examination of extant literatures for this study reveals that a common flow of the same constructs surfaced as mediators (Table 2.12). Besides, there were multiplicities of determinants used as direct predictors, thus they are also used in the same direction with intervening variables. Most often used mediating variables are perceived behavioural control, attitude and subjective norm. Observations from these

studies indicate there is inconsistencies in mediation results and fragmentation in the use of construct. Environmental consciousness and CSR were found to play dual function of predictor and intervening variables and also were quite limited.

Table 2.13

Mediating Variables

Author	DV	Mediating Variable	IV	Finding
Ng &Paladino,(2009)	GPI	PBC	Environmental Concern	No Mediation
------(2009)	GPI	PBC	Altruism	No Mediation
------(2009)	GPI	PBC	Risk Aversion	No Mediation
----- (2009)	GPI	PBC	Price Consciousness	No Mediation
------(2009)	GPI	PBC	Involvement	No Mediation
------(2009)	GPI	PBC	Perceived Brand Parity	No Mediation
----- (2009)	GPI	PBC	Objective Knowledge	No Mediation
------(2009)	GPI	PBC	Subjective Knowledge	Mediation Established
------(2009)	GPI	PBC	Knowledge of Action	No Mediation
Giantari et al.,(2013)	GPI	PBC	Experience	Mediation Established
Wu &Teng,(2011)	GPI	PBC	Past Experience	Mediation Established
Lien et al.(2012)	GPI	PBC	Green consumption	Mediation Established
Rezai et al.(2013)	GPI	PBC	Demographic	Mediation Established
Sadati & Mohammadi,(2012)	GPI	PBC	Control Beliefs	Mediation Established
Haruna-Karatu &Nik Mat,(2015b)	GPI	PBC	Perceived green knowledge	No Mediation
------(2015b)	GPI	PBC	Green price sensitivity	Mediation Established
------(2015b)	GPI	PBC	Government regulation	Mediation Established
------(2015b)	GPI	PBC	Green availability	Mediation Established
------(2015b)	GPI	PBC	Green perceived value	Mediation Established
Terenggana et al.,(2013)	GPI	GT	Perceived value	No Mediation
Chen & Chang,(2010)	GPI	GT	Perceived value	Mediation Established
Gupta & Dash, (2012)	GPI	GT	Perceived risk Experiential value: (economic, hedonic, social, altruistic value)	No Mediation Mediation Established
Paspalis, (2011)	GPI	GT	Perceived value	Mediation Established
Pornpratang et al., (2013)	GPI	GT	Perceived risk CSR Individualism & collectivism value	No Mediation No Mediation

Cont'd

Author	DV	Mediating Variable	IV	Finding
Rizwan et al., (2013)	GPI	GT	Perceived risk	Mediation Established
Terenggana et al.(2013)	GPI	GT	Perceived value	No Mediation
Chen & Chang,(2010)	GPI	GT	Perceived value	Mediation Established
Haruna-Karatu & Nik Mat. (2015a)	GPI	EC	Perceived risk Green trust	No Mediation
----- (2015a)	GPI	EC	Perceived green knowledge	No Mediation
----- (2015a)	GPI	EC	Perceived behavioural control	No Mediation
----- (2015a)	GPI	EC	Green availability	No Mediation
----- (2015a)	GPI	EC	Green price sensitivity	Mediation Established
Kim & Han,(2010)	GPI	EC	Environmental concern	Mediation Established
----- (2010)	GPI	EC	Perceived customer effectiveness	Mediation Established
Wu et al.,(2013)	GPI	Attitude	Consumer knowledge	Mediation Established
----- (2011)	GPI	Attitude	Environmental concern	Mediation Established
----- (2011)	GPI	Attitude	Behavioural beliefs	Mediation Established
----- (2011)	GPI	Attitude	Past experience	Mediation Established
Kim & Chang,(2011)	GPI	Attitude	Consumer values	Mediation Established
Chen et al.,(2012)	GPI	Consumer		No Mediation
----- (2009)	GPI	Attitude		No Mediation
----- (2009)	GPI	Attitude	Environmental Concern	No Mediation
----- (2009)	GPI	Attitude	Altruism	No Mediation
----- (2009)	GPI	Attitude	Risk Aversion	No Mediation
----- (2009)	GPI	Attitude	Price Consciousness	No Mediation
----- (2009)	GPI	Attitude	Involvement	No Mediation
----- (2009)	GPI	Attitude	Perceived Brand Parity	No Mediation
----- (2009)	GPI	Attitude	Objective Knowledge	No Mediation
----- (2009)	GPI	Attitude	Subjective Knowledge	Mediation Established
----- (2009)	GPI	Attitude	Knowledge of Action	No Mediation

2.13.1 The Mediating Role of Perceived Behavioural Control, Environmental Consciousness and Green Trust

2.13.1.1 Perceived Behavioural Control as a Mediator

Aertsens et al. (2009) gives a cue to what perceived behavioural control denotes by linking it to perceived barriers. Among the barriers to behavioural intentions are availability, price, trust in the product and manufacturers; features of the product itself and perceived abilities, which are income (Aertsens et al., 2009).

Even though PBC have been used as mediating construct, there are contradicting findings on the mediation results. For example, Ng and Paladino (2009) study on green mobiles in which they examined the mediating effect of PBC on the linkage between green purchase intention and subjective, objective, action knowledge; the outcome showed that PBC did not mediate the other types of knowledge except subjective knowledge. Though, with other variables such as past experience (Giantari et al., 2013; Wu & Teng, 2011), consumer values (Kim & Chang, 2011), green consumption (Lien et al., 2012), demographics (Rezai et al., 2013), PBC mediated their relationships with green purchase intention.

In a study on the mediating role of perceived behavioural control on predictors of green purchase intention, the relationship between green trust and perceived behavioural control was found to be significant by mediated by PBC (Haruna-Karatu & Nik Mat, 2015b). Opposing this finding PBC did not mediate significantly between perceived brand trust and green purchase intention (Ng & Paladino, 2009).

Due to the fact that mediation result is equivocal and in addition the mediating effect of PBC on the relationship between government regulations, environmental consciousness, perceived value, green availability, price sensitivity and green trust, in relation to green purchase intention has not been empirically tested directly in green and non-green setting, there is need for further validation on the mediating role of PBC. This will bridge the existing gap especially in green literature.

Table 2.14

Mediating Effect of Perceived Behavioural Control

IVS	Mediating Variable	DV	Authors	Findings
Environmental Concern	PBC	Purchase Intention	Ng &Paladino (2009)	No Mediation
Altruism	PBC	Purchase Intention	------(2009)	No Mediation
Risk Aversion	PBC	Purchase Intention	------(2009)	No Mediation
Price Consciousness	PBC	Purchase Intention	------(2009)	No Mediation
Involvement	PBC	Purchase Intention	------(2009)	No Mediation
Perceived Brand Parity	PBC	Purchase intention	------(2009)	No Mediation
Objective Knowledge	PBC	Purchase Intention	------(2009)	No Mediation
Subjective Knowledge	PBC	Purchase Intention	------(2009)	Mediation Established
Knowledge of Action	PBC	Purchase Intention	------(2009)	No mediation
Perceived Brand Trust	PBC	Purchase Intention	------(2009)	No Mediation
Experience	PBC	Purchase Intention	Giantari et al., (2013)	Mediation Established
Past Experience	PBC	Purchase Intention	Wu &Teng, (2011)	Mediation Established
Consumer Values	PBC	Purchase Intention	Kim &Chang,(2011)	Mediation Established
Green Consumption	PBC	Purchase Intention	Lien et al., (2012)	Mediation Established
Demographic	PBC	Purchase Intention	Rezai et al., (2013)	Mediation Established.

2.13.1.2 Environmental Consciousness as a Mediator

The role of environmental consciousness (EC) as a mediating variable has not been widely examined. However, Kim and Han (2010) investigated the mediating effect of environmental consciousness on the relationship between environmental concern, perceived customer effectiveness and green purchase intention. In this study, they found out environmental consciousness mediated fully the relationship between environmental concern and green purchase intention.

Similarly, Haruna-Karatu and Nik Mat, (2015a) explored the mediating effect of environmental consciousness on the relationship between green trust, perceived green knowledge, perceived behavioural control, green availability, green price sensitivity and green purchase intention. The finding shows that environmental consciousness mediated between green price sensitivity and green purchase intention only. Environmental consciousness did not exert mediating influence over the other linkages. This relationship as far as the knowledge of the researcher is concerned still remains uncertain and further study is inevitable in this area of research. Table 2.15 depicts the mediating effects of environmental consciousness.

This study however considers the mediating effect of environmental consciousness on the relationship between government regulation, perceived green knowledge and perceived green value with green purchase intention.

Table 2.15
Mediating Effect of Environmental Consciousness

IV	DV	Mediating Variable	Author	Mediation Result
Perceived Behavioural Control	GPI	ECC	Haruna-Karatu & Nik Mat, (2015a)	No Mediation
Green Trust	GPI	ECC	Haruna-Karatu & Nik Mat, (2015a)	No Mediation
Perceived Green Knowledge	GPI	ECC	Haruna-Karatu & Nik Mat, (2015a)	No Mediation
Green Availability	GPI	ECC	Haruna-Karatu & Nik Mat, (2015a)	No Mediation
Green Price Sensitivity	GPI	ECC	Haruna-Karatu & Nik Mat, (2015a)	Mediation Established
Environmental Concern	GPI	ECC	Kim & Han (2010)	Mediation Established

2.13.1.3 Green Trust as a Mediator

Previous researches have validated the role of trust as an intervening constructs empirically (Chen & chang, 2012; Gupta & Dash, 2012; Terenggana et al., 2013; Paspalis, 2011; Pornpratang et al., 2013; Rizwan et al., 2013). The findings all confirmed trust to partially mediate the relationship between perceived value and green purchase intention. The investigation by Terrengana et al. (2013) on the other hand failed to show any mediating effect of consumer trust on the relationship between individualistic value and green purchase intention. Prior studies have often denoted trust as a direct determinant of green purchase intention in green setting (Ansar, 2013; Ling, 2013; Sadati & Mohammadi, 2012), whereas in non-green for example trust has also been examined (Eze et al., 2012; Hanzae & Andervah, 2012; Jaafar et

al., 2012; Okoroafor & Koh, 2009; Xie & Chirapanda, 2012). Based on the result presented in Table 2.16, three studies indicated full mediation (Chen & chang, 2012; Gupta & Dash, 2012; Paspalis, 2011) while the others have no mediation established. In addition, the investigation on mediating effect of green trust on variables such as green availability and green price sensitivity has been ignored in green literatures and thus still remains uncertain.

Table 2.16

Mediating Effect of Green Trust

IV	DV	Mediating Variable	Author	Mediation Result
Perceived value	GPI	GT	Terenggana et al.,(2013)	No Mediation
Perceived value Perceived risk	GPI	GT	Chen & Chang,(2010)	Mediation Established
Experiential value: (economic, hedonic, social, altruistic value)	GPI	GT	Gupta & Dash, (2012)	Mediation Established
Perceived value Perceived risk	GPI	GT	Paspalis, (2011)	Mediation Established
CSR Individualism & collectivism value	GPI	GT	Pornpratang et al., (2013)	No Mediation
Perceived risk	GPI	GT	Rizwan et al., (2013)	No Mediation
Perceived value	GPI	GT	Terenggana et al.(2013)	No Mediation
Perceived value Perceived risk	GPI	GT	Chen & Chang,(2012)	Mediation Established

2.15 Discussion on Purchase Intention in Non-Green

Several studies were carried out in non-green setting on purchase intention to lay emphasis on the role of intention in consumer attitudinal behaviour disposition towards purchases.

These studies were carried out in different areas such as in the consumer goods (Akir & Othman, 2010; Bian & Moutinho, 2011; Budiman, 2012; Chen et al., 2011; Darmayanti & Boediono, 2012; Giantari, Zain, Rahaya & Solimun, 2013; Gillani, 2012; Jaafar, Lalp & Naba, 2012; Hanzae & Adervazh, 2012; Moradi & Zarei, 2011; Onwumere et al., 2012;

Okoroafor & Shin, 2008; Pirayesh, Mansori & Ismail, 2013; Ranjbarian, Sanayei & Kaboli, 2012; Shafiq, Raza & Zia-Ur-Rehman, 2011; Tariq, Nawaz, Nawaz & Butt, 2013; Xie & Chirapanda, 2012); online shopping (Kim, 2012; Leeraphong & Mardjo, 2013; Kwek, Tan & Lau, 2010; Sam & Tahir, 2009; Mengil, 2007; Shian & Yeh, 2012); E-Commerce (Dehua, Yaobin & Deyi, 2008); cosmetics (Eze, Tan & Yeo, 2012); retailing (Yaseen & Tahira 2011); social enterprise (Choi & Kim, 2013) and luxury fashion (Kim & Ko, 2012; Hanzae & Jalalian, 2012).

It is worth noting that many variables have been connected to intention in non-green such as price, promotion, availability, perceived behavioural control, subjective norms and brand image, see details in (Appendix B) which justify their importance as predictors of purchase intention. The non-green nonetheless is discussed in case they may be needed to explain certain relationships which are lacking in green setting.

2.14 Summary of Chapter

The foregoing discussions in this chapter have revealed that green purchase intention have numerous determinants which were examined by different authors. These studies were equally carried out in varying backgrounds and in sundry types of

products ranging from consumer foods, electronics, body and skin care products, motorcycles, water saving products, mobile phones, housing, hotels, air travel, online shopping and so on. However, models used in illustrating direction of the use of the numerous variables showed that they were mostly skewed to direct relationship and fragmented, also results were inconsistent. Furthermore, methods of analysis were varied whereby authors used mostly, regression having few studies which were empirically investigated with SEM.

Besides, the review of literature failed to portray adequate studies on environmental consciousness, government regulation, green price sensitivity and perceived green knowledge in relation to perceived behavioural control in green and non-green setting. Furthermore, environmental consciousness is barely researched into as a direct determinant and intervening variable. Most importantly, limited studies in green purchase intention in Nigeria were found in the existing literature. This study consequently will enrich green literature at large and the Nigerian society in specific.

CHAPTER THREE
RESEARCH FRAMEWORK AND DEVELOPMENT OF RESEARCH
HYPOTHESES

3.0 Preambles

The third chapter of this study explains the research framework, the hypotheses, measurement of constructs and instruments for data collection.

3.1 The Research Framework

The study suggests a theoretical framework derived from reviewed literatures and based on the issues and problems explained in chapter one of this study. A framework characterizes those variables which are relevant to the investigated problems and explains the important relationship among such variables (Frankfort-Nachmias & Nachmias, 1996). Shedding more light on this, it means the bringing together of interrelated concepts that could lead to investigations to ascertain what will be measured and the relationship that is expected from the data (Borgatti, 1999).

According to Borgatti and Everett (2006), the development of a research framework can help researchers identify the measures and determinants of statistical relationships. In line with this, research framework can simply be referred to as a conceptual model of the way a researcher makes a logical conclusion of the relationship between many elements or factors identified as significant to vital problem (Sekaran, 2003). In an attempt to examine the determinants of green purchase intention, this study adopts the theory of planned behaviour.

Nevertheless, this study modified the TPB model by superimposing some of the selected variables to be examined. The selection of the theory was based on the understanding that it is one of the theories of behaviour which is a function of motivational factors derived from a cognitive process that starts with beliefs about probability of the situation and the degree of value associated with its features.

The framework consists of the following on the modified model, there are:

Five Exogenous Variables: These consist of perceived green knowledge, perceived value, green price sensitivity, government regulations and green availability.

Four Endogenous Variables: They are green purchase intention, perceived behavioural control, environmental consciousness and green trust. The selection of these variables was spurred by the issues and problems elucidated in the first chapter of this study.

Accordingly, this research looks at mediating effects of perceived behavioural control, environmental consciousness and green trust on the relationship between perceived green knowledge, green price sensitivity, green perceived value, government regulation, green availability and green purchase intention.

The framework is thereby illustrated in (Figure 3.1); it explains and depicts green purchase intention as the endogenous variable. Other endogenous variables are perceived behavioural control, environmental consciousness and green trust which are direct determinants of green purchase intention and mediating variables of the exogenous variables (perceived green knowledge, perceived value, green price sensitivity, government regulation and green availability).

Looking closely at the research model, the determinants of perceived behavioural control are perceived green knowledge, government regulations, green perceived value, green price sensitivity, green availability and green trust. Perceived green knowledge, government regulations and green perceived value are the determinants of environmental consciousness while determinants of green trust are green perceived value, green price sensitivity and green availability.

Comparing the variables of this framework with those of the underpinning, perceived behavioural control still remains as it is on the TPB model (Ajzen, 1991). Attitude has been substituted by environmental consciousness and green trust. The aspect of subjective norm (normative belief) is not denoted by any of the variables because most studies carried out in green purchase using subjective norm declared significant findings. Besides, this study is more concerned with personal or individual behavioural intention. Secondly, the aspect of environmental consciousness among other variables is of paramount importance. Excluding subjective norm in this study toed the example of other researchers (Giantari, Zain & Rahayu, 2013; Zhen & Mansori, 2012; Qader & Zainuddin, 2011). Additionally, perceived green knowledge is captured under the control belief while green perceived value, green price sensitivity and green availability are part of attitudinal belief.

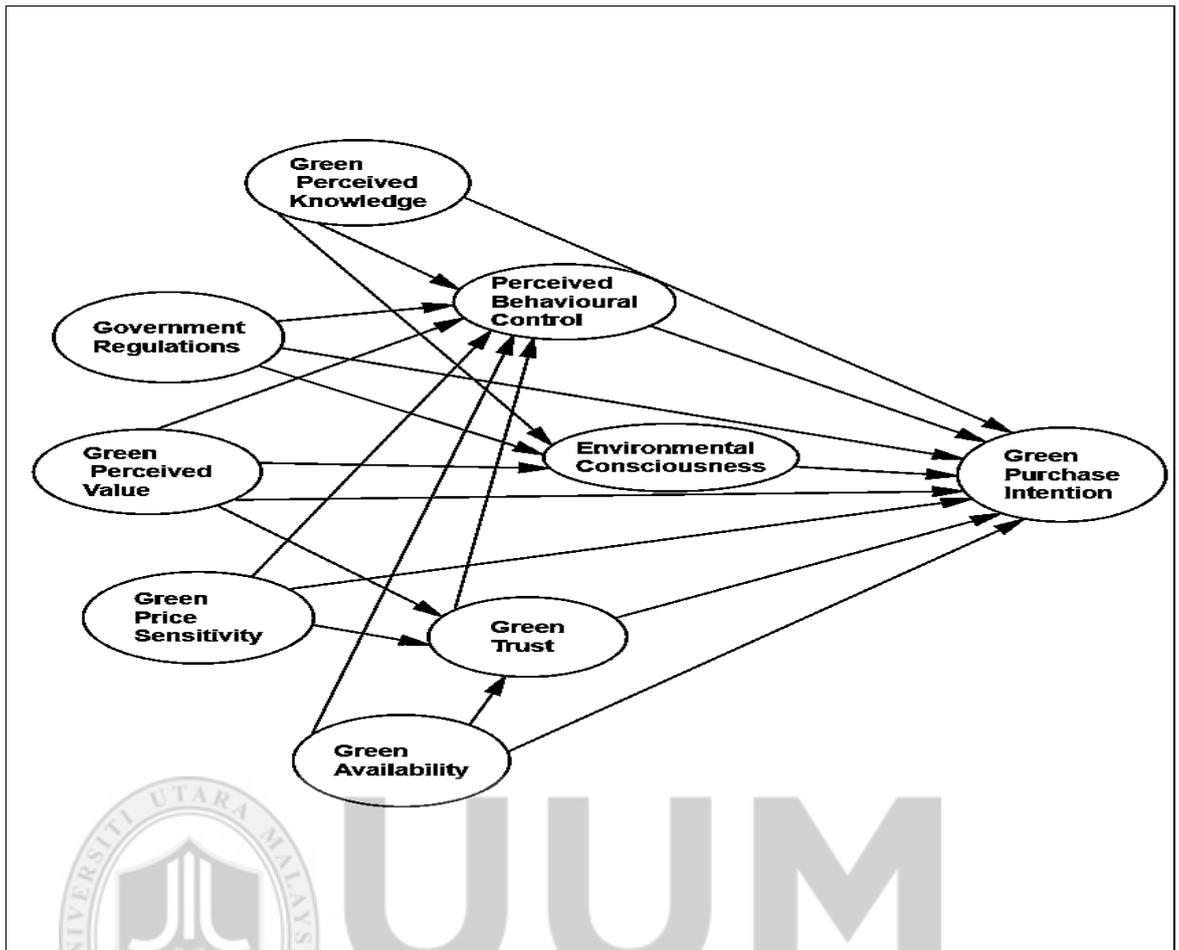


Figure 3.1
Research Framework

The new contribution on this framework which is different from other previous studies on green purchase intention are the relationships between (1) government regulation and perceived behavioural control, (2) government regulation and environmental consciousness, (3) green perceived value and environmental consciousness, (4) green price sensitivity and green trust, (5) green availability and green trust, (6) green perceived knowledge to environmental consciousness.

3.2 Research Hypotheses

The research hypotheses are based on the paths reflected on the framework. Normally, hypotheses are tentative suppositions or assumptions concerning a specific state of affairs which is usually investigated to confirm the presence of the actual relationship and not to assume its existence or the probability that it exists (Hair et al., 2007). Based on this, the following hypotheses have been developed to be tested in the course of this study to validate the fact that these relationships really exist and not under probability.

3.2.1 Perceived Behavioural Control and Green Purchase Intention

Taking a look from the research model, the first hypotheses depicts the extent to which human beings perceive they have control over behaviour they need to exhibit towards intention to purchase green product. The path is clearly shown on the TPB model as a direct determinant of intention and several prior scholars have validated the relationship (Haruna-Karatu & Nik Mat, 2015; Kim & Chung 2011; Kim & Han, 2010; Lien et al., 2012; Mahesh & Ganapathi, 2012; Ng & Paladino, 2009; Tan, 2013; Sadati & Mohammed, 2012; Wu & Teng, 2011). These authors attest to the role PBC play as a significant factor in predicting behavioural intentions.

Contrariwise, Ng and Paladino (2009) declared that there is an insignificant relationship between perceived behavioural control and purchase intention. The reviewed literatures all laid part to congruence except one study which had an insignificant result (Ng & Paladino, 2009). Most of these studies however have been conducted in other regions of the world with none which considered the relationship

between perceived behavioural control and green purchase intention in Nigeria. In addition, the same variable is being used here in both direct and indirect relationship. This study therefore intends to close this gap by investigating this linkage. Thus, the researcher hypothesizes in this study that:

H₁: Perceived Behavioural Control is positively related to Green Purchase Intention

3.2.2 Environmental Consciousness and Green Purchase Intention

Following the research model, the second hypothesis for this study touches on the relationship between environmental consciousness and green purchase intention. The search for literature indicates there is a limited study on this aspect. Notwithstanding, (Haruna-Karatu & Nik Mat, 2015a; Kim, 2015; Lu et al., 2014; Kim & Chang, 2011; Kim & Han, 2010; Numraktrakul et al., 2011; Samarasinghe, 2012) revealed that environmental consciousness is a positive predictor of green purchase intention.

Though the outcomes from the studies were found to be positive, there is limited research on this linkage as a whole, additionally, the relationship is yet to be examined in Nigeria. Based on this, the hypothesis is formulated:

H₂: Environmental Consciousness is positively related to Green Purchase Intention

3.2.3 Green Trust and Green Purchase Intention

The third hypothesis explains the relationship between green trust and green purchase intention. Trust is most often denoted by attitude on the theory of planned behaviour, also seen as direct determinant of green purchase intention (Ajzen, 1985).

Previous authors have equally pointed out that trust is a strong determinant of green purchase intention (Chen & Chang, 2012; Gupta & Dash, 2012; Prompratana et al., 2013; Paspalis, 2011; Rizwani et al., 2013; Terenggana et al., 2013).

Ng and Paladino (2009) however contradicted this by presenting that there is an insignificant relationship between perceived brand trust and the intention. It is clear that there is inconsistency in the results as some indicated a positive relationship while another relationship showed an insignificant result. This necessitates the inclusion of this relationship and in addition, studies linking green trust and green purchase intention in Nigeria is scarce. Hence, the researcher hypothesizes that:

H₃: Green Trust is positively related to Green Purchase Intention

3.2.4 Perceived Green Knowledge and Green Purchase Intention

Perceived green knowledge has been postulated as the fourth hypothesis in this study. It is obvious that where the knowledge of a community on green is high, there is the tendency of high purchase intention of green products. Laying emphasis on this, the concept have been supported by past studies using environmental awareness, environmental knowledge and ecological knowledge interchangeably to explain the concept as green purchase predictor (Aman et al., 2012; Ali & Ahmad, 2012; Azizan & Suki, 2013; Feng, 2011; Mei et al., 2012; Rizwan et al., 2013; Shamsollahi et al., 2013; Sakthirama & Venkatran, 2012; Wu et al., 2013). The purpose of testing this linkage in this context even though there is consistency in the findings of the previous researchers is due to the fact that it has not been empirically explored in Nigerian. In view of that, the following hypothesis is formulated:

H₄: Perceived Green Knowledge is positively related to Green Purchase Intention

3.2.5 Government Regulation and Green Purchase Intention

The fifth hypothesis aims at deducing the relationship between government regulation and green purchase intention. Drawing conclusions from prior empirical work, there are inconsistencies in findings on the relationship between government regulations and green purchase intention. The results of prior authors on this linkage supports the significant role government regulation plays in influencing purchase intention (Azhari et al., 2011; Mei et al., 2012; Numraktrakul et al., 2011; Shamollahi et al., 2013)

Contrary to what has been revealed in the aforementioned studies, other scholars declared that government regulations (role and support) did not have any significant relationship with green purchase intention (Ahmed & Juhdi, 2010; Ragavan & Mageb, 2013; Qader & Zainuddin; 2010). The need for this linkage is because the finding is equivocal and needs further research. Hence the formulation of the hypothesis:

H₅: Government Regulations is positively related to Green Purchase Intention

3.2.6 Green Perceived Value and Green Purchase Intention

Consumer' generally speaking are value driven (Sweeney & Soutar, 2001). This construct explains how the consumer views what he/she receives in terms of quality, benefits and the utility derived from using the product and what they give such as

money and time (Kim, Xu & Gupta, 2012). Previous studies lay a claim that perceived value is crucial in marketing performance because organizations could foster consumer purchase intention via product value (Steenkamp & Geyskens, 2006; Zhuang et al., 2010). Those consumers who are environmentally concerned will engage in purchasing green products for their environmental benefits (Yaacob & Zakaria, 2011). Researchers have widely identified the significant relationship between perceived value and green purchase intention (Chen & Chang, 2012; Chen et al., 2012; Gupta & Dash, 2012; Delghanan & Bakhshandeh, 2014; Kong et al., 2014; Liang & Chaipoopirutana, 2014; Rajput et al., 2014; Rizwani et al., 2013; Rizwani et al., 2013; Paspalis, 2011).

The current study therefore finds it indispensable to have perceived value integrated on the framework of this study because so far it has not been empirically examined in green study in the Nigerian setting; even though in non-green it was investigated (Onwumere et al., 2012). Thus, the need to investigate the extent of influence it will exert on the green buying intention of Nigerians becomes necessary. Following this discussion, the researcher therefore formulates this hypothesis:

H₆: Green Perceived Value is positively related to Green Purchase Intention

3.2.7 Green Price Sensitivity and Green Purchase Intention

This is the seventh hypothesis which supposes to test the relationship between green price and green purchase intention. Price sensitivity or consciousness explains how consumers react to purchases (Ahmad, Yousuf Shabeer & Imran, 2014). Consumer's purchase decision is largely affected by their sensitivity to price. Considering the

discussions on the studies of previous researchers, they have thrown light on the relationship between green price and purchase intention based on the outcome of their studies. Those who explored this linkage confirmed that green price significantly influenced purchase intention of consumers (Ali & Ahmad, 2012; Ansar, 2013; Lee et al., 2012; Rajput et al., 2014; Mansor et al., 2011; Menahem et al., 2010; Zhen & Mansori, 2012)

However, there is inconsistency in the findings on this construct as some authors did not support the findings in the studies discussed earlier (Haruna-Karatu & Nik Mat, 2015a, 2015b; Rasheed et al., 2014; Ng & Paladino, 2009). In view of this, the study hypothesizes that:

H₇: Green Price is positively related to Green Purchase Intention

3.2.8 Green Availability and Green Purchase Intention

Availability of green products encompasses the ease with which consumers locate and purchase the product for their use (Kumar, 2011). Availability of green products can to a large extent influence consumer's decision and the conversion of purchase intention to actual (Beardworth, Brynam, Leil, Goode, Haslam & Haslam, 2002).

It is worth echoing that green purchase have been constrained in certain regions of the world because of non-availability of the product at the point of sales (Bonini & Oppenheim, 2008). Evidences from empirically tested studies indicate that green availability positively affects the intention to purchase green products (Haruna-Karatu & Nik Mat, 2015a, 2015b; Rajput et al., 2014; kumar, 2011). On the contrary

a few authors opposed this finding as their result showed that it does not have any significant influence on purchase intention (Ahmad & Juhdi, 2010; Rasheed et al., 2014; Ragavan & Mageb, 2013; Zhen & Mansori, 2012). In the light of the equivocal findings there appears to be no clear stance on the relationship between green availability with green purchase intention, hence this hypothesis is formulated.

H₈: Green Availability is positively related to Green Purchase Intention

3.2.9 Perceived Green Knowledge and Perceived behavioural control

Green Knowledge being the level of environmental awareness that the individual or a community has can be linked with different aspects of the environment. The sense of awareness to keep the environment safe for future generation, the ability to identify green logo, colours and recycling knowledge are linked to green knowledge. According to Kaplan (2006), knowledge would significantly influence one's decision making.

From the marketing perspective it is pertinent to understand the knowledge of the consumer about green in order to segment the consumers effectively (Nasir & Karakanya, 2013). The relationship between these variables was tested in previous studies (Haruna-Karatu & Nik Mat, 2015a; Ng & Paladino, 2009). Both findings are insignificant. There is limited study on this linkage, the two found have insignificant finding.

The relationship needs further investigation to ascertain if there is any significant effect. Hence this has necessitated the formulation of this hypothesis:

H₉: Perceived Green Knowledge is positively related to Perceived Behavioural Control

3.2.10 Government Regulations and Perceived Behavioural Control

Government in a bid to enhance green purchase intention may enact strong policies and urge the citizens to consider possible environmental consequences and lay emphasis on curbing environmental challenges (Lee & Quazi, 2001). This relationship becomes pertinent in this study as prior studies ignored to investigate the direct relationship between government regulations and perceived behavioural control.

