THE EFFECT OF GREEN MARKETING STRATEGIES ON CONSUMER PURCHASING PATTERNS IN KENYA

BY

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UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

SPRING 2018
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A Research Project Report Submitted to the Chandaria School of Business in Partial Fulfillment of the Requirement for the Degree of Masters in Business Administration (MBA)

UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

SPRING 2018
STUDENT’S DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University – Africa, in Nairobi for academic credit.

Signed: ________________________    Date: _____________________

Gicharu Nicholas Mwaura

This project has been presented for examination with my approval as the appointed supervisor.

Signed: ________________________    Date: _____________________

Dr. Joseph Ngugi Kamau

Signed: ________________________    Date: _____________________

Dean, Chandaria School of Business
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ABSTRACT

In the 21st century, the concepts of “sustainability” and “environmental impact” are fundamental in regard to a business entity’s outlook and strategy formation. In the recent past there has been a change in consumer attitudes towards leading a sustainable lifestyle; people are consciously making an effort towards leading a lifestyle that has a minimal to no negative impact on the environment through engaging in green consumerism. Green consumerism refers to the preferential consumption of eco-friendly products; green products, over other non-green product alternatives. The overall purpose of the study was to investigate the effect of green marketing strategies on consumer purchasing patterns in Kenya.

The study employed descriptive research and was based in USIU-Africa targeting a population of 6,508 students. Stratified random sampling was utilized to select a sample size of 138 subjects. A structured questionnaire with a five point likert scale was used to collect data from respondents. SPSS version 23 was used to analyze collected data and generate descriptive and inferential statistics. The first objective investigated the effect of eco-literacy on consumer purchasing patterns in Kenya. Findings indicated the coefficient for the relationship between eco-literacy and consumer purchasing patterns to be positive and significant. The positive relationship indicates that one unit increase in access to eco-literacy will result in 0.531 increase in consumer purchasing patterns.

The second objective determined how eco-branding influences consumer purchasing patterns in Kenya. Findings indicated that the coefficient for the relationship between eco-branding and consumer purchasing patterns was positive and significant. The positive relationship indicates that one unit increase in access to eco-branding will result in 0.267 increase in consumer purchasing patterns. The third objective investigated the effect of eco-advertising on consumer purchasing patterns. The coefficient for the relationship between eco-advertising and consumer purchasing patterns was positive and significant. The positive relationship indicates that one unit increase in access to eco-advertising will result in 0.196 increase in consumer purchasing patterns.
The study concluded that eco literacy can account for 59% of the variance in the consumer purchasing patterns. Hence eco-literacy was deemed to be the most influential factor in the study that accounts for more than half of consumer purchasing variance. Eco-branding can account for 27% of the variance in the consumer purchasing patterns in Kenya and was therefore considered as the second most influential factor in the study. Eco advertising was the least influential determinant in the study as it accounts for 20% of the variance in the consumer purchasing patterns in Kenya.

In the study more than 70% of respondents agreed that it’s important that products they purchase should not harm the environment, however 80% of respondents also agreed that there should be more visibility in the way eco-friendly products are marketed. These findings suggest that ineffective green marketing strategies are a contributing factor to the existence of a value action gap. The study recommends that marketing managers should employ informative and factual green marketing communication strategies in order to improve consumer knowledge and product visibility which will facilitate in bridging the value-action gap. Marketers who intend to capitalize on the nascent green market and build robust credible green brands should develop green brand positioning strategies that not only accentuate eco-friendly product attributes but associate said offerings with an environmental cause. Policy makers should develop legislation that protects consumers from products and firms that falsely claim to be to be eco-friendly through charging offenders with penalties and/or fines. The legislation should clearly outline the environmental criteria a product should meet in order to be considered a green product and such a threshold should be met before a product is marketed as environmentally friendly.

Further research on green consumer purchasing patterns can be conducted with a population that represents general consumers in Kenya and is not limited to students. Moreover there is need for further research on specific green product categories to clearly stipulate how eco-literacy, eco-branding and eco-advertisements impact the purchase of specific products. Lastly, further research should sample marketing practitioners in order to determine their perspective on how effectively green marketing strategies influence sales and consumer purchasing patterns.
ACKNOWLEDGEMENT

I would like to sincerely acknowledge the contributions of the following persons who enabled me to undertake this study. First and foremost to Almighty God who blessed me with a sound mind and has been my strength and inspiration.

I would like to offer my sincere gratitude to my lecturer Dr. Joseph Ngugi of the Chandaria School of business at USIU-Africa. The door to his office was always open whenever I ran into a trouble spot or had a question about my research or writing. He consistently steered me in the right the direction whenever he thought I needed it.

Finally, I must express my very profound gratitude to my parents for providing me with unfailing support and continuous encouragement throughout my years of study and through the process of researching and writing this research study. This accomplishment would not have been possible without them. Thank you.
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LIST OF ABBREVIATIONS AND ACRONYMS

AVE - Average Variance Extracted
CFA - Confirmatory Factor Analysis
EFA - Exploratory Factory Analysis
FMCG - Fast Moving Consumer Goods
KMO - Kaiser Myer Olin
LEP - Law of Environmental Protection
PCA - Principal Components Analysis
SEM - Structural Equation Model
TPB - Theory of Planned Behavior
CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of Study

In the 21st century, the concepts of “sustainability” and “environmental impact” are fundamental in regard to a business entity’s outlook and strategy formation. In the recent past there has been a change in consumer attitudes towards a green lifestyle; people are consciously making an individual effort towards leading a lifestyle that has a minimal to no-negative impact on the environment. Although this shift in perspective is still evolving, and is not substantially prevalent in the consumer mass market. Organizations however have noticed this shift and are leveraging on said insight in order to gain a competitive edge in the green market industry (Kumar & Ghodeswar, 2015).

Today the concept of sustainability is virtually ubiquitous in the business environment, as its application is manifested in corporate strategy, consumer preference, consumer choice, student education and academic research. The need for sustainable business practices by corporations around the world is identified to be a result of overall increase in the consumer awareness of lack of environmental protection and social inequities (Cherian & Jacob, 2012). Over the last decade environmentalism has emerged to be a vital aspect due to increasing issues related to acid rains, depletion of the ozone layer, and degradation of the land and many more pressing environmental issues (Joshi & Rahman, 2016).

The growth of green marketing research dates back to 1980s when there was emergence of concept of green marketing. Early literature indicates green marketing to be an approach which indicates signs of shift in consumer attention to green products (Cherian & Jacob, 2012). At that time green marketing research concentrated on the shift in consumer consumption of green products. There was a great deal of empirical research carried out to identify interest among consumers in using and purchasing green products (Mintel & Stamatiou, 2006).

Green consumerism is described as being a multifaceted concept, which includes preservation of the environment, minimization of pollution, responsible use of non-renewable resources, and animal welfare and species preservation (McEachern & McClean, 2002). Green or
environmentally friendly products are broadly defined as products that will not pollute the earth or deplete natural resources, and can be recycled or conserved (Shamdasani, Chon-Lin, & Richmond, 1993). Some examples of these products are household items manufactured with post-consumer plastics or paper, recyclable or reusable packaging, energy-efficient light bulbs, and detergents containing ingredients that are biodegradable, nonpolluting, and free of synthetic dyes or perfumes (Mostafa, 2006).

The Green marketing approach was researched from corporate interest point of view in the early 90s (Cherian & Jacob, 2012). Research indicated that 92% of MNCs from Europe changed their products to address growing concerns of environmental pollution (Vandermerwe & Michael, 1990). Green marketing research has come a long way since then. Consumers from the developed countries including USA and Western Europe were found to be more conscious about the environment. In a worldwide study, Starch (1996) identified the total number of green consumers as being 15%. In the UK, 10% are recognized as being staunch green consumers. Recent polls also report that 50% of Americans claim to look for environmental labels and to switch brands based on environment-friendliness (Phillips, 1999). In a study of Australian consumers, Suchard and Polonsky (1991) found that 61.5% of the respondents would pay more for environmentally safe products, while 22.2% were unsure if they would pay more for green products. On average, those respondents who indicated that they would pay more for green products were willing to pay between 15% and 20% more.

As a result of the increasing number of green consumers, marketers are targeting the green segment of the population. Recycled paper and plastic goods and dolphin-safe tuna are examples of products positioned on the basis of environmental appeal (Banergee, Gulas, & Iyer, 1995). Marketers are also incorporating the environment into many marketing activities, including product and package design (Polonsky et al., 1997) and pricing (Kapelianis & Strachan, 1996). Marketers have even gone as far as to develop specific models for the development of green advertising and green marketing strategy. Nowadays, environmental consciousness is not only an ideology of activists, but also a matter of “market competition”, which influences consumer behavior. D’Souza et.al (2007) claims that the green vision is a reality and needs to be more functionally understood to allow marketers to develop strategies aimed to meet the green consumers’ needs.
Concerns about sustainable development have become a major influence on people’s lives and many environmental regulatory initiatives have been taken into consideration (Hsu, 2015), for example the adoption of “the Kyoto protocol” which is an agreement signed by 37 countries in favor of reducing greenhouse gas emissions (United Nations Framework Convention on Climate Change, 2012). Sustainable development refers to the progress that satisfies the necessities of an existing generational cohort without resulting in consequences that will render future cohorts unable to satisfy their own needs (Dresner, 2002).