From the review of extant literatures in green related area, one study has shown empirical direct relationship between perceived behavioural control and government relationship (Haruna-Karatu & Nik Mat, 2015a). However, the linkage was investigated in non-green though the findings revealed that perceived behavioural control is not influenced by government regulations (Asirvatham & Raman 2007; Dauda et al., 2007; Hernandez & Mazzon, 2007). Therefore empirical study is lacking on this relationship in green. A further study becomes imperative to establish this linkage. Based on this, the researcher hypothesizes that:

H₁₀ Government Regulations is positively related to Perceived Behavioural Control

3.2.11 Government Regulations and Environmental Consciousness

Government regulations denote rules and legislation formulated by government to enforce compliance in the country. Through this they are able to express their intention to have and maintain a healthy environment and also encourage other stakeholders to consider environmental consequences during their decision making process (Lee & Quazi, 2001). Ideally, consumers look up to the government to enact law which governs environmental practices (Chyong, Phang, Hasan & Buncha, 2006). Environmental consciousness may be seen as attitude disposition of individual attitude towards the environment; studies which empirically tested this relationship directly are limited. Environmental consciousness has insignificant relationship with attitude (Qader & Zainuddin, 2010). Based on the extent of search by the researcher there is dearth of literature on this aspect, investigation to establish the influence of government regulation on environmental consciousness is relevant, therefore, this study proposes that:

H₁₁: Government Regulations is positively related to Environmental Consciousness

3.2.12 Green Perceived Value and Environmental Consciousness

The inclusion of this relationship becomes necessary because studies have ignored to empirically examine the effect of perceived value on environmental consciousness. Consumers' attitude does significantly influence consumers' environmental friendly decision making behaviour (Laroche, Bergeon & Babaro-Forleo, 2001). Zeithaml (1988) urged that perceived value is a situation in which the consumer evaluates the

entire purpose for which they buy basing their judgement on what the product delivers compared to what they pay. Environmentally conscious individuals will tilt their purchase decision and perception of products to suit their values.

This relationship has been scantily tested, a few authors such as (Kim & Ham, 2011; Kim & Chang 2012) examined perceived value and environmental consciousness as a dimension of consumer value, environmental consciousness influenced attitude significantly. Due to the limited studies in this regard and also in order to test how perceived green value could predict environmental consciousness in Nigeria, this hypothesis is hereby formulated:

H₁₂: Green Perceived Value is positively related to Environmental Consciousness

3.2.13 Green Perceived Value and Green Trust

Some of the significant linkages between cognitive elements such as trust, risk and quality in connection to purchase intention are value (Sweeney et al., 2001). Several studies concurred that perceived value and trust are positively related (Chen & Chang, 2012; Dehghanan & Bakhshandeh, 2014; Paspalis, 2011; Terrenggana et al, 2013). The rationale for testing how these variables relate is based on the notion that perceived value is a bundle of features linked with consideration for green product and which could enhance consumer's trust. In the context of the study, it is important to ascertain the perception of green product value on Nigerian consumers' trust and how this may affect their intention to buy the product.

This relationship has not been validated in green area in Nigeria. In view of this discussion the following hypothesis is hereby stated:

H₁₃: Perceived Value is positively related to Green Trust

3.2.14 Green Price Sensitivity and Green Trust

The search for literature revealed limited studies which tested the relationship between price sensitivity and trust. Price consciousness was adopted as a predictor of attitude and perceived customer value in green setting (Fariman, 2014) and the outcome is positive. Studies found in non-green tested the relationship between price sensitivity and trust as a dimension of consumer-brand relationship (Sergios, Erifili & Christor, 2012); Xie and Chirapanda (2012) examined this linkage also in non-green by subrogating trust with attitude and price under beliefs in product attributes. Other results were significant. However, Hanzae and Jalalian, (2012) declared that price consciousness has no significant relationship with trust. Thus, going by the discussion which threw light on the fact that there is limited study in green on this relationship coupled with the equivocal findings, there is need to boost green literature and establish the relationship between green price sensitivity and green trust, this hypothesis hence states that:

H₁₄: Price Sensitivity is positively related to Green Trust

3.2.15 Green Availability and Green Trust

The relationship between availability and trust has not been given prominence in prior green related studies. Nevertheless, in non-green for instance, (Sergios et al., 2012) empirically found out that availability and trust have significant relationship.

This implies that availability and trust could be positively related in green literature. In order to validate and bridge the existing gap in green literature the formulation of this hypothesis is necessitated.

H₁₅: Green Availability is positively related to Green Trust

3.2.16 Green Trust and Perceived Behavioural Control

Aertsens et al. (2009) argued that among the perceived barriers which may inhibit the performance of behaviour are lack of trust in the product and its manufacturers and also the features of the product itself. The relationship between green trust and perceived behavioural control is one area in green which has limited coverage by green authors. The search for literature to connect with this relationship for example presented (Ng & Paladino, 2009). Their study as at then declared that between trust and perceived behavioural control, there is no significant relationship. So far this path still remains vague since only one study is found and the relationship is insignificant. It is important therefore further examine the linkage; hence it necessitates the formulation of this hypothesis:

H₁₆. Green Trust is positively related to Perceived Behavioural Control

3.2.17 Green Price Sensitivity and Perceived Behavioural Control

A study described price as one of the perceived abilities which if the consumer has will facilitate his/her purchase intention for green (Earthen et al., 2009). Price is considered a variable which represents control belief (Sadati & Mahommadi, 2010), Research confirmed that there is a positive and significant relationship between green

price sensitivity and perceived behavioural control (Haruna-Karatu and Nik Mat, 2015b). However another study opposed this by stating that there is no significant direct relationship between green price sensitivity and perceived behavioural control (Ng & Paladino, 2009). This relationship to the best of the researcher's search is limited and inconsistent in finding. In view of this discussion, this hypothesis is stated:

H₁₇. Green Price Sensitivity is positively related Perceived Behavioural Control

3.2.18 Green Perceived Value and Perceived Behavioural Control

Perceived value is recognized to be very influential in affecting green purchase intention (Chen & Chai, 2010). The anticipation of consumers to have products which will perform and meet their environmental standard always guides their purchases. Empirically, the relationship between green perceived value and perceived behavioural has limited coverage. Kim and Chang (2012) confirmed this relationship to be significant. Similarly, Sadati and Mohammadi (2012) acknowledged to have found that perceived green value predicts perceived behavioural control. On the contrary, another investigation on this linkage found that perceived behavioural control and perceived values have no significant and positive relationship (Haruna-Karatu & Nik Mat, 2015b). This hypothesis is formulated based on the fact that literature on the relationship between green perceived value and perceived behavioural control is scarce and deserve further research in order to validate the relationship and boost green literature.

H₁₈ Green Perceived Value is positively related to Perceived Behavioural Control

3.2.19 Green Availability and Perceived Behavioural Control

Non-availability of green constitutes restraint for the individual consumer to be motivated towards green product and could play a negative role in the formation of green purchase intention (Shabnam, 2013). Researchers have shown that the confidence the consumer has in availability of resources to exhibit behaviour is significantly related with perceived behavioural control (Aertsens et al, 2009). This linkage is however limited in empirical investigation. Shabnam, (2013) proposed a model linking these variables but is not empirically validated. Nevertheless, Haruna-Karatu and Nik Mat (2015b) tested this relationship and the finding revealed that green availability has positive and significant relationship with perceived behavioural control. On this note, this hypothesis states to carry out further investigation to ascertain and establish this correlation, thus:

H₁₉. Green Availability is positively related to Perceived Behavioural Control

3.2.20 Perceived Green Knowledge and Environmental Consciousness

Environmental Consciousness is seen as a multi-dimensional construct that has affective dimension like general beliefs and values, dispositional dimension such as individual attitude and an active dimension like pro-environmental behaviour (Sanchez & Lafuente, 2010). Green knowledge connotes the degree of awareness which the individual has about the environment and how the individual links this information with purchase intention towards green. In buttressing this statement (Khaola, Potiane & Mokhethi, 2014; Wu et al., 2013) found that consumers green knowledge significantly influence consumers' disposition towards the environment.

On the other hand, Haruna-Karatu and Nik-Mat (2015a) found a contrary result and suggests that perceived green knowledge do not influence perceived behavioural control. The views on whether perceived green knowledge influences environmental consciousness or not still remains uncertain especially with opposing finds presented and limited literature. This therefore gives support to the formulation of this hypothesis.

H₂₀. Perceived Green Knowledge is positively related to Environmental Consciousness

3.2.21 Perceived Behavioural Control mediates between Perceived Green Knowledge and Green Purchase Intention

Previous studies which linked perceived green knowledge, perceived behavioural control and green purchase intention proved to be limited except for the study of Ng and Paladino (2009) on green mobiles in which they examined the mediating effect of PBC on objective knowledge, subjective knowledge and knowledge of action; the outcome showed that PBC has exert mediating effect on the relationship between subjective knowledge and green purchase. Also, experience was used to measure the consumer's knowledge and both were mediated by perceived behavioural control (Giantari et al., 2013; Wu & Teng, 2011). However, it is therefore hoped that it will have the same interaction in this study. It has become obvious that the need to examine this relationship cannot be overemphasized in order to bridge this gap. Therefore the rationale for stating this hypothesis is eminent.

H₂₁: Perceived Behavioural Control mediates the relationship between Perceived Green Knowledge and Green Purchase Intention

3.2.22 Perceived Behavioural Control mediates between Government Regulations and Purchase Intention

Most studies tested these constructs as direct determinants of green purchase intention (Shamsollahi et al, 2013; Ragavan & Mageh, 2013; Mei, et al, 2012; Azhari et al, 2011; Numraktrakul et al, 2011). So far, study linking perceived behavioural control with government regulation is kinked to (Haruna-Karatu & Nik Mat, 20015b). The study found that perceived behavioural control do not mediated the relationship between government regulation and green purchase intention. This study attempts to carry out this investigation in order to enrich green literatures in this aspect being the first to make this investigation. Thus the formulation of this hypothesis:

H₂₂: Perceived Behavioural Control mediates the relationship between Government Regulations and Green Purchase Intention

3.2.23 Perceived Behavioural Control mediates between Green Price Sensitivity and Green Purchase Intention

The price of green product has most times been viewed as an indispensable factor in consumer buying decision making (Shabnam, 2013). Consumers from his point of view would always examine price to compare with the information given on the label to make their evaluations of the product. Price could be one of the key factors why consumers may decline from having the intention to buy green products (Boztepe, 2012; Grailresearch, 2010). The search for literature in support for this hypothesis only showed two studies with contrary findings. From their study, these authors

confirmed that perceived behavioural control mediates between green price sensitivity and green purchase intention (Haruna-Karatu & Nik Mat, 2015b). This however does not agree with the (Ng & Paladino, 2009). In order to throw more light on this relationship to establish a clear finding and also boost green literature, this study postulates this hypothesis:

H₂₃: Perceived Behavioural Control mediates the relationship between Green Price Sensitivity and Green Purchase Intention

3.2.24 Perceived Behavioural Control mediates between Green Availability and Green Purchase Intention

The perceived behavioural control is connected to the Atkinson' achievement theory of motivation as far back as 1964 in which perceived behavioural control is depicted as perceived likelihood of one succeeding in a given task. As consumer purchasing process is complex in nature, certain situational factors such as perceived behavioural control and attitude assist in decision making Jager (2000) cited in Shabnam (2013). Empirical investigation on the mediating effect of perceived behavioural control on the relationship between the availability of green and green purchase intention was tested (Haruna-Karatu & Nik-Mat, 2015b); the finding showed that PBC mediates the relationship. However, limited studies are a barrier to getting support for this connection and suggests for further empirical studies. Thus this hypothesis is postulated:

H₂₄: Perceived Behavioural Control mediates the relationship between Green Availability and Green Purchase Intention

3.2.25 Perceived Behavioural Control mediates the relationship between Green Trust and Green Purchase Intention

The linkage on the extent to which perceived behavioural control mediates between green trust and green purchase intention has been investigated in (Ng & Paladino, 2009) and they found that perceived behavioural control did not mediate the relationship between green trust and green purchase intention in the context of the study. Due to lack of studies which tested this linkage comparison cannot be made so it becomes significant to further examine the mediating effect of perceived behavioural control on the relationship between green trust and green purchase intention in another setting. Hence this hypothesis is stated:

H₂₅ Perceived Behavioural Control mediates the relationship between Green Trust and Green Purchase Intention



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3.2.26 Environmental Consciousness mediates the relationship between Government Regulation and Green Purchase Intention

The linkage between environmental consciousness mediating between government regulation and green purchase intention has not been empirically tested as far as the researcher's knowledge is concerned. However, denoting environmental consciousness as individual attitude towards environment issues, this hypothesis can be linked to the study of (Qader & Zaniddain, 2010) in which they examined the mediating effect of attitude and government regulation. The study interestingly revealed that attitude did not mediate between government regulations and green

purchase intention. Thus this hypothesis is postulated to be tested in another setting with the similar sample (University staff) in Nigeria to bridge the existing gap.

H₂₆ Environmental Consciousness mediates the relationship between Government Regulations and Green Purchase Intention

3.2.27 Environmental Consciousness mediates the relationship between Perceived Value and Green Purchase Intention

Environmental consciousness could be denoted as attitude disposition in its capacity as a multi-dimensional construct (Sanchez & Lafuente, 2010). Kim and Chang (2012) confirmed that attitude mediates between consumer values and green purchase intention. Consumer's environmental consciousness would trigger the consumer into evaluating the green value of the product. In a nutshell, there is lack of study on this relationship; there empirical investigation is desired to be conducted to validate this relationship. This hypothesis is therefore stated:

H₂₇ Environmental Consciousness mediates the relationship between Perceived Value and Green Purchase Intention

3.2.28 Environmental Consciousness mediates between Perceived Green Knowledge and Green Purchase Intention

Knowledge directly affects consumes decisions making (Barber, Taylor & Strick, 2009); an increase in knowledge certainly increases consumer purchase intention (Ng & Paladino, 2013) and purchasing behaviour (Bazoche, Deola & Soler, 2008). Also, Sharma and Bansal, (2013) in a conceptual model opined that knowledge is a very

vital aspect of environmental conscious consumer behaviour. This study attempted to test the extent to which environmental consciousness mediates between perceived green knowledge and green purchase intention (Haruna-Karatu & Nik Mat, 2015a). They found that environmental consciousness does exert mediating influence over green perceived knowledge. Due to dearth of studies the need to conduct further studies is inevitable. Therefore, we formulate this hypothesis is stated:

H₂₈. Environmental Consciousness mediate Perceived Green Knowledge and Green Purchase

3.2.29 Green Perceived Value mediates Green Trust and Green Purchase

Intention

Empirically, the relationship between perceived value, green trust and green purchase has been empirically tested in several studies (Chen & chang, 2012; Gupta & Dash, 2012; Paspalis, 2011). They confirmed that trust mediates the relationship between perceived value and green purchase intention. This linkage is to be investigated because it has not been explored previously in the context of this study. Hence we propose that:

H₂₉. Green Trust mediates the relationship between Perceived Value and Green Purchase Intention

3.2.30 Green Trust mediates between Green Price Sensitivity and Green Purchase Intention

The relationship between green trust and price sensitivity is rare in green setting.

Xie and Chirapanda, (2012) opined that price had significant relationship with attitude, but the findings did not explain the extent to which it mediated the relationship. Nonetheless, Ahmad et al, (2014) confirmed that attitude mediates between price sensitivity and purchase intention in non-green setting. Attitude in this study is denoted by trust; thus the vacuum in green setting remains and by this, the need to bring this relationship to light is eminent and hence strengthens the formulation of this hypothesis.

H₃₀ Green Trust mediates the relationship between Price Sensitivity and Green Purchase Intention

3.2.31 Green Trust mediates between Green Availability and Green Purchase Intention

This hypothesis posits that availability and trust are positively related; both constructs are also strong predictors of green purchase intention. There is dearth of studies in green on the mediation effect of green trust on the relationship between green availability and green purchase intention; nonetheless (Rajput, Kaura & Khanna, 2014) in green setting and in non-green (Sergios et al., 2012; Xie & Chirapanda, 2012) empirically found out that availability and trust have direct significant relationship. This linkage was examined under beliefs in product attributes and mediated by attitude with two dimensions (evaluations and behavioural beliefs); believes in product attribute has strong association with attitude. This gives a strong rationale for investigating this linkage in green. Hence the formulation of this hypothesis:

H₃₁: Green Trust mediates the relationship between Green Availability and Green Purchase Intention

3.2.32 Green Trust mediates the relationship between Green Price Sensitivity and Perceived Behavioural Control

In actual purchase, price consciousness was mediated by attitude in green setting (Fariman, 2014). Jaafar, Lalp and Naba (2012) concluded that price sensitivity positively affects green trust. Furthermore, Perceived behavioural control mediates between green price sensitivity and green purchase intention (Haruna-Karatu & Nik Mat, 2015b). However, the mediating effect of green trust on the relationship between green price sensitivity and perceived behavioural control appears to be limited in green empirical studies. The study suggests that more empirical research should be conducted establish the relationship between these constructs. In view of that we propose the stated hypothesis as:

H₃₂ Green Trust mediates the relationship between Green Price Sensitivity and Perceived Behavioural Control

3.2.33 Green Trust mediates the relationship between Green Availability and Perceived Behavioural Control

Empirical investigation on how green trust exerts mediating influence on the relationship between green availability and perceived behavioural control is ignored. This implies that support for these hypotheses comes difficult since literatures are not available. The need to investigate this linkage is vital. This hypothesis is postulated to enrich literature in this wise, thus we propose that:

H₃₃ Green Trust mediates the relationship between Green Availability and Perceived Behavioural Control

3.2.34 Green Trust mediates the relationship between Green Perceived Value and Perceived Behavioural Control

Previous research by (Chen & chang, 2012; Gupta & Dash, 2012; Paspalis, 2011) validated the mediating effect of green trust on the relationship between green purchase intention and green perceived value; but whether green trust exerts mediating influence over the relationship between green perceived value and perceived behavioural control or not, is yet to be empirically tested; this study is the first to attempt to test this linkage to ascertain the validity of the hypothesis and to fill the existing gap in literature. We hereby formulate that:

H₃₄ Green Trust mediates the relationship between Green Perceived Value and Perceived Behavioural Control

3.4 Operational Definition

After deriving the hypotheses, the operational definitions are determine based on the measurement that have been selected (see table 3.1)

Table: 3.1

Operational Definitions

Variables	Definition	Source
Green Purchase Intention	Operationalized as the probability and willingness of the consumer to buy green	(Chen & Chang, 2012)

Cont'd

	products instead of non-green.	
Environmental Consciousness	The element of belief system which refers to specific emotional factors that affects one's inclination to partake in pro-environmental behaviour.	(Numraktrakul et al., 2011)
Green Trust	Taken as the willingness of an individual to rely on green product because it is credible, benevolent and has the ability to perform in an environmentally safe standard.	(Chen & Chang, 2012; Tan & Teo, 2000)
Perceived Behavioural Control	Individual' perception of the extent to which some factors such as knowledge, skills, money can accelerate or prevent the performance of certain behaviour.	(Tan, 2013;Numraktraku et al ., 2011)
Perceived Values	Consumer's overall evaluation of the usefulness of the product to them based on the expected performance.	(Chen & Chang, 2012)
Green Availability	The ease with Which a consumer feels she/he can easily access green product	(Zhen & Mansori, 2012; Tarkianen & Sundqvist, 2005)
Green Price Sensitivity	The consciousness of consumers and how they respond to high price of green product	(Zhen & Mansori, 2012;Numraktrakul et al., 2011)
Perceived Green Knowledge	Operationalized as how much the consumer feels he or she knows about environmental or green issues.	(Sakthirama & Venktram, 2012)
Government Regulations	Perceived as the extent to which government establish regulations to control production and consumption of hazardous wastes produced by organizations.	(Mei et al., 2012; Numraktrakul et al., 2011)

3.5 Summary of Chapter

This section discussed the research framework which comprised of five exogenous variables (green perceived knowledge, green perceived value, green price sensitivity, government regulations and green availability) and the endogenous variables (perceived behavioural control, green trust, environmental consciousness and green purchase intention). The hypotheses to hypotheses consisting of eight direct relationships to green purchase intention, two determinants of PBC (green perceived knowledge and government regulations), two determinants of environmental consciousness (government regulations and green perceived value) and three predictors of green trust (green perceived value, green price sensitivity and green availability). Lastly, the operational definition of constructs is also presented in this chapter.



CHAPTER FOUR

RESEARCH METHODOLOGY

4.0 Preamble

This study explores the phenomenon of green purchase intention. In order to do this effectively certain procedures need to be systematically followed so as to achieve a logical conclusion. This chapter therefore describes the research design, population, sampling method, design of questionnaires, the pilot study and procedure of data collection. Similarly, the chapter includes explanations on the method of data analysis (Structural equation Modelling), the rationale for and steps involved in using SEM. Confirmatory factor analysis, Goodness of fit Index and lastly the direct and indirect effect of hypotheses.

4.1 Research Design

Research design shows the plan of the study to explore and get answers to the research questions (Cooper & Schindler, 2001). Basically there are six categories of research design these are descriptive, correlational, semi-experimental, experimental, review and meta-analytic research design (Muaz, 2013). For the purpose of this study, the descriptive design is selected due to the fact that the study already has specified the constructs and has formulated hypotheses from extant literature. In a situation where the problem of the research has been established and the objectives are well defined, the most applicable form of research design is the descriptive (Saharan & Boogie, 2011; Sigmund, 1999). Undertaking any type of research demands a great deal of appropriateness and validity. Consequently, in order to

meticulously gather data for this research, the survey method which is a type of the descriptive design is employed.

The survey research provides the researcher with quantifiable description of the element of the population under study by means of data collection and questions asked in the questionnaire (Fowler, 1988). Additionally, the survey design allows for easy replication and empirical testing at multiple times and in different background. This gives the researcher the opportunity to assess knowledge claims and ascertain whether the relationships postulated in theories really exist (Crewel, 1994). Furthermore, the rationale for choosing this method of research design is due to the fact that it is easy to administer and provides quick response during data collection (Aaker & Joachimsthaler, 2002; Crewell, 1994), again, it permits the collection of large volume of data which can be relied on because respondents have limited alternatives to choose between (Rindfleish, Malter, Ganesan & Moorman, 2008).

Fundamentally, this research seeks to ascertain the determinant factors of green purchase intention in Nigeria. The survey research is pertinent because it enables the researcher collect data to answer definite questions that pertain to the study and to find out trends in consumer behaviour towards green purchase intention (Hair, Black, Babin & Anderson, 2010). However, this method is not without shortcomings; this may emanate from sampling error and non-sampling error (Baumgartner & Steenkamp, 1996) but this can be avoided by designing the study meticulously.

4.2 Sample Design of the Research

Sampling entails the process of choosing adequate number of elements from the main population to generalize about the entire population. The portion of the populace carefully chosen to denote the entire population is referred to as sample (Cooper & Schindler, 2001). This phase involves the determination of sampling frame, method, size and the selection of the sample type itself (Sekaran & Bougie, 2011; Zikmund, 1999).

This section discusses the list of elements in the population from which the sample of the study is taken (Sekaran, 2003). Specifically, the area of focus is the university staff in Abuja, North Central of Nigeria. There are five universities in Abuja out of which only three were selected for the purpose of the study.

4.3 Population Frame

Population has been defined as the whole or entire cases which conform to a particular specification; these could be people, objects, events or anything of particular interest to the researcher (Sekaran & Bougie, 2011; Churchill, 1987). It could be the totality of the group of people or subject of concern relating to investigation (Hair, Money, Samuel & Page, 2007). Essentially, the population targeted for this study is the entire Nigeria population. However, it is impracticable, difficult and costly to study a complete population of study (Sproull, 1995). Thus, the target population for this study consists of the academic and non- academic staff of three selected universities (one federal and two private) in Abuja, located in the north central geo-political zone in Nigeria. Total population from these universities is four thousand, four hundred and thirty seven (4,437).

Even though Nigeria has six geopolitical zones, only three universities in one of the geo-political zones (North Central) are selected as sample population. Abuja, the Federal Capital of Nigeria was chosen based on the reason that being the Federal Capital it has all the representatives of the remaining thirty six (36) states of the Federation.

Moreover, it removes the burden of having access to staff list and would make random sampling easier for the researcher. Random sampling is most often used in selecting a probability sample. It denotes that each element in the population has an equal and independent chance of being selected (Kumar, 2011). The selection of this population is based on the fact that they may be able to read and understand clearly what the survey is all about. The university could have more knowledge about green to enable them respond properly to the questions. Secondly, the university staffs are divided into a stratum which makes it easier to know the variations in their income level, ranks and educational status.

4.4 Sampling Method

The sample of a study is the central point on which the research process goes through (Bryman & Bell, 2007). Types of sampling methods are majorly probability and non-probability sampling. This study uses probability sampling which selects respondents by stratified random sampling. This comprises of sample drawn from population segregated into a number of mutually exclusive sub-population or strata. For instance, in the employment setting where staffs are divided into segments such as clerks, junior and senior lectures, deans, heads of departments etc. This permit the

researcher to have a mixed sample and the outcome can be generalized to the entire population (Bryman & Bell, 2007).

The data for this study is collected from university staff through structured questionnaire based on the variables under study. University setting is selected to represent green consumers in Nigeria because they are more exposed to information and also since they are in a strata, it is possible to have a representative of all consumers from upper, middle and lower class. This distribution is explicitly depicted in Table 4.2 and is the most common probable sampling design and the stratification which provides adequate information with the selected sample size (Sekaran, 2003).

4.4.1 Sampling Frame

Sampling frame is the list of representatives or elements in the population from which the sample is drawn or taken (McPhail, 2000; Sekaran, 2003; Zikmund, 1999). Sampling gives detail list of target population, the frame allows us to know the accurate total listing of targeted population (Hair et al, 2007). The sample unit therefore, in this study is the subset of the university staff to be examined with regards to their green purchase intention in Nigeria as far as this study is concerned. The category will be academic and non-academic staff consisting of senior and junior staff, top administrative and lower level staff. By choosing the university as the research unit of analysis, researcher toed the path of other scholars (Adomi, Ayoa & Nakpodia, 2013; Bwalya, Plessis & Rensleigh, 2014; Qader & Zainuddin, 2010).

4.4.2 Sample Size Determination

The size of the sample for this study was chosen based on the rule of thumb of the following authors. As opined by Roscoe (1975), a simple sample bigger than 30 and less than 500 could be adequate for a study. Also, that size of sample 150-400 for studies with several items or at least ten items could be sufficient for studies which adopt structural equation model as analysis method (Hair, Anderson, Tatham & Black, 2006).

Table 4.1
Rule of Thumb for Sample Size

Population (N)	Sample Size (S)
1200	291
1300	297
1400	302
1500	306
1600	310
1700	313
1800	317
1900	320
2000	322
2200	327
2400	331
2600	335
2800	338
3000	341
3500	346
4000	351
4500	354
5000	357
>1000,000	384

Source: *Krecjie and Morgan (1970)*

It can be observed from (Table 4.1) that the total population for this study falls between 4000-4500. Therefore, following Krecjie and Morgan (1970) rule of thumb it suggests the sample size to be 354 which is sample that is adequate for a population of 4,437 (Table 4.1). In this study however, the sample is rounded to 400 respondents who are anticipated to complete and return the questionnaires. In order

to get the respondents of at least, above 50%, the respondent's rate was inflated to 754, indicating the number of questionnaires which will be distributed due to the fact that previous studies have documented the response rate of 45% - 79.9% or an average of 50% in the Nigerian context (Adomi, Ayo & Nakpodia, 2013).

More to this, for the purpose of generalization, findings of studies with larger data are more acceptable and applicable (Hair et al., 2006). The university of Abuja has 2,137, members of staff, 362 questionnaires distributed to the staff; Baze University with 700 were allotted 121 while Bingham university has 1,600 and 271 questionnaires were distributed to the staff. Hence, Table 4.2 elucidates the distribution of questionnaires to the sample population from the three universities.

Table 4.2
Sample Size Distribution of Questionnaire

Location North Central (Abuja)	Population	PPS	Sample Size	Senior Staff & Lecturers 15%	Middle Level Staff & Junior Lecturers 70%	Lower level Administrative staff 15%
University of Abuja	2,137	48%	362	420/55(7th)	1037/254(4 th)	680/55(12th)
Baze University	700	16%	121	115/18(6th)	350/83(2 nd)	235/18(3 rd)
Bingham University	1,600	36%	271	150/41(11th)	1200/190(6 th)	250/41(6th)
Total	4,437		754			

In order to have proportionally distributed data according to normal data paradigm, the researcher based the distribution on the following order: 15% of senior staff and lecturers, 70% middle level staff and junior lectures, and another 15% lower administrative staff. The determination of how many questionnaires should be allotted to each university was based on proportional sampling; this is due to the fact that the population is composed of several sub-groups and thus the number for each

university was determined relative to the size of the population (Lavrakas, 2008). Hence, 48% of the population of university of Abuja, 16% from Baze University and 36% of the population in Bingham University were selected.

4.5 Data Collection Procedure

The data collection stage is a crucial aspect of the research. Gathering data is the act undertaken to collect valid information from the unit of analysis (Churchill, 1987). The methods of gathering data differs and available options are telephone, mailing and self-administered; these could be used in combination of more than one or just a single one (Cooper & Schindler, 2001; Sekaran, 2003; Zikmund, 1999). For the purpose of this study, the researcher used self-administered method for both pilot and the main study; the processes involved are explained accordingly.

4.5.1 Pilot Data Collection

Conducting pilot study helps to find out if the sampling frame and method are sufficient before the last stage of preliminary data collection (Teijlingen, Rennie, Hundley & Graham, 2001). In this wise, questionnaires were administered personally to a total sample of one hundred (100) staff of university in Birnin Kebbi which were randomly selected. One hundred and thirty questionnaires were distributed but only a hundred and four (104) were returned. These respondents closely resemble the actual population (Arain, Compobell, Cooper & Lancater, 2010; Salkind, 2010). Once the questionnaires were returned, they were entered into the statistical package for social science (SPSS) spread sheet for analysis. During the screening, errors (values which are not within the normal range of the variable) were checked (Pallant, 2011).

This was necessary to ensure reliability and viability of the instrument to be used. Moreover, feedback from respondents based on their encounter while filling the pilot test questionnaires will be useful in preparing the final questionnaire. After the test using the SPSS software, the Cronbach coefficient for all the latent variables for this study and the previous studies is presented in Table 4.3

Table 4.3

Summary of Construct, Items and Reliability Values of Pilot study and Past studies

Constructs	Number of Items	Cronbach Alpha Test (Pilot Study)	Cronbach Alpha & Author (Past Studies)
Perceived Behavioural Control	6	.774	.881 (Tan, 2013)
Environmental Consciousness	6	.817	.827 (Numraktrakul et al., 2011)
Green Trust	6	.805	.902 (Chen & Chang, 2012)
Perceived Green Knowledge	6	.821	.802 (Sakthirama & Venktram, 2012)
Perceived Value	6	.861	.883 (Chen & Chang, 2012)
Green Price Sensitivity	6	.826	.893 (Numraktrakul et al., 2011)
Government Regulations	6	.856	.775 (Mei et al., 2012)
Green Availability	6	.819	.782 (Tarkianen & Sundqvist, 2005)
Green Purchase Intention	6	.827	.859 (Chen & Chang, 2012)

The Cronbach Alpha values as can be seen from table 4.3 ranges from between 0.774 to 0.805 indicating that the reading are far above the threshold of 0.5 suggested by Nunnally (1970) and Hair et al. (2006).

4.5.2 Actual Data Collection Procedure

Furthermore, for the purpose of this study, the researcher used the self-administered method with the aid of two research assistants. Meaning that three personals were employed to distribute and collect the questionnaire simultaneously where possible from the staff of the three universities in Abuja. This method enabled the researcher to have the benefit of establishing a good rapport with the respondents and this can

go a long way to motivate the respondents. Secondly, the researcher could help to clear some doubts on questions which the respondents may not understand. In addition, this can enhance the possibility of having 100% response rate and highly gain confidentiality of the respondents (Sekaran & Bougie, 2011).