Sweden is one of the countries that has become focused on environmental protection and as a result; Stockholm won the award of Green Capital of the year in 2010 (Environment European Green Capital, 2010). Furthermore, in view of green purchase policy, the Swedish Environmental Management Council has product-specific criteria for sustainable procurement with one of its goals being to stimulate consumer demand for greener products and make them easily available and accessible by providing credible information.

Khare (2014) carried out a study that suggested that a consumer’s ecological sentiments, environmental awareness and green purchasing patterns are significantly influenced by norms in society, psychometric factors, intrinsic values, and ecological cognizance (Khare, 2014). Several studies have adapted attitude models to explain impact of norms, social influence, and behavioral control on green buying behavior. The Theory of Planned Behavior (TPB) is a behavioral concept that has been extensively utilized to analyze the links between the purchase of eco-friendly products with individual values, societal norms and individual beliefs. Kalafatis, Pollard, East, and Tsogas, (1999) harnessed the Theory of Planned Behavior in order to examine the impact of societal norms, personal preferences, referent beliefs, outcome beliefs, and perceived behavioral control on consumer intention to purchase eco-friendly merchandise. Findings of the study revealed that consumers from Britain and Greece were significantly influenced to buy green products by societal norms and personal preferences.

Compared with what has been happening in the West, consumers in Egypt, as well as in the wider context of the Arab world, are just at the stage of green awakening. For example, United Arab Emirates Federal Law No 24 concerning the protection of the environment came into effect only in February 2000 (Mostafa, 2006). This law provides strong protection to the environment from the adverse impact created by external activities (Hilotin, 2004). In Jordan,
Law of Environmental Protection (LEP) was issued in 1995 (Jahamani, 2003). This may explain the fact that little is understood about consumers’ intentions to purchase environmentally friendly products in this part of the world. Indeed, researchers agree that very little research has been done concerning cross-cultural studies on environmental attitudes or behavior of different ethnic, cultural, or religious groups (Klineberg, 1998; Schultz and Zelezny, 1999).

A study conducted Chan and Lau (2002) in America and China applied the Theory of Planned Behavior to draw eco-literacy comparisons between consumers located in each of the countries. Findings of the study revealed that Chinese consumers where significantly influenced by abstract factors such as green purchase behavior of perceived behavioral control, subjective norms and group conformance. On the other hand, the study revealed that consumers from America where more susceptible to less abstract factors such as salient attitudinal beliefs such as “saving resources” and “premium prices”. These findings were supported by Khare (2014) who states that American consumers with the intention to buy eco-friendly products are more likely to do so than Chinese consumers who find it imperative to adhere to societal norms when considering the purchase of ecologically friendly goods. In an emerging economy such as India, the concepts of green products and green marketing are somewhat fresh, meaning that the subjects hasn’t been comprehensively exhausted with majority of the studies gravitating towards Indian consumers attitudes towards eco-friendly products (Nittala, 2014) with minority of the studies addressing consumers’ green purchasing patterns per se.

Ndubisi (2008) carried out a comparative study in two developing countries located in Asia and Africa (namely Malaysia and Nigeria) to establish the landscape of adoption of socio-environmental marketing practices by organizations. His research revealed that the public are actively scrutinizing and rewarding organizations which are promoting environmental wellbeing and penalizing those which have activities that are harmful to the environment. Sustainable practices include reaching out to employees and a broad range of external stakeholders using multidisciplinary teams to develop greener products and marketing programs, and maintaining good relationships with the community. It is believed that sustainable development is the theme for 21st-century commerce (Ndubisi & Eze, 2013).
Green marketplaces are now developing in many countries to promote sustainable living, which includes delivering greener and cleaner alternatives to consumers based on socio-demographic segments. Specialized green producers and retailers have since emerged and are competing for the patronage of this segment with mainstream companies that have also launched initiatives targeting green consumers (Hartmann & Ibáñez, 2006).

Research in the last decade (Lee, 2009; Rahbar & Wahid, 2011) has indicated that consumers are aware and are willing to pay more to "go green". However, there is limited research which has examined the impact of green marketing on consumers from emerging economies such as India (Prakash, 2002; Bhattacharya, 2011) and frontier economies such as Kenya.

Studies related to green marketing that have been undertaken in Kenya include the following: Kiongera (2003) undertook a survey of green marketing practices in Bamburi cement in Kenya; Obuya (2003) carried out a study that investigated the extent to which manufacturing firms in Nairobi practice green marketing; Kalama (2007) undertook a study on the green marketing practices by Kenya Petroleum refineries; Odhiambo (2008) surveyed the extent to which floricultural firms in Kenya practice green marketing; Thiong’o (2009) undertook an investigation of green marketing practices among pharmaceutical firms in Kenya; Gitobu (2014) undertook a study that sought to establish the adoption of Green Marketing practices in Mombasa County; and Ofunya (2015) undertook a study to investigate the extent of adoption of green marketing practices by Kenya Tea Firms.

Majority of research related to green consumerism has been conducted in well developed countries, while the little research that has been carried out in developing and frontier economies has been predominantly undertaken in Asia. It’s against this backdrop that this study seeks to remedy the existing research gap through investigating the effect of green marketing strategies on consumer purchasing patterns in Kenya.

1.2 Statement of the Problem

In the recent past, there has been a change in consumer attitudes towards a green lifestyle; people are consciously making an individual effort towards leading a lifestyle that has a minimal to no negative impact on the environment. Consumers from developed countries including USA and Western Europe were found to be more conscious about the environment
Research in the last decade (Lee, 2008; Rahbar & Wahid, 2011) has indicated that consumer are aware and are willing to pay more to "go green". Sweden is one of the countries that has become focused on environmental protection and as a result; Stockholm has won the award of Green Capital of the year in 2010 (Environment European Green Capital, 2010). Furthermore, in view of green purchase policy, the Swedish Environmental Management Council has product-specific criteria for sustainable procurement with one of its goals being to stimulate consumer demand for greener products and make them easily available and accessible by providing credible information. This clearly stipulates the importance of policy on green purchase while such is missing in developing countries including Kenya.

Young et al. (2010) report a gap in customers’ buying habits which is referred to a value action gap. This value action gap is typically where customers are concerned about environmental issues but have a hard time interpreting it when making a purchase. There are many studies which support the existence of a value-action gap. Mostly these can be found within the field of environmental geography. Lane and Potter (2007), found a discrepancy between attitudes and behavior regarding the adoption of cleaner vehicles. They reported that concern for the environmental impact of cars did not result in behavioral changes at the individual level. A viable justification for such scenarios is the trade-offs that eco-friendly products necessitate on buyers; compromised quality, below par performance, and/or premium charges. Datta (2011) states, it is important to increase people’s environmental awareness and consciousness, because as customers, they can impact the environment through their positive purchasing decisions. Furthermore, the rising number of consumers that desire to engage in green consumerism has given resulted in opportunities for firms to exploit through incorporating eco-friendly attributes into their offerings and brand identity. Regardless of prevailing environmental sentiments and mindsets, consumers often prefer to buy conventional products that aren’t necessarily eco-friendly. Thus, what consumers reported as their intended actions or concerns often did not translate into their actual behavior. The study sought to identify insights into this paradox within a Kenyan context.

Debates surrounding the issue of the value-action gap have mainly taken place within environmental and social psychology. Research is often based within cognitive theories of how attitudes are formed and how this affects individuals’ behavior (Blake, 1999). The research
suggests that there are many internal and external factors that affect behavior and the reasons behind consumer choices. Therefore, it can be difficult to identify the exact reasons for why this gap exists, as it can be due to a number of reasons. When purchasing a product for example, many attributes are assessed when making decisions. Dickson (2000) suggests that the most significant factors affecting the reasons behind buying behavior are; price, quality, convenience, and brand familiarity. Young et al. (2010) argue that the gap can also be due to "brand strength; culture, finance; habit; inadvertent environmental ignorance; lifestyles; personalities; or, trading off between different ethical factors". Therefore, environmental or ethical considerations are often not taken into account, regardless of attitudes people have regarding the environment. Time or convenience is usually a major determinant of consumer behavior, and therefore a gap between values and behavior is understandable. This research sought to understand the subject in detail.

1.3 General Objective

To investigate the effect of green marketing strategies on consumer purchasing patterns in Kenya.

1.4 Specific Objectives

1.4.1. To establish the effect of eco-literacy on consumer purchasing patterns in Kenya.

1.4.2. To find out how eco-branding affects consumer purchasing patterns in Kenya.

1.4.3. To investigate the effect of eco-advertising on consumer purchasing patterns in Kenya.

1.5 Significance of the Study

1.5.1 Scholars

The findings of this study enables researchers to establish whether consumers in Kenya have pro-green attitudes and are likely to act on those values by purchasing green products. The study enables researchers to know whether eco-literacy, eco-branding and eco-packaging are key determinants of green buying behavior in the Kenyan market. The study also provides researchers with an idea of whether there are any prevailing or emerging market trends related to green marketing.
1.5.2 Practitioners

The findings of this study would benefit marketing professionals through providing insight into the motives of green consumers, relevant features of green products and current market trends related to green marketing. The study findings enable marketers to have a better understanding of green consumers purchasing preferences which will help adapt their marketing communication strategies to be more persuasive.

1.5.3 Policymakers

Findings in this study acts as a reference point for policymakers seeking information regarding green consumers and their behavior. The study provide policymakers with an in depth understanding of what drives consumers in Kenya to make green product purchases. This study provides information that can be used to facilitate the formulation of ecological and sustainable consumption policies in the future.

1.6 Scope of the Study

The study focused on the Kenyan Fast moving consumer goods (FMCGs) retail industry. The population was limited to students over the ages of 18 found in United States International University and its environs. The study occurred over a period of six months, with data being collected over a period of 4 days; between the 20th and 24th of January.

1.7 Definition of Terms

1.7.1 Green marketing

Refers to practices that are geared towards satisfying identified needs and/or desires of individuals through promoting and enabling trade that minimizes negative effects on the environment (Polonsky, 2011).

1.7.2 Green products

Are products that have less of a negative impact on the environment or are less detrimental to human health than traditional equivalents (Datta, 2011).
1.7.4 Eco-literacy

Is the product awareness and knowledge, or in other words, environmental consciousness. Is a form of social orientation that can be defined as "the effort to concentrate on the long-run, well-being of individuals and society, through the reduction of negative consequences associated with a product" (Kang & James, 2007).

1.7.5 Eco-branding

An eco-brand is a name, symbol or design of products that are harmless to the environment. Utilizing eco-brand features can help consumers to differentiate them in some way from other non-green products (Cherian & Jacob, 2012).

1.7.6 Eco-advertising

Green advertising refers to messages that include natural, ecological maintenances, environmental-friendly contents that aim to satisfy the wants and wishes of ecological fretful consumers” (Rahbar & Wahid, 2011).

1.7.7 Eco-packaging

Refers to the use of biodegradable or recyclable materials to package products (Kumar & Ghodeswar, 2015).

1.7.8 Green Washing

The act of incorporating unsubstantiated eco-friendly attributes to company offerings or brands (Raska & Shaw, 2012).

1.8 Chapter Summary

The chapter introduces the concepts of green marketing in regard to consumer behavior, describes how in the recent past there has been a change in consumer attitudes towards a green lifestyle and how despite these widespread pro-green attitudes, consumers frequently purchase non-green alternatives which translates to there being a value-action gap. It outlines the
purpose of the study; to investigate the influence of green marketing on consumer green purchase patterns in Kenya, along with the studies specific objectives. The next chapter reviews literature related to each of the studies identified objectives. Chapter 3 gives a detailed description of the research methodology that the study utilized in terms of the target population, sampling procedure, and data collection method. Chapter 4 presents the results of the data that was collected in the form of descriptive and inferential statistics. Chapter 5 provides recommendations and conclusions for each objective based on the analysis derived in the previous chapter.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter reviews existing literature that identifies the factors in green marketing (green marketing tools or strategies) that significantly influence consumers green purchasing patterns. Each of the factors elaborated on represents a specific objective of the study.

2.2 The Effect of Eco-literacy on Consumer Purchasing Patterns

For the purpose of this study green consumers are described as individuals that contemplate the environmental repercussions of their consumption patterns, and therefore consciously modify their purchases and consumption in order to minimize their negative environmental impact. Kumar and Ghodeswar (2015) purport that when green consumers are making purchasing decisions they are primarily influenced by two broad factors. The first set of factors stem from intrinsic aspects of a consumer such as acknowledgement of their ecological responsibilities, quest for gaining knowledge, self-interest and inclination to conserve resources and mitigate negative environmental impact. The second set of factors are extrinsic to consumers and are related to social image, product characteristics such as; product quality, safety, performance, price, promotion and impact to human health. A consumers actual behavior was a result of the depth of their product knowledge, their regular habits and extrinsic situational factors such as advertising campaigns.

2.2.1 Eco-literacy

Kumar and Ghodeswar (2015) carried out a study that investigated the factors that influenced consumers green product purchase patterns in India. The determinants in the study were as follows; individual concern for the preservartion of the eco-system, recognition of personal ecological accountability, familiarity with eco-friendly offerings, communal attractiveness and organizations exhibiting concern for conservation of natural eco-systems. Findings suggested that respondents do have an inclination to preserve an ecological equilibrium, a growing awareness of how individual actions impact the environment and a sense of ecological
accountability. Familiarity with eco-friendly value propositions, and organizations exhibiting concern for conservation of natural eco-systems were established to be significant factors in regard to their impact buying on buying behavior.

A study by Juwaheer and Pudaruth (2012) that was based in Mauritius sought to determine the influence green marketing strategies on buying behavior of consumers in the market. The study utilized questionnaires that were administered to 150 respondents in selected supermarkets and hypermarkets. Data collected was evaluated using SPSS in order to achieve a descriptive, correlation and factor analysis. The objective of the study was to determine the relationship between green marketing strategies (customer environmental beliefs, green packaging and branding, and green advertising) and consumer purchasing patterns. The results demonstrated that consumers are sympathetic to the protection of the environment and have strong concerns about the environment and its degradation. Furthermore, findings indicated that there was an overall positive correlation between effective green marketing strategies and consumers buying patterns of green products. The study suggested that business executives should host seminars and workshops in order to sensitize consumers on how environmentally-friendly products positively impact the environment.

Eze and Ndubisi (2013) carried out a study in Malaysia which sought to examine the factors that influence consumers’ green buying behavior. They analyzed the impact of six independent variables (environmental attitude, pro-environmental behavior, values, eco-literacy, low price sensitivity and social influence) on consumer green buying behavior. The study utilized questionnaires that were administered to 227 respondents. Findings revealed that four of the six hypotheses were supported.

Khare (2014) carried out a study that examined the antecedents of green buying behavior on Indian consumers. The the conceptual framework determinants included past ecological attitudes, social influence, green self-identity, social and personal environmental norms. Data was collected through self-administered questionnaires to respondents located in six malls in India. The study revealed that green self-identity, peer influence, and past green buying behaviour impact consumers when they are making a choice to buy eco-friendly products.
Moreover, findings suggested that buyers capacity to relate to eco-friendly features of products was a fundamental factor when predicting green purchasing patterns.

Kalafatis et al. (1999) examined the determinants of consumers intention to purchase green products while utilizing Arjens theory of planned behavior (TPB) as the conceptual framework. The study was carried out in two markets (UK and Greece) and sought the establish the applicability of the theory of planned behavior in a green marketing context. Findings offered considerable support for the robustness of the TPB in explaining intention in both samples but there was some indication that the theory was more appropriate in well established markets that are characterized by clearly formulated behavioral patterns.

Mostafa (2006) investigated the influence of various attitudinal and psychographic factors on the green purchase behavior of Egyptian consumers. The independent variables comprised of ecological knowledge (i.e eco-literacy), concern, attitudes, altruism, and perceived effectiveness. The study involved a relatively large sample of 1093 consumers located across the country. The study revealed that perceived environmental knowledge to be positively and significantly related to ecologically favorable attitudes and behaviors. Overall findings showed that skepticism towards environmental claims is negatively related to consumers’ intention to buy green products.

Mostafa (2006) stated that the knowledge of the green consumer is fundamental to the entire supply chain, and especially for retailers, since the environmental issues have a significant influence the purchase and nutritional decisions of six out of ten consumers in the US and UK (Ottoman, 1992). Having an intimate understanding of the green consumer profile would enable marketers to develop specific strategies that will leverage the positive relationship between perceived environmental knowledge and intention to buy green products. For instance, informative messages explaining the benefits and convenience of buying eco-friendly products could be utilized in order to bridge the value action gap. Datta (2011) states, it is important to increase people’s environmental awareness and consciousness, because as customers, they can impact the environment through their positive purchasing decisions. Furthermore, the rising number of consumers that desire to engage in green consumerism has
given resulted in opportunities for firms to exploit through incorporating eco-friendly attributes into their offerings and brand identity.