The duration of the data collection was precisely three (3) months, from July to September, 2014. During the data collection, the list of staff was obtained from the university's telephone directory to identify the person to give questionnaire to using systematic random selection. The staff list was obtained from each of the universities by personal contact of the researcher. The number of senior staff, junior and lower level staff were extracted from the list. After that the individuals were traced in their offices. The questionnaire was then given to those around. For those who were not present, a revisit was made following their schedule of lecture.

Before distribution, the researcher determined the interval, for instance in the case of Abuja university ($420/55=7$ for the senior staff and lecturer). This implies that from one- seven (1-7) one element will be selected. In this instance, the 7th person was selected continuously (Kumar, 2011). This process is reflected in Table 4.3.

4.6 Questionnaire Design

Over the years, researchers have acknowledged that questionnaires are the most efficient and effective way to collect data if the researcher understands precisely what needs to be asked and how to measure the constructs being investigated, this can assist to achieve precision and applicability in the whole survey (Zikmund, 1999). The questionnaire in the current study consists of four parts. The first part is

the cover page with a brief introduction on the subject matter of the questionnaire and soliciting for the respondent's assistance in filling the questionnaire. The respondents were assured of the confidentiality of their information after which the researcher gave details of herself including contact phone number in case the respondents encounter problems in the course of filling the questionnaire.

Secondly, respondents were asked some screening question such as "do you know green products?" This was contained in the second part of the questionnaire. The third segment covered the main variables on which the study focused, that is the determinants of green purchase intention and consists of fifty four (54) items. The last phase reflected the demographic profile of the respondents where questions such as nationality, residential, geo-political zone, gender, age, monthly income, position, status and education were tackled (Appendix C).

4.7 Measurement of Constructs

Structured questionnaire with closed ended and scale-response questions was used in this survey. The close-ended questions aimed at making the respondents to disclose correct information which will be critical to the findings of this research. Additionally, the adoption of scale-response was informed by the fact that the researcher will be able to rely on the data to quantify the concentration of the respondents' answers (Churchill & Brown, 2004).

The items contained in the questionnaires were aimed at measuring the respondent's perception of green purchase intention. Measurement scale is very vital in choosing the right statistical test. Variables can be measured and conveyed in different scales,

but the most commonly used measurement scale in marketing and social behavioural science research is the Likert scale (Garland, 1991; Luck & Rubin, 1987; Morgan & Hunt, 1994; Nanna & Sawilowsky, 1998; Shih & Fang, 2004). Mostly Likert-type scale is preferred because it is considered to be the most appropriate, reliable and also easy to analyse statistically (Alreck & Settle, 1995; Jackson, 2009).

The Likert scale is the sum of responses on several Likert items while the Likert items are the statements which respondent is asked to assess based on subjective or impartial criteria (Burns & Burns, 2008). Likert scaling is a bipolar scaling technique and measures positive or negative response to a given statement; and where the 7 point scaling is used, the mid-point is usually neutral (Allen & Seaman, 2007).

The seven-point itemized rating scale is chosen on the notion that scale between 5 point and 7 point have proven to be more reliable and that when measuring items with bipolar variables, the 7 point is most acceptable and gives room to the respondents to express their view clearly and allows the researcher to manifestly make precise distinction of individual's perception on particular element (Krosnick & Fabrigar, 1997). The general opinion is that though having more scale points is better, but lean towards declining after around 11 points, thus it's always better to use 7 point which gives a good balance to have enough points for discriminating without having to retain too many response alternatives (Nunnally, 1970). Additionally, the influence of respondents' bias is reduced and the quality of data increases with mid-point scaling; this also allows the respondents the freedom to express their feelings (Krosnick & Fabrigar, 1997).

The measurement scale for this study is based on seven-point Likert scale ranging from (1-strongly Disagree; 2-Disagree; 3-Somewhat Disagree; 4-Neutral; 5-Somewhat Agree;6-Agree; 7-Strongly Agree). The study comprises of five independent variables which are perceived green knowledge (PGKL), green perceived value (GPV), green price sensitivity (GPST), government regulation (GRN) green availability (GAV) and three mediating variables perceived behavioural control (PBCL), environmental consciousness (ECC), green trust (GTST) then one dependent variable which is green purchase intention (GPI).

In order to have a detailed set of items to measure these variables, prior studies were reviewed extensively and items were selected from those studies to ensure their validity. The measurement statement and the sources for every construct are listed in tables 4.7.1 to 4.7.11. The statements tally with the operational definitions in Table 3.1

4.7.1 Green Purchase Intention (GPI)

Green Purchase intention is measured using six items which were drawn from a combination of items from the work of different scholars. The items were selected from the study of Chen and Chang (2012) having Cronbach reading of 0.859 (Table 4.4). Consequently, these items are expected to produce a valid result because of its relevance in the setting and also based on the fact that the instruments were tested in other studies of green purchase intention, basically the purchase intention for green products.

Table 4.4
Green Purchase Intention Construct (GPI)

Statement	Source
1. I plan to buy products from companies who support green initiatives.	Chen & Chang (2012)
2. I will rather buy green product instead of non-green.	
3. I feel happy that I am planning to buy green product.	
4. I will absolutely consider buying those products which have green labels.	
5. I plan to buy products that are designed with green concepts.	
6. I will encourage my family and friends to purchase green product henceforth	

4.7.2 Perceived Behavioural Control (PBCL)

The measurement for this construct is based on existing scales operationalized by the following authors. Tan (2013), four items with Cronbach reading of 0.881, Numraktrakul et al. (2011) two items and the Cronbach reading was 0.776 (Table 4.5). All were adapted and hope that the reliability reading in this study will be of an acceptable level as those in the aforesaid researchers in the same area.

Table 4.5
Perceived Behavioural Control Construct (PBCL)

Statement	Source
1. I have confidence that I should be able to buy green products	Tan (2013)
2. I have control when it comes to buying green products	
3. I perceive I have adequate skill and knowledge about green product to make my own decision	
4. If I have sufficient money I will buy green product instead of the conventional one.	
5. I should know precisely what to do when it comes to searching for green products for my use.	Numraktrakul et al., (2011)
6. I should know where to get green product when I need to buy.	

4.7.3 Environmental Consciousness (ECC)

This variable is measured with items which could be appropriate in the context of this study as indicated in Table 4.6. Items were adapted from (Numraktrakul et al., 2011; Gould, 1990). The first 4 items were adapted from (Numraktrakul et al., 2011)

having Cronbach Alpha (0.827) while the others were adapted from (Gould, 1990) with no Cronbach reading.

Table 4 .6
Environmental Consciousness Construct (ECC)

Statement	Source
1. I will deliberately decide not to purchase products which are harmful to the environment.	Numraktrakul et al. (2011)
2. I will decide not to pollute the environment	
3. I will intentionally boycott manufactures who are not conscious of the environment in their production activities	
4. I have chosen to consume products which have little or no contaminates to man and animal	
5. I will consciously reflect on the environment before making purchase, use and disposal. Gould (1990) of products to maintain quality of life and the environment	Gould (1990)
6. My family and I will always consider the environment in our daily life activities.	

4.7.4 Green Trust (GTST)

Three items were modified and adapted from Chen and Chang (2012) and the value of Cronbach is 0.902. Three additional items were drawn from the study of Tan and Teo (2000) and the study also has Cronbach reading of 0.93.

Table 4.7

Green Trust Construct (GTST)

Statement	Source
1. I feel green product's reputation is very reliable.	Chen & Chang (2012)
2. I believe green product should be committed to environmental protection.	
3. I believe that company' selling green products should be reliable.	
4. I have the feeling that the production of green product process should be reliable.	Tan & Teo (2000)
5. I am convinced that green products should be beneficial to me.	
6. Environmental claims of green products should be trustworthy.	

4.7.5 Perceived Green Knowledge (PGKL)

Perceived green knowledge scale adapted from the empirical work of (Zhen & Mansori, 2012) with Cronbach reading of 0.747 while the remaining three (3) items were modified from the study of Sakthirama and Venkthram (2012) and the reliability value is 0.802, this is presented in Table 4.8.

Table 4.8
Perceived Green Knowledge (PGKL)

Statement	Source
1. I believe that creating awareness has the potential to make consumers know about green products.	Zhen & Mansori (2012)
2. Information on green products can significantly influence my purchase intention.	
3. I need information which can help me identify clearly symbols, colours and campaigns on green products.	
4. Information on green product will enable me to make better decision on its purchase.	Sakthirama & Venkthram (2012)
5. I will be interested in having information on the benefits of green products on magazines, newspapers, books, articles, television, internet, mobile and radio.	
6. Information on the environmental benefits of green product will enhance its consumption.	

4.7.6 Green Perceived Value (GPV)

Perceived Value is measured using six items which were adapted from the validated work of Chen and Chang (2012) with 0.883 as Cronbach coefficient (Table 4.9).

Table 4.9
Green Perceived Value Construct (GPV)

Statement	Source
1. I feel that green product consumption will benefit the communities in general	Chen & Chang (2012)
2. I believe that green product performance should meet my expectations.	
3. I am convinced that green product will provide excellent value for me.	
4. Green product label should indicate its benefits for my money.	
5. Buying green products should give me a sense of fulfilling my ethical values.	
6. I can buy green products if the company offers high quality products.	

4.7.7 Green Price Sensitivity (GPST)

Table 4.10 indicates the scale of measurement for price sensitivity which includes nine items selected on the basis of validated works of Zhen and Mansori (2012) and Numraktrakul et al., (2011). The first four (4) items were operationalized by Zhen and Mansori (2012) on their survey of young female motivating factors for purchase of organic foods, the Cronbach Alpha value was 0.568. The remaining two (2) from Numraktrakul et al. (2011) on intention to purchase green house, the Cronbach value is 0.893. Standing on the fact that both works were on green purchase intention and the instruments were validated, the items if tested in this study could show valid and acceptable reliability.

Table 4.10
Green Price Sensitivity Construct (GPST)

Statement	Source
1. I am willing to pay for green products even if they are too expensive.	Zhen & Monsori (2012)
2. I feel the price of green product should be an important factor when buying green products	
3. Green product prices should be worthy of its environmental claims	
4. I can purchase green products only if their prices are affordable to me.	
5. I am ready to pay more if I am sure the product has less harmful content.	Numraktrakul et al. (2011)
6. I am willing to pay high price if I am sure the production process is in accordance with environmental standards.	

4.7.8 Government Regulations (GRN)

Based on the operationalized work of Mei et al. (2012) three items were adapted as measurement for government regulations with the Cronbach reading of 0.775. Also, three items were adapted from Numraktrakul et al. (2011) from their study on factors which affect greenhouse purchase intention with Cronbach reading of 0.827, this can be seen in Table 4.11

Table 4.11

Government Regulations Construct (GRN)

Statement	Source
1. The government should enforce environmental regulations on green practices.	Mei et al. (2013)
2. Environmental protection is the sole responsibility of the Nigerian government.	
3. The government should help to develop green consumption in Nigeria.	
4. I think government regulations support purchase of green products in Nigeria.	Numraktrakul et al. (2011)
5. The Nigerian government should actively promote green marketing activities in Nigeria.	
6. The government should encourage me to consume green products by providing subsidies on green.	

4.7.9 Green Availability (GAV)

Measurement items for the variable (Table 4.12) was established from existing items; three of the items taken from Zhen and Mansori (2012) based on the relevance to the current study and the reliability reading is of acceptable level 0.571. Furthermore, three items were adapted from the study of Tarkianen and Sundqvist (2005) and Cronbach is 0.782.

Table 4.12

Green Availability Construct (GAV)

Statement	Source
1. Green products are supposed to be readily available in my country	Zhen & Mansori (2012).
2. Green products should be assessed easily in my neighbourhood	
3. If green products are made available in the shops I will buy them.	
4. I will often prefer to buy green products if they can be made available regularly.	
5. Green products should be made available in every retail shop in my country.	Tarkianen & Sundqvist (2005)
6. It is not difficult to find green products on display in outlets	

Table 4.13
Summary of Measurement Items

Construct	Items	Area	Adopted/Adapted	Cronbach Alpha
Green Purchase Intention	6	Green	Chen & Chang (2012) 6 items (Adapted)	0.859
Perceived Behavioural Control	6	Green	Tan (2013).4 items (Adapted) Numraktrakul et al. (2011). 2 items (Adapted)	0.881 0.776
Environmental Consciousness	6	Green	Numraktrakul et al. (2011). 4 item (Adapted) Gould (1990). 2 items (Adapted)	0.827 N.A
Green Trust	6	Green	Chen & Chang (2012).3 items (Adapted)) Tan& Teo (2000). 3 items (Adapted)	0.902 93
Perceived Green Knowledge	6	Green	Zhen & Mansori (2012). 3 items (Adapted) Sakthirama & Venktram (2012). 3item (Adapted)	0.747 0.802
Green Perceived Value	6	Green	Chen & Chang (2012)	0.883
Green Price Sensitivity	6	Green	Zhen & Monsori (2012).4 items (Adapted) Numraktrakul et al. (2011). 3 items ((Adapted)	0.568 0.893
Green Availability	6	Green	Zhen & Mansori (2012).3items (Adapted) Tarkianen & Sundqvist (2005).3 items (Adapted)	0.571 0.782
Government Regulations	6	Green	Mei et al., (2012). 3 items (Adapted) Numraktrakul et al. (2011). 3 items (Adapted).	0.775 0.827

4.8 Pre-Test of Questionnaires

It is expedient to put to test all items to be used in this work. The uppermost aim is to ascertain their consistency and accuracy. Also, as have been suggested, it becomes absolutely necessary to measure the clarity of the questions to be used and its relevance in carrying the instructions associated with the topic being evaluated (Hair et al., 2007; Sekaran, 2003).

The researcher needs to ensure that questions are clearly understood by the respondents and without ambiguity. Hence, the researcher had twelve questionnaires tested by experts in green marketing. Some of these were emailed to selected authors whose articles were part of those reviewed and equally tested the same variables in their studies. This number is adequate for the pre-test since the maximum requirement is six respondents (Hair et al., 2007).

4.9 Exploratory Factor Analysis

In order to determine the convergent validity, the exploratory factor analysis (EFA) was carried out using maximum likelihood with promax rotation, a type of oblique rotation that allows for maximum correlation between factors. Promax rotation was selected because it is quicker, simpler and recommended for larger dataset (Hooper, 2012). Exploratory factor analysis is often used to assess the interrelationships between sets of variables selected for the study (Pallant, 2011). This becomes necessary due to the fact that the background in which the previous studies were conducted differ to a large extent with the context of the current study.

Factor analysis is conducted on both the exogenous and endogenous variable using maximum likelihood and promax rotation on SPSS software to ascertain if the observed variables really converge together. Performing exploratory factor analysis and confirmatory factor analysis are one of the ways to test how items converge into component. It can also be demonstrate whether or not standardized loading of items falls between 0.50 and above on their related factors (Fomell & Larcker, 1981). Based on this assumption, factor analysis is conducted for both pilot and actual study.

4.9.1 Factor Analysis for Independent Variable of Pilot Study

Exploratory factor analysis (EFA) on five independent variables (perceived green knowledge, perceived green value, green price sensitivity, government regulations and green availability) is presented in Appendix D.

The Kaiser-Meyer-Olkin (KMO) for the independent variable is 0.840 and Bartlett's test of sphericity df is at 0.741 and it is significant at 0.000, this indicates the sampling adequacy of factors in performing factor analysis on the data. The factor analyses were found to have met the acceptable statistical threshold as indicated by their high KMO. The loadings are within the range of 0.305-0.983 and are of acceptable value (Hair et al., 2010; Tabachnick & Fidell, 2001). The Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.840, Approx. Chi-Square = 2788.807, df = 741, sig = 0.000, variance = 53.405%.

4.9.2 Factor Analysis for Dependent Variable

In the same vein, factor analysis was carried out for dependent variable; thus the Kaiser-Meyer-Olkin (KMO) for the dependent variable is 0.845 and Bartlett's test of sphericity df is at 276 and it is significant at 0.000. The factor analyses for the dependent variables were equally found to have met the acceptable statistical threshold denoted by high KMO. The results presented all constructs of dependent variables to have an overall value of 0.918 to 0.300 and have met the threshold value (Hair et al., 2010; Tabachnick & Fidell, 2001). Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.845, Approx. Chi-Square = 1489.168, df = 276, sig = 0.000, variance = 54.884%, (Appendix D).

4.9.3 Bartlett's Test and Kaiser-Meyer-Olkin (KMO)

This piece of work determined the fitness of factor analysis by testing the proportions of correlation of the whole matrix using Bartlett's test of sphericity (Hair et al., 2010) and the sufficiency of construct relationships through KMO statistics. Pinnoneault and Kraemer (1993) declared that KMO statistic ranges between 0 and 1. However, value near 1 is a demonstration of the fact that correlation pattern is perceived to be reasonably close and the factor analysis will produce distinctive consistent factors (Hair et al., 2010; Pinnoneault & Kraemer, 1993).

Accordingly, Kaiser (1958) on this note asserts that scores above 0.5 are acceptable while lower than 0.50 is problematic and would suggest the collection of additional data or new variable. Thus, an excellent value according to him should be above 0.9. Furthermore, the Bartlett's test of sphericity originally is responsible for testing null hypothesis to ascertain whether the actual correlation is distinctive matrices. The underlying assumption here is for Bartlett test to have significance, a statistical significant value of less than 0.05 needs to be obtained (Bartlett, Kotrlik, & Higin, 2001).

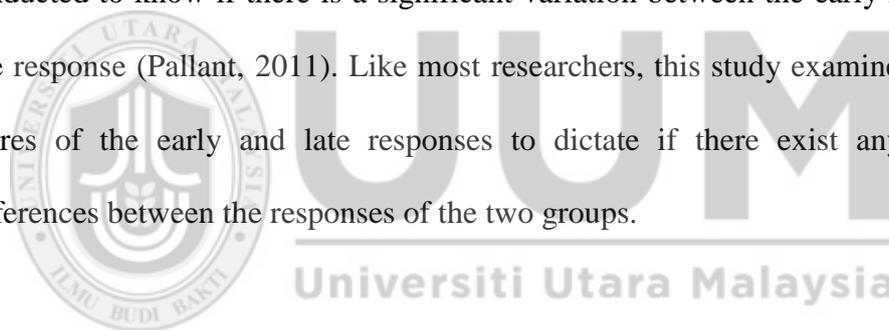
4.10 Response Bias

Normally, findings can be greatly affected in a situation where respondents vary substantially on the basis of their behaviour, demographics and their character disposition (Malhotra, Hall, Shaw & Oppenheim, 2006). Additionally, Hair et al. (2006) are of the opinion that non-response error may arise if targeted respondents refuse to partake in filling the questionnaire, do not respond to questionnaires at all, or on the other hand return or respond to the questionnaires later than expected. If

this occurs, it could lead to variations in response as the first respondents' responses may differ from the later batch. Usually, t-test is carried out to compare and observe if there will be any significant differences in the two batches (Sekaran & Bougie, 2011).

In the light of the above, the researcher has to ensure that the data collected is relatively free from bias by comparing the values in the responses of the respondents (Danziger & Botwinick, 1980). The t-test is done to ascertain if there will be any significant differences (Danziger & Botwinick, 1980; Sekaran & Bougie, 2011).

In a bid to take precaution so that findings will not be adversely affected, the t-test is conducted to know if there is a significant variation between the early response and late response (Pallant, 2011). Like most researchers, this study examined the means scores of the early and late responses to dictate if there exist any substantial differences between the responses of the two groups.



4.11 Demographic Profile

The demographical profile enables the researcher to have details about the population such as age, occupation, income, education and rank of the respondents. Other aspects of the profile considered are the residential, country of origin and gender of respondents. This gives the researcher a cue of the characteristics of the population being examined.

4.12 Data Screening

Data screening is the initial step taken to check the data in order to detect the effects which the characteristics of the data could have on the results later. It helps to ensure

that there are no ambiguous data characteristics which may have adversative effect on the result. The screening exercise evaluates the influence or effect of missing data, response bias, outliers and tests for the assumption underlying normality and validity.

After the process of data entry, it becomes expedient to examine the entire dataset. The aim of this exercise is to ascertain if the data were correctly recorded in the SPSS spread sheet, check the health or robustness of the data since the quality of the result largely depends on the initial screening (Maiyaki & Mokhtar, 2010b). For this reason, the researcher embarked on a succession of data screening procedure to access whether the data falls within the range or out-of-range values, determining the missing data, outliers and normality test and how to treat them respectively. This becomes inevitable as the distribution of data has a strong influence on the analysis method and the output (Bryne, 2010). Thus, this sub-section discusses missing values, outliers, normality, linearity, multicollinearity and homoscedasticity accordingly.

4.12.1 Missing Data

This is aimed at identifying missing values. It is the very first step or aspect of data screening. Missing data happens in a situation where respondents refuse to respond to certain questions asked which they consider as personal or sometimes when the questions are implicative or convicting. Respondents shy away from responding. Missing data could also occur as a result of ignorance on the topic of research.

Treatment given to such issues is either to delete if it is more than 50% of missing data and if the deletion is not going to affect the sample size (Hair et al., 2010), on

the other hand, the missing data can be distributed or replaced (Kline, 1998). For this study, the option of replacing missing data with the median is selected. The missing values are less than 50% of the entire data. Since missing values can negatively affect empirical results (Cavana, Delahaye & Sekaran, 2001) the study hence decided to treat missing values with the replacement option, which is by using median through the SPSS software.

4.12.2 Detecting Outliers

After solving the problem of missing data, the next step is outlier detection and deletion. Outlier cases arise when there is incorrect entering and when observations of a selected respondent is substantially varied most times from others to the extreme, for instance when their combination of values tend to be extreme across other variables (Hair et al., 2010).

Elucidating this further in a more clear terms, Tabachnick and Fidel (2007) suggested that outliers surfaces when an individual has extreme scores on specific variables or set of variables which can distort overall results. Cases of outliers are described as a number of observations in the data which are to the extreme and have distinct characteristics from others in the dataset (Bryne, 2010; Hair et al., 2010). In order to detect outliers, data is processed using SPSS to calculate Mahalanobis distance.

Distance evaluation type is standardized Euclidean distance (D^2), this is a scaling response in term of standardized deviations which regulates data by adjusting correlations between the variables (Hair et al., 2006). Tabachnick and Fidell, (2014) acknowledged that Mahalanobias Distance (D^2) which is Garnett and Resman (2002)

way of dealing with outliers is most effective because they are deleted based on predetermined threshold.

Dealing with outliers by deletion therefore, cases with D^2 values higher than chi square (χ^2) according to the number of items used in the study are sorted out as outliers. Mahalanobis distance (D^2) value greater than χ^2 are considered as multivariate outliers and should be excluded from further analysis by permanently deleting them from the data set (Hau & Marsh, 2004; Hair et al., 2010; Tabachnick & Fidell, 2014).

4.12.3 Normality Test

One of the most tricky or problematic aspect of the data screening process is normality test. It is the shape of data distribution of the individual metric variables and correspondence to the normal distribution (Hair et al., 2010). The violations of normality can be established through Z-Skewness and Z-Kurtosis (Hair et al., 2007). In the actual sense, a normal distribution occurs if the value of skewness and kurtosis happens that both equal to Zero (0) (Tabachnick & Fidell, 2014). The normality assumption is a critical issue (Hair et al., 2010). Non-normal distributed data tends to be highly lopsided and could interfere with relationships between constructs (Hulland, 1999).

In this segment, the normality of the data was assessed, that is to check if data is symmetrically distributed or not. If the data is proportionally distributed, there will be high frequencies of scores in the middle while the smaller values will be slanted or skewed to the extreme left or right (Gravetter & Wallnau, 2004). Furthermore,

Hair et al. (2006) suggested that when Z-Skewness of distribution falls outside the range of -2 to + 2, then it is substantially skewed. It is explained by comparing it with a normal distribution like skewness. Some other scholars are of the view that Z-value, (CR) skewness $< \pm 3.0$ represents normally distributed data (Ghozali, Fuad & Seti, 2005, Hu, Bentler & Kano, 1992).

Z-kurtosis, on the other hand is the measure of the flatness of peakness of a distribution. Values which are positive are denoted with peak distribution and negative values are flat (Hair et al., 2006) and Z-value kurtosis $< \pm 7.0$ also denotes data are normally distributed (Ghozali et al., 2005, Hu et al., 1992). Additionally, multivariate normality can be deleted through Mardia's coefficient using SEM analysis, to achieve normality here, kurtosis value of Mardia' coefficient should be ± 1.96 or ± 2 (or +- value - and p value of more than 0.05).

Assuming that multivariate kurtosis value is 16.42 to be Mardia' coefficient, it shows that the variables measured are not distributed normally (Tabachnick & Fidell, 2007). However, the size of the sample can increase the statistical power by reducing sample error. Pallant (2011) suggested that if a sample size is large, the negative effects on non-normality will be reduced. This in a way informs that smaller sample size will reduce the possibility of multivariate normality (Hair et al., 2010).

4.12.4 Descriptive Statistics of Data

The descriptive statistics looks at the statistics of the key summary of the variables in the study. In this sub-section, the data collected was transformed into new data to provide appropriate information and makes it easier to be understood and interpreted

through the use of SPSS (Kassim, 2001; Sekaran & Bougie, 2011; Zikmund 1999). The process of analysis using the frequency distribution, mean and standard deviation was used to identify the distinctions amidst groups for all the variables. All the items were rated on seven point Likert scaling with 7 score depicting strong agreement while score of one (1) shows strong disagreement. From indications, the means of all the variables (54 items) were above the mid-point or the neutral position which is (mean >3.5).

4.12.5 Test of Linearity

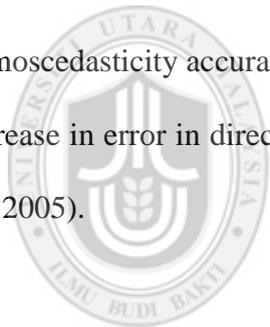
In order for statistical regression analysis to produce accurate estimates, there must be a linear relationship between the predictor and criterion variables (Hau & Marsh, 2004). Scholars acknowledged that the need to meet the basic assumption of linearity in order to have an accurate result cannot be overemphasized since non-linearity bring about an under estimation and over all error in the significance of result (Byrne, 2010; Leslie, 2010; Hair et al., 2006). Some authors suggested that non-linearity can be avoided where researchers use items of existing theories or from notable past studies (Hanke & Reitsch, 1992; Krecjie & Morgan, 1970; Nunnally & Bernstein, 1994). Hence this study utilized items from previous studies which have been validated in order to achieve this.

The test for linearity and homoscedasticity of data is pertinent due to the fact that correlation signifies a linear relationship among the set of variables while non-linear is not denoted in the correlation value (Hair et al., 2006). It is however possible to use the scatter plot to represent the relationship among any two metric variables

which have a combined value of each observation in two dimensional groups. Thus the study uses the scatter plot to show the linearity between the set of variables used.

4.12.6 Homoscedasticity

On the other hand, homoscedasticity is represented by a cloud of dots, the case where the error terms variance (e) remains constant in all varieties of the independent variable (Ghozali, Fuad & Seti, 2005). The data used here is explained as being homoscedastic. The presence of homoscedasticity implies that variance of error in the analysis is distributed across the same level in the predictor variables. It is depicted having concentration drawn to the dependent variables indicating equal variance in a traverse level in the independent variable range. However, a non-homoscedasticity accurately can be expressed as a funnel shaped pattern reflecting an increase in error in direct relation to an increase in the criterion variable (Ghozali, et al., 2005).



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4.12.7 Multicollinearity

Multicollinearity explains the degree to which variables can be explained by the other variable in the process of data analysis. It reveals if each item in the variable is an actual fact, mutually exclusive or overlapping (Pallant, 2011). Where the multicollinearity is high or increases, the interpretation of the variance becomes complex, this is because it becomes difficult to determine the effect of a single variable due to the interrelationships between them (Hair et al., 2010).

Multicollinearity occurs where constructs seems to be expressively interconnected with each other in the same dataset and have substantially high values such as above

0.90 (Tabachnick & Fidell, 2014; Garg & Tai, 2012). The ensued effect is redundancy in information generation and the construct might not be considered for further analysis because their presence will inflate error terms size thus causing a weakening in the result.

Other indicators of multicollinearity in this study are tolerance value and correlation. The tolerance value should be < 1.00 and the variance inflation factor (VIF) value should also be < 10 . These values are acceptable values to justify the absence of multicollinearity among the set of variables under study (Cooper & Schindler, 2003; Hair et al., 1998; Pallant, 2011; Tabachnick and Fidell, 2014). Correlation is a statistical technique that demonstrates the power and course or path of a linear association among two variables (Pallant, 2011) concerned with assessing the strength and significance of a relationship between variables. The tolerance (R^2) and the variance inflation factor (VIF) value were both used to confirm the absence of multicollinearity.

4.13 Test of Reliability

4.13.1 Reliability (Cronbach Alpha)

Reliability is described as the accuracy and the precision of a given measurement procedure (Thorndike, Cunningham, Thorndike & Hagen, 1991). It is referred to as the extent to which scales depicts that the measure is free from random error, if that happens, then measure is practically reliable (Nik Mat, 2012; Pallant, 2011). This also shows how good and accurate the instrument is and can be used to produce the same and precise result over and over again given the same conditions and the same population or subjects (Burns, 2000; Nunnally, 1970).

Reliability is also an indicator of a measure of internal consistency (Zikmund et al., 2010). As soon as the measurement of variables is ascertained, the next step for the researcher is to ensure that they are valid and reliable. As a quality criteria it aims at minimizing errors thus, it is connected to stability of data collected (Bryman & Bell, 2011). Measuring reliability scores involves test-retest or consistency of internal measure is usually carried out by administering the same sets of scale items at different times to the same respondents then the correlation or similarity between the two scores is determined (Nik Mat, 2012; Pallant 2011; Zikmund, Babin, Carr & Griffin, 2010).

Internal consistency shows how items constituting the scale are measuring the same underlying attributes. The most often used indicators to compute internal consistency for reliability is the Cronbach's Alpha coefficient (Pallant, 2011). Coefficient Alpha ranges from 0 (no internal consistency) to 1 (complete consistency). Coefficient Alpha scale which ranges from between 0.8 and 0.95 are regarded as having a very high reliability while between 0.6 and 0.7 are fairly reliable (Zikmund et al., 2010) and greater than 0.60 are acceptable (DeVellies, 2003; Nunnally & Bernstein, 1994; Nannally, 1970).

In this study nonetheless, attempt was made by using SPSS software to get the individual variable reliability reading to indicate internal consistency for each of the variables understudy namely (perceived behavioural control, environmental consciousness, green trust, green perceived value, perceived green knowledge, green

price sensitivity, government regulation, green availability and green purchase intention).

4.13.2 Composite Reliability

Another type of reliability used is the composite reliability which measures the general reliability of a pool of heterogeneous but related or similar items and assesses their internal consistency (Fornell & Larcker, 1981; Raykov, 1998). The composite measure of 0.60 are suggested by (Bagozzi & Yi, 1991; Holmes-Smith, 2001). John and Reves (1982) recommended a value of 0.7 to 0.9 as acceptable and points out that 0.60 are questionable, while 0.50 is poor.

On the other hand, others iterated that values above 0.7 are suitable as cut off criterion (Barclay et al., 1995; Bagozzi & Yi, 1991; Fornell & Larcker, 1981; Hair et al., 2010; Nunally, 1970; Pallant, 2011). The internal consistency value however depends on how well the items are structured to measure the constructs under study. Well-structured items will produce high internal consistency (Hair et al, 2006).