Eco literacy which refers to the degree of an individual’s understanding of the environment and the factors that affect it, has been deemed to be a significant factor when consumers are making a “green purchase” (Mida, 2009). Kang and James (2007) state, product awareness and knowledge, or in other words, environmental consciousness is a form of social orientation that can be defined as "the effort to concentrate on the long-run, well-being of individuals and society, through the reduction of negative consequences associated with a product".

Mida (2009) and Gan et al. (2008) both agree that environmental consciousness has a direct impact on customers’ willingness to pay for a green product and it is directly linked to green purchasing behavior. Likewise, “consumers’ environmental knowledge” is presented as the major indicator in the “green customers’ purchasing model” (Young et al., 2010). Environmental consciousness and the understanding environmental problems by consumers highlight the importance of environmental friendly belief among consumers. Hence, customers are willing to pay more for green and eco-labeled products (Gan et al., 2008).

However, once customers are actually buying green products with or without intention, this purchasing action automatically adds value to the customers’ knowledge for the next time. Young et al. (2010) state that with every green purchase experience there is some knowledge gained in the way of its decision-making process which is fed back to the consumer general green values and knowledge in the next purchase. MccCarty and Shurm (1994) believe that the value that individuals hold would influence their behavior. For example recycling is a behavior that individuals must undertake, even though the immediate rewards for engaging this behavior is low. Therefore, if an individual engages in recycling, it can be expected to be driven by strong values (Laroche, Bergeron, & Barbaro-Forleo, 2001). Hence, the clearer understanding of environmental friendly behavior can be gained by considering this value impact (Laroche, et al., 2001).

In recent years, consumers’ environmental concerns have shifted into mainstream marketing; therefore it is valuable from a marketing perspective to explore how consumers make informed
choices about green products (D’Souza, Taghian, & Peretiatko, 2007). The study revealed that consumers green knowledge and ecological consciousness can stem from two perspectives, the first being that consumers must understand the overall impact of the product on the environment and the second regards consumer’s knowledge of the product and whether it was produced in an environmentally friendly way.

Laroche (2001) purported that environmentally conscious consumers can try and protect the environment in different ways; checking whether the package is made up of recyclable material and exclusively purchasing green products. Developed markets like Canada where distribution is regulated by government monopolies, have obligatory objectives to achieve in terms of environmentally friendly packaging and glass recycling.

Educating the consumer is seen as an appropriate method of establishing credibility and meaningful relationships (Laroche et al., 2001). Through the use of easily recognizable eco-brands and eco-packaging firms can raise significant awareness and gain a competitive edge in the eyes of eco-literate consumers. Eco literacy can be used as a measure of a consumers’ ability to identify different ecologically related symbols, behaviors and concepts. It can be assumed that an individual’s attitude towards the importance of ecological problems generally may influence the willingness to purchase environmentally friendly products (Cheah & Phau, 2011).

However, Pickett-Baker and Ozaki (2008) have argued that individuals that are environmentally conscious don’t necessarily behave in an environmentally friendly manner. Consumers purchasing patterns based on environmental grounds is a highly debated issue as it’s argued that claims that strong views on environmental issues don’t necessarily translate to the purchase of green products and services. Findings from previous studies reveal that regardless of widespread ecological sentiment, concern about harmful vehicle emissions, willingness to engage in recycling, and readiness to pay premium prices for green products, only a minority of consumers have consistently made green purchases on a regular basis (Mintel, 2006). For marketers of green products, the gap between pro-environmental attitudes and green purchase behavior is a daunting challenge where, research in environmental consumerism has produced inconclusive evidence in support of consumer attitude theory with
mixed results that support both a positive relationship between attitude towards the environment and behavior (Kellgren & Wood, 1986) as well as weak relationships (Tanner & Kast, 2003). Filho et al. (2010) and Paradowska (2014) propose that in order to establish a widespread pro-green culture and encourage individuals to participate in sustainable consumption patterns that mitigate undesirable effects on the environment, informative marketing messages should be delivered through suitable channels to enlighten consumers.

2.3 The Effect of Eco-branding on Consumer Purchasing Patterns

According to the American Marketing Association (Kotler, 2009), a brand is defined as “a name, term, sign, symbol, or design, or the combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of a competitor.” This broad characterization can also be utilized to describe an eco-brand. An eco-brand is a name, symbol or design of products that are harmless to the environment. Utilizing eco-brands that underline environmentally friendly attributes can help consumers differentiate product offerings from other non-green alternatives (Staff, 2009; Rahbar & Wahid, 2011).

2.3.1 Eco-branding

Chatterjee, (2009) purports that environmentally conscious consumers will seek to purchase green products that have a nil to minimal negative impact on the environment as opposed to non-green alternatives that in some respect contribute to environmental deterioration. According to a prior study by Rahbar and Abdul Wahid (2010), Malaysian consumers consider glass based, house hold cleaning aerosols, pesticides and plastics as non-green product categories with high level of impact to environments. Hence, it can be predicted that consumers will respond positively to products with environmental features known as eco-branded products. Earlier research conducted in USA and Germany supports the idea that consumers take action positively to eco-branded products exemplified by the success of Body Shop and the growing uptake of green energy (Wustenhagen & Bilharz, 2006).

A consumer’s evaluation on the environmental performance of brands should be positively affected by environmental labels (Roe et al., 2001). It is fundamental that marketing practitioners have an in depth understanding of how brands impact purchasing patterns of
consumers. This effect is often referred to as known as brand equity. Brand equity, from a consumer’s perspective, can be defined as a differential effect that brand knowledge has on a consumer’s response to the marketing of that brand (Aaker, 1992). Green brands should be used to emphasize the position that green products perform the same as non-green ones. Also, green brands should be used to help consumers differentiate green brands from the similar brands with same functions. The significant factor motivating consumers to change actual purchase behavior to buy eco-friendly products is emotional brand benefits (Hartmann et al., 2005). Hartmann et al. (2005) expounded on how respective ways consumers can benefit from brands they relate to emotionally which included an overall sense of contentment, ecological related benefits and recognition from peers for engaging in green consumerism. Thus, the purchasing behavior will switch to buy environmental friendly products as a result of consideration of the benefit of green brands. The consumers who acknowledged themselves as an environmental conscious consumers prefer to select the green products in their actual purchase to satisfy their emotional needs.

Joshi and Rahma, (2016) conducted a study that investigated the factors that predict green purchase behaviour of young educated consumers in Delhi. The study involved 1,502 young educated consumers. The determinants in the study where as follows; perceived environmental consciousness, societal influence, consumer attitude towards purchase of green products, recycling participation, exposure to messages that improve environmental knowledge through media channels, and eco-branding in the form of eco-labels. Structural equation modelling was utilized to determine the extent to which the said variables influence the purchase of environmentally friendly products by young consumers. Result findings indicated that eco-labeling had a relatively lower influence on consumer behavior when compared to the other variables in the study. This revelation is similar with other studies that were carried out in the past. Nittala, (2014) states that eco-labels have a negligible impact on purchase decisions due to a lack of credibility on in the eyes of buyers. More often than not consumers have little to no confidence in the authenticity of eco-labels, and are cynical about the production and certification of eco-brands.

However, other study findings have revealed that consumers with a higher degree of ecological knowledge tend prefer products that bear eco-labels (Gandhi, Selladurai, & Santhi, 2006).
Findings by Rahbar and Wahid, (2011) suggest that eco-labels provide buyers with an incentive to make green purchases. Well crafted eco-labels can be informative about a products environmentally friendly attributes, and instill a sense of confidence in the minds of potential buyers (Rios et al., 2006). Bougherara and Piguet, (2009) purport that eco-labels provide marketers with an avenue to distinctly differentiate their value-proposition from those of their competitors, and positively impact the chances of consumers making a green purchase which in turn boosts an organizations revenue.

A report by the Massachusetts Department of Environmental Protection (2002) suggested that the difficulty in identifying and locating green products is one of the barriers for purchasing green products. Giridhar (1998) referred to eco-labels as the product’s collective environmental performance. D'Souza et al., (2007) reported that eco-labels are increasingly being used by firms to promote the identification of their green products. Eco-labels are potentially attractive instruments informing consumers about the environmental impact of their purchasing decisions, while simultaneously providing producers with a tool for extracting market place preference and thus market share (Rashid, 2009). In the same study by Nik Abdul Rashid (2009), awareness of eco-label has been found to yield a positive effect on consumer’s green product purchase intention. Therefore it is established from several previous studies that eco-labels have influence on green product preferences especially to those consumers with strong concern for the environmental.

According to Brahim, Syed, Igau, and Chekima, (2015) the most important implication to those industries involved in green related products is that eco-labels can serve as an essential marketing tool in promoting green consumption among consumers. Marketers should focus on providing clear information about green products via eco-labels in order to promote consumer familiarization and enhance their knowledge relate to green products. Furthermore it is strongly suggested that green product manufacturers should immediately obtain the eco-label on product packaging to increase the prevalence of eco-labeled products in the marketplace since the consumer's ability to recognize and understand them is proved undoubtedly the latter influences their green product purchase intention.
Huang, Yang, and Wang, (2014) conducted a study that was geared towards exploring the relationship between consumer attitude toward eco-friendly brands, eco-friendly brand positioning, the level of eco-friendly brand consumer knowledge, and the intention to purchase green brands. The study was based is Taiwan and involved 425 respondents. Questionnaires were self-administered to all subjects in the identified sample.

Findings of the study provided Huang et al., (2014) with insight to advise that marketers should develop marketing campaigns that not only underline non-green issues such as functional and emotional positioning, but complement a products eco-friendly attributes as well. Furthermore, brand management practice, brand image and brand awareness are considered the central brand variables for assuring the effectiveness of marketing campaigns. That being said marketing managers should place a focus on the development and maintenance of both green brand image and green brand awareness (Huang et al., 2014).

Raska and Shaw, (2012) state that in the recent past some organizations have utilized unfounded green marketing initiatives that are to enhance their corporate image. This has resulted in mounting suspicions and consumers developing a cynical outlook towards companies that claim to be environmentally friendly. The act of integrating unsubstantiated eco-friendly attributes to company offerings or brands, has recently become a growing concern to general public. This misdemeanor is often referred to as green-washing. Cronin (2011) states that the undesirable effects of green-washing towards consumer perception is a challenge that many firms have to overcome. Firms can mitigate the undesirable effects of green-washing through crafting marketing campaigns that specifically target identified customers and distinctly position their eco-friendly offerings in the minds of consumers (Huang et al., 2014).

Rios et al.,(2006) states that an eco-friendly positioning strategy primarily crafts brand associations through highlighting information about product features that are ecologically friendly and elaborating on emotional brand benefits (Pickett et al., 1995). Knowledge of a brand is essentially based on brand awareness and image. Brand awareness is fashioned through exposure and familiarity, while brand image can be enriched through the use of promotional initiatives (Seitz et al., 2010). Thus, green brand positioning strategies through
active communication campaigns gives consumers more positive perceptions of the green brand and enhances green brand knowledge, and green brand image (Huang et al., 2014).

According to First and Khetriwal (2008), the concept of green branding is almost unexplored by green marketers. Yet, other studies demonstrate that the growing environmental awareness of consumers have encouraged them to be more inclined towards brands that seemed to be environmental friendly (Juwaheer, Pudaruth, & Noyaux, 2012). Likewise, Ottoman (1998) has stated affective marketing has the power to shift passive green consumers who are keen to pay premium prices for environmental products to greener consumption patterns. Effective green positioning involves brand communication and differentiation based on functional attributes and emotional benefits (Aaker, 1992; Hartmann et al., 2005). Pickett et al. (1995), states that marketing campaigns should place an emphasis on environmentally friendly product features in order for the green products to be commercially viable. Similarly, other researchers have suggested that green positioning is an important element in the success of green branding strategies (Juwaheer, Pudaruth, & Noyaux, 2012).

Other studies have addressed the value perception of selected environmental product attributes (Wustenhagen & Bilharz, 2006) and earlier research in western countries supported that consumers have positive green perceptions on eco-branded products such as Body Shop and Green Energy in the USA and Germany (Wustenhagen & Bilharz, 2006). Aaker (1996) stated that conventional positioning strategies that emphasize on functional attributes do have shortcomings as they; presume that all buyers are rational thinkers, are mimicked with relative ease by competitors, and restrict avenues of future differentiation. On the other hand, Juwaheer et al. (2012) report that some consumers have an unfavorable perception of eco-friendly products due to the products functional performance falling short of their expectations. Indeed, the significant factor motivating consumers to change actual purchase behavior to buy eco-friendly products is emotional brand benefits (Hartmann et al., 2005).

2.4 The Effect of Eco-advertising on Consumer Purchasing Patterns

Along with the process of labeling their products, arriving at measures which promote manufacturing of eco-friendly products and reduction of environmental pollution there is a growing trend among corporations across the world to present environmental advertisements.
This process is identified to be a major factor influencing green marketing. The main aim of presenting green advertisements is to present to the consumer that the company is eco-centric while at the same time making an effort to influence the purchase behavior of the consumers by presenting them with choices of availability of products which do not cause harm to the environment and directing their attention to positive consequences of purchase behavior. According to Davis (1995), there are three fundamental pillars that sum up the very essence of eco-advertising. Firstly is the integration of an environmental cause to a firm’s mission statement, secondly is the demonstration of practices by the firm that clearly exhibit a green intent, and lastly the undertaking of a corporate social responsibility initiative.

2.4.1 Eco-advertising

Haykto and Matulich (2008) identified several ways of consumers’ response in expressing the green advertising effectiveness, in terms of willingness to pay premium prices, trust the product safety and believed less harm as well as through loyalty. For instance, Chase and Smith (1992) reported that 70 percent of the respondent in their survey claimed to be influenced by labeling on the products and environmental messages. Additionally, a study based in Malaysia by Tsen et al., (2005) suggested that future research may include variables such as environmental advertisement programs in the research which could influence consumers intention and purchasing behavior to pay extra for green products. Applying the Theory of Planned Behaviour (TPB), Litvine and Wüstenhagen (2011) investigated consumers’ attitude towards green power and demonstrated that increasing messages allowed consumers to recognize the advantage of purchasing green power and it would significantly enhance green power market. On the other hand, a study by Chase and Smith (1992), suggested that a large proportion of consumers disregard eco-friendly themed advertisements on the grounds of excess use hyperbole and colorful language. Moreover, Chase and Smith (1992) reported that majority of respondents in their study agreed that environmental advertising lacks considerable credibility in terms of accurately communicating factual information regarding the benefits of green products. Rahbar and Wahid (2011) drew a similar conclusion in their study; environmental advertisements are not a significant determinant of consumer purchasing behavior, but serve as a platform or valuable source to enhance their knowledge related to green products.
Bator and Cialdini (2000) purported that message involvement is a critical factor in determining broad behaviors and the use of articulate informative messages is an essential approach that can effectively influence green purchasing behavior. Thus, it is assumed that when a person has a favorable attitude towards green advertising, he or she will ultimately express a higher intention to buy green products and vice versa. Ali et al., (2011) and Haykto and Matulich (2008), believed that environmental advertising has an indirect influence on consumers’ attitude towards green purchase behavior. According to Baldwin (1993), environmental advertisements help to form a consumer’s values and translate these values into the purchase of green products (Carlson, Grove, & Kangun, 1993).

Chase and Smith (1992) purport that eco-friendly themed advertisements and eco-labels only occasionally impacted the buying behavior of three quarters of their respondents. Chan (2004) states the main reasons for the low perceived credibility of environmental claims in environmental advertisement. The reasons are:

“The vague arguments to substantiate the environmental claim, the source country of the advertised product does not bear an eco-friendly image, the manufacturer (advertiser) of the advertised product does not bear an eco-friendly image and the alleged eco-friendliness of the advertised product does not match with the respondent’s previous consumption experience (p. 431).”

A study conducted by Pickett-Baker and Ozaki (2008) suggested that with the exception of household cleaning products, majority of consumers found it difficult to distinguish green products from conventional products. Hence, green communication is a major area of weakness for green marketers. Carlson et al. (1993) have observed a simultaneous emergence of environmentally themed advertisements and a growing consumer concern for the conservation of the environment. The use of terminologies such as recycling, biodegradable, ozone safe and sustainability in advertisements has resulted in more familiarity and exposure to consumers, although some audiences have greeted these messages with a level of resistance (D’Souza et al., 2007).

Likewise, Kilbourne (1995) has argued that the credibility of green advertisements is relatively low. Nevertheless, Mathur and Mathur (2000) and Habib et al. (2010) argued that consumers are more positive towards environmental friendly products due to the fact that environmental
messages in advertisements are more credible. Moreover, D’Souza et al. (2007) have outlined that marketers have the responsibility to publicize environmental information as customers seek more concrete and authenticated product information from these advertisements to guide them in their purchasing decision (Chan, 2004).

Joshi and Rahman, (2016) argue that environmental advertising can enhance consumer’s knowledge about green products, guide them to make an informed purchasing decision as well and the medium is perceived to be a trustworthy and credible avenue for channeling information about green products. A noteworthy finding claimed by the sample of this study that green advertising alone leads them to be more socially responsible when it comes to environment related consumptions. It is explainable that if “green advertising appeals” match consumers’ thoughts and thinking process, consumers will be more active in product as well as in purchase intention. In addition, this study revealed another significant difference in role between green and normal products advertising is that the former is associated with environmental sustainability that help consumer to distinguish or identify the green product in market and its availability in the country. This would solve the challenges and confusing phase for consumers in distinguishing between the conventional products and actual green products.