The calculation for composite reliability in SEM is usually based on the formula suggested by Fornell and Larcker (1981)

$$\text{Composite Reliability} = \frac{(\sum \text{standardized factor loading})^2}{(\sum \text{standardized factor loading})^2 + \sum \epsilon_j}$$

Where ϵ_j denotes standardized error and \sum represents summation.

4.14 Test of Validity

Validity of a scale is considered as the degree to which differences in the observed scale scores disclose the true differences among objects on the characteristic being

measured. A perfect validity test ensures that there is no measurement error (Nik Mat, 2012). Validity simply informs the researcher that the measurement of a concept actually measures the model under study (Bryman & Bell, 2007). The ability to explain the concept through measurement is validity while reliability tells us how consistent the measurement is (Hair, Black, Anderson & Tatham, 2006). Essentially, the types of validity test undertaken in this study are content, construct, convergent and discriminant validity.

4.14.1 Content (face) Validity

This evaluates the satisfactoriness by which a measure or scale has been sampled from its population or intended universe (Pallant, 2011). Content validity is subjective and systematic assessment of how well the content of a scale corresponds with the measurement task at hand (Nik Mat, 2012). In essence, the aim of content validity is to rationally reflect what is supposed to be measured, thus it may be subjected to test by different experts' judgment and pre-test with multiple populations. The number of expert personnel has been suggested to vary from six (6) to twelve (12) experts (Hair et al., 2006)

This then forms the basis for the pre-test of the questions earlier discussed. Questionnaires for this study were pre-tested by twelve (12) senior marketing lecturers of which two out of the twelve are professors of marketing. For the purpose of the pre-test two of the questionnaires were emailed out to authors on green purchase intention. The researcher adhered to the several constructive suggestions made by these experts before embarking on the use of the instruments. This aspect of

the research is indispensable since it gives insight on or to detect the unrelated and inapt questions.

4.14.2 Construct Validity

The nature of this validity addresses the question of what construct or characteristics the scale measures. It is about testing a scale not against any criterion but instead, the theoretically formulated hypotheses concerning the underlying nature of the constructs examined (Pallant, 2011). It shows the degree to which a set of measured variables represent theoretically, the latent variables or constructs which it was intended to measure (Sekaran & Bougie, 2011). The measurement can be achieved by running exploratory factor analysis (EFA) in SPSS.

4.14.3 Convergent validity

The whole notion about this validity is that it explains the level to which indicators of a particular construct converge or share a common variance in high proportion. In a nutshell, it shows to what extent two measures of the same concept correlate and validates the absence of multicollinearity (Cooper & Schindler, 2003; Sekaran, 2003; Pallant, 2011). Convergent validity ensures that all factor loadings of manifesting observed items should have converged substantially into their family having values greater than 0.50 which is the minimum threshold (Hair et al, 2006, Barclay et al 1995; Fornell & Larcker, 1981; Kerlinger, 1978; Kaiser, 1958). They are indicators that construct are strongly interrelated (Brown, 2006). The EFA and confirmatory factor analysis was used to assess this validity to determine whether items converge satisfactorily or not.

4.15 Discriminant Validity

As touching this species of validity, it enlightens on the extent to which the scale correlates positively with the measures of the same construct and is distinct from those that do not relate with what it is measuring (Nunnally, 1970). Discriminant validity elucidates the situation in which two variables are predicted to be unrelated and their scores also indicate that they are uncorrelated. Also, that the measures have a low correlation with the variable which it was supposed to be unrelated with (Sekaran & Bougie, 2011).

Low correlation with other constructs is a clear indication that there is discriminant validity among constructs. Putting it more succinctly, it reveals the extent to which each predictor differs from another and is measuring a distinct construct in the research model (Byrne, 2010). Strengthening this statement, the items should not interrelate, instead each construct shares higher variance with its item rather than with items of other constructs (Campeau, Higgins & Huff, 1999).

This validity can be measured through the average variance extracted (AVE), the value of each AVE computed should surpass the squared correlation between such constructs (Fornell & Larcker, 1981; Hair et al., 2010). A recommended value of AVE according to these authors is 0.50. Fornell and Larcker (1981) recommend that the square root of AVE in latent variable can also be used to validate discriminant validity. Once the values of AVE are more than the correlation among latent variables, discriminant validity is established. Thus, the researcher after computing the AVE compares the values with the correlation squared to validate if discriminant

validity adequately met the threshold. Discriminant validity is asserted when items reflecting different constructs indicate low correlation (Brown, 2006).

4.16 Method of Data Analysis

This stage involves series of activities that have to do with responses from the respondents. Once data is collected, activities like data entry, screening of data and selection of suitable analysis method is followed (Sekaran, 2003). In order to dictate errors that might have occurred during data entry stage or where the respondents refused to give answers to questions which they viewed as personal, there is the need to carry out certain test. Data collected were analysed using a combination of both descriptive and inferential statistics, the descriptive was through Statistical Packages for Social Sciences (SPSS). This enabled the researcher to bring the data collected to a manageable summary suitable for understanding and interpretation (Babbie, 2005).

The Structural Equation Modelling (SEM) technique was also used. First the data need to be edited to ascertain its completeness and consistency (Hair et al., 2007) and also for the suitability of the exercise (Zikmund, 2003). All the variables were coded and missing data detected and given appropriate treatment based on its magnitude. The whole aim of this is to ensure that missing data, outliers, normality, and test of biases are sorted out for valid data usage.

4.16.1 Structural Equation Modeling (SEM)

The structural Equation Modeling has been defined in several ways by previous authors. Surhr (2000) posits that it is a methodology used in presenting, estimating and testing a network of relationship between measured variables and latent

constructs, commonly viewed as a network of linear relationship between variables (Rigdon, 1995). Also, it is considered as a comprehensive statistical way of testing hypothesis on the relationship between observed and latent variables (Hoyle, 1995) by taking a confirmatory approach to the analysis of a structural model bearing on certain phenomenon (Byrne, 2010). SEM is equally known as covariance structural analysis and latent variable analysis.

As a multivariate technique, combination aspects of factor analysis and multiple regressions (Hair et al., 2010), it is capable of testing hypotheses in a directional and non-directional associations among the set of observed and unobserved variables simultaneously (MacCallum & Austin, 2000). Confirming this, Hair et al. (2010) observed that SEM is one of the family of statistical tools which is able to explain relationships amongst multiple variables in a single analysis.

4.16.2 The Rationale for using Structural Equation Modeling

This study adopts the Structural Equation Modelling (SEM) for analysis due to several reasons. SEM is considered to have equal ability with multiple and linear regression analysis which assume that variables are evaluated with no errors. Even though SEM involves multiple regression and factor analyses, it has a more effective way of estimating instrument for a number of separate multiple regression equations which it evaluates concurrently (Hair et al., 1998).

It is more potent in analysing and modeling interactions and better in dealing with analysis associated with correlated independents, non-linearity and multiple latent independents correlated error terms and measurement errors, (measured through multiple indicators) and latent dependents with multiple indicators. Equally, when it

comes to estimating multiple dependent relationships concurrently, it has better capacity to take care of measurement errors and the strength of relationship between factors can be determined more precisely (Hair et al., 2010).

Besides, a confirmatory method of data analysis is more preferred than using exploratory factor analysis, testing hypotheses is also easier (Byrne, 2010). Using SEM therefore to analyse data invariably allows the researcher the use of multiple measures to denote or represent constructs and takes care of specific error which makes it easier to substantiate validity of the constructs under study (Hoyle, 1995). Being that this study measures multiple underlying variables as predictors, indirect paths and path analysis.

Additionally, with the design of questionnaire which comprised of interval and ratio scales and also measures of constructs which are highly hypothetical and conceptual in nature such as this study, the choice of SEM becomes inevitable. Furthermore, it helps to show the causal relationship between variables and further explains the complexity and the unobserved variables in the analysis (Hair et al, 2010).

Moreover, the advantage of adopting Structural Equation Modelling as a method of analysis in this work is spurred by the fact that since the tool is proficient in addressing multiple relationships among variables and ascertaining mediating effects, the use of SEM becomes imperative since this research model tests mediating effects. It is believed that the mediating effects of perceived behavioural control environmental consciousness and green trust will best be explored using SEM. This

assumption is taken based on the suggestion of (Hair et al., 2010) that mediating effect is established by introducing an intervening variable (a third variable) which interpose between two related constructs to be examined.

In addition, being a variance-covariance based method of analysis makes it suitable in analyzing causal relationships amongst latent constructs. This proficiency has made SEM popular in analyzing causal relationships which explains the dynamism of variables, that is explaining exogenous constructs and their influence on the endogenous. An added advantage in this method of analysis is its ability to generate new paths in the revised model which the researcher might not have thought of.

Undoubtedly, SEM is commonly utilized in various fields of disciplines. Extant literature reveals that SEM is an effective second generation multivariate method that is suitable for analyzing results which involve several variables and allows the assessment of measurement properties and theoretical relations with multiple relations at the same time in the same analysis (Byrne, 2010; Hair et al., 2010; Hau & Marsh, 2004). SEM is both factor and path analysis for a simultaneous estimate of measure and lays down the relationships between several related constructs known as latent variables (Byrne, 2010; Hair et al., 2010).

Profoundly, SEM is given more preference when it comes to the choice of research analysis tool especially in issues relating to social and behavioural sciences (Baumgartner & Homburg, 1996; Steenkamp & Baumgartner, 1998). Moreover, it comprises of two main functions; the measurement, i.e. the things that requires measurement, the measurement method and how to meet the reliability and validity

condition and casual relationships among variables. Through this, SEM presents the issue of measurement in a concise form by pointing out clearly what is to be measured and how the measurement can be carried out. Also it reveals how the reliability and validity conditions are met and further explains the underlying complex and unobserved variables (Hair et al., 2010).

Remarkably, SEM looks at analysis from a confirmatory view point rather than an exploratory during data analysis. By taking a position that the pattern of intervariable relations should be specified before estimation, SEM lends itself well to the analysis of data for inferential purposes. Other methods of multivariate like the exploratory factor analysis are primarily descriptive in nature which makes the testing of hypotheses really difficult and nearly impossible (Byrne, 2010).

Fundamentally, SEM is categorized into two models; the measurement and structural model. The measurement model considers relationships between the observed and unobserved variables while the structural model explains the relationships among the unobserved (latent) variables. It points to the specific indicator or item through which the latent variables influence the changes in other latent variables present in the model either directly or indirectly (Byrne, 2010; Hair et al., 2006).

One of the numerous advantages of SEM is found in its ability to use AMOS to test CFA and form the foundation for establishing the measurement model precisely before the actual assessment of the theoretical paths. This structure as opined by Byrne (2010) immensely helps in confirming the hypothesized model in the study.

The CFA ensures the precision and efficacy of each item's absolute strength in measuring the construct in comparison to others (Hair, et al, 2010; Byrne, 2010).

Grounded on these reasoning, SEM has demonstrated its wide acceptance as a method of analysis for non-experimental research especially where methods for testing theories are not properly developed and ethical considerations make experimental design almost a nearly impossible task to achieve (Bentler & Bonnett 1980). Crowning it all, there is no generally acceptable and easily adopted alternative method for modeling multivariate relations or estimating point and/or interval of indirect effects as done using SEM.

4.16.3 Types of Error In Structural Equation Modeling

Statistically, there are two basic types of errors; type I (one) and type II (two) errors in SEM. The type one is mostly referred to as alpha and occurs when the null hypothesis is rejected when it is supposed to be asserted. On the other hand, type II is the beta and could arise in a situation where the null hypothesis is asserted when it is to be rejected in the real sence of it (Sekaran & Bougie, 2011).

Similarly, SEM is linked to two sets of errors which might result from the measurement and structural model, they are known as measurement error and structural or unique error. The structural error is most often related to the structural model due to inability of the independent/dependent latent variables to predict the dependent variables perfectly (Hair et al., 2010). However, the confirmatory factor analysis (CFA) often reduces the influence of such error on all the latent variables

which have multiple items. This is done by taking all the constructs in the model as stimulus testing rather than individual coefficients.

The Confirmatory Factor Analysis in SEM is useful in testing models with multiple dependents and mediating variables. Basically, the variables cannot give a flawless image of definite latent variable, for this reason the measurement error is added into models (Hair et al., 2010). The unique error in structural error is noted and built-in as value to the structural model because the independent and dependent latent variables cannot impeccably estimate the dependent variables.

4.16.4 Types of Variables used in Structural Equation Modeling

The structural equation modeling is comprised of two types of variables. These are the latent and observed or measured variables. Latent or unobserved factor is usually the key word for it and it is abstract in nature which can only be detected through the influence of the observed construct. On the other hand, the observed variable which is also called the manifest, reference or measured construct is the one that is empirically estimated, an indicator which is normally as the result of the effect of the latent or observed variable. These are the actual variables which produce answers to the items in the questionnaire (Hancock & Mueller, 2007).

The latent or observed variables are made up of the exogenous (independent) latent and endogenous (dependent) latent variables. The latent variables in SEM are continuous variables and theoretically have tremendous number of values (Hair et al., 2010). The current study has five (5) exogenous latent variables (perceived green knowledge, green perceived value, green price sensitivity,

government regulations and green availability), three (3) mediating constructs (perceived behavioural control, environmental consciousness and green trust) and one(1) endogenous variable which is (green purchase intention).

4.16.5 Steps in Structural Equation Modeling Analysis

Many contemporary studies have viewed SEM not only as a statistical procedure but also as a process which involves few stages: (1) conceptualizing the model (2) parameter identification (3) model specification (4) estimation of model (5) modification of model and (6) evaluation of parameters (Hancock & Mueller, 2007). These steps are necessary when carrying out SEM analysis (Mueller, 1997). They are hereby explained in succession.

4.16.5.1 Model Conceptualizing

The first stage of any SEM analysis should be for the researcher to conceptualize the model, this entails pointing out which relationships are hypothesized to exist among observed and latent variables. Theoretical model is based on underlying theory that gave rise to the variables being investigated and should be focused on literatures and knowledge on the subject matter. Ideally, in SEM applications, the operationalized theories assume the form of measured variable path analysis model, that is hypothesized structural or causal relationships among variables that are directly measured (Hancock & Mueller, 2004).

With regards to the current study, the theoretical framework is reflected in chapter three, Figure 3.1. Later on, in order to specify the model into a suitable formal model by means of equations which are appropriate in spelling out research ideas on the

relationship between constructs, the same model was converted into a hypothesized model for the purpose of analysis (Hair et al., 2010).

4.16.5.2 Identification of Parameters

Parameter identification is the second phase and is concerned with whether there is adequate variable or not and if the variables are well distributed across the equations in the way they can estimate coefficients and matrices which are not known (Bollen, 1989). The model's hypothesized structural and non-structural associations can be expressed as population parameters (relationships between variables) that show the extent and indication of the relationships.

Before sample estimates of these parameters can be obtained, each parameter in the entire model must be identified; that is being able to express each parameter as a function of the variances and covariance of the measured variables. This though might be problematic and burdensome to exhibit, the identification status of a model can always be evaluated by matching the total number of parameters to be estimated with the number of unique (co) variances of the measured variables (Lei & Wu, 2007).

The flexibility in specifying a model makes it possible for a variety of models to be considered. However, not all of the specified models are easy to be identified and estimated. As a principle in identification, a model should not have a larger number of unknown parameters to be estimated than the number of unique pieces of information given by the data (variances and covariance's of observed variables for covariance structure models in which mean structures are not analysed).

Secondly, because the scale of a latent variable is arbitrary, identification of all latent variables must be scaled in order to have their values interpreted. The aim of parameter identification is to be sure the specification of model is not under-identified, just-identified nor over-identified and also that the data is undeniably established to ensure quality and comprises of effective parameters for the model (Reilly & O'Brien, 1996)

The researchers can ascertain if the model being investigated is identified or not. Every model parameter is uniquely estimated in an identified model. When it is also over-identified, it contains fewer parameters to be estimated than the number of variances and covariance (Lei & Wu, 2007). In addition, a just-identified model contains the same number of parameters as the number of variances and covariances and is said to be under-identified if the number of variances and covariances are smaller than the number of parameters.

In the event where a model cannot be identified, it could be that the model parameters cannot be estimated and have several sets of parameter values that can produce the same level of model fit (as in under-identified models). In most cases, such results are not interpretable and the models need to be re-specified (Davis, 1993; Reilly & O'Brien, 1996; Rigdon, 1995).

4.16.5.3 Model Specification

The third stage in the structural equation modelling is to specify the model; this entails the art of developing the measurement and structural model. The

measurement model is designed from the review of literature in chapter two. In specifying the structural model, the casual relationship between exogenous and endogenous variables are identified and linked with arrows (Hair, Anderson, Tatham & Black, 1998).

In this study, perceived green knowledge, green perceived value, green price sensitivity, government regulations and green availability are exogenous variables which predict the endogenous which are perceived behavioural control, environmental consciousness, green trust and green purchase intention. Dissimilar to exploratory factor analysis, confirmatory factor analysis specifies relationships among variables before the analysis (Miles, McManus, Feinmann, Glover & Harrison, 2001). In so doing it also defines the latent variables through confirmatory analysis before embarking on the analysis.

The measurement model deals with the relationships between observed variables and the unobserved in order to assess the association between the constructs. The measurement model most often is referred to as confirmatory factor analysis (CFA). As a typical CFA model it exams the measurement model by ascertaining the validity of individual measures and other evidences of construct validity through the overall model's fit (Hair et al., 2010). This model is most often called the null model whereby the covariance of the latent variables are assumed to be zero (0) (Salim, 2007).

Confirmatory Factor Analysis (CFA) is a process used to lessen the measurement error of instrument and gives room for the researcher to examine the degree to

which the observed variables converge to detect or identify the fundamental hypothesized relationship. More to this, it is undertaken to test the measurement model (Weston & Gore, 2006). Additionally, it is intended to improve the model before the assessment of the hypothesized model (Newkirk & Lederer, 2006; Tabachnick & Fidell, 2014). CFA values for all the variables should have a minimum criterion of loadings above 0.50.

In this study, individual CFA was conducted for all nine constructs namely, green purchase intention, perceived behavioural control, environmental consciousness, green trust, perceived green knowledge, perceived value, green price sensitivity, government regulations and green availability. After the individual CFA, we also went ahead to conduct for exogenous (green knowledge, perceived value, green price sensitivity, government regulations and green availability) variables only and subsequently for the endogenous (green purchase intention, perceived behavioural control, environmental consciousness, green trust).

4.16.5.4 Estimation of Model

Estimating the model is the fourth phase in SEM analysis. Unlike the regression analysis, more than one coefficient is used in SEM analysis for each variable because it is based on matrix algebra with manifold equations (Bollen, 1989). The basic matrices in SEM are of two types, covariance and variance matrix. They are further classified into four matrices of coefficients and four of covariance. The matrices of coefficient are those matrices which relate the endogenous concepts to each other, those that relate the exogenous to the endogenous concepts, those which relate the endogenous concepts to indicators and those that relate the exogenous concepts to

the exogenous indicators (Byrne, 2010). As soon as these relationships are established for the exogenous and endogenous variables, the covariance too needs to be examined. One way this can be done is through the four covariance matrices; the covariance is exogenous and endogenous concepts and covariance amongst error for the exogenous and endogenous indicators (Byrne, 2010).

4.16.5.5 Model modification

The fifth stage is model modification which consists of adjustment of the specified model by deleting or adding parameters as suggested in the analysis procedure in order to improve the fit (Diamantopoulos & Siguaaw, 2000). Modification indices was applied to achieve the suitable fitting for the model and to ensure that the improvement made on the model is substantively interpretable and meaningful (MacCallum, Roznowski, & Necowitz, 1992; Segars & Grover, 1993).

Modification indices give suggestions on how to remedy the anomalies between the suggested model and the estimated one. The origin is linked to (Arbuckle, 2006), he opined that most indices of modified models usually have a bad fitting which necessitates that the researcher looks into the modification indices suggestions to achieve the p-value or a good model fit in general as the other fit statistics depend on the modification (MI) to enhance their fittings. These are calculated values obtained for each unestimated possible relationship in the specified model (Hair et al., 2006). The procedure in doing this however is not arbitrary, the MI for individual item is first of all established and the one with the highest value going by MI rules is deleted after which the researcher goes back to the output text to examine the second model.

This continues repeatedly until the acceptable values are achieved. By this, it is expected that the chi-square value declines in order to achieve the p-value; likewise the Goodness of Fit (GFI), Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI) increases in value above 0.90, once these other indices are increasing, the Root Mean Square Error of Approximation (RMSEA) is also decreasing. The model does not have fit with the data if p- value of χ^2 is significant ($p < 0.05$), but where $p \geq 0.05$, the model is considered to have fit with the data (Byrne, 2010).

Modification Indices (MI) or covariance in the output of AMOS is the amount of the overall χ^2 value that would be reduced by freeing any single particular path that presently is not being estimated (Hair et al., 2006). The MI points out a high covariance between these items which are not captured by the model constructs. In essence, if there are high modifications indices between items and their loading is low, these items are suitable for deletion to achieve model fit improvement (Hair et al. 2006). Consequently, deletion was made following MI suggestions to avoid other parts of the model from being affected until satisfactory fit is achieved (Segars & Grover, 1993).

4.16.5.6 Evaluation of Parameters

The sixth phase has to do with parameter estimation and this involves the evaluation of each of the parameters through the specified model so that model based covariance matrix can match with the targeted covariance matrix. Parameters in SEM are similar to those used in multiple regressions; for instances the standardized beta

coefficient, critical ratio (t-values), squared multiple correlation and probability value (p-value).

4.16.5.6.1 Beta Coefficient

The beta coefficient is standardized regression coefficient which allows direct comparison between coefficients to their relative explanatory power of the dependent variable is applied in SEM, the regression coefficients are indicated in units of associated variables and cannot be suitable to compare with coefficients since the coefficients in beta are of standardized (the process where original variable changes into a new variable with a mean of 0 and standard deviation of 1) data which can directly be compared (Tabachnick & Fidell, 2014; Hair et al., 2010).

4.16.5.6.2 Critical Ratio (CR)

Similarly, CR on the other hand is same as “T- Value” in regressions equations. CR measures partial correlations’ significance of the variables that are represented in the regressions coefficient and is the same as in SEM. The terms, critical ratio and t-value are the same concepts and are the value of test statistic (t-test). The concept represents certain significance level (p-value) such as 1.96 signifies 0.05 for t-test having large sample and 2.58 connotes 0.01 significance level and 3.58 denoting 0.001significance level (Hair et al., 2010; 2006).

4.16.5.6.3 Squared Multiple Correlations (SMC)

As touching squared multiple correlations (SMC) this is a valuable aspect of SEM analysis and does not depend on any unit of measurement. The values represent the

ratio of variance explicated through the predictors in the model, in the course of the analysis the SMC for endogenous variable is produced (Hair et al., 2010).

4.16.5.6.4 Probability Value (P-Value)

Again, the p-value also stands as another indicator to ascertain if the direct effect is statistically substantiated or not. The p-value or probability value conventionally is $p < 0.05$. However, the smaller p-values ($p < 0.001$) are considered highly significant on the notion that the observed difference might happen less than once in a hundred times given that there would be truly no modification (Davies & Crombie, 2009).

4.17 Estimation of Model Fit

The aim of evaluating the overall model fit is to ascertain the degree to which formulated hypothesized model is in consonance with the dataset. Goodness of fit (GOF) is an essential aspect of SEM analysis because it ascertains the validity of measurement model (Hair et al., 2006). The purpose of goodness of fit measure is to know if model-based covariance matrix is akin to the observed covariance or not. Some scholars are of the view that there are three indicators of goodness of fit: (1) absolute fit, (2) incremental fit and (3) parsimonious fit (Ghozali et al., 2005; Hair et al., 2006). Following the reasoning of most scholars on this note, they suggested that at least one or more measure should be used to determine model fit from each of the type's available to assess the fitness of model (Bollen, 1989; Hair et al., 2010; Schumack & Lomax, 1996; Tanaka, 1993). Hence, the three types of indices are briefly explained below.

4.17.1 Absolute Fit Indices

This measure directly shows how well a specified model replicates the observed data (Drasgow, 1984). Absolute fit indices provide the most basic assessment of how well the researcher's model fits the supposed data to the degree of replicating actual correlation among constructs. Each model is evaluated independently without exactly comparing the GOF of other specified models (Hair et al., 2010). This type of fit index comprises of statistically non-significant chi-square (χ^2) associated with degree of freedom (df), Goodness of Fit (GFI) and Root Mean Square Error of Approximation (RMSEA). For this study absolute fit indices which will be reported are Chi-square (χ^2), degree of freedom (df), Goodness of Fit (GFI) and Root Mean Square Error of Approximation (RMSEA).

4.17.2 Incremental Fit Index

Unlike absolute fit indices, they tend to evaluate how well the estimated model fits in relation to other alternative model. Incremental fit indices sometimes are referred to as comparative fit measures; they are Normed Fit Indices (NFI), Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI). Most reported fit among the incremental indices in SEM are TLI and CFI (Hair et al., 2010). For the purpose of this study, CFI which is an enhancement of Normed fit index (Babin & Griffin, 1998; Cohen & Cohen, 1983) and TLI will be reported.

4.17.3 Parsimony Fit Indices

Fundamentally, it was designed to generate information on the best model among a given set of competing models. In the group of Parsimony fit indices, Adjusted Goodness of Fit Indices (AGFI) and Parsimony Normed Fit Index (PNFI), PFNI is

commonly reported as it takes some of the extra characteristics of incremental fit indices which is relative to absolute fit indices in adding to its advantage of supporting less complex models (Hair et al., 2010).

4.18 Benchmark for Goodness of Fit Indices

A goodness of fit benchmark indicates whether a model-based covariance matrix is akin to the observed covariance matrix or not. The GOF construct validity in SEM process is a vital component because it determines the validity of the measurement model (Hair et al., 2010). There has been a dispute over what should be the cut off-values for these indices. In the early 1990s, accepting values of 0.90 was a common practice for incremental index, however by the end of that era, it increased to 0.95 with the argument that 0.90 is low and could lead to accepting a false model. Thus, above 0.90 became the rule of thumb for a model fit (Cohen & Cohen, 1993).

Similarly, RMSEA value ranging from 0.05 to 0.10 was a fair fit (Bryne, 2010; Davey & Savla, 2010; MacCallum et al., 1996). With time, researchers considered values below 0.01 (Hu & Bentler, 1999) and a rigid upper limit of 0.08 (Steiger & Lind, 1980) as a cut off point for a good fit. This however affects incremental indices than the absolute fit indexes. Additionally, threshold for parsimony fit indices fall within the region of 0.50 and is suggested to be used in tandem with other goodness of fit (Mulaik, James, VanAlstine, Bennet, Lind & Stilwell, 1989).

Table 4.14
Summary of Goodness of Fit Indices and Criterion

GOF Measure	Criterion	Source
Absolute Fit Index		
Ratio	Between 3 & 5	Bagozzi & Yi, (1991), Wheaton et al., (1977)
RMSEA	Less than 0.08	Bryne, (2010), Davey & Savla, (2010), Hair et al, (2010)
GFI		
	Above 0.95	Hu & Bentler, (1999)
	Above 0.90	Bentler, (1990) Hair et al (2010)
Incremental Fit Index		
CFI	Above 0.95	Hu & Bentler, (1999), Hair et al., (2010)
TLI	Above 0.95	Bryne, (2010)
NFI	Above 0.95	Bollen, (1989), Hair et al., (2010), Tabachnick & Fidell, (2007)
Parsimonious Fit Index		
PNFI	Max. 0.50	Hair et al (2010), Tabachnick &
AGFI	Above 0.95	Fidell, (2007)

4.19 Testing of Hypotheses

In this study, thirty four hypotheses are to be tested; there are twenty direct hypotheses and fourteen indirect which are mediated by perceived behavioural control, environmental consciousness and green trust.

4.19.1 Direct Relationship (Effects)

These are relationships which exist between two constructs having a single path which connects them and is referred to as direct effect. The critical ratio and the p-value are used in order to make certain that paths in the model are supported; to assess this, the CR parameter estimate is divided by estimate of its standard error and the acceptable value is 1.96 (Hair et al, 2006). That is to say that the path is accepted or the hypothesis is supported only if the CR value is up to 1.96.

The p-value also stands as another indicator to ascertain if the direct effect is statistically substantiated or not (Davies & Crombie, 2009).

4.19.2 Indirect Relationships (Effects)

The nature of this relationship is made up of a chain of relationship with one or more intervening construct (Baron & Kenny, 1986). It is an indirect effect with sequence of more than one direct effect or compound paths usually depicted with many paths. Before carrying out the mediation test the significant relationship among variables should first be ascertained.

4.19.2.1 Bootstrapping

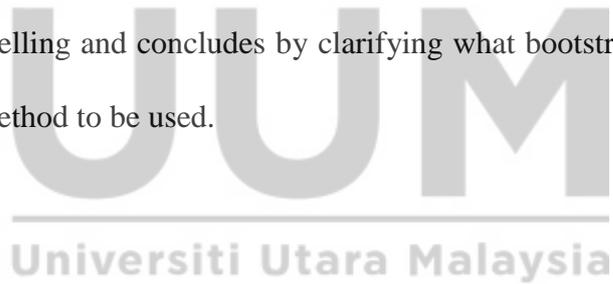
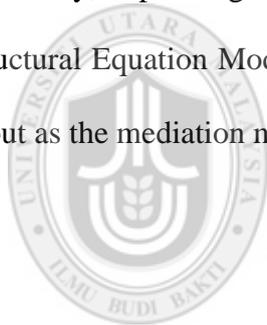
Bootstrapping is used to test the significance of indirect effect. Scholars such as (Preacher & Hayes, 2008; Zhao, Lynch & Chen, 2010) opined that bootstrapping is more rigorous and stronger test than Sobel. In stimulation studies some author's confirmed that bootstrapping has more potency than Sobel test and also the causal steps taken in testing the effect of the mediating variable (Fritz & Mackinnon, 2007; Williams & Mackinnon, 2008).

There are two ways to carry out bootstrap in AMOS. They are the bias corrected and percentile. Even though the bias corrected gives the most accurate confidence level, (Fritz & Mackinnon, 2007), both the bias corrected and percentile will be used for the purpose of this study using AMOS. In bootstrapping, occurrence of mediation is determined by the upper and lower bounds values at 95% confidence level in most cases (Preacher & Hayes, 2008). Furthermore, a bias corrected and accelerated confidence interval is ascertained through the bootstrapping by adjusting end points. To establish mediation, the value of zero should not appear between the upper and lower bounds values (Preacher & Selig, 2012). Based on the above discussion this

study applies the bootstrapping method to test mediation with values set at 1000 for the sample and 95% confidence level for both bias corrected and percentile following the recommendations of (Preacher & Selig, 2012).

4.20 Summary of Chapter

The chapter presented the methodology; it first elucidated on the research design and the sample of the population, data collection procedure and discussions on pre-test and pilot study. In addition, the chapter elaborated on the measurement items and design of the questionnaire, the method of distribution of the questionnaire and data collection steps. Furthermore, the various stages involved in data treatment and eventually, explaining the method of the data analysis which is through the use of Structural Equation Modelling and concludes by clarifying what bootstrapping is all about as the mediation method to be used.



CHAPTER FIVE

FINDINGS

5.0 Preambles

In this segment of the study, the researcher explains the findings from the analysis of data obtained following the design and method which has been stated in the methodology section. The sub-sections to be presented here include response rate, examining the data which encompasses screening for missing data, demographic profile of respondents, response bias. Furthermore, detecting and deletion of outliers which in turn paves way for normality, linearity, homoscedasticity and multicollinearity, correlations test and descriptive statistics of variables.