Joshi and Rahman’s, (2016) study revealed that marketers need to redesign or refine their current environmental advertisements concepts by incorporating a message with long-term orientated value undertones. By doing this, it will be able to promote how green products can help conserve the environment and save resources (in terms of money and time) for the current and future generations. Marketing campaigns employing such an approach influence consumers with environmentally friendly inclinations to purchase eco-friendly products as they are well aware such products positively impact the environment in the long run. In addition, green advertisements should be associated with an informative yet concise and transparent claim to grab the consumers’ attention and instantly be able to sway consumers’ doubts.

Building up beliefs about green products could perhaps be accomplished through green promotional materials and green advertisements that appeal to consumer rationality and emotions (Mostafa, 2006). Schuhwerk and Lefkoff-Hagius (1995) have noted that although
green appeals are not significantly more influential than non-green appeals for environmentally involved consumers, they are much more persuasive than non-green appeals for environmentally uninvolved consumers. By attaching themselves to environmental causes, marketers not only educate consumers, but also may improve their environmental image.

Pooley and O'Connor (2000) pointed out that providing information on environmental issues does not necessarily encourage positive environmental attitudes but the emotional element of eco-advertisements increases customers’ attention towards the product being advertised. Eco-advertisements should be geared towards also generating associations between the product offering and idealistic environmental visuals, as well as articulately expressing the eco-friendly attributes (Kumar & Ghodeswar, 2015). However, Rose (2002) has affirmed that although some manufacturing companies cannot influence consumer choice towards green products, yet, they can shape green consumption patterns in the way the products are being offered and marketed. Similarly, marketers should emphasize the ecological knowledge in their organizations, their products offerings and their advertising campaigns in order to achieve the goal of changing consumer purchasing behavior (Juwaheer, Pudaruth, & Noyaux, 2012).

2.5 Chapter Summary

The literature reviewed in the chapter has provided an insightful understanding of green marketing and consumer green purchasing patterns. The impact of the concepts; eco-branding, eco-literacy and eco-advertising, on consumer purchasing patterns has been substantiated with reference to past studies. The next chapter provides a detailed description of the methods and procedures that the study utilized to develop its research design, select a sample, collect and analyze data.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

The purpose of this study was to investigate the effect of green marketing strategies on consumer purchasing patterns. This chapter is composed of sections that comprehensively describe the study’s research methodology. These sections include; research design, target population, sampling procedure, data collection techniques and data analysis techniques.

3.2 Research Design

Cooper and Schindler, (2014) state that research design is an extensive and systematic plan, structure or strategy that entails the scientific collection of data with the purpose of attaining answers to the questions under scrutiny. Sekaran and Bougie, (2013) articulated that they are primarily three types of research design; descriptive, exploratory and explanatory. A descriptive study intends to scientifically deconstruct a research problem or shine light on information regarding a scenario with the aim of highlighting what is the underlying prevalent issue. An explanatory study transcends the descriptive approach by attempting to clarify how and why there is a relationship between variables (Kumar, 2011). While according to Zikmund (2012) an exploratory study delves into research areas where little is known in order to assess whether it is academically viable to carry out a fully fledged investigation.

This study used descriptive research design to investigate the effect of green marketing strategies on consumer purchasing patterns. This approach was appropriate for this study as it aimed to establish or describe the existing relationships of the variables central to the conceptual framework. Under descriptive design, this study utilize a survey design to analyze the effect of green marketing on consumer purchasing patterns. The fundamental concept behind the survey methodology is to measure the pre-determined variables using data collected from a representative sample and subsequently examine relationships among said variables. The survey research involves use of questionnaires or interviews to collect data from the sample selected to represent a population to which the findings of the data can be generalized.
3.3 Population and Sampling Design

3.3.1 Population

According to Saunders, Lewis and Thornhill (2016) a target population refers to a comprehensive set of cases that the researcher uses to derive a study sample and generalize findings from. Zikmund et al. (2013) defined a target population as all elements or individuals that a researcher is interested in studying. A target population can therefore be described as the complete set of people, events or objects that have similar characteristics that the researcher wants to draw generalizations from (Cooper & Schindler, 2014). The population of study comprised of all students of United States International University-Africa located in Kasarani area Nairobi. According to USIU-Africa registrar’s office (USIU-Africa, 2018) the student population as of January 2018 stood at approximately 6,508, ranging from undergraduate to doctoral level. Below is a breakdown of the population:

<table>
<thead>
<tr>
<th>Year/Level of Study</th>
<th>Student Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Year Students</td>
<td>1,439</td>
</tr>
<tr>
<td>2nd Year Students</td>
<td>1,304</td>
</tr>
<tr>
<td>3rd Year Students</td>
<td>1,125</td>
</tr>
<tr>
<td>4th Year Students</td>
<td>1,209</td>
</tr>
<tr>
<td>Master Students</td>
<td>1,313</td>
</tr>
<tr>
<td>Doctoral Students</td>
<td>118</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6,508</strong></td>
</tr>
</tbody>
</table>

3.3.2 Sampling Design and Sample Size

Sampling design refers to the technique utilized by a researcher to select a sample from the targeted population (Cooper & Schindler, 2014). It is therefore the procedure used to select an element for the study’s sample.

3.3.2.1 Sampling Frame

Saunders et al. (2016) refers to a sampling frame as an all-inclusive list of individuals, units or entities in the population, from which a sample is drawn and to which study findings are to be generalized. This study focused on the entire student population of USIU-Africa. The sampling frame was obtained from the USIU registrar’s office (USIU-Africa, 2018).
3.3.2.2 Sampling Technique

Kumar (2011) states that sampling techniques are methodical procedures undertaken by a researcher to select subjects to be studied. It refers to a process that selects accurate representatives of the whole population in order to generalize findings. Sampling techniques can be classified as either probability based or non-probability based. In probability sampling, every member of the population has an equal chance of selection; non-zero probability selection. While non-probability involves selection of elements based on convenience or judgment of the researcher (Zikmund & Babin, 2012). This study employed a stratified random sampling. Saunders (2016) describes stratified random sampling as when the population is divided into two or more strata and a random sample is subsequently drawn from each stratum. Students were divided into strata based on their level of study and respective school.

3.3.2.3 Sample Size

Creswell, (2014) state that the sample size in a study is a subcategory of the population or the number of elements selected from the population to constitute a sample (Creswell, 2014). Sample size is a primary concern for researchers as it aims to eliminate bias in selection of a sample (Kumar, 2011). Saunders (2016) argues that the larger a samples size, the lower the likelihood of error when generalizing findings to the population.

The study stratified the population based on their year and level of study (Undergraduate, Graduate, and Doctoral). From the target population of 6,508, this study adapted the formula developed by Cochran (2014) to determine the sample size;

\[ n_0 = \frac{Z^2pq}{e^2} \]

Where: \( e \) is the desired level of precision (i.e. the margin of error), \( p \) is the (estimated) proportion of the population which has the attribute in question, and \( q \) is \( 1 - p \). With the assumption of 90% of the population have purchased green products, so \( p = 0.9 \). 95% confidence, (gives us \( Z \) values of 1.96) and at least 5 percent—plus or minus—precision. The \( q \) value is 1-0.9=0.1
((1.96)2 (0.9) (0.1)) / (0.05)2 = 138.

Total sample size = 138.

<table>
<thead>
<tr>
<th>Year/Level of Study</th>
<th>Student Count</th>
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<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; Year Students</td>
<td>31</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Year Students</td>
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</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt; Year Students</td>
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<td>4&lt;sup&gt;th&lt;/sup&gt; Year Students</td>
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</tr>
<tr>
<td>Master Students</td>
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<tr>
<td>Doctoral Students</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>138</strong></td>
</tr>
</tbody>
</table>

3.4 Data Collection Methods

Structured questionnaires with likert scales were utilized to collect data from respondents. According to Saunders (2016), questionnaires are the most commonly used method of data collection because they enable the researcher to save time and minimize costs while collecting a substantial amount of information. Further, when constructing a questionnaire, it is important to keep questions as simple and brief as possible. The questionnaire used was divided into two sections, the first captures the general information of the respondents while the second solicits specific information related to the research objectives. The questionnaire was self-administered to respective respondents.

The questionnaire utilized did not undergo any pilot study due to the fact that the tool was adapted from previous studies that had already carried out the procedure and had deemed the instrument to be scientifically reliable and valid. It did however undergo pretesting with 7 respondents. They were each briefed on the purpose of the pretesting. Feedback and findings was used to improve the ease of understanding instrument through the use of simpler terms and shorten the length of some questions.

3.5 Research Procedure

3.5.1 Permission

Permission to conduct this research was authorized in phases; first by the researchers respective supervisors and secondly by the Dean, of Chandaria School of Business. Subsequent compliance by relevant regulatory bodies was then sought.
3.5.2 Reliability of the Instruments

Creswell (2014) purports that reliability is used to determine whether questions in the data collection instrument are unwavering, internally sound and whether the test administration and scoring is consistent. Cronbach’s alpha was utilized to determine reliability; where Cronbach’s coefficient, having a value of more than 0.7 is considered adequate for such descriptive work in a study (Nunnally, 1978).

The questionnaires was administered to respondents by the researcher and trained research assistants in order to obtain more data in good time. The team ensured that respondents had clear understanding of the research purpose in order to maintain authenticity of the data collected. The research team tactfully approached potential respondents, explained the research proposition, and respondents who oblige were given questionnaires to fill as the research assistants waited patiently for them to finish.

3.5.3 Validity of the Instruments

Cooper and Schindler, (2014) state that validity is the quality attributed to proposition or measures of the degree to which they conform to establish the truth. For this study, validity of the instrument was attained through the adoption of questionnaires from similar studies with sound construct, internal and external validity. The purpose of construct validity was to show that the items measured were correlated with what they purport to measure, and that the items correlated with other constructs. Internal validity refers to the correctness of inferences made about the causal relationship between independent and dependent variables, while external validity refers to the extent to which findings can be generalized to other people, scenarios and time.

3.5.4 Ethical Considerations

Sekaran and Bougie, (2013) state that ethics in business research refers to a code of conduct or expected societal norm of behavior while conducting research. Ethical conduct applies to the researcher, research assistants, sponsors of the research, the respondents that provide relevant data, and the analysts who provide the results. The researcher ensured the respondents that information collected was treated confidentially, without disclosure of the respondent’s
identity or any other personal information. The researcher ensured that ethical conduct was reflected in the behavior of the entire research team and process.

3.6 Data Analysis Methods

3.6.1 Data Preparation

Before processing the responses, the completed questionnaires was edited in order to clean errors and remove inconsistencies, incompleteness, misclassifications and gaps in information (Kumar, 2011). The data was then coded to enable the responses to be grouped into various categories.

3.7.2 Descriptive Statistics

Descriptive statistics are measures that portray the center, spread and shape of distribution of a set of data. They act as a useful preliminary tool for describing data through organizing and summarizing a data from a simplistic but meaningful perspective (Cooper & Schindler, 2014). Descriptive statistics enable a researcher to discern patterns that aren’t clearly apparent in raw data though the use of visual aids and graphical representations such pie charts and frequency tables.

3.6.3 Inferential Statistics

Inferential statistics are metrics used to make inferences from a sample to an entire population. Zikmund et al., (2013) state that statistical analysis may be either univariate (when testing objective involving only one variable), bivariate (when study involves two variables) or multivariate (when study involves three or more variables).

This study employed a multivariate approach and utilized multiple regression and correlational tests as a form of inferential statistical analysis in order to determine the relationship between the dependent and independent variables. This model is expressed below;

3.7 Chapter Summary

This chapter comprehensively elaborated on the study’s research methodology. It described the scientific approach that the researcher undertook in order to effectively design a sample that accurately represents the population, justified the validity and reliability of the data collection instrument and substantiated on the data analysis methods utilized in order to
provide sufficient insight to the research objectives. The next chapter presents findings of the data collected in the form of descriptive and inferential statistics.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

The purpose of this study was to find out the effects of green marketing strategies on consumer purchasing patterns in Kenya. This chapter presents the data analysis results, interpretation and presentation, and the findings from the research study that were analyzed using the SPSS version 23 and SPSS AMOS version 23.

4.2 Response Rate

The study focused on the effect of green marketing strategies on consumer purchasing patterns in Kenya. A total of 138 questionnaires were physically administered by the researcher. The researcher managed to retrieve a total of 123 questionnaires. This resulted in a response rate of approximately 89%. The response rate helps to produce accurate useful results that represent the target population.

Table 4.1 Response rate

<table>
<thead>
<tr>
<th>Questionnaires</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responded</td>
<td>123</td>
<td>89</td>
</tr>
<tr>
<td>Did not respond</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>138</td>
<td>100</td>
</tr>
</tbody>
</table>

4.3 Demographic Characteristics

This section discusses the results of the general information about the respondents including the gender, age bracket, education level, level of income, marital status and familiarity with green marketing.
4.3.1 Gender of Respondents

Figure 4.1 presents the gender of the respondents; 50% of the respondents were male and 50% of the respondents were female. The findings indicate that both genders equally took part in the study.

![Figure 4.1 Gender](image)

4.3.2 Age Bracket

Figure 4.2 indicates the age bracket of the respondents; 73% of the respondents who constituted the majority were in the age bracket of 18-25 years, 16% were in the age bracket of 26-30 years, 4% were in the age bracket of 31-35 years, 5% were in the age bracket of 36-40 years, 1% were in the age bracket of 41-45 years and 1% were in the age bracket of 46-50 years.

![Figure 4.2 Age Bracket](image)
4.3.3. Level of Education

The respondents were asked to specify their level of Education and the findings presented in figure 4.3. Majority of the respondents (62%) were undergraduates, 24% were graduates and 14% were high school leavers.

![Figure 4.3 Level of Education](image)

4.3.4 Level of Income

Respondents in the study were required to specify their level of income and the results are illustrated in figure 4.4; 69% of the respondents indicated that their level of income was less than 15,000, 13% indicated that their level of income ranged between 15,000-39,000 and above 100,000 respectively. Further, 2% indicated that their level of income was between 40,000-69,000 and 3% indicated that their level of income was between 70,000 and 99,000.

![Figure 4.4 Level of Income](image)
4.3.5 Marital Status

Figure 4.5 indicates the marital status of the respondents, 91% were single and 9% were married. This implies that majority of those who took part in the study were single.

![Figure 4.5 Marital Status](image)

4.3.6 Number of People Living in Current Residence

The respondents were asked to indicate the number of people living in their current residence and the findings are presented in figure 4.6; 42% indicated that 1 to 2 people live in their current residence, 25% indicated that 3 to 4 people live in their current residence and 33% indicated that more than 4 people live in their current residence.

![Figure 4.6 Number of People Living in Current Residence](image)
4.3.7 Familiarity with Green Marketing

Figure 4.7 indicates the respondent’s familiarity with green marketing; 62% indicated that they are familiar with green marketing and 38% indicated that they are not familiar with green marketing.

![Figure 4.7 Familiarity with Green Marketing](image)

4.4 Descriptive Analysis of Study Variables

4.4.1 Eco-Literacy

The study sought to find out the effects of eco-literacy on consumer purchasing patterns and the findings presented in table 4.2. The findings indicate that 87% agreed that if all of us, individually, made a contribution to environmental protection, it would have a significant effect, 83% agreed that the increasing deterioration of the environment is a serious problem, 71% agreed that it is important to them that products they use do not harm the environment, 69% agreed that they would describe themselves as environmentally responsible, 58% agreed that they see themselves as typical buyers of environmentally friendly products, 40% agreed that they know how to select products and packages that reduce the amount of waste ending up in landfills, 40% agreed that humans do not have the right to modify the natural environment to suit their needs.
Table 4.2 Eco-Literacy

<table>
<thead>
<tr>
<th>Eco-Literacy</th>
<th>SD (%)</th>
<th>D (%)</th>
<th>N (%)</th>
<th>A (%)</th>
<th>SA (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is important to me that products I use do not harm the environment</td>
<td>6</td>
<td>8</td>
<td>15</td>
<td>21</td>
<td>50</td>
</tr>
<tr>
<td>I would describe myself as environmentally responsible.</td>
<td>5</td>
<td>2</td>
<td>24</td>
<td>42</td>
<td>27</td>
</tr>
<tr>
<td>I know how to select products and packages that reduce the amount of waste</td>
<td>10</td>
<td>19</td>
<td>31</td>
<td>28</td>
<td>12</td>
</tr>
<tr>
<td>ending up in landfills.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The increasing deterioration of the environment is a serious problem.</td>
<td>9</td>
<td>4</td>
<td>4</td>
<td>15</td>
<td>68</td>
</tr>
<tr>
<td>I see myself as a typical buyer of environmentally friendly products.</td>
<td>7</td>
<td>12</td>
<td>23</td>
<td>32</td>
<td>26</td>
</tr>
<tr>
<td>Humans do not have the right to modify the natural environment to suit their needs.</td>
<td>20</td>
<td>16</td>
<td>24</td>
<td>14</td>
<td>26</td>
</tr>
<tr>
<td>If all of us, individually, made a contribution to environmental protection,</td>
<td>6</td>
<td>2</td>
<td>5</td>
<td>15</td>
<td>72</td>
</tr>
<tr>
<td>it would have a significant effect.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.4.2 Eco-Branding