In addition, construct validity and reliability are all embedded in this section, this entails that finding on Cronbach Alpha, composite, convergent and discriminant validity is also entrenched in this sub-section. Likewise, this part of the study will cover the results of the exploratory factor analysis, individual, endogenous and exogenous confirmatory factor analysis. Furthermore, the confirmatory factor analysis on the measurement model of combined variables is presented. Last but not the least, the outcome of the hypothesized and generated model are depicted, then the findings from the test of hypotheses and mediating effects after which the chapter culminates with the summary.

5.1 Response Rate

In order to achieve maximum success in the data collection for the targeted number of respondents, seven hundred and fifty-four (754) questionnaires were administered. From the three universities, the researcher distributed three hundred and sixty two (362) questionnaires to the staff of the University of Abuja in two different campuses; two hundred and eighty (280) were returned. In the same vein, one hundred and nineteen (121) was administered in Baze University and on collection, only ninety-two (92) were made available. Similarly, the researcher received back one hundred and thirty (130) questionnaires out of the two hundred and seventy one (271) distributed in Bingham University.

On receipt of the five hundred and thirteen questionnaires, eleven were screened out on physical examination on the grounds of incorrect and incomplete filling leaving the researcher with a total of five hundred and two (502) questionnaires. On the whole, the response rate is 67% which falls within the range (45%-79.9%) of responses in the Nigerian context as mentioned already in the methodology chapter of this study. The summary of this discussion is presented in (Table 5.1).

Table: 5.1

Summary of Response Rate

Details	Total
Number of distributed questionnaires	754
Number of returned questionnaires	502
Response rate	67%

From the explanation of this table the response rate is satisfactory for this study based on the data (n= 502).

5.2 Screening Question

5.2.1 Discussion on the Screening Question

The screening question which was intended to test the knowledge of the respondents on green products demonstrated that 203 (40.4%) of the respondents examined asserted to be conversant with green products and 299 (59.6%) said they were not. After collecting the questionnaires from 502 respondents, the researcher in order to validate the claim of respondents for the purpose of comparison on their knowledge of green, a t-test between the two sets of respondents was carried out using the SPSS software (Danziger & Botwinick, 1980). Based on the outcome, there is was no statistically significant difference between the respondents. On the assumption that they are homogenous therefore, the researcher combined the two datasets for further analysis. The result of the t-test is shown on Table 5.2

Table 5. 2

T- Test to Compare between Knowledgeable and Non-knowledgeable Respondents

Screening Question	Response	N	Mean /SD	T-Statistic	Sig(2-Tailed)	Levene's Test for Equality of Variances	
						F	Sig. F
With Green Knowledge	Yes	203	5.7299 (1.8095)	-1.465	.144	10.73	.001
No Green Knowledge	No	299	5.8717 (.97733)	-1.413	.158		

5.3 Demographic Profile of Respondents

Seemingly, the sample profile was analysed by the use of frequency distribution (Appendix E). As depicted on the output 75% of the respondents were male while 25% were female; this reveals that more men took part in this survey.

While designing the questionnaire, the aspect of age of the respondents was not ignored, the age factor was categorized into three groups to capture all the age group within the universities. As can be observed in (Appendix E) the participants within the age of 18-35 are 38.6% of the respondents. The respondents whose age falls within the range of 36-50 were 48.3% while the age group above 51 are 13.1%.

As touching the income, the classification was also limited to three. Those whose income falls between USD 90-916 were 68% of the respondents, participants with income within USD 917-1748 were 21.3% and lastly, 10.4% of the respondents fall within the income range of USD 1749-2164

In terms of origin, the frequency of responses reveals that 12.4% of the respondents were from the North East, 16.1% from North West, 44% were from North East zones. Additionally, 10% originated from South East, 46.9% is respondents from south west and 8.4% of the respondents were from the South – South zone. As regards the residential area of respondents, they were required to indicate if they are from urban or sub-urban area; the frequency distribution shows that while 65.1% were from rural area, the rest, 34.9% were urban dwellers.

Seemingly, the descriptive statistics of the educational level of the respondents revealed that majority of the respondents, about 34.9% have first degree, while 33.9% have read up to master's degree. Similarly, 12.4% of the participants were PhD holders and the rest of them, 18.9% are classified under 'others' imply that they have low qualifications. By all accounts, majority of the respondents, 65.9% fall within the range of lower staff cadre of the university as can be deduced from the distribution table in Appendix E. The senior staff account for 20.5% of the sample

population; heads of departments account for just 7.4%. On the other hand, deans and directors account for only 3.5% and 2.8% respectively (Appendix E).

5.4 Descriptive Statistics Indicators

Table 5.3 expounds the means and standard deviation of all the variables; green price sensitivity has the least mean (5.072) and environmental consciousness is shown to have the highest means with (5.749). Furthermore, the standard deviation from all indication have values ranging from 0.829 to 1.133, being values for perceived green knowledge and green purchase intention respectively. This in a nutshell demonstrates the presence of satisfactory variability in the set of data.

Table 5.3
Summary of Descriptive Statistics Indicators of Variables

Variable Code	Variable Name	Number of Item	Mean	Standard Deviation
PBCL	Perceived Behavioural Control	6	5.142	0.901
ECC	Environmental Consciousness	6	5.749	1.042
GTST	Green Trust	6	5.619	0.916
PGKL	Perceived Green Knowledge	6	5.156	0.829
GPV	Green Perceived Value	6	5.564	0.909
GPST	Green Price Sensitivity	6	5.072	0.851
GRN	Government Regulations	6	5.422	0.994
GAV	Green Availability	6	5.673	0.894
GPI	Green Purchase Intention	6	5.327	1.133

5.5 Screening of Data

This process entails that the researcher checks the data to ensure it is rightly filled and recorded. Through this exercise missing data will be spotted, outliers can be detected and also the normality and the test for multicollinearity can be assessed.

5.5.1 Missing Data Detection

After entering the overall data (502) into the Statistical Package for Social Sciences (SPSS) for screening purpose, the normal procedure for missing value was conducted and the descriptive output indicated that there are twenty-five (25) items missing. Since missing values are not substantial, they can be substituted with median which is one of the most common ways to deal with missing data to avoid deletion of any item (Hair et al., 2010; O'Brien, 2007; Pallant, 2011; Tabachnick & Fidell, 2014). The SPSS output is presented in Appendix G.

5.5.2 Response Bias

On the collection of returned questionnaires, the values were noted and classified based on early (236) and late (266) responses. A test for response bias using independent sample t-test in SPSS was conducted to ascertain whether there is similarity between the standard deviation, mean and standard error mean of the two sets of responses. Observation from Table 5.4 indicates there is no distinctive difference between the responses of the early respondents and the late respondents. It is obvious from the Levene's test for equality of variance whereby the means and standard deviation fall within same values and the test shows no significant inequality. Based on this, the researcher deduced that this data is free from non-response bias and hence proceeded for further screening.

Table 5.4

Response Bias Test

Variable Code	Group Response	N	Mean /SD	T-test	Sig(2-Tailed)	Levene's Test for Equality of Variances	
						Sig.	
GPI	Early response	236	5.168 (1.254)	-1.1207	.232	2.827	.093
	Late response	266	5.294 (1.095)	-1.198	.231		
ECC	Early response	236	5.731 (1.065)	1.197	.232	.695	.405
	Late response	266	5.615 (1.106)	1.199	.231		
GTST	Early response	236	5.475 (1.013)	1.607	.109	1.231	.268
	Late response	266	5.612 (.902)	1.596	.111		
PBCL	Early response	236	4.973 (.925)	2.387	.017	.292	.589
	Late response	266	5.167 (.895)	2.382	.018		
PGKL	Early response	236	5.078 (.897)	-.125	.901	2.088	.149
	Late response	266	5.088 (.819)	-.124	.901		
GPV	Early response	236	5.432 (1.006)	-.566	.572	.267	.606
	Late response	266	5.48 (1.961)	-.564	.573		
GPST	Early response	236	4.919 (.893)	-1.692	.091	.128	.720
	Late response	266	5.053 (.868)	-1.690	.092		
GRN	Early response	236	5.277 (1.075)	1.503	.133	3.685	.055
	Late response	266	5.414 (.962)	1.403	.136		
GAV	Early response	236	5.520 (1.000)	1.558	.120	2.719	.100
	Late response	266	5.65 (1.887)	1.547	.122		

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5.5.3 Outliers

In line with Hair et al. (2010) suggestion, a new variable was created as “Respono” in SPSS numbering from beginning to the end of all variables (1 to 502). Standing on the backing of authorities such as (Tabachnick & Fidell, 2014) deletion of multivariate cases of outliers using SPSS was adopted after running the regression analysis. The results of regression analysis was computed with respondent number “Respono” as the dependent variable which produced the residual statistics that revealed the minimum Mahanobis reading (D^2) as 2.464 and maximum 277.074 (Table 5.6). The value of D^2 which is higher than χ^2 is considered as outliers. Since there are 54 variable items in the research model, the value of χ^2 is 103.442

($p < 0.001$) (Hair et al., 2010). Hence, Mahalanobis distance (D^2) value greater than χ^2 (103.442) were considered as multivariate outliers (Hair et al., 2010; Hau & Marsh, 2004; Tabachnick & Fidell, 2014). Sixty-two (62) cases were found to be in this category and were deleted from the five hundred and two (502) dataset. This brought the total number of usable screened data to four hundred and forty (440) for subsequent analysis. The residential statistics is shown in Table 5.5

Table 5.5

Residuals Statistics on Mahalanobis Distance

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	69.91	422.22	251.5	63.346	502
Std. Predicted Value	-2.867	2.695	0	1	502
Standard Error of Predicted Value	11.602	103.978	47.968	13.521	502
Adjusted Predicted Value	33.45	470.24	251.21	67.176	502
Residual	-343.712	302.656	0	130.497	502
Std. Residual	-2.463	2.169	0	0.935	502
Stud. Residual	-2.616	2.355	0.001	1	502
Deleted Residual	-387.851	360.056	0.285	150.178	502
Stud. Deleted Residual	-2.634	2.368	0.001	1.001	502
Mahal. Distance	2.464	277.074	62.875	38.305	502
Cook's Distance	0	0.052	0.002	0.004	502
Centered Leverage Value	0.005	0.553	0.125	0.076	502

a. Dependent Variable: RESPONO

b. MAHAL DISTANCE > 103.442 were deleted as Multivariate outliers (62 cases)

5.5.4 Normality

The normality of this data was evaluated through SPSS and the distribution of data was equally inspected through the normal Q-Q plot, scatter plot for skewness and kurtosis. The initial z-scores indicated non-normality skewness values higher or greater than ± 2.0 which are extreme cases of non-normality (Hair et al., 2010). In

view of this, the data which exceeded ± 2.0 were normalized using cdfnorm transformation technique (Tabachnick & Fidell, 2014). Thus, all the variables had to be transformed; to this end, they are all indicated with “T” for example, GPI becomes “TGPI” which show normal z-score of ± 2.0 or lower (Appendix F).

The output in (Appendix F) shows the values of skewness and kurtosis of distribution of data that has been normalised using Cdfnorm function. The results indicated that most of the constructs have values under 2 with the exception of TPGK1, TTEC1 and TTEC2. Finally, it means that univariate distribution is considered to be normal or symmetrical. SPSS out for data both before and after normalization are reflected in Appendix F.

5.4.5 Histogram

Data normality was further re-examined by using histogram and normality plot for residuals in SPSS and the output aptly depicts that data is distributed normally. Appendix F provides details about the skewness and kurtosis while the histogram reflects the distribution of data (Figure5.1).

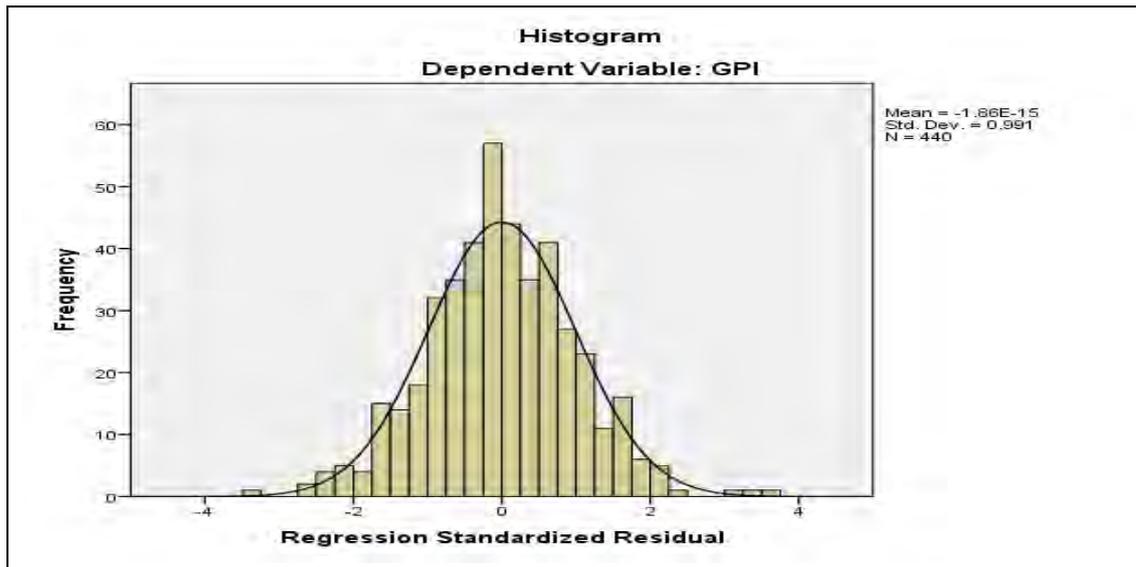


Figure 5.1

Normality Assumption

5.4.6 Linearity

In a bid to prove non-linearity in data, scatter plot residuals (Figure 5.2) was used via the SPSS; from the plot the straight line is an indication of relationship or rather association with the anticipated dependent variable's mean score of green purchase intention; thus, the normal P-P plot of standardized regression residual reveals no trace of non-linearity. Besides this, the items used in this study were adopted from validated existing studies on green purchase intention though not in the context of the present study. Consequently, the question of non-linearity between the predictor and criterion variable does not arise.

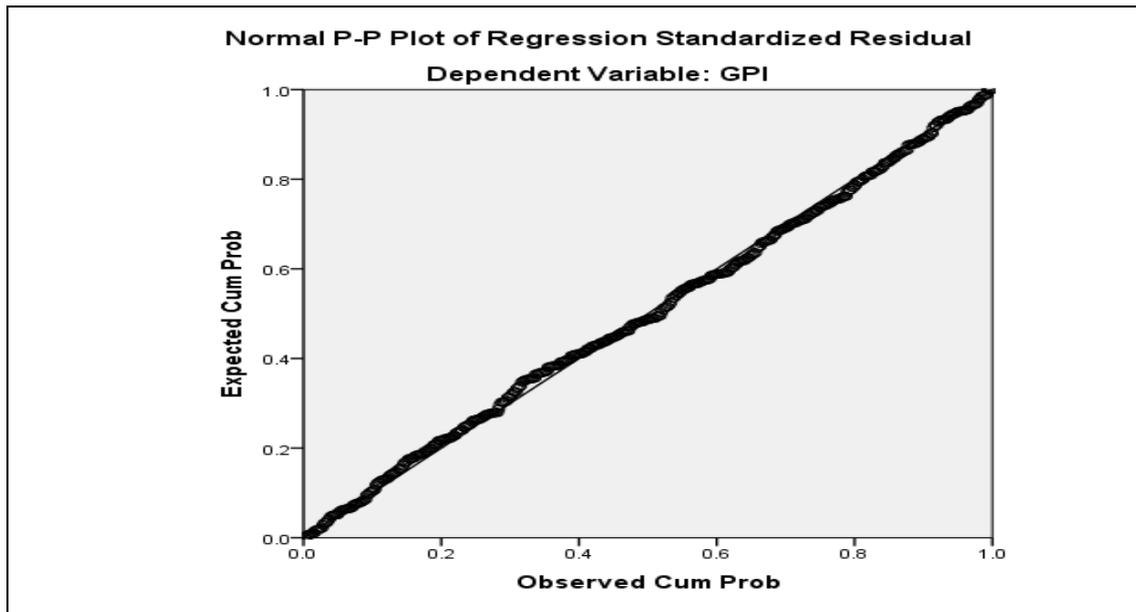


Figure 5.2

Linearity Assumption

5.4.7 Homoscedasticity

The test for homoscedasticity, (scatter plot of ZPred on ZResid) would reveal any variance of errors in analysis across all the levels in the predictor variables (Hair et al., 2006). Taking a close look at the scatter plot, apparently, there is homoscedasticity among the set of independent variables selected for this research and the variance of the dependent variable, evidently suggesting the lack of heteroscedasticity which can be seen at a glance from residuals distribution in Figure 5.3. The test for homoscedasticity is vital as the assumption explains the test of hypotheses indicating the correlation between the dependent and independent variables.

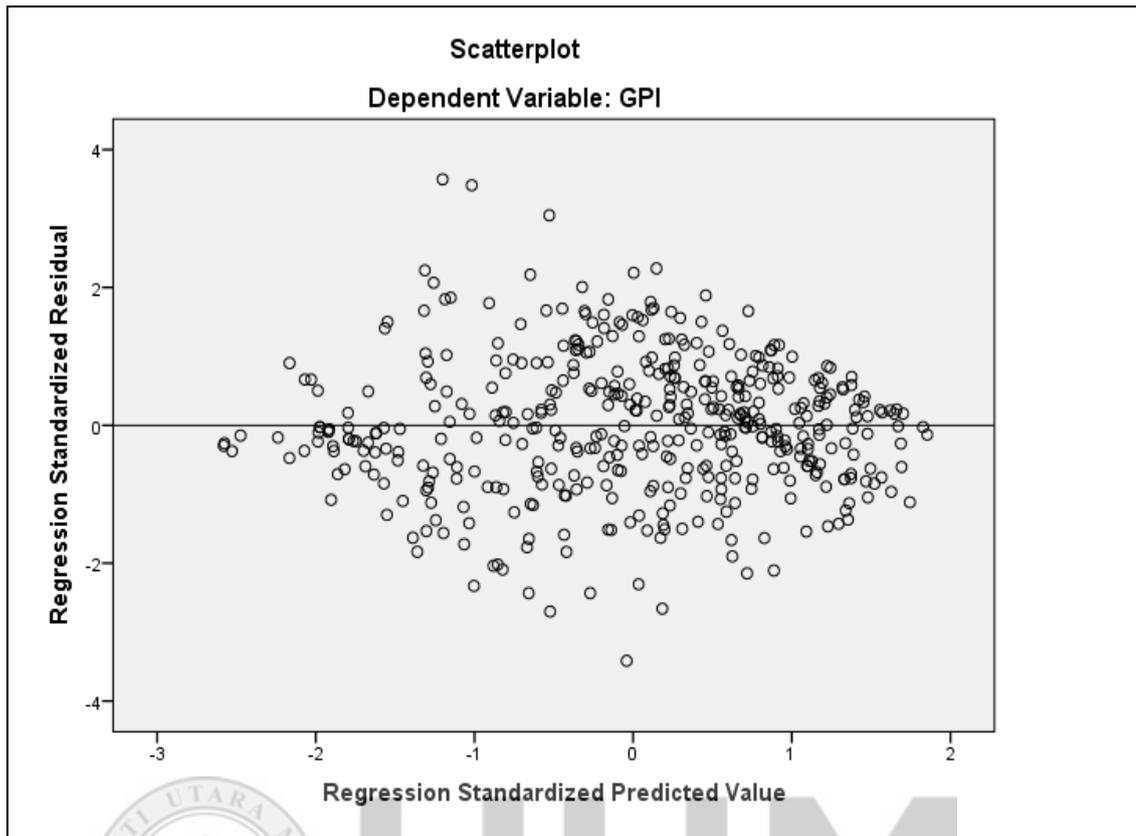


Figure 5.3

Homoscedasticity Assumption

The homoscedasticity test aims to depict how the variance of the dependent variable can be explained in the dependence relationship and suggests that it should be in a scattered range with the independent values (Hair et al., 2010). This can be observed from the scatter plot.

5.4.8 Multicollinearity

Multicollinearity was examined via the variance inflation factor (VIF) and the tolerance level computed using regression in SPSS. As a general rule, VIF and tolerance values should not be more than 10 or less than 1 (Hair, Anderson, Tathan & Black, 1998). In view of that, Table 5.6 reflects the multicollinearity statistics on variance inflated factors (VIF) and tolerance level. Seemingly, VIF values stand at

1.447 to 3.005 while the tolerance level ranges from .333 to .691; thus, both output met the criterion recommended and acceptable since the values are less than 10(<10) (Hair et al., 1998; Tabachnick & Fidell, 2014). With this it could be assumed the case of multicollinearity among variables is not applicable.

Table 5.6
Multicollinearity Test Based on Variance Inflated Factor (VIF)

V/Code	Exogenous Construct	Tolerance	VIF
PBCL	Perceived Behavioural Control	0.389	2.573
ECC	Environment Consciousness	0.691	1.447
GTST	Green Trust	0.361	2.767
PGKL	Perceived Green Knowledge	0.412	2.429
GPV	Green Perceived Value	0.312	3.205
GPST	Green Price Sensitivity	0.501	1.994
GRN	Government Regulation	0.472	2.117
GAV	Green Availability	0.333	3.005

5.5 Test for Validity of Constructs

5.5.1 Construct Validity

Most authors suggested that reliability and the internal consistency of measurement items be evaluated through a set of predetermined values (Barclay, Higgins & Thompson, 1995; Bagozzi & Yi, 1991; Hair et al., 2010; John & Reves, 1982; Nunally, 1970; Pallant, 2011). In compliance, the following explains the results of the reliability of variables under study.

5.5.1.1 Cronbach Alpha

This study produced Cronbach Alpha values of above 0.6 (Hair et al., 2006) and 0.7 (Nunnally & Bernstein, 1994) indicating that the internal consistency of the construct

is met. The Cronbach Alpha presented on (Table 5.7) has given a proof that the items are adequate to measure the construct it was designed for. All the readings ranged from 0.738 to 0.931; this portrays very good internal consistency and a robust correlation with the conceptualized framework and supports the recommended reading of above 0.60 by (Hair et al., 2006) and 0.70 by (Nunnally & Bernstein, 1994). Appendix H presents the output for the reliability test.

5.5.1.2 Composite Reliability

In the same vein, the composite reliability (CR) was computed from AMOS. CR is more robust than Cronbach Alpha (CA) and most often used in determining reliability in SEM and complements CA. Apparently, the values are within the ranges of 0.912 to 0.980, exceeding the recommendation of 0.70 by most authors (Barclay et al., 1995; Fornall & Larcker, 1981; Hair et al., 2010). This signifies that the items are sufficient to measure the constructs; explicating further, convergence in scores demonstrates dependability of construct and fitness of data in measuring proposed model.

Table 5.7
Reliability of Variables (N=440)

Variable Code	Variable Name	Number of Item	Cronbach Alpha	Composite Reliability
PBCL	Perceived Behavioural Control	6	0.781	0.965
ECC	Environmental Consciousness	6	0.875	0.973
GTST	Green Trust	6	0.897	0.975
PGKL	Perceived Green Knowledge	6	0.931	0.968
GPV	Green Perceived Value	6	0.885	0.976
GPST	Green Price Sensitivity	6	0.738	0.912
GRN	Government Regulations	6	0.806	0.963
GAV	Green Availability	6	0.850	0.984
GPI	Green Purchase Intention	6	0.904	0.980

5.5.2 Convergent Validity

This aspect shows the extent to which indicators of specific variables share a common variance in high proportion by ensuring that factor loadings are greater than 0.50 (Hair et al., 2006; Barclay et al., 1995; Fornell & Larcker, 1981). Exploratory and confirmatory factor analysis are used to establish this.

5.5.2.1 Exploratory Factor Analysis

The factor analysis conducted on both independent and dependent variables indicate the exogenous variables have values which range from 0.312 to 0.884 and from 0.364 to 0.895 for the endogenous. These values have exceeded the recommended value of 0.5 (Hair et al., 1998) and also above 0.6 which is the recommended (Pallant, 2011).

Furthermore, the Barlett's test of sphericity was highly significant at ($p = 0.000$), this is an indication of the factorability of the correlation matrix and further confirms that the assumptions of factor analysis were met. It is assumed that when KMO is greater than 0.60 and the Bartlett's test of Sphericity is large and significant, factorability is then assumed to be met (Pallant, 2011; Tabachnick & Fidell, 2014). The following were obtained: Exogenous: Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .955, Approx. Chi-Square = 7859.907, $df = 378$, $sig = 0.000$, variance = 57.842%. Endogenous: Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .929, Approx. Chi-Square = 5872.514, $df = 276$, $sig = 0.000$, variance = 54.923%.

5.5.2.2 Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis was carried out on individual constructs, exogenous and endogenous variables. After this, the researcher tested the Measurement Model of the combined variables (Exogenous & Endogenous). The measurement model comprised of five exogenous (perceived green knowledge, green perceived value, government regulations, green price sensitivity and green availability) and four endogenous (green purchase intention, green trust, environmental consciousness and perceived behavioural control). The discussion and models for each of these are presented in Appendix I

However, having been subjected to CFA, the measurement model came out with a goodness of fit indices such as, Chi-square= 205.265, df =173, Ratio=1.187, CFI = 0.993, GFI = 0.959, TLI=0.990, PNFI=0.715, RMSEA = 0.21 and p= value =0.047; This demonstrates compatibility of the model with data since the indices are in line with acceptable thresholds (Bagozzi & Yi, 1991; Bryne, 2010; Hair et al., 2010; Hu & Bentler, 1999, Tabachnick & Fidell, 2007). The output for all CFA conducted in this study are presented in Table 5.8 and the factor loadings depicting convergence on Table 5.9.

After the entire process of EFA and CFA respectively, the manifesting observed items were considered to have converged substantially into their family possessing values well above 0.50 which is the minimum threshold (Bagozzi & Yi, 1991; Barclay et al., 1995; Fornell & Larcker, 1981; Hair et al., 2006; Hu & Bentler, 1999; Kaiser, 1958; Kerlinger, 1978) and thus the measures for this study sufficiently have

met the desired level of convergence validity to measure the constructs. Tables 5.8 and 5.9, also Appendix D clearly presents the values from this analysis.



Table 5.8

Goodness of Fit Summary of CFA of Individual, Exogenous, Endogenous and Combined Measurement Model (N=440)

Final Model	GPI	EC	PBC	GT	PGK	PV	GPS	GR	GA	EXO	ENDO	Combined Measurement Model
Initial	6	6	6	6	6	6	6	6	6	30	24	54
Items												
Items Left	4	5	5	4	4	5	4	4	4	11	12	20
CMIN	6.747	9.382	12.999	6.995	5.495	12.524	0.908	7.445	8.877	48.729	68.524	164.843
DF	2	5	5	2	5	5	2	2	2	34	68.524	134
CMIN\	3.373	1.876	2.6	3.497	2.747	2.505	4.954	3.723	4.439	1.433	1.428	1.230
DF												
P-Value	0.034	0.95	0.023	0.03	0.064	0.028	0.007	0.24	0.12	0.049	0.27	0.036
GFI	0.992	0.991	0.988	0.992	0.994	0.989	0.989	0.992	0.990	0.981	0.975	0.965
CFI	0.994	0.995	0.985	0.993	.997	991	0.969	0.993	0.991	0.993	0.989	0.993
TLI	0.983	0.990	0.970	0.979	0.990	0.982	0.906	0.974	0.974	0.988	0.984	0.989
PNFI	0.331	0.495	0.488	0.330	0.332	0.493	0.321	0.329	0.330	0.604	0.701	0.678
RMSEA	0.074	0.045	0.06	0.075	0.063	0.059	0.095	0.079	0.089	0.031	0.031	0.023

Note: GPI-Green Purchase Intention, ECC -Environment Consciousness, PBC- Perceived Behavioural Control, GTST- Green Trust, Perceived Green Knowledge, GPV –Perceived Value, GPST- Green Price Sensitivity, GRN - Government Regulation, GAV-Green Availability, EXO-Exogenous, ENDO-Endogenous

Table 5.9

Summary of Factor Loading for EFA and CFA for Endogenous and Exogenous Variables

Variable/Code	Statement	EFA	CFA
TPBC1	I have confidence that I should be able to buy green products	0.837	0.584
TPBC2	I have control when it comes to buying green products	0.752	0.323
TPBC3	I perceive I have adequate skill and knowledge about green product to make my own decision	0.725	0.758
TPBC4	If I have sufficient money I will buy green product instead of the conventional one.	0.364	0.640
TPBC5	I should know precisely what to do when it comes to searching for green products for my use.	0.248	0.780
TPBC6	I should know where to get green product when I need to buy.	0.217	0.661
TEC1	I will deliberately decide not to purchase products which are harmful to the environment.	0.797	0.647
TEC2	I will decide not to pollute the environment.	0.792	0.777
TEC3	I will intentionally boycott manufactures who are not conscious of the environment in their in their production activities	0.762	0.762
TEC4	I have chosen to consume products which have little or no contaminates to man and animal	0.743	0.710
TEC5	I will consciously reflect on the environment before making purchase, use and disposal of products to maintain quality of life of the environment	0.693	0.758
TEC6	My family and I will always consider the environment in our daily life activities.	0.651	0.802
TGT1	I feel green product's reputation is very reliable.	0.94	0.634
TGT2	I believe green products should be committed to environmental protection.	0.893	0.730
TGT3	I believe that company' selling green products should be reliable.	0.655	0.805
TGT4	I have the feeling that the production of green product process should be reliable.	0.592	0.780
TGT5	I am convinced that green product should be beneficial to me.	0.564	0.746
TGT6	Environmental claims of green products should be trustworthy.	0.474	0.779
TGPI1	I plan to buy products from companies who support green initiatives.	0.895	0.688
TGPI2	I will rather buy green product instead of non-green.	0.866	0.755
TGPI3	I Feel happy that I am planning to buy green product.	0.822	0.812
TGPI4	I will absolutely consider buying those products which have green labels.	0.778	0.804
TGPI5	I plan to buy products that are designed with green concepts.	0.740	0.769
TGPI6	I will encourage my family and friends to purchase green product henceforth	0.551	0.813

Cont'd

TPGK1	I believe that creating awareness has the potential to make consumers know about green products.	0.884	0.725
TPGK2	Information on green products can significantly influence my purchase intention.	0.783	0.825
TPGK3	I need information which can help me identify clearly symbols, colours and campaigns on green products.	0.834	0.839
TPGK4	Information on green product will enable me to make better decision on its purchase.	0.884	0.860
TPGK5	I will be interested in receiving information on the benefits of green products on magazines, newspapers, books, articles, television, internet, mobiles and radio	0.785	0.790
TPGK6	Information on the environmental benefits of green product will enhance its consumption.	0.720	0.758
TPV1	I feel that green product consumption will be of benefit to the communities in general.	0.534	0.713
TPV2	That green product performance should meet my expectations.	0.690	0.814
TPV3	I am convinced that green product functions will provide excellent value for me.	0.654	0.730
TPV4	Green product label should indicate its benefits for my money.	0.722	0.725
TPV5	Buying green products should give me a sense of fulfilling my ethical values.	0.780	0.750
TPV6	I can buy green products if the company offers high quality products.	0.395	0.634
TGPS1	I am willing to pay for green products even if they are too expensive.		0.344
TGPS2	I feel the price of green product should be an important factor when buying green products	0.536	0.585
TGPS3	Green product prices should be worthy of its environmental claims	0.668	0.680
TGPS4	I can purchase green products only if their prices are affordable to me.	0.573	0.582
TGPS5	I am ready to pay more if I am sure the product has less harmful content.	0.546	0.607
TGPS6	I am willing to pay high price if I am sure the production process is in accordance with environmental standards.	0.472	0.670
TGR1	The government should enforce environmental regulations on green practices.	0.880	0.544
TGR2	I believe environmental protection is the sole responsibility of the Nigerian government.	0.823	0.326
TGR3	The government should help promote green consumption in Nigeria.	0.716	0.785
TGR4	I feel government regulations should encourage purchase of green products in Nigeria.	0.683	0.804
TGR5	The Nigerian government should actively promote green marketing activities in Nigeria.		0.866
TGR6	The government should encourage me to consume green products by providing subsidies on green.		0.774

Cont'd

TGA1	Green products should be readily available in my country.	0.834	0.841
TGA2	Green products should be accessed easily in my neighbourhood.	0.740	0.876
TGA3	If green products are made available in the shops I will buy them.	0.574	0.813
TGA4	I will often prefer to buy green products if they can be made available regularly.	0.467	0.759
TGA5	Green products should be made available in every retail shop in Nigeria.	0.354	0.652
TGA6	It is not difficult to find green products on display in Nigerian outlets.		0.398



Table 5.10

Correlations among Constructs

Variable Name	PGKL	GRN	GPV	GPST	GAV	PBCL	ECC	GTST	GPI
PGKL	1								
GRN	0.582***	1							
GPV	0.669***	0.741***	1						
GPST	0.671***	0.663***	0.759***	1					
GAV	0.695***	0.787***	0.84***	0.754***	1				
PBCL	0.594***	0.635***	0.772***	0.688***	0.652***	1			
ECC	0.683***	0.436***	0.491***	0.576***	0.511***	0.486***	1		
GTST	0.634***	0.676***	0.783***	0.667***	0.735***	0.81***	0.54***	1	
GPI	0.570***	0.604***	0.698***	0.604***	0.658***	0.704***	0.508***	0.656***	1

***Correlation is Significant at the level of $p > .001$

5.5.3 Discriminant Validity

The discriminant validity in this study is ascertained through the correlation values and average variance extracted (AVE). According to Fornell and Larcker (1981) the guiding principle to attain the acceptable requirement is that the average variance extracted of two variables being measured should be greater than the square of correlation existing between the constructs under examination.

5.5.3.1 Correlation

Further confirmation is drawn from correlation matrix by estimating the measurement model in AMOS. Values of the correlation between constructs on (Table 5.11) are all below 0.9. This clearly illustrates that the variables (endogenous and exogenous) are free from multicollinearity (Cooper & Schindler, 2003; Pallant, 2011; Sekaran, 2003; Tabachnick & Fidell, 2014). The correlation matrix between the variables is assessed from the measurement model without fit in AMOS analysis.

Observing from Table 5.10 the degree of association is neither weak nor extremely strong which could have resulted into multicollinearity. Values range from between 0.486 and 0.84. Mayer, (1999) suggested that moderately weak correlation of 0.2 to 0.8 could be satisfactory enough to determine association between any theoretically associated variables. Fundamentally, the correlation demonstrated on this table is adequate and significant level of $p = > 000$. On the whole, it can be concluded that multicollinearity among the variables being examined is not an issue of concern because the level of correlation demonstrated in Table 5.6 is successful in generating the recommended values of < 10 (Pallant, 2011; Tabachnick & Fidell, 2014).

Table 5.11

Correlation and Correlation Squared Matrix among Constructs

	PGKL	GRN	GPV	GPST	GAV	PBCL	ECC	GTST	GPI
PGKL	1								
GRN	.582(.339)	1							
GPV	.669(.448)	.741(.549)	1						
GPST	.671(.450)	.663(.440)	.759(.576)	1					
GAV	.695(.483)	.787(.619)	.840(.706)	.754(.569)	1				
PBCL	.594(.353)	.635(.403)	.772(.596)	.688(.497)	.652(.425)	1			
ECC	.683(.476)	.436(.190)	.491(.241)	.576(.332)	.511(.261)	.486(.236)	1		
GTST	.634(.408)	.676(.457)	.783(.613)	.667(.449)	.735(.540)	.810(.656)	.540(.292)	1	
GPI	.570(.334)	.604(.365)	.698(.487)	.604(.383)	.658(.433)	.703(.494)	.508(.258)	.656(.430)	1

*** Correlation is significant at $p < .001$. Correlation Squared is indicated by the values in brackets.

5.5.3.2 Average Variance Extracted

The calculation of AVE is derived from variance extracted as in Table 5.12. The variance extracted for the constructs under study should exceed the minimum borderline of 0.50 or 0.7 according to the suggestions by (Byren, 2010; Barclay et al., 1995; Fornell & Lacker, 1981; Hair et al., 2010).

Table 5.12

Variance Extracted for Latent Variables

Constructs	Variance Extracted
Perceived Green Knowledge	.996
Government Regulation	.996
Green Perceived Value	.997
Green Price Sensitivity	.994
Green Availability	.997
Perceived Behavioural Control	.994
Environmental Consciousness	.996
Green Trust	.995
Green Purchase Intention	.996

As can be observed in Table 5.13 the average variance extracted (AVE) is calculated based on the junctions of two VEs. For example, AVE of perceived green knowledge and government regulations is equal to $PGKL + GRN / 2 = (.996 + .996) / 2 = .996$. These AVEs are then compared to the correlation squared in Table 5.12.

Based on Byrne (2010) and Fornell and Larcker (1981) recommendations, the AVE values ranging from 0.990 to 0.998 are greater than the cut off criterion 0.5.

Table 5.13

Average Variance Extracted (AVE) Matrix of Constructs

	PGKL	GRN	GPV	GPST	GAV	PBCL	ECC	GTST	GPI
PGKL	1								
GRN	.996	1							
GPV	.994	.994	1						
GPST	.994	.995	.995	1					
GAV	.996	.997	.997	.994	1				
PBCL	.994	.996	.996	.993	.995	1			
ECC	.993	.994	.994	.991	.993	.991	1		
GTST	.995	.996	.996	.993	.995	.993	.996	1	
GPI	.993	.994	.994	.991	.993	0.991	.994	.990	1

When these values in Table 13 are compared with the squared correlation of constructs in Table 5.12 the AVE is greater than the squared correlation (John & Reves, 1982). For instance, PGKL to GRN is .592 (.350), while AVE of the same is .996. This fulfils the assumption on which discriminant validity is upheld and confirms also the fact that each construct discriminates from the other.

5.6 Hypothesized Structural Model

Subsequently, after substantiation of individual constructs, exogenous and endogenous measurement models by subjection to CFA, an attempt is made here to validate the full structural model comprising of the direct and hypothesized paths towed from previous literatures with modifications. The model is depicted having five exogenous variables, three intervening constructs and one criterion variable. This structured model using AMOS contains the underlying constructs and the observed variables, furthermore, it comprised of 54 indicators before the modification (Figure 5.4).

Upon running the analysis, it was observed that the model with the exception of p-value, RMSEA and PNFI did not meet the general acceptable benchmark. Other indices are presented in the following order, GFI, (0.782), TLI (0.873) and CFI, (0.880), all are below expected value of above 0.9. However, the p-value (0.000), PNFI is achieved at 0.759 and RMSEA is 0.054. Even though RMSEA is just at the acceptable rim, it is still a poor fit because of recent researchers tend to accept values below 0.06 (Hu & Bentler, 1991) and a stringent upper limit of 0.08 (Steiger, 2007) as cut off point for a good fit. This model however is strictly confirmatory (SC Model); it cannot be used for generalization of the final results. Hence, the

hypothesized model is further fitted using modification index to produce generated model.

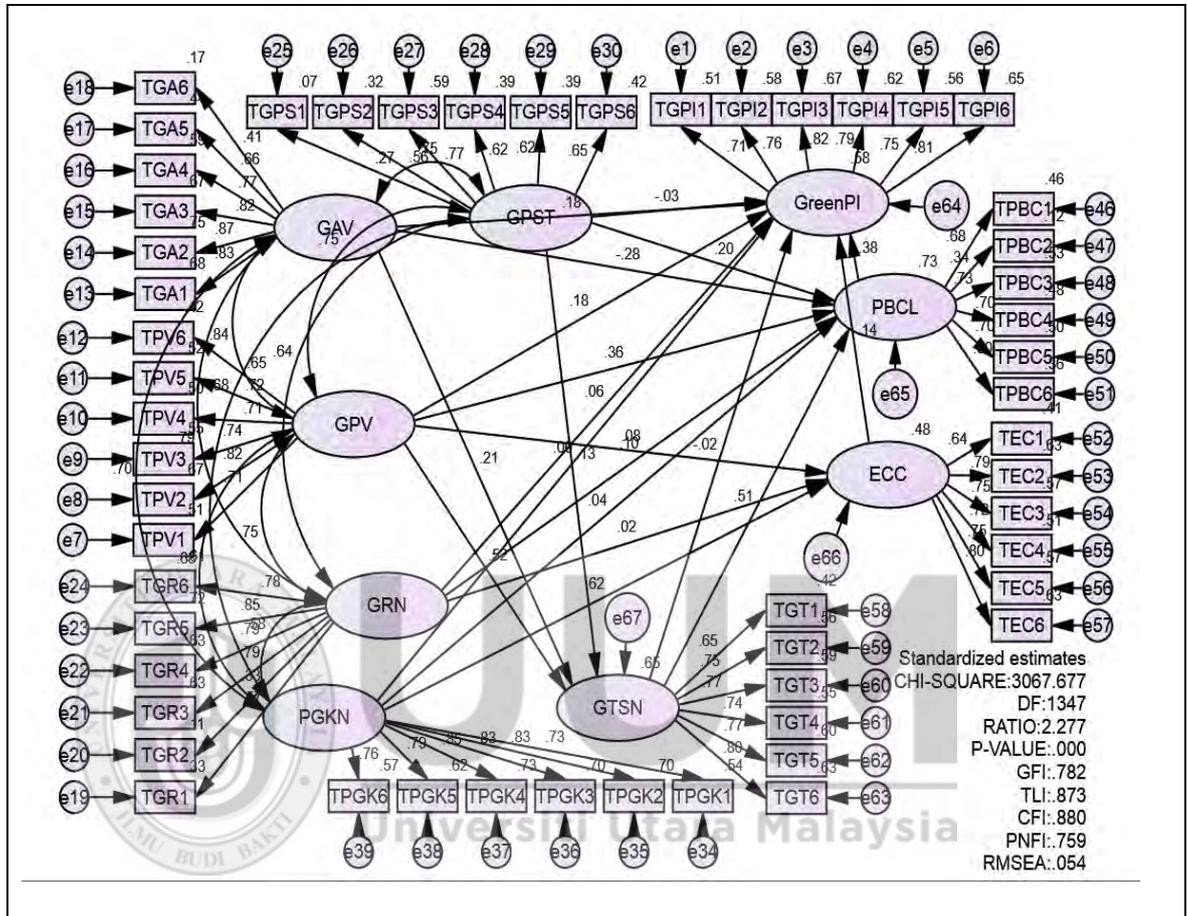


Figure 5.4
 Hypothesized Model

5.7 Generated Model

Having deduced that the structural hypothesized model could not fit, further analysis is necessitated to carefully observe and delete indicators with weak factor loadings following suggestions of the modification indices. The deletion primarily focuses on those indicators with high frequencies and covariance values. Through this process, a number of indicators found to be redundant and were not actually measuring the constructs they were intended to measure were given equal treatment of deletion; thus excluding them from further analysis. Hence, 33 observed variables were

removed, leaving a total of 21 to have a fitted model (Figure 5.5). The complete AMOS output for the generated model is in Appendix J.

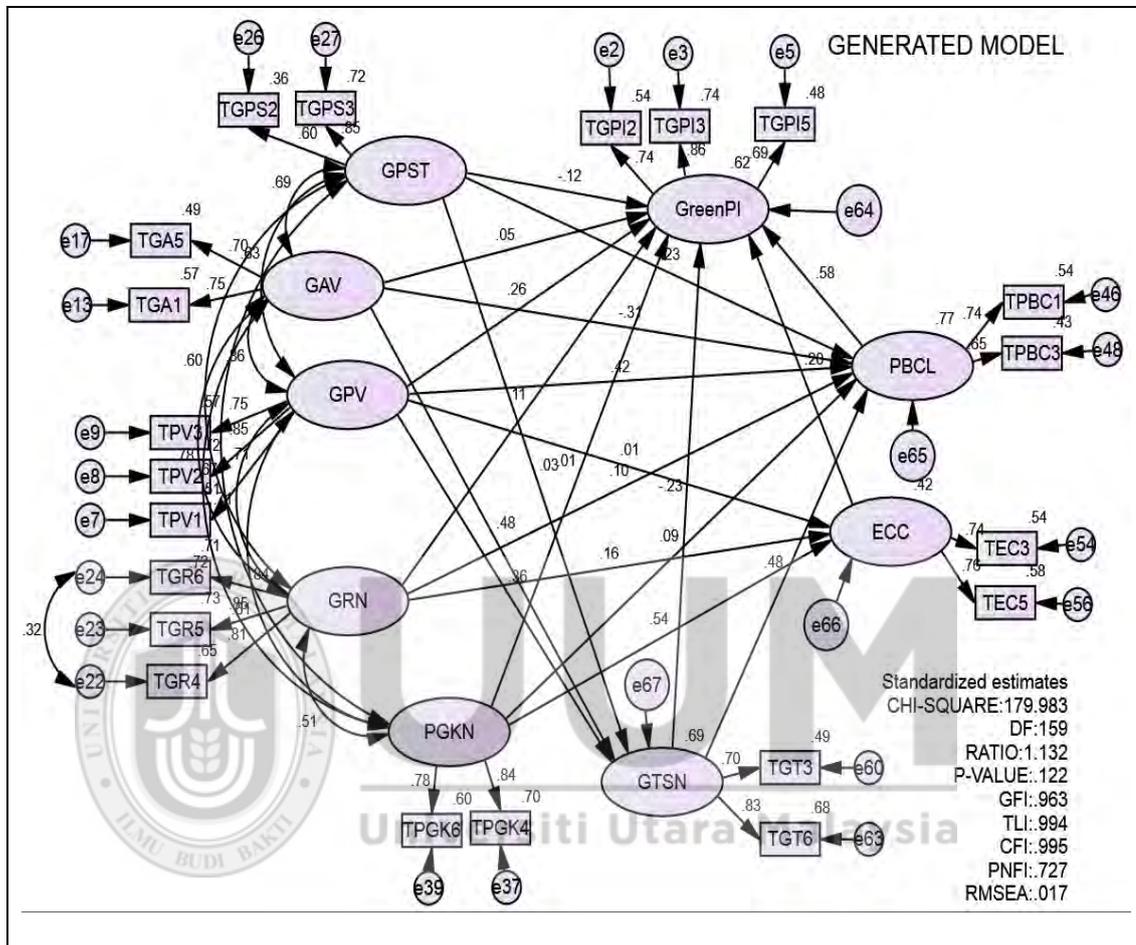


Figure 5.5

Generated Model

5.7.1 Goodness of Fit Indices

Based on Figure 5.5, the generated model produced a better goodness of fit indices compared to the hypothesized model. The absolute index represented by the GFI, RMSEA, p-value and ratio (chi- square /df) are GFI 0.963, RMSEA = 0.017, p= 0.122 and ratio 1.132, thus achieving all the thresholds. Similarly, the incremental indices signified by, TLI and CFI are .994 and .995 respectively; which is well above

the benchmark of .90. The parsimony index, PNFI is achieved at 0.727 (Bagozzi & Yi, 1998; Hair et al., 2010)

In a nutshell, it can be concluded that the goodness of fit indices all achieved the acceptable limit with values well above the borderline; consequently it demonstrates that the result can be generalized to the entire population of the study having achieved the p-value ($p=0.122$), achieving the benchmark ($p<0.05$) for generalization of result (Hair et al., 2006).

Table 5.14
Goodness of Fit of Hypothesized Structural and Generated Model N=440)

Indices	Hypothesized Model	Generated Model	Criteria Value
Absolute Indices			
GFI	0.782	0.963	0.90 and above
Ratio	2.277	1.132	Less < 2
RMSEA	0.054	0.17	Below 0.08
P-Value	0.000	0.122	Greater than 0.05
Incremental Indices			
CFI	0.880	0.995	0.90 and above
TLI	0.873	0.994	0.90 and above
Parsimony Indices			
PNFI	0.759	0.727	The higher the better

5.8 Results of Direct Relationship

This section attempts to discuss the outcome of the direct hypothesized relationship. The direct effects are those hypotheses that have direct link from one latent variable to another and is denoted by an arrow. Based on the fact that the model fitted the data set, with all reliability, convergent and discriminant test adequately reaching and in some cases exceeding acceptable benchmark, the

generated model obviously proved that result can be generalized to the entire population (Anderson & Gerbing, 1992).

In testing the hypotheses, standardized estimate (beta), probability value (p-value) and the critical ratio is used to determine if relationship exists and is significant or not. According to Byrne (2010) and Hair et al. (2010), causation relationship among constructs can be determined by the estimated path coefficients or the p-value, t-value and standard errors. In the light of this, the result of the relationships is presented in Table 5.15 followed by the discussion on each hypothesis.

Table 5.15
Direct Effects of Generated Model: Standardized Regression Weights

Hypotheses	Construct	Standardized			P-Value	Decision
		Estimate	S.E.	C.R.		
H ₁	PBCL→GPI	0.580	0.222	2.658	0.008	Significant
H ₂	ECC→GPI	0.199	0.073	2.789	0.005	Significant
H ₃	GTST→GPI	-0.226	0.194	-1.273	0.203	Not Significant
H ₄	PGKL→GPI	0.008	0.115	0.075	0.94	Not Significant
H ₅	GRN→GPI	0.111	0.089	1.111	0.267	Not Significant
H ₆	GPV→GPI	0.261	0.198	1.484	0.138	Not Significant
H ₇	GPST→GPI	-0.116	0.131	-1.099	0.272	Not Significant
H ₈	GAV→GPI	0.054	0.276	0.205	0.837	Not Significant
H ₉	PGKL→PBCL	0.086	0.104	0.836	0.401	Not Significant
H ₁₀	GRN →PBCL	0.100	0.087	0.999	0.318	Not Significant
H ₁₁	GRN→ ECC	0.165	0.072	1.994	0.046	Significant
H ₁₂	GPV→ECC	0.014	0.105	0.149	0.881	Not Significant
H ₁₃	GPV →GTST	0.364	0.138	2.722	0.006	Significant
H ₁₄	GPST→GTST	0.033	0.092	0.406	0.685	Not Significant
H ₁₅	GAV→GTST	0.475	0.152	3.024	0.002	Significant
H ₁₆	GTST→PBCL	0.476	0.149	3.435	0.005	Significant
H ₁₇	GPST→PBCL	0.232	0.119	2.402	0.16	Significant
H ₁₈	GPV→PBCL	0.421	0.173	2.690	0.007	Significant
H ₁₉	GAV→PBCL	-0.307	0.275	-1.163	0.245	Not Significant
H ₂₀	PGKL→ECC	0.54	0.073	6.390	0.005	Significant

* Significant at .05 level; ** Significant at .005 level; *** Significant at .001 level.

On the whole, there are twenty hypotheses; (direct hypotheses from H₁ to H₂₀). Noting the output in Table 5.15, only nine hypotheses were upheld while eleven are not supported. The possible reasons for non-support of these linkages will be elaborated on accordingly.

H₁: Perceived Behavioural Control is positively related to Green Purchase

Intention (PBCL→GPI)

Based on the outcome of the analysis from AMOS, this hypothesis is supported, ($\beta=0.580$; CR= 2.658, $p=0.008$). Beta value of this construct is considerably high.

H₂: Environmental Consciousness is positively related to Green Purchase

Intention (ECC → GPI)

The finding here shows that environmental consciousness have positive and significant effect on green purchase intention, thus the hypothesis is supported with standardized regression estimate and critical ratio that is greater than 1.96, ($\beta=.0.199$; CR=2.789, $p= 0.005$).

H₃: Green Trust is positively related to Green Purchase Intention

(GTST→GPI)

This is the third hypothesis stated in this study; the hypothesis is also not accepted, explaining that green trust and green purchase intention have no significant relationship in the Nigerian context. The outcome of this relationship is statistically shown as, ($\beta= -0.226$; CR=-1.273; $p=0.203$).

H₄: Perceived Green Knowledge is positively related to Green Purchase

Intention (PGKL→GPI)

This hypothesis though formulated in a positive direction did not produce the same result hence it was equally rejected. The values are reflected as, ($\beta=0.008$; $CR=0.075$; $p=0.94$); apparently, the output indicates that the beta, critical ratio are relatively low and less than the benchmark, 1.96.

H₅: Government Regulation is positively related to Green Purchase Intention

(GRN→GPI)

This hypothesis determines the relationship between government regulations and green purchase intention, purporting that the relationship will be significant. However it turned out to be insignificant, having beta and CR below 1.96, ($\beta= 0.111$; $CR=- 1.111$; $p=0.267$), hence the hypothesis is not supported.

H₆: Green Perceived Value is positively related to Green Purchase Intention

(GPV→ GPI)

Looking at the AMOS analysis on this construct, it indicates the relationship between green perceived value and green purchase intention is also not significant, ($\beta= - 0.261$; $CR= 1.484$; $p=0.138$), based on its inability to produce satisfactory high beta and other criterion, the hypothesis is here by not supported in the context of this study.

H₇: Green Price Sensitivity is positively related to Green Purchase Intention

(GPST → GPI)

Evidenced by these values ($\beta = -0.116$; $CR = -1.099$; $p = 0.272$), this hypothesis is not accepted. The values are within the expected cut off points.

H₈: Green Availability is positively related to Green Purchase Intention

(GAV → GPI)

The eighth hypothesis interestingly became insignificant with ($\beta = 0.054$; $CR = 0.205$; $p = 0.837$), thus the hypothesis is not accepted.

H₉: Perceived Green Knowledge is positively related to Perceived Behavioural

Control (PGKL → PBCL)

This hypothesis relates to how perceived green knowledge affect perceived behavioural control. From indication there is no significant relationship, this can be observed from this output ($\beta = 0.086$; $CR = 0.836$; $p = 0.401$), therefore, the hypothesis is unsupported.

H₁₀: Government Regulation is positively related to Perceived Behavioural

Control (GRN → PBCL)

After conducting the analysis in AMOS, the output ($\beta = 0.100$; $CR = 0.999$; $p = 0.318$), does not give support to the stated hypothesis, thus it is not accepted.

H₁₁: Government Regulation is positively related to Environmental

Consciousness (GRN → ECC)

As depicted here, government regulation and environmental consciousness has significant relationship, this is confirmed by the fact that criterions were achieved, ($\beta= 0.165$; $CR= 1.994$; $p=0.046$), it is hereby supported.

H₁₂: Green Perceived Value is positively related to Environmental Consciousness (GPV→ECC)

The outcome from this relationship is ($\beta= 0.014$; $CR= 0.149$; $p=0.881$), implying that the relationship is not significant therefore the hypothesis is unsupported.

H₁₃: Green Perceived Value is positively related to Green Trust (GPV→GTST)

As the case is, this relationship turned out to be positive as postulated, producing significantly high beta, CR and p-value ($\beta= 0.364$; $CR= 2.722$; $p=0.006$). The hypothesis is accordingly supported.

H₁₄: Green Price Sensitivity is positively related to Green Trust (GPST→GTST)

The hypothesis denoting that there is a positive relationship between green price sensitivity and green trust is not supported as demonstrated from this output, ($\beta= 0.033$; $CR= 0.406$; $p= 0.0.685$).

H₁₅: Green Availability is positively related to Green Trust (GAV→ GTST)

There is significant relationship between the two constructs; presenting the result of the analysis as ($\beta= 0.475$; $CR= 3.024$; $p= 0.002$) which clearly indicates that the postulation is supported.

H₁₆: Green Trust is positively related to Perceived Behavioural Control

(GTST→PBCL)

This relationship is significant as can be observed from these values ($\beta=0.476$; CR=3.435; $p= 0.005$) therefore the hypothesis is supported.

H₁₇: Green Price Sensitivity is positively related to Perceived Behavioural

Control (GPST→PBCL)

The seventeenth hypothesis for this study is equally supported ($\beta=0.232$; CR=2.402; $p= 0.016$) by inference drawn from the values produced from the AMOS analysis.

H₁₈: Green Perceived Value is positively related to Perceived Behavioural

Control (GPV→PBCL)

There is also significant relationship between the two constructs on which this hypothesis was postulated; the conclusion is drawn from the values in parenthesis ($\beta= 0.421$; CR= 2.690; $p= 0.007$), based on this it is supported.

H₁₉: Green Availability is positively related to Perceived Behavioural Control

(GAV→PBCL)

This linkage is negative and is not significantly related; the inference is drawn from the values in parenthesis ($\beta= - 0.307$; CR= -1.163; $p= 0.245$), thus the lack of support for the hypothesis.

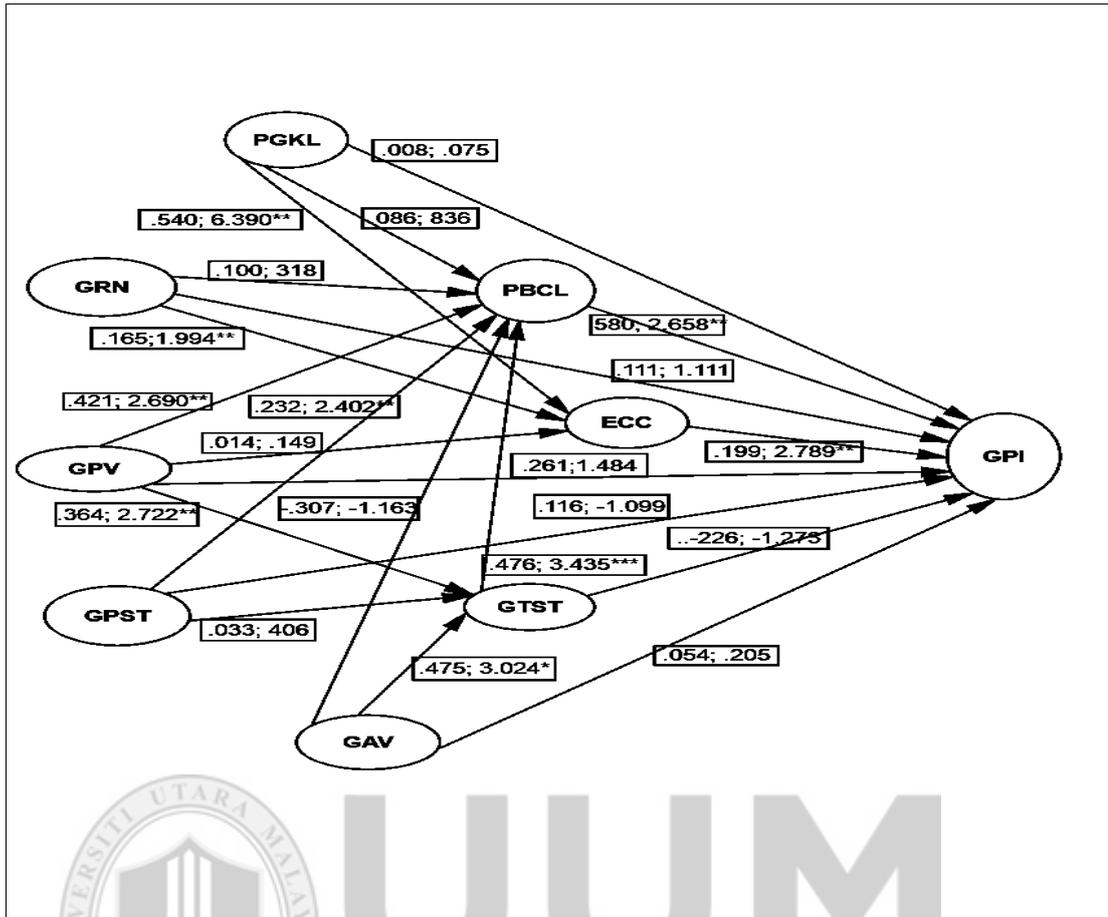
H₂₀: Perceived Green Knowledge is positively related to Environmental

Consciousness (PGKL→ ECC)

The last hypothesis on direct relationship is supported as ($\beta= 0.540$; $CR= 2.789$; $p= 0.005$), the implication of this is that perceived green knowledge has a positive and significant effect on environmental consciousness. The AMOS output for the generated model is presented in Appendix J.

5.8.1 Summary of findings on Direct Relationship from Generated Model

The summary of the generated model with all the direct path showing the standardized estimates (β) and critical ratio (CR) are presented in Figure 5.6. The findings revealed that nine (9) significant relationships denoted by asteric (*). Perceived behavioural control and environmental consciousness are significantly related with green purchase intention. Government regulations and perceived green knowledge influenced environmental consciousness significantly. In addition, green perceived value and green availability have direct influence on green trust while, green trust, green price sensitivity and green perceived value have positive and significant relationships with perceived behavioural control.



* Significant at .05 level; ** Significant at .005 level; *** Significant at .001 level

Figure 5. 6

Summary of Findings from Generated Model

5.9 Mediating Effects of Perceived Behavioural Control, Environmental Consciousness and Green Trust

The indirect effect for the paths was tested after achieving fit for the model. As can be observed from the generated model, it comprised of three mediating constructs namely, perceived behavioural control, environmental consciousness and green trust. To test the mediation, bootstrapping method was conducted with both bias corrected and percentile. The bootstrapping sample was set at 1000 while the confidence interval for both bias corrected and percentile were at 95%. On the whole this study

examines fourteen mediating effects. The details of the result are hereby presented accordingly.

5.9.1 Mediating Effect of Perceived Behavioural Control

The first mediating test has to deal with perceived behavioural control as a mediator between perceived green knowledge (H_{21}), government regulation (H_{22}), green price sensitivity (H_{23}), green availability (H_{24}), green trust (H_{25}), green perceived value (H_{26}) and green purchase intention. The result of the mediation conducted through bootstrapping bias corrected and percentile included indicates that perceived behavioural control is not a mediator of the relationship between perceived green knowledge, government regulation, green price sensitivity, green availability and green perceived value and green purchase intention. This is because the upper and lower bounds of both bias corrected and percentile confidence interval values are sprawled beyond zero in between.

However, the hypothesis (H_{25}) which states that perceived behavioural control mediates between green trust and green purchase intention turned out to be supported with values of ($\beta=306$; $P=0.045$); boot CI 95%($L=0.007$; $U=3.042$). Both values are in the same direction. This outcome does not overlap a zero in between, thus confirming and supporting H_{25} (Preacher & Hayes, 2008). The result of the mediation test is shown in Table 5.16.

Table 5.16

Mediating Effect of Perceived Behavioural Control

Hypothesized Path	Est	SE	Sig	Bias Corrected		Sig	Percentile		Decision
				Lower	Upper		Lower	Upper	
PGKL→PBCL→GPI	.027	.325	.701	-.330	1.078	.765	-.359	.917	No Mediation
GRN→PBCL→GPI	.069	.510	.429	-.211	1.392	.414	-.196	1.409	No Mediation
GPST→PBCL→GPI	.152	.390	.114	-.066	.835	.077	-.033	1.061	No Mediation
GAV→PBCL→GPI	.192	1.665	.334	-3.919	.386	.305	-4.331	.294	No Mediation
GTST→PBCL→GPI	.306	.914	.096	-.146	1.804	.045	.007	3.042	Mediation
GPV→PBCL→GPI	.243	.755	.116	-.204	2.091	.094	-.110	2.470	No Mediation

5.9.2 The mediating Effect of Environmental Consciousness

As reflected in the model in chapter 3, environmental consciousness was formulated to mediate the relationship between green perceived value (H₂₇), perceived green knowledge (H₂₈) and government regulations (H₂₉) and green purchase intention. We therefore performed bias corrected and percentile bootstrap to test the significance of mediation. The 95% confidence intervals for indirect effect are, 0.111, 0.029 and 0.003 respectively. Furthermore, H₂₈ (PGKL) is supported with ($\beta=.108$; $p=0.011$); boot BC 95% (L=0.032; U=.231) and PC 95% (L= 0.24; U=213). Also, H₂₉ (GRN) ($\beta=0.032$; 0.024); boot BC 95% (L=0.001; U=.114). These values do not overlap a zero in between, thus confirming and supporting H 28 and H29 (Preacher & Hayes, 2008). The result implies that environmental consciousness is a mediator of the relationship between perceived green knowledge, government regulations and green purchase intention. It also reveals that environmental consciousness does not have mediating effect on the relationship between government regulation and green purchase intention. Table 5.17 presents the test result.

Table 5.17

Mediating Effect of Environmental Consciousness

Hypothesized Path	Est	SE	Sig	Bias Corrected		Sig	Percentile		Decision
				Lower	Upper		Lower	Upper	
GPV→ECC→GPI	.003	.026	.845	-.052	.059	.912	-.055	.055	No Mediation
PGKL→ECC→GPI	.108	.048	.011	.032	.231	.024	.012	.213	Mediation
GRN→ECC→GPI	.032	.028	.051	.001	.114	.088	-.003	.098	Mediation

5.9.2 The Mediating Effect of Green Trust

The third mediating construct in this study is green trust which was intended to mediate on the relationship between green perceived value (H₂₉), green price sensitivity (H₃₀), green availability (H₃₁) and green purchase intention. Green trust was also proposed to mediate the relationship between green perceived value (H₃₂), green price sensitivity (H₃₃), green availability (H₃₄) and perceived behavioural control.

Similarly, the bias corrected and percentile bootstrap was performed at 95% confidence intervals for both. From the result presented in Table 5.18 green trust does not exert any mediating effect on the relationship between any of the exogenous constructs and green purchase intention or via perceived behavioural control.

Table 5.18

Mediating Effects of Green Trust

Hypothesized Path	Est	SE	Sig	Bias Corrected		Sig	Percentile		Decision
				Lower	Upper		Lower	Upper	
GPV→GTST→GPI	.025	.861	.699	-1.121	.293	.616	-1.560	.148	No Mediation
GPS→GTST→GPI	.003	.264	.747	-.500	.110	.770	-.457	.115	No Mediation
GAV→GTST→GPI	.024	.972	.441	.3.701	.347	.836	-.455	1.680	No Mediation
GPST→GTST→PBCL	.114	.180	.210	-.102	.386	.297	-.187	.320	No Mediation
GAV→GTST→PBCL	.341	.452	.092	-.089	1.103	.086	-.074	1.125	No Mediation
GPV→GTST→PBCL	.402	.341	.089	-.177	.757	.106	-.254	.740	No Mediation

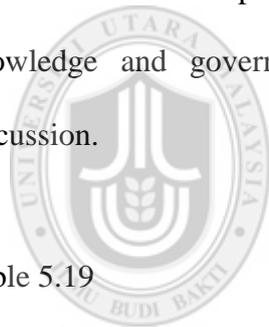
In a nutshell, only perceived behavioural control and environmental consciousness became mediators. Summarizing the mediation outcome, perceived behavioural control mediated the relationship between green trust and green purchase intention while environmental consciousness mediated government regulations and perceived green knowledge. The output for test of mediation for perceived behavioural control, environmental consciousness and green trust are all presented in Appendix K.

5.10 Squared Multiple Correlations (SMC)

The squared multiple correlations (SMC) commonly referred to as the R^2 regression analysis explains the variance caused by the exogenous variables on the endogenous. Thus, the research model path coefficient along with the coefficient of the squared multiple correlations for endogenous variable were determined. SMC or R^2 value of the endogenous variables are: green purchase intention, 62.1%, perceived behavioural control, 77.2%, environmental consciousness, 42.3% and lastly green

trust, 69.1%. Throwing more light on this, it can be further deduced that 62.1% of the variance in green purchase is explained by eight direct variables which are perceived behavioural control, environmental consciousness, green trust, perceived green knowledge, green perceived value, government regulations, green price sensitivity and green availability.

Equally, 69.1% variance in green trust is elucidated by the three variables namely, green perceived value, green price sensitivity and green availability. Similarly, it depicts that 42.3% of variance in environmental consciousness is also explicated by government regulations and green perceived value. Lastly, there is an indication that 77.2% of variance in perceived behavioural control is influenced by perceived green knowledge and government regulations. Table 5.19 is the summary of this discussion.



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Table 5.19

Squared Multiple Correlations for Endogenous Variables

Variable Name	Squared Multiple Correlations/ R^2
Green Purchase Intention	62.1%
Perceived Behavioural Control	77.2%
Environmental Consciousness	42.3%
Green Trust	69.1%

Table 5.20

Summary of Hypotheses Results

H/Code	Hypotheses Statement	Direction	Evidence
H ₁	Perceived Behavioural Control is positively related to green purchase intention	+ve	Supported
H ₂	Environmental Consciousness is positively related to green purchase intention	+ve	Supported
H ₃	Green Trust is positively related to green purchase intention	+ve	Not Supported
H ₄	Perceived Green Knowledge is positively related to green purchase intention	+ve	Not Supported
H ₅	Government Regulations is positively related to green purchase intention	+ve	Not Supported
H ₆	Green Perceived Value is positively related to green purchase intention	+ve	Not Supported
H ₇	Green Price Sensitivity is positively related to green purchase intention	+ve	Not Supported
H ₈	Green Availability is positively related to green purchase intention	+ve	Not Supported
H ₉	Perceived Green Knowledge is positively related to Perceived Behavioural Control	+ve	Not Supported
H ₁₀	Government Regulations is positively related to Perceived Behavioural Control	+ve	Not Supported
H ₁₁	Government Regulation is positively related to Environmental Consciousness	+ve	Supported
H ₁₂	Green Perceived Value is positively related to Environmental Consciousness	+ve	Not Supported
H ₁₃	Green Perceived Value is positively related to Green Trust	+ve	Supported
H ₁₄	Green Price Sensitivity is positively related to Green Trust	+ve	Not Supported
H ₁₅	Green Availability is positively related to Green Trust	+ve	Supported
H ₁₆	Green Trust is positively related to Perceived Behavioural Control	+ve	Supported
H ¹⁷	Green Price Sensitivity is positively related to Perceived Behavioural Control	+ve	Supported
H ₁₈	Green Perceived Value is positively related to Perceived Behavioural Control	+ve	Supported
H ₁₉	Green Availability is positively related to Perceived Behavioural Control	+ve	Not Supported
H ₂₀	Perceived Green Knowledge is positively related to Environmental Consciousness	+ve	Supported
H ₂₁	Perceived Behavioural Control mediates the between Perceived Green Knowledge and Green Purchase Intention	+ve	No Mediation
H ₂₂	Perceived Behavioural Control mediates the between Government Regulations and Green Purchase Intention	+ve	No Mediation
H ₂₃	Perceived Behavioural Control mediates between Green Price Sensitivity and Green Purchase Intention.	+ve	No Mediation
H ₂₄	Perceived Behavioural Control mediates between Green Availability and Green Purchase Intention.	+ve	No Mediation

Cont'd

H/Code	Hypotheses Statement	Direction	Evidence
H ₂₆	Environmental Consciousness mediates between. Government Regulation and Green Purchase	+ve	Mediation
H ₂₇	Intention Environmental Consciousness mediates between Green Perceived Value and Green Purchase Intention	+ve	No Mediation
H ₂₈	Environmental Consciousness mediates between Green Perceived Knowledge and Green Purchase Intention(New)	+ve	Mediation
H ₂₉	Green Trust mediates between Green Perceived Value and Green Purchase Intention	+ve	No Mediation
H ₃₀	Green Trust mediates between Green Price Sensitivity and Green Purchase Intention	+ve	No Mediation
H ₃₁	Green Trust mediates between Green Availability and Green Purchase Intention	+ve	No Mediation
H ₃₂	Green Trust mediates between Green Price Sensitivity and Perceived Behavioural Control (New)	+ve	No Mediation
H ₃₃	Green Trust mediates between Green Availability and Perceived Behavioural Control (New)	+ve	No Mediation
H ₃₄	Green Trust mediates between Green Perceived Value and Perceived Behavioural Control (New)	+ve	No Mediation

5.11 Summary of Chapter

The researcher presented the outcome of the study in this chapter, the chapter started by explaining the response rate which is (67%) after which the test of response bias and it indicated that there is no statistically significant difference in the early and late responses. Thus the concern of non-response bias is ruled out. Also, the descriptive and demographic profile is presented along with the EFA and Confirmatory Factor Analysis (CFA) conducted on each latent variable so as to test the construct validity and reliability of interval scaled variables; this could help ascertain how free they are from random error.

Additionally, the assumptions of normality, linearity, and homoscedasticity were carried out and indicate the assumptions were met. Furthermore, the chapter presents significant, insignificant relationships of direct, indirect impacts and the

mediating effects of perceived behavioural control, environmental consciousness and green trust. The findings show that perceived behavioural control and environmental consciousness significantly influenced green purchase intention; equally, green trust, green price sensitivity and green perceived value influenced perceived behavioural control.

In addition, government regulations and perceived green knowledge have significant relationships with environmental consciousness. Furthermore, green perceived value and green price sensitivity influenced green trust. The findings in this chapter also disclosed how perceived behavioural control mediates between green trust and green purchase intention while environmental consciousness mediated on the relationship between government regulations, green perceived knowledge, and green purchase intention. On the other hand, green trust did not exert mediating influence on any of the variables. Other constructs used in this study did not yield significant relationship. The chapter ends with the summary of the final generated model and SMC.

CHAPTER SIX

DISCUSSION AND CONCLUSION

6.0 Preambles

This segment attempts to recapitulate the entire study and will be structured into the following: discussion based on the objectives, conclusion on the results of the analysis laying emphasis on the significant and insignificant determinants of green purchase intention in Nigeria. Subsequently, the theoretical, methodological, practitioner and policy maker contributions of the study will be discussed in this section. In addition, the research implications and limitations, followed by the way forward for future researchers and conclusions are imbedded in this fragment.

6.1 Recapitulation of the Research Objectives

The framework for this study as depicted in chapter three is founded on the theory of planned behaviour by Ajzen, (1991) to examine the determinants of green purchase intention and the mediating effects of perceived behavioural control, environmental consciousness and green trust in Nigeria. A revisit of the objectives on which the entire work was set to achieve is presented sequentially:

The first aim is to examine the determinants (perceived behavioural control, environmental consciousness, green trust, perceived green knowledge, green perceived value, green price sensitivity, government regulations and green availability) of green purchase intention in Nigeria.

The second is to investigate the determinants of perceived behavioural control among Nigerian consumers.

The third objective is to establish the factors which influence environmental consciousness in Nigeria.

Fourthly, the study aims at establishing the determinants of trust in green products amongst consumers in Nigeria.

Lastly, the fifth objective is to establish the mediating effects of perceived behavioural control, environmental consciousness and green trust on relationship between the selected variables and green purchase intention.

Successively, findings of the study will be discussed in relation to the stated research objectives, focusing on the level of influence between the exogenous (perceived green knowledge, perceived green value, green price sensitivity, government regulations, green availability) and endogenous (perceived behavioural control, environmental consciousness, green trust and green purchase intention) variables. As can be observed in Table 5.16, page 266 in chapter 5, nine (9) hypotheses were accepted while the remaining eleven (11) were not supported. Both the significant and non-significant hypotheses will be elaborated on in relation to the stated objectives.

6.2 Objective One: Discusses the Direct Determinants of Green Purchase Intention in Nigeria

The study proposed that perceived behavioural control, environmental consciousness, green trust, perceived green knowledge, green perceived value; green price sensitivity, government regulation and green availability would determine the green purchase intention of Nigerian consumers. However, not all the predicted paths turned out to be significant; the following discussion sheds more light on the outcome:

6.2.1 Significant Determinants of Green Purchase Intention in Nigeria

From the direct postulated hypotheses, two were positive and significant to green purchase intention; they are perceived behavioural control and green availability. Six out of the hypotheses were insignificant. Explicating this, the hypotheses are discussed accordingly.

6.2.1.1 Perceived behavioural Control and Green Purchase Intention

The finding of this link, that is, the relationship between perceived behavioural control and green purchase intention is significant and positive, thus the hypothesis (H₁) is accepted. Perceived behavioural control shows the conviction of the individual on how the presence of resources and opportunities required in performing behaviour is vital. A close look at the review of extant literature has unveiled that several researchers acknowledged the potency of PBC in affecting behavioural intentions, hence this finding toed the line of previous authors like (Haruna-Karatu & Nik Mat, 2015; Kim & Chung 2011; Kim & Han, 2010; Lien et al., 2012; Mahesh & Ganapathi, 2012; Ng & Paladino, 2009; Tan, 2013; Sadati &

Mohammed, 2012; Wu & Teng).Ng and Paladino (2009) is of the opinion that the relationship is not significant.

It can be inferred that Nigerian consumers believe in the presence of resources, both internal such as skills, self-confidence and motivation and external facilities. The presence of facilitating resources by implication will increase the strength of green purchase intention among Nigerian consumers. The reason for this finding perhaps could be due to individual exposure to internet and personal educational status which encourage the search for issues of individual interest.

6.2.1.2 Environmental consciousness and Green Purchase Intention

Environmental consciousness indicates the level of alertness a society has towards environmental problems. The path revealed that there is a statistical significant relationship between environmental consciousness and green purchase intention in Nigeria. This result supports the findings in (Akehurst et al., 2012; Haruna-Karatu & Nik Mat, 2015a; Kim, 2015; Lu et al., 2014; Kim & Chang, 2011; Kim & Han, 2010; Numraktrakul et al., 2011; Kim & Han, 2010) but in contrast to other researchers who produced dissimilar results from their studies (Kim, 2015; Lu et al., 2014; Samarasinghe, 2012).These studies were conducted in Korea, Malaysia and Sri Lankan respectively.

Elucidating further, White and Hunter (2009) asserted that dissimilarities in stages of environmental consciousness in a developing society are not a function of the level of development but a product of some influences such as the standards of living and cultural values. Any region where environmental consciousness is high,

the consumers demonstrate high degree of intention to buy environmentally safe products. This study has proved that consciousness about environmental challenges in Nigeria is significantly cogent and Nigerian government can take advantage of this phenomenon to initiate and support green behaviour by making it a norm in the society, this will subsequently raise the level of green purchase intention amongst the consumers.

6.2.2. Insignificant Determinants of Green Purchase Intention in Nigeria

In the course of the analysis, the generated model produced six (6) non-significant relationships. They are Green trust (H₃), Perceived green knowledge (H₄), Government regulation (H₅), Green perceived value (H₆), Green price sensitivity (H₇) and Green availability (H₈) Each of these will be discussed henceforth.

6.2.2.1 Green Trust and Green Purchase Intention

Evidence from this study showed that the relationship between green trust and green purchase intention is not significant, based on this, the hypothesis is rejected. This finding lends support to other surveys (Bonini & Oppenheim, 2008; King, 2011; King, 2012; Synovate, 2011; Quick Pulse Green Buying, 2012); consumers in general are disenchanted about green products. This however negates the findings on trust by other researchers who came out with significant relationships (Chen & Chang, 2012; Gupta & Dash, 2012; Rizwan et al., 2014; Liang & Chaipoopirutana, 2014; Terrengana et al., 2013).

The reason for this could be attributed to the fact that the Nigerian consumers' trust in green has not yet been built due unethical practices by industrial players.

The distrust here could have arisen from issues such as their exposures to polluted environments as a result of production process by industrial players.

6.2.2.2 Perceived Green Knowledge and Green Purchase Intention

The empirical evidence based on the generated model's outcome points to the fact that perceived green knowledge and green purchase intention are not significantly related; this hypothesis therefore is not supported. Perceived green knowledge in the context of this study is not strong enough to trigger green purchase intention. The result of the screening questions where by respondents were asked if they have knowledge of green revealed that 59.5% of them affirmed that they do not know green products while 40.5% answered in the affirmative.

Finding on this relationship however did not go in line with some authors (Azizan & Suki, 2013; Aman et al., 2012; Feng, 2011; Mei et al., 2012; Rizwan et al., 2014; Shamsollahi et al., 2013; Sakrthirama & Venkatran, 2012; Wu et al., 2013).

The issue of knowledge on green is a general phenomenon in African. Abari (2008) described the level of awareness about global warming in Africa as being too low compared to its magnitudes.

6.2.2.3 Government Regulation and Green Purchase Intention

The present study found the association between government regulation and green purchase intention not to be significantly related in Nigeria. The hypothesis is thereby rejected. The finding in this study is supported by previous studies (Ahmed & Juhdi, 2010; Ragavan & Mageh, 2013; Qader & Zainuddin, 2010). It

implies that government regulation and support through enacted policies to not have any significant influence on green purchase intention.

The cause is seemingly from the weak government regulation and non-enforcement of these environmental policies and also lack of framework to penalize non-compliance. The case with Nigeria is such that organizations invariably regulate their activities rather than the government (Baired, 2010). The respondents look to the government to take the lead and encourage the people to adopt green behaviour. Government play a vital part in supporting consumption and sustainable development (Chen & Chai, 2010). The government and other stakeholders can regulate the activities of producers, marketers and consumers to be more concerned about environmental safe activities to improve the quality of the environment.

6.2.2.4 Green Perceived Value and Green Purchase Intention

The finding on this relationship indicates green perceived value does not influence green purchase intention in Nigeria. Thus the hypothesis is unsupported. Even though most authors attest to the significant role of perceived value in influencing green purchase intention in other contexts (Chen & Chang, 2012; Chen et al., 2012; Gupta & Dash, 2012; Delghanan & Bakhshandeh, 2014; Kong et al., 2014; Lian & Chaipoopirutana, 2014; Rizwani et al., 2013). This study contradicts their finding but is in consonance with Rajput et al. (2014).

In the Nigerian culture, green (vegetables) form most of the locally consumed food cutting across cultural diversity; a buyer of green product in Nigeria is most

likely to compare the benefits of the green product with the traditionally grown ones. This can be actualized only if they perceive the value to be better than the traditionally known vegetables and also if the products meet environmentally acclaimed standards. Consumer's assessment of the ample benefit of the product based on his/her appraisal and desire is expected before they form purchase intention (Chen & Chang, 2012; Rizwani et al., 2013).

6.2.2.5 Green Price Sensitivity and Green Purchase Intention

Like other results, this study found insignificant linkage between green price sensitivity and green purchase intention as such the hypothesis is not supported. Some scholars share the same view from their studies which produced insignificant result (Rasheed et al., 2014; Haruna-Karatu & Nik Mat, 2015a, 2015b Ng & Paladino, 2009). Nevertheless other authors found out from their study that price affects green purchase intention significantly (Ansar, 2013; Ali & Ahmad, 2012; Lee et al., 2012; Mansor et al., 2011; Menahem et al., 2010; Rajput et al., 2014; Zhen & Mansori, 2012). By this outcome, it is obvious that Nigerian consumers place priority on other factors such as basic needs like cost of education, electricity, food, housing and clothing during purchase decision.

6.2.2.6 Green Availability and Green Purchase Intention

The finding unveiled green availability does not have significant effect on purchase intention in Nigeria. It is an indication that green is actually in its infant stage in Nigeria. This finding is supported by previous study scholars who commended that availability is not related with green purchase intention (Ahmad & Juhdi, 2010; Rasheed et al., 2014; Rajput et al., 2014; Ragavan & Mageh, 2013;

Zhen & Mansori, 2012). This is contrary to the result found in other study (Haruna-Karatu & Nik Mat, 2015b; Rajput et al., 2014)

6.3 Objective Two: Discussion on the Determinants of Perceived

Behavioural Control

There are six determinants of perceived behavioural control which are perceived green knowledge (H₉), government regulation (H₁₀), green trust (H₁₆), green price sensitivity (H₁₇), green perceived value (H₁₈) and green availability (H₁₉). Out of these two became significant while the other four are not.

6.3.1 Significant Determinants of Perceived Behavioural Control among

Nigerian Consumers

6.3.1.1 Green Trust and Perceived Behavioural Control

In this study, green trust and perceived behavioural control are positively and significantly related. This implies that Nigerian consumers have trust in their ability that the presence of internal and external resources and opportunities would increase their perceived behavioural control and in turn enhance the formation of the intention to buy green. This relationship however is limited in literature; nonetheless, this finding concurs with past finding (Aertsens et al., 2009; Liang & Chaipoo Pirutana, 2014). This becomes one of the few studies in recent times on this linkage.

Consumers trust in the purchase and use of resources is a vital component because consumers are increasingly becoming more conscious of their health and the Nigerian consumers are not left out this in trend. A global report suggests that due

to health consciousness and busy lifestyle of most Nigerians, purchase of health products such as vitamins and dietary supplements was boosted (www.consumer-health-in-nigeria/report, 2013). This finding therefore could be connected to the trust individual consumers place on green products and their personal motivation to be concerned about their well-being.

6.3.1.2 Green Price Sensitivity and Perceived Behavioural Control

Green price sensitivity has a significant effect on Nigerian consumers' perceived behavioural control. The hypothesis is supported. Similar to the findings in other studies in which they discovered that the relationship is significant and positive (Aertsens et al., 2009; Sadati & Mahommadi, 2010). The implication of this result denotes that Nigerian consumers see price of green products as a determinant of perceived behavioural control.

Price here becomes an important factor; the most expensive products are associated with high value. Most probably, the outcome here is because of the process involved in producing the green and also the non hazardous nature of the green product instil in the consumers their ability of buying the green products. For most consumers, the ability to afford a product is closely associated with cost and the search for the product (Kim, 2015; Voon et al., 2011).

6.3.1.3 Green Perceived Value and Perceived Behavioural Control

This finding indicates there is a significant relationship between perceived value and perceived behavioural control. Hence the hypothesis is supported. The search for literature revealed consumers value has significant relationship with perceived

behavioural control (Kim & Chang, 2011). Also, consumer perceived green value which is a dimension of attitude was found to be a significant and a positive predictor of control beliefs which also is a dimension of perceived behavioural (Sadati & Mohammed, 2012). These two findings lend support to the finding of this current study.

The significance in this relationship is an indication of how Nigerian consumers view the value of green products. In this case, one could say that a good assessment or perception of green products will enhance perceived behavioural control because high value means the products are non-pollutant and biodegradable. They believe that such products give value to the environment by reducing the effect of global warming on their personal lives and the environment. Marketers of green products should find it necessary to create good image about green products especially in Nigeria where the green issue is less discussed.

6.3.2 Insignificant Determinants of Perceived Behavioural Control

6.3.2.1 Perceived Green Knowledge and Perceived Behavioural Control

The relationship between perceived behavioural control and perceived green knowledge in the current study is insignificant. This informed the move for the rejection of the hypothesis in this study. This still points to the fact that the Nigerian consumer's knowledge of green is inconsequential to their abilities to perform certain task such as making decision for green purchase. The finding does concur with the study conducted by previous researchers such as (Haruna-Karatu and Nik Mat, 2015a; Ng & Paladino, 2009)

6.3.1.2 Government Regulations and Perceived Behavioural Control

Perceived behavioural control from empirical evidence in the context of this study is not influenced by government regulation. Hence this hypothesis is unsupported. This denotes that the respondents believe that the government does not encourage their ability towards green by putting all necessary facilities like proper waste management, disposable waste containers to encourage clean environment and recycling, satisfactory stiff regulating laws for individuals and industries to heighten green practices. There is no support however for this study in green as far as the scope of the writer's search is concerned; this study is the first to investigate this relationship in green setting. Nonetheless; government regulations and support has been studied in internet banking even though the findings are equivocal (Asirvatham & Raman 2007; Dauda et al., 2007; Hernandez & Mazzon, 2007).

6.3.1.3 Green Availability and Perceived Behavioural Control

In the case of this hypothesis, the relationship between green availability and perceived behavioural control is not supported. Green availability is one factor which explains perceived behavioural control of consumers in general (Kumar, 2011). Though the relationship is barely investigated, the support for this finding is linked to (Haruna-Karatu & Nik-Mat, 2015b).

Apparently, it indicates that there is low availability of green products even though the means is high, (5.673). This still is linked to the cultural setting and the fact that Nigeria is an agrarian society. This could explain why the finding has high means and yet the relationship is not significantly positive towards perceived

behavioural control of the consumers. It is expedient for government to adopt green agenda to encourage the availability of green products and make it accessible to consumers.

6.4 Objective Three: Discussion on Determinants of Environmental

Consciousness in Nigeria

In like manner, the study aims at establishing the determinants of environmental conscious behaviour in Nigeria. Thus these variables, (perceived green knowledge (H_{20}), government regulation (H_{11}) and perceived green value (H_{12}) were proposed to be direct determinants of environmental consciousness. Two of these hypotheses, H_{11} and H_{20} have significant relationship with environmental consciousness while H_{12} is insignificant. These are elaborated on in the subsequent discussion.

6.4.1 Significant Determinant of Environmental Consciousness

6.4.1.1 Perceived Green Knowledge and Environmental consciousness

This path demonstrates that environmental consciousness and perceived green knowledge are positively and significantly related. The hypothesis is therefore supported. Few studies correlated perceived green knowledge with environmental consciousness (Khaola et al., 2014; Wu et al., 2013). Lending support to the finding in this study, they confirmed there is significant correlation between knowledge and environmental consciousness. On the contrary, Haruna-Karatu and Nik-Mat (2015a) suggested that the relationship is not significant. Kim and Han (2010) advanced that environmental consciousness affect consumer decision making.

Accordingly, Kumar, (2011) asserts that green knowledge comprises of different types of awareness which the individual has and may link to a variety of environmental behaviour such as attitude. He found a significant relationship between green knowledge and attitude; thus, giving support to this study. Environmental consciousness could be an attitude disposition of the consumer. In a situation where environmental consciousness is increased in Nigeria, knowledge on green will equally be boosted.

The respondent's profile revealed that the larger part of the respondents have first degree education. Hence, consumers in Nigeria may be exposed to green knowledge based on their individual interest and educational background. With the advance in technology, consumers are more engaged in information seeking. This could also be the case of the respondents in this study. Those with green knowledge will possibly be conscious about the environment. Increase in knowledge is a key factor in making consumers proactive to environmental conscious behaviour; thus leading to more wilful behavioural intentions.

6.4.1.2 Government Regulations and Environmental Consciousness

Apparently, environmental consciousness is influenced by government regulation in Nigeria; the hypothesis therefore could be supported. The finding gives a clue to the fact that the government can play a key role in curbing environmental challenges and the poor environmental scene in Nigeria through its policies.

Government regulations are a tool to stir up consciousness about the environment amongst the citizens.

In view of the above, studies which directly investigated the connecting link between this two constructs is scarce, nonetheless one support for this study is (Qader & Zainuddin, 2010), they examined government regulation and attitude; environmental consciousness is an attitude disposition of the consumer, the relationship however was not significant.

6.4.1.3 Green Perceived Value and Environmental Consciousness

In the same vein, green perceived value and environmental consciousness are significantly unrelated in the context of the study. This finding is also an indication of the fact that Nigerian consumers' perceived green value of the product is not so important to influence environmental consciousness is not expressed to the point of influencing their purchase decision.

The review of extant literature did not show this linkage directly in studies; nevertheless, (Kim & Chang, 2011; Kim & Han, 2010) looked at environmental consciousness as a dimension of consumer values and also, Kim and Han, (2010) tested environmental consciousness as mediator between environmental concern and perceived customer effectiveness; both findings were significant thus in contrast to the finding in this study. Consumers with high environmental consciousness have the tendency to assess the value of green products; if by their own evaluation the product meets environmental standards, higher green purchase

intention ensues and this would bridge the existing gap between green purchase intention and purchase behaviour (Akehurst, Afonso & Goncalves, 2012).

6.5 Objective Four: Discussion on the Determinants of Green Trust among Nigerian Consumers

Investigating the determinants of green trust, green perceived value (H_{13}) and green availability (H_{15}) has significant relationship with green trust, on the other hand, green price sensitivity (H_{14}) is insignificantly related to green trust. The discussion in this part of the chapter elucidates more on the finding of this investigation.

6.5.1 Significant Determinants of Green Trust among Nigerian Consumers

6.5.1.1 Green Perceived Value and Green Trust

Based on the outcome of the generated model, the path of green perceived value and green trust is significant and positive. The hypothesis is then supported. This is in line with findings of other authors (Chen & chang, 2012; Dehghanan & Bakshandeh, 2014; Gupta & Dash, 2012; Paspalis, 2011; Terrengana et al., 2013). This finding has buttressed the fact that the respondents in this study have shown that they are positive about green product value. This may indicate that by knowing green products will perform in an environmental safe standard will increase their trust towards the purchase of such products. Accordingly, Chen and Chang, (2012) posits that perceived value is vital in influencing consumer trust which is a dependence on the green product as a result of belief or anticipation of what the product is expected to do.

Putting this more succinctly, the outcome could denote that the consumers relate green to their cultural and traditional foods and also consider the health values associated with green products. It is pertinent that marketers and potential marketers of green products in Nigeria emphasize functional attributes of green products in their marketing messages to retain trust for their products

6.5.1.2 Green Availability and Green Trust

Empirically, this relationship shows that green availability has significant relationship with green trust. By implication, consumer's trust towards green products in Nigeria is affected by the availability of the product. Lending support to this outcome, other authors though in non-green empirically found out that availability and trust have significant relationship (Sergios et al., 2012; Xie & Chirapanda, 2012). It is logical that where the product is available, consumers will have the taste of what they are buying by assessing it. Essentially, lack of green products in the context of the study and earlier findings also reflected that Nigerian consumers' trust and the availability of green product did not significantly influence their behavioural intention. By implication, availability will lead to trust and perhaps, subsequently lead to green purchase intention.

6.5.2 Insignificant Determinants of Green Trust

6.5.2.1 Green Price Sensitivity and Green Trust

This study following the outcome from the generated model revealed that green price sensitivity and green trust are insignificantly related. The consumers in this study perhaps are not exposed to green products and thus could be sceptical towards high price especially if trust for the product is not built yet. If there is

high level of trust the consumers invariably may go for products associated with green. This is because most consumers' associate price with quality and consumers evaluate product performance on the basis of what they pay for the product and what is expected to be derived after usage based on credibility. Past literature however validated this relationship though not directly and also is limited. For instance Hanzaee and Jalalian (2012) declared that price consciousness has no significant relationship with trust.

6.6 Objective Five: Discussion on the Mediating Effects of Perceived

Behavioural Control, Environmental Consciousness and Green Trust.

This sub-section discusses the mediating effects of the constructs aforementioned. Only two mediators have effects on the constructs they were deemed to intervene in their relationship with the endogenous variable. These are perceived behavioural control and Environmental consciousness, green trust did not mediate between any exogenous and endogenous variable as presumed in this study. From the total of fourteen (14) mediating hypotheses however, not all the stated hypotheses were supported, three were supported while the remaining eleven were unsupported. Next, the discussion will be in this order; significant affects first then discussion on the non-significant follows.

6.6.1 Significant Mediating Effects

6.6.1.1 Perceived Behavioural Control Mediates between Green Trust and Green Purchase Intention

Perceived behavioural control demonstrates mediating influence between green trust and green purchase intention. This hypothesis is supported indicating that

green trust among the consumers can be built up only through their perceived behavioural control. Trust could not influence green purchase intention directly except through perceived behavioural control. This finding is opposed to the finding in (Ng & Paladino, 2009) which is the only study found to have tested this relationship. It is eminent in this result that perceived behavioural control is a strong factor and plays a vital role in consumers trust and there after increase green purchase intention, thus strategies by both government policy makers and marketers of green should focus on reinforcing and building the perceived behavioural of the control.

6.6.1.2 Environmental Consciousness mediates between Perceived Green

Knowledge and Green Purchase Intention

Environmental consciousness mediates between perceived green knowledge and green purchase intention. Environmental consciousness is a strong tool to stir awareness about green. An initiative to arouse the need for green awareness to curb environmental jeopardy which the Nigerian society is in dire need of becomes eminent. The significant role environmental consciousness plays is reflected in its ability to mediate the relationship between knowledge and green purchase intention. Invariably, high level of consumer knowledge and environmental consciousness would increase purchase intention (Paladino & Ng, 2013) and vice-visa.

6.6.2.3 Environmental Consciousness mediates between Government

Regulations and Green Purchase Intention

Environmental consciousness is shown to have mediating effect on the relationship between government regulations and green purchase intention. Thus, the hypothesis is not supported. Nigeria as reported on world rating has environmental challenges and lags behind its African counterparts in actualizing its green initiatives (Environmental Profile of Nigeria, 2012). This finding suggests that government regulation is not enough at the moment to motivate green purchase intention among consumers except through the mediating role environmental consciousness.

It is therefore important that government heightens its regulations especially those that has to do with environmental issues. Other studies found out that environmental consciousness mediated corporate social responsible in economic domain (Chan & Chen, 2012) and also environmental concern and perceived customers' effectiveness (Akehurst et al., 2012; Kim & Han, 2010). This has not been tested with government regulations in green setting; this study to the best of the researcher's knowledge becomes the first to empirically examine the mediation effect of environmental consciousness on the relationship between government regulation and green purchase intention.

Environmental consciousness would increase consumers green purchase intention and at the same time, the firms' state-of-the-art proficiency of environmental technology and business operations and win green consumers trust and patronage in this global environmental conscious era.

6.6.2 Insignificant Mediating Effects of Perceived Behavioural Control, Environmental Consciousness and Green Trust.

6.6.2.1 Perceived Behavioural Control Mediates between Green Price

Sensitivity and Green Purchase Intention

The mediation result revealed perceived behavioural control does not exert mediation effect on the relationship between green price sensitivity and green purchase intention. This is an indication that Nigerian consumers are conscious of the high price of green products. The variable was insignificantly related with green purchase intention in the first place. Implying that Nigerian consumers perhaps give more weight to higher order needs which they place more importance to at this point in time. This linkage is scanty in green purchase intention study; however, the study which lends support to the finding in this study is Ng and Paladino (2009) who attempted to investigate the relationship which came out with insignificant result. This study therefore, to this end is among the few to make the investigation on this linkage.

6.6.2.2 Perceived Behavioural Control as Mediator between Green

Availability and Green Purchase Intention

This study also found out that perceived behavioural control is not a mediator between green availability and green purchase intention. Since perceived behavioural control failed to mediate this relationship, it further explains that the respondents are not too conversant with green product to the point that it can influence their ability to buy. This study already established the fact that green is

in its infant stage in Nigeria (Olamuyi, 2012).. This study still appears to be the first empirical study to explore this relationship directly; nevertheless, perceived brand parity and green consumption have examined and mediated by perceived behavioural control. Similar to this study, perceived behavioural control did not exert mediating influence on this relationship (Ng & Paladino, 2009). Perceived behavioural control nonetheless has mediating effect on the relation between green consumption and green purchase intention (Lien et al., 2012).

6.6.2.3 Perceived Behavioural Control mediates between Perceived Green

Knowledge and Green Purchase Intention

Perceived behavioural control did not exert any influence on the perceived green knowledge. This could imply that the knowledge of green which consumers have is not adequate to influence green purchase intention except via perceived behavioural control. The consumers may have the understanding that having ability, skills and knowledge may not be the only significant facts which may influence their green purchase intention. However, the finding is supported by (Ng & Paladino, 2009) but several others found contradictory results (Giantari et al., 2013; Wu & Teng, 2011).

6.6.2.4 Perceived Behavioural Control mediates between Government

Regulations and Green Purchase Intention

Though the path coefficient of government regulations to green purchase intention is insignificant, perceived behavioural control did not exert mediating strength between the two constructs because the paths, government regulations to

perceived behavioural control is also insignificant. This might be due to slow adoption of green initiatives in Nigeria. Besides, there is a lack of stringent government policy to encourage the customer to have intention towards buying green product.

Furthermore, most scholars often test the relationship between government regulation and perceived behavioural control as direct determinants (though in internet setting (Asirvatham & Raman 2007; Dauda et al., 2007; Hernandez & Mazzon, 2007). This result unveils the fact that government regulations may really not influence consumer's intention to purchase green where the abilities, resources, knowledge and benefit of green are not made available to the consumer.

6.6.2.5 Environmental Consciousness mediates between Green Perceived Value and Green Purchase Intention

Evidences from bootstrapping results demonstrates that environmental consciousness still does not exert mediating influence on the relationship between green perceived value and green purchase intention. Hence the hypothesis is unsupported. The finding however could not be justified by past studies as far as the researcher is concerned. This result could be attributed to slow adoption of green agenda which would have stimulated consumers' interest to assess the environmental value of products in comparison to traditionally known brands. Environmental consciousness would trigger consumers into looking for products with environmentally safe qualities and this in turn would force government and

companies to change in their thinking about green products, technologies, process, and business models (Nidumolu, Prahalad & Rangaswami, 2009).

6.6.2.6 Green Trust mediates between Green Perceived Value and Green

Purchase Intention

This study found that green trust does not mediate the relationship between green perceived value and green trust. This finding is supported by previous studies (Pornpratang et al., 2013; Terrengana et al., 2013). However, there are other studies in some developing and developed countries which found that green trust mediated between green perceived value and purchase intention (Chen & Chang, 2012; Gupta & Dash, 2012; Paspalis, 2011). The contrast between the finding in the study at hand and the other context where trust mediated perceived green value could be due to non-availability of green to assess the value which might build their trust if their assessment meet their expectations. Secondly, the parlous state of the environment, also because of negative and harmful substance such as oil spillage, improper disposal of industrial waste which litter streets, pollutants in main source of drinking water poor environmental scenery of the manufacturing surroundings which consumers are exposed due to nonchalant attitude of manufacturers might have made trust in green inconsequential thus consumers feel disenchanted about the value of products.

6.6.2.7 Green Trust mediates between Green Availability and Green

Purchase Intention

Based on the upshot from the test of mediation, it was found that green trust does not mediate between green availability and green purchase intention. This finding

does not support the study of Sergios et al. (2012) whereby in their study, availability was examined under product attributes and was mediated by attitude which is denoted by trust in this study. This finding establishes the fact that the consumers in Nigeria feel sceptical towards green product since they are not much informed about it and due to the fact that it's a new phenomenon in Nigeria (Olamuyi, 2012); thus trust towards green product is inconsequential. Thus, availability of green products did not directly influence green purchase intention neither was it mediated by trust since consumer's trust can be built on what is evaluated to form purchase decision (Kotler & Kelly, 2009).

6.6.2.8 Green Trust mediates between Green Price Sensitivity and Green

Purchase Intention

Going by the estimates produced during the bootstrapping, the hypothesis is not supported. This could imply that green trust to the Nigerian consumers is not considered as a significant factor to affect price, rather, they place priority on higher order needs like education, food, housing and clothing. Trust can be built over time when consumers handle the physical product and by carrying out enlightenment programs on the various benefits of green products. The finding in this study is however aligned to Ng and Paladino (2009) and indirectly to the finding in Xie and Chirapanda (2012). Since price is considered with beliefs under product attributes and was mediated by attitude with two dimensions (evaluations and behavioural beliefs), price was found to have significant relationship with attitude, but the extent of mediation was not reported.

6.6.2.9 Green Trust Mediates between Green Price Sensitivity and Perceived Behavioural Control

The finding for this hypothesis has indicated that there is no mediation of green trust on the relationship between green price sensitivity and perceived behavioural control. This result also could not be supported due to lack of previous studies on the linkage. This point to the fact that the trust consumers place on price of green products is not important. Their sensitivity to the price of green product is not influenced by trust. This explains why the relationship between green price and perceived behavioural control could not be mediated via green trust. It is important therefore that marketers of green products when fixing price need to stress the environmental attributes and worth of the product in order win potential consumers and to boost their ability to purchase green given the required resources in Nigeria.

6.6.2.10 Green Trust Mediates between Green Availability and Perceived Behavioural Control

Similarly, the present study found that green trust has no mediating effect on the relationship between green availability and perceived behavioural control. Elucidating on this, it shows that the consumers do not have sufficient trust and self-motivation for green possibly because green is scarce. This result does not lend support to (Haruna-Karatu & Nik Mat, 2015c).The reason for this may be that Nigerian consumers are do not have confidence in their ability to choose credible products when compared with conventional brands and this could might have arisen from their low knowledge of green coupled with non-availability.

6.6.2.11 Green Trust Mediates between Green Perceived Value and Perceived Behavioural Control

Again, this study establishes that green trust does not mediate between perceived value and perceived behavioural control. The support for this finding however is lacking as the only similar study found a significant mediating effect (Haruna-Karatu & Nik Mat, 2015c). The trust for green value is not perceived to be important by the respondents in this study thus their perceived behavioural control is not boosted. It is vital to see resources which can be evaluated, trusted and motivate consumers to perform a desired behaviour that could be useful in their personal life and their determination to curb environmental challenges.

6.7 Implication of the Study

This study is timely in its context and contributes in several ways within its periphery and across. Fundamentally, the findings contribute to the body of knowledge through its theoretical, methodological and practitioners (managerial and government policy makers) connotation. This sub-section of the study hereby focuses on discussing the above mentioned respectively. Findings from this study proved to have a number of valuable consequences especially for marketing managers and policy makers. These results can be of immense importance in formulating environmental policy and actions which could enhance the formation of green purchase intention in Nigeria. This study can be used as reference point to further examine the validity of the TPB model in green purchase intention study in other settings to explore the determinants of behavioural intentions.

6.8.1 New Contribution

The results obtained from this study give a strong evidence of the appropriateness of the theory of planned behaviour in predicting consumer's behavioural intentions and has at the same time unveiled new theoretical acumens on the key factors which could induce green purchase intention in Nigeria. In the past, studies most often considered the variables in this study as direct determinants of green purchase intention in both developing and developed countries with none specifically on green purchase intention in Nigeria. The present study however empirically assesses the causal relationships between consumers' purchase intention in this context using the TPB and superimposing new constructs in place of its original constructs.

Furthermore, this research explores the possibilities by which perceived behavioural control, environmental consciousness and trust play the role of mediators for variables such as green perceived knowledge, green perceived value, green price sensitivity, government regulations and green availability which previously were rarely examined in this combination.

This study to be precise integrated variables based on existing literatures and extended certain relationships which other previous green purchase scholars ignored to investigate their influence on behavioural intentions. The most obvious concerns the nature of relationships between perceived behavioural control and government regulations, green perceived knowledge and environmental consciousness, green perceived value and environmental consciousness, green availability and green trust, green price sensitivity, green perceived value, green

availability and perceived behavioural control. In essence, this study is the first to validate these paths empirically and in addition, the first study on green in Nigeria as far as the researcher' quest is concerned.

Interestingly, TPB has demonstrated its distinct potency to predict behavioural intentions. It shaded more light on what contributes to green purchase intention and further strengthen the applicability in determining Nigerian consumers' decision making with regards to green purchase. Through the use of TPB model, this study has given fundamental theoretical contributions in that it described and predicted the behaviour of the consumers concerned in this research and have proven also that the model is potentially adequate and can form the basis for future research in the area of consumer purchase decision making.

6.8.2 Methodological Contribution

This study attempted to contribute eminently through the methodological aspect of this piece of work. The finding of this study reflects the application of a sophisticated quantitative technique in the development of the model and the analysis of data by using the structural equation modeling (SEM); a technique that gives a robust output in research particularly in modeling multivariate relationship. Although mostly used in modern marketing research but not widely employed in areas or environments where research culture is not fully established; especially in Nigeria and other African countries. The structural equation modeling also has the potency to evaluate the fitness of a measurement and conceptual model aimed at investigating the target behaviour simultaneously as done in this study.

The study in question employed two kinds of analysis by using SEM; the first is measurement model and the second is the structural model. The covariance structure analysis, the mean and covariance structure analysis were then used to investigate the effect of the model in the Nigerian context.

6.8.3 Contribution to Nigerian Government

Findings from this study shows adequate evidence supporting significant causal relationship among variables tested. Based on these statistical output, practical contributes will be discussed focusing on two main perspectives; the government policy makers and the marketing managers.

6.8.3.1 Up Grading Resources

Taking a stand on the empirical evidence of the significant relationship between perceived behavioural control and green purchase intention and also its mediating effect on the relationship between green trust and green purchase intention demonstrates that it appears to be a strong influencing determinant of green purchase intention in Nigeria. Furthermore, the finding empirically expounded environmental consciousness has substantially demonstrated its significant influences on green purchase intention directly and also its potency to exert mediating effect on the relationship between green knowledge and government regulation. The government may take advantage of these dominant variables by putting resources in place thereby giving the consumers the opportunity to practice green behaviour.

6.8.3.2 Create Awareness

The low level of green knowledge among Nigerian consumers is not unconnected with low enforcement of environmental laws which would have generated programs to educate the citizens. The findings of this study revealed also that environmental consciousness significantly influenced green purchase intention and in addition, mediates on the relationship between green knowledge, government regulations and green purchase intention. The Nigerian government policy makers have a responsibility to strategically create public awareness. Information creating programs such as training through workshops, conferences, community services to educate the consumers on the value of green practices in their daily lives is vital, this can arouse consumer's interest in green products rather than their compassion.

Furthermore, government could collaborate with consumer bodies and manufacturers in drawing up awareness programmes using outdoor activities such as cultural show, visits to local communities to educate members about the importance of environmental consciousness, green knowledge and the need to preserve the environment for future generation in the daily practices.

Government orientated programs should go to the grass root and if possible disseminate information in local dialects. Programs aimed at creating such awareness were carried out in time past mostly in the urban and using English language leaving the uneducated and those in the rural areas out of the picture(Abari 2008).

6.8.3.3 Introduce Stringent Government Regulation

Surprisingly, government regulation is not portrayed to have any effect on green purchase intention except mediated by environmental consciousness. This is an affirmation to the fact that the respondents do not feel the impact of what government is doing towards green consumption and environmentally safe programs. It is not a surprise then that the quotation below expresses the minds of the people impliedly:

“Although Regulatory Bodies at federal and local levels do exist to oversee Environmental issues it is a sad truth that these bodies and the policies they formulate in this regard lack the ability to police the environmental behaviour in the country” (Olamiyu, 2012).

Findings of this study can serve as an impetus to provoke the implementation of environmental strategies and equally induce the government to implement a measure to ensure drastic compliance with environmental policies in Nigeria. The government can prohibit the use of products which are found to be precarious to the health of its citizenry and the environment in which they live. By enforcing environmental policies, government encourages and promotes the production of green products, thus making it available. In the same vein, government can enforce corporate social responsibility compliance for all organisations both individual and corporate. Non-compliance may attract penalty.

6.8.3.4 Encourage Proper Waste Management and Recycling

The government can encourage recycling by introducing local markets whereby waste materials can be sold and recycled. These may entail that the government make provisions for waste bags in categories and positioned in strategic centres with labels such as cans, papers and bottles denoting what type of waste to be disposed in which bag. Furthermore, the government may emphasize on the use of biodegradable packaging and also collaborate with green manufactures to encourage recycling.

6.8.3.5 Encourage Individual Participation

Additionally, this study forms the whim to understand the factors which determine green purchase intention of the citizens; there is the need to increase environmental consciousness in Nigeria and this would require the government to educate the general public on the need to be pro-environmental in behaviour. The way to achieve this is through campaign using mass media to educate and create awareness on the importance of a healthy environment. Communities and individuals should be educated on the need to see environmental protection as part of their responsibility.

In this regard, government agencies especially those concerned with issues such as educational curriculum planning should integrate and inculcate environmental education from the grass root to give citizens adequate education on the need to preserve the environment and to be personally involved in curbing environmental related challenges.

6.8.3.6 Incentives

Nigeria government can boost green practices by giving incentives to farmers who are engaged in organic farming. By so doing the prices of green products will be affordable by the consumers. In addition to this, they can discourage the use of insecticides on consumable crops by devising traditional ways of growing these crops. Fundamentally, Nigeria is bequeathed with natural resources, coupled with its being an agricultural based society, a little push from the government and stakeholders; Nigeria will be engrossed in green practices. Hence, from the foregoing, it is obvious that green practices is at its low stage and this is supported by (econigeria.com,www.unep.org) who asserts that Nigeria lags behind other African counterparts in green practices.

Government support is a strong toolbox which can assist in building environmental sustainability (Karna et al., 2003). By building on these findings, the government could initiate and support environmental activities to motivate green consumption and ultimately increase the formation of green purchase intention. Undoubtedly, government play strong roles in environmental protection; most governments globally and one out of this is the Malaysian government have a laid down strategies to implement their sustainable consumption and practices (Tan & Chai, 2010). It is pertinent for the Nigerian government to encourage organizations and concerned individuals to take part in free flow of information regarding green products; this may encourage consumer education on environmental consequences and redirect their choices of goods and services towards environmentally safe consumption pattern.

Essentially, with the valued information from this study, it will be an understatement to say that government policy makers can refer to these findings as an impetus to understand the behavioural intentions of the Nigerian consumers towards green consumption and adopt strategies which could change their perception and believes to form behaviours leading to a better environmental friendly lifestyle. Considerable resources and facilities which could heighten green purchase intention should not be treated with laxity in order to catch up with other African counterparts and developing nations in green. Furthermore, the researcher iterate the statement by Oyewole, (2001) who suggested that consumers consciousness of environmental fairness and their inclination to accept the costs attendant to it should be determined by the government and other stakeholders.

6.8.4 Contribution to Practitioners

Nigeria being an infant ground for green products (Olamiyu, 2012), the importance of sustaining the tempo of the current perceived behavioural control of the Nigerian consumers should be paramount at management level on green initiatives. It becomes of immense importance for marketers and government to collaborate together to establish networks and sales channels to ease consumer's accessibility to green products.

In addition to accessibility through credible channels, the ability to adequately inform consumers of the where and how to get the green product is solely the responsibility of the marketing manager. Green products should also be marketed by designing a pricing strategy which is affordable but profitable to the marketer.

Marketers as a matter of necessities need to evaluate the influence of those variables that significantly influenced green purchase intention in all consumer decision buying process until actual purchase behaviour.

6.8.4.1 Communicate Environmental Benefits

Instead of merely advertising to inform the public of the availability of green products, marketers should go a step further to emphasize the environmental features of the product. Regardless of the fact that most knowledgeable consumers these days read about products on the labels, they still feel the marketer has a duty to communicate the green attributes of the products; this is because some consumers lack self confidence in their effectiveness to assess the environmental worthiness of the product (Kim, 2015).

Accordingly, the relationship between green knowledge, government regulations and environmental consciousness was significant; also, environmental consciousness mediated the relationship between these two constructs and green purchase intention. This gives a clue to the fact that environmental consciousness will certainly arouse the quest for knowledge of green and enhance the consciousness on the decay of the environment among consumers in Nigeria. This empirical evidence gives an insight to marketers and policy makers to understand what type of communication to design and what should be contained in the message; this should be able to capture the interest of the targeted audience.

Communication should aim at feeding the consumers with green authentic information and also drawing their attention to understand the impact of their

action and inaction on environmental behaviour. More than communicating to consumer's messages about environmental perils, marketers need to pay attention when educating consumers on the environmental benefits, attributes and advantages associated with green products.

Marketers may also develop new strategies and require the Nigerian government to collaborate with them by enacting edicts to police environmental practices and to ensure compliance to standards in producing green products. Certainly, the government and members of the public need to be strongly involved to attain a lasting change in consumer behaviour. As a matter of fact it becomes pertinent for businesses and the government to work hand in hand to shape the behaviour of Nigerian consumers towards green because consumers are becoming more concerned with environmental attributes of product offering.

6.8.4.2 Winning the Consumer's Heart

Trust is one of the factors which did not directly influence green purchase intention but however was mediated by perceived behavioural control; in addition, green availability and green perceived value were direct determinants of green trust. This construct exhibited significant role in the findings of the current study. There is need to build consumer trust in green products since uncertainty has swept over some consumers who already are disenchanted about green claims. From the finding of this study we observed that trust did not influence green purchase intention directly and also did not mediate any construct.

Nigeria is foreseen as a potential market for green products and marketers need to strive hard to win consumer trust which strategically can be done by giving truthful and straight forward information on the green feature and benefits of the product. Consumers rely first and foremost on what they read on labels (Shelton, 2009) and the information given through any effective chosen channel of communication.

Marketers should strive to maintain quality of their products as a long term strategy to win target customers and retain existing ones because it is difficult to win back a disenchanted consumer on grounds of low quality and non-environmental performance of the product. Thus, it is expedient for managers understand the role customers play in the continuousness of their business (Kotler & Armstrong, 2008).

6.8.4.3 Promotion Strategy

Managers can design a marketing strategy such as word of mouth promotion, personnel selling, after sale services and some other outdoor advertising to win consumers trust. Marketing managers should strive to ensure that messages on trust is strong and persuasive enough to stimulate intention for green products which shortly may translate into purchase behaviour.

Marketing managers can communicate awareness and educative messages through most effective channels both online and offline (Chan, 2001); through the social media, (electronic) and non-electronic media (written messages), outdoors advertising and word of mouth. These should focus on building consumer's

favourable attitude towards green choices and informing them of environmental hazards and the need to ameliorate the environment for their continuous well-being and the future generation.

Selective marketing is vital tool which marketers can take advantage of as part of its marketing strategies for environmental sustainability programs and this will go a long way to re-direct consumers' decision-making in favour of environmentally safe products in Nigeria and beyond. Marketers should come to the truth of knowing that successful marketing lies inherently in their ability to pinpoint those variables which influence consumer's proactive performance in the marketplace in general and particularly in the context of this study.

6.8.4.4 Variety of Green Products

In addition, manufacturers of green products should provide a variety of green to enable consumers have a range of product choices in order to attract potential green consumers. Especially in Nigeria where only those in high income class connect their dots to green when it comes to purchase decision. Apparently, there is need to give weight to green product benefits and assure the consumers of the quality they are looking for in environmentally safe products.

It is necessary for marketing managers to note that perceived behavioural control can enhance or hamper intention to buy green products since most consumers will take into consideration what they can have control over and what can boost their aspiration to perform a certain behaviour (Eagly & Chaiken,1993). It is necessary understanding that some of the strongest hindrances to purchase and consumption

of green products are trust, high price and availability (Aertsens et al., 2009; Grailresearch, 2010). There is need to bridge the wide gap between purchase intention and behaviour by creating easy access to green through sales channels and making green product prices low and affordable in Nigeria. If the price of green product is at par with conventional brands, the consumers will be attracted to the positive properties of green (Boztepe, 2012).

The low pricing strategy can be used as a competitive advantage especially when demand for a product is price responsive (Shabnam, 2013) as the case of the consumers in the context of this study who place preference on products because of their limited resources, a low price will be a more successful pricing strategy for the marketing managers to embark on.

6.8.4.5 Niche Market

With the rapid changing scenery in marketing and the increased awareness in environmental challenges coupled with great consideration accorded pro-environmental behaviour (Kumar, 2012) there is the likelihood of most consumers shifting their purchase decision towards green. This can be made possible if given the necessary resources to strengthen their perceived behavioural control and enhanced environmental consciousness as indicated from this survey, It becomes absolutely important for marketing managers and the government to integrate environmental sustainability into their marketing strategies to enable them attract green consumers in Nigeria.

Even though green product in Nigeria appears to be a niche market for now, Nigeria is a potential market for green (Olamiyu, 2012). The intending marketers of green in Nigeria could consider the findings from this study as a pointer to what factors influence the intention to purchase green. Managers will find the insight from this study indispensable in developing specific strategies and suitable marketing programs for positioning their products to the identified target segment.

6.6.4.6 Long-Term Strategies

Another implication of this study lies in managers developing long - term strategies for the marketing of their products; one of the challenges faced is how to assimilate the environmental goals into the marketing strategies (Chen, 2010). The current study demonstrated that perceived green value and green availability were all direct determinants of green trust.

This implies that to enhance green purchase intention, there should be lasting trust and credibility; marketing managers should endeavour to enrich the perceived green value of their products to the point that consumers are convinced of its greenness. For marketing organizations to heighten trust for their product offering, the concepts of perceived green value, green availability and green price sensitivity should be pooled along and taken into account when drawing up marketing strategies.

6.9 Limitation of the Study

Essentially, the outcomes of the current research are found to be consistent with the theoretical background and have empirically produced valued information on

the rudiments of green purchase intention in Nigeria; nevertheless, the study is not without some shortcomings.

First and foremost, the TPB model which extends to purchase behaviour was investigated up to intention only due to the peculiar circumstances surrounding the context in relation to green. The variables also were superimposed on the TPB constructs in relation to green concepts and the problems highlighted. Contrary to most scholars' work, the present work did not include subjective norm with its dimensions (peer groups, family, social referent or aspiration groups) because the study aimed at investigating the level of environmental consciousness among other variables.

Secondly, the sample size is small and was restricted to only three universities in Nigeria; this implies that other sectors of the civil service such as the defence, teachers in high and primary schools, banks, hospitals and students to mention a few were not reflected or captured as respondents.

Thirdly, this study was restricted to a particular geographical area out of the six geo-political zones in Nigeria on the notion that the North Central being the federal capital will have all the representatives of Nigerians; for this fact the study might not have covered all the pertinent environmental diversities in the country.

Despite this shortfall of diversity and representativeness of the sample size, the findings still demonstrated valued information to advance green purchase intention for environmental sustainability.

Fourthly, this research focused on Nigerian consumers alone, with specific reference to academic and non-academic staff of the university thus limiting it to only one country which otherwise would have been conducted using consumers from different cultural settings and different nationalities to cross validate the outcome for the purpose of generalization and applicability.

Fifthly, the dearth of related literatures on the subject matter in Nigeria to corroborate with the current study was an issue. A study reported that only 5% of environmental research have been carried out in the entire African countries, left alone in Nigeria (Myung et al., 2012). The researcher had to make references with cross-cultural studies from developed and developing countries. And some of the differences in findings can be attributed to variations in culture and level of awareness in green.

Furthermore, due to the fact that there are limited previous studies on some relationships like perceived behavioural control mediating between government regulation and green purchase intention, environmental consciousness mediating between government regulations and green purchase intention. Green Availability → Green Trust → Green Purchase Intention and Green Perceived Value → Environmental Consciousness → Green Purchase Intention) the findings could not be directly and sufficiently supported due to difficulty in accessing studies which linked such paths. Most studies in green used trust as mediating and few used perceived behavioural control as mediating construct or direct determinants while

price most often was used as moderating or direct determinant of green purchase intention or behaviour but not with the variables selected in this study.

As a final point, most fitting results from a model are not absolute but rather relative (Hair et al., 1998); usually a good fit does not really guarantee veracity but a demonstration of a good representation of relationships between constructs in the model. There could be a possibility that other essential variables were not properly incorporated in the model or that the model did not integrate adequate measurement in its relationships (Bagozzi & Baumgartner, 1994). Nevertheless, to curtail the limitation arising from this, various criteria of goodness of fit indices which were based on practical and theoretical considerations were however used in order to achieve most favourable goodness of fit in this study (Diamantopoulos & Siguaw, 2000).

Nevertheless these limitations do not undermine the significance of the results in this study. They are highlighted to give a sense of direction to future researchers who have interest in conducting research in this area of the subject matter or even improve on what has been done.

6.11 Suggestions for Future Research

As mentioned earlier, the present study has quite a few numbers of limitations which however serve as mainstay or pillars for future researchers to build on; these are elaborated below:

This study is based on theory of planned behaviour but stopped at intention; future research could extend this theory to include purchase behaviour which is in the original TPB model and also include subjective norm which was neglected in the current study. Furthermore the theory of reasoned (TRA) and TPB could be combined to include more variables such as (culture, income, peer group, family, personal values and age) which may possibly influence green purchase intention directly in the Nigerian context.

Furthermore, intention in the TPB model is viewed as a direct predictor of actual behaviour, future researchers could dwell on identifying factors which might mediate or moderate the effect of intention on actual behaviour. This current study is the first attempt to empirically investigate green purchase intention using TPB model among consumers particularly in Nigeria, and perhaps in surrounding African countries as search for literature failed to produce any. Thus, conducting a far-reaching study in countries other than African countries is recommended so as to reconfirm TPB applicability in behavioural intentions.

Scholars in future could undertake to explore the mediating construct between government regulation and green purchase intention. Similarly, the exogenous variable between environmental consciousness and green purchase intention should further be tested. Globally, environmental consciousness and concern has been a significant focus for policy makers (Kumar, 2012), it is perceptible for future researchers to examine these constructs in-depth.

Lastly, the questionnaire was the only survey instrument employed to gather data for this study; the researcher hereby proposes that future research could use exhaustive interview and observation which is a qualitative method to find other possible factors which could influence purchase intention towards green products among Nigerian consumers.

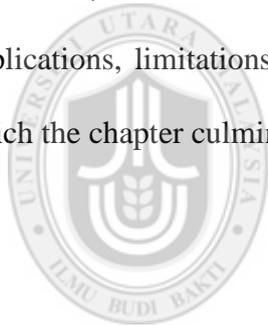
6.12 Conclusion of the Study

This study addressed relationships between the determinants and green purchase intention. Being the first of its kind in Nigeria, this work has provided noteworthy insights by indicating what induces consumers green purchase intention. It developed a model using the underpinning theory of planned behaviour and comprised of nine variables intended to explain green purchase intention in the Nigeria context.

The empirical findings presented that the strongest determinants of green purchase intention in Nigeria are perceived behavioural control and environmental consciousness; while others such as green trust indirectly influence green intention through the mediating effect of perceived behavioural control. Perceived green knowledge and government regulations are mediated by environmental consciousness. The finding hence reinforces the distinct roles played by perceived behavioural control and environmental consciousness on consumers' behavioural intentions in Nigeria and further improved on the conventional perception of the relationships between these variables and green purchase intention.

Adherence to the suggestions made in this study which are based on the empirical findings will undoubtedly heighten green purchase intention in Nigeria because it has boosted the awareness of consumers green consciousness in Nigeria and the determining factor of green purchase intention through the applicability of the theory of planned behaviour.

In summary, concluding chapter of this study presented the review of the research objectives and detailed discussions on the association between variables which were used to achieve these objectives. Subsequently, the researcher continued on the discussion on the aspect of the research contributions which focused on the theoretical, methodological and practitioners' aspects. Furthermore, the implications, limitations and research recommendations were all explained after which the chapter culminates with the concluding part of the study.



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