The study sought to establish the effects of eco-branding on consumer purchasing patterns and the findings presented in table 4.3. The findings reveal that; 77% agreed that they acknowledge that information on packaging is an important criterion, 76% of the respondents agreed that they feel good about buying brands which are less damaging to the environment, 44% agreed that they understand the environmental phrases and symbols on product packages, 41% agreed that eco-brands are symbol of product reliability, 36% agreed that they trust well-known green branded products in Kenya, 36% agreed that they are well aware of eco-brands, and 33% agreed that it is easy for them to identify green products in Kenya.
Table 4.3 Eco-branding

<table>
<thead>
<tr>
<th>Eco-Branding</th>
<th>SD (%)</th>
<th>D (%)</th>
<th>N (%)</th>
<th>A (%)</th>
<th>SA (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel good about buying brands which are less damaging to the environment.</td>
<td>5</td>
<td>3</td>
<td>16</td>
<td>35</td>
<td>41</td>
</tr>
<tr>
<td>I trust well-known green branded products in Kenya.</td>
<td>7</td>
<td>11</td>
<td>46</td>
<td>25</td>
<td>11</td>
</tr>
<tr>
<td>I acknowledge that information on packaging is an important criterion.</td>
<td>4</td>
<td>3</td>
<td>16</td>
<td>47</td>
<td>30</td>
</tr>
<tr>
<td>I am well aware of eco-brands.</td>
<td>11</td>
<td>26</td>
<td>27</td>
<td>24</td>
<td>12</td>
</tr>
<tr>
<td>I understand the environmental phrases and symbols on product packages.</td>
<td>7</td>
<td>18</td>
<td>31</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Eco-brands are symbol of product reliability.</td>
<td>4</td>
<td>9</td>
<td>46</td>
<td>27</td>
<td>14</td>
</tr>
<tr>
<td>It is easy for me to identify green products in Kenya.</td>
<td>9</td>
<td>24</td>
<td>34</td>
<td>18</td>
<td>15</td>
</tr>
</tbody>
</table>

4.4.3 Eco-Advertising

The study sought to find out the effects of eco-advertising on consumer purchasing patterns and the findings presented in table 4.4. The results indicate that 89% of the respondents agreed that green advertisements should promote environmental friendly products in a credible manner, 81% agreed that there should be more visibility in the way in which green products are marketed in Kenya, 78% agreed that attractive environmental advertisements will encourage them to adopt green purchasing patterns, 75% agreed that environmental advertisements enhance their knowledge about green products, 68% agreed that environmental advertisement guide customers to making an informed purchasing decision, 42% agreed that they enjoy watching broadcast environmental advertisements and 30% agreed that they acknowledge that green advertisements are not exaggerated for green products in Kenya.
Table 4.4 Eco-advertising

<table>
<thead>
<tr>
<th>Eco-Advertising</th>
<th>SD (%)</th>
<th>D (%)</th>
<th>N (%)</th>
<th>A (%)</th>
<th>SA (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green advertisements should promote environmental friendly products in a credible manner.</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>28</td>
<td>61</td>
</tr>
<tr>
<td>Attractive environmental advertisements will encourage me to adopt green purchasing patterns.</td>
<td>6</td>
<td>2</td>
<td>14</td>
<td>36</td>
<td>42</td>
</tr>
<tr>
<td>I acknowledge that green advertisements are not exaggerated for green products in Kenya.</td>
<td>9</td>
<td>6</td>
<td>55</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>Environmental advertisement guide customers to making an informed purchasing decision</td>
<td>2</td>
<td>6</td>
<td>24</td>
<td>40</td>
<td>28</td>
</tr>
<tr>
<td>Environmental advertisements enhance my knowledge about green products.</td>
<td>5</td>
<td>5</td>
<td>15</td>
<td>40</td>
<td>35</td>
</tr>
<tr>
<td>I enjoy watching broadcast environmental advertisements.</td>
<td>4</td>
<td>17</td>
<td>37</td>
<td>25</td>
<td>17</td>
</tr>
<tr>
<td>There should be more visibility in the way in which green products are marketed in Kenya.</td>
<td>6</td>
<td>2</td>
<td>11</td>
<td>30</td>
<td>51</td>
</tr>
</tbody>
</table>

4.4.4 Green Purchasing Intention

In order to collect data concerning the studies dependent variable; consumer purchasing patterns, a 3-item green purchase intention scale was adapted from Chan (2001) who studied the intention of Chinese consumers to engage in green purchase behavior. The scale was also utilized by Mostafa (2006) who carried out a study to find out the antecedents of Egyptian consumer green purchase intentions. The respondents were asked to indicate their opinion on their green purchasing intention and the findings are presented in table 4.5. The findings reveal that 62% agreed that over the next one month, they will consider buying products because they are less polluting, 57% agreed that over the next one month, I plan to switch to a green version
of a product and 56% agreed that over the next one month, they will consider switching to other brands for ecological reasons.

### Table 4.5 Green Purchasing Intention

<table>
<thead>
<tr>
<th>Green Purchasing Intention</th>
<th>SD (%)</th>
<th>D (%)</th>
<th>N (%)</th>
<th>A (%)</th>
<th>SA (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over the next one month, I will consider buying products because they are less polluting</td>
<td>7</td>
<td>5</td>
<td>26</td>
<td>33</td>
<td>29</td>
</tr>
<tr>
<td>Over the next one month, I will consider switching to other brands for ecological reasons</td>
<td>7</td>
<td>11</td>
<td>26</td>
<td>33</td>
<td>23</td>
</tr>
<tr>
<td>Over the next one month, I plan to switch to a green version of a product.</td>
<td>7</td>
<td>6</td>
<td>30</td>
<td>37</td>
<td>20</td>
</tr>
</tbody>
</table>

### 4.5 Inferential Analysis

Inferential statistics are metrics used to make inferences from a sample to an entire population. The study employed regression and correlational tests as a form of inferential statistical analysis in order to determine the relationship between the dependent and independent variables.

#### 4.5.1 Normality Test

Skewness and kurtosis statistics were employed to examine the normality of the items of the determinants and results were illustrated in table 4.6. Results are considered to fulfil normality whenever results of the test fall the between the values of -1.0 and +1.0. With the exception of EL.3, EL.6, EA.1, EA.6, EA.7, EB.1, EB.2 and EB.3, all the items in the tool followed a normal distribution.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Code</th>
<th>Description</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eco-literacy</td>
<td>EL.1</td>
<td>It is important to me that products I use do not harm the environment.</td>
<td>-1.050</td>
<td>.042</td>
</tr>
<tr>
<td></td>
<td>EL.2</td>
<td>I would describe myself as environmentally responsible.</td>
<td>-.945</td>
<td>.952</td>
</tr>
<tr>
<td></td>
<td>EL.3</td>
<td>I know how to select products and packages that reduce the amount of waste ending up in landfills.</td>
<td>-.181</td>
<td>-.741</td>
</tr>
<tr>
<td></td>
<td>EL.4</td>
<td>The increasing deterioration of the environment is a serious problem.</td>
<td>-1.816</td>
<td>0.032</td>
</tr>
<tr>
<td></td>
<td>EL.5</td>
<td>I see myself as a typical buyer of environmentally friendly products.</td>
<td>-.561</td>
<td>-.566</td>
</tr>
<tr>
<td></td>
<td>EL.6</td>
<td>Humans do not have the right to modify the natural environment to suit their needs.</td>
<td>-.047</td>
<td>-1.342</td>
</tr>
<tr>
<td></td>
<td>EL.7</td>
<td>If all of us, individually, made a contribution to environmental protection, it would have a significant effect.</td>
<td>-0.257</td>
<td>4.375</td>
</tr>
<tr>
<td>Eco-Branding</td>
<td>EB.1</td>
<td>I feel good about buying brands which are less damaging to the environment.</td>
<td>-1.206</td>
<td>1.132</td>
</tr>
<tr>
<td></td>
<td>EB.2</td>
<td>I trust well-known green branded products in Kenya.</td>
<td>-.233</td>
<td>-.025</td>
</tr>
<tr>
<td></td>
<td>EB.3</td>
<td>I acknowledge that information on packaging is an important criterion.</td>
<td>-1.199</td>
<td>1.640</td>
</tr>
<tr>
<td></td>
<td>EB.4</td>
<td>I am well aware of eco-brands.</td>
<td>.044</td>
<td>-.927</td>
</tr>
<tr>
<td></td>
<td>EB.5</td>
<td>I understand the environmental phrases and symbols on product packages.</td>
<td>-.163</td>
<td>-.882</td>
</tr>
<tr>
<td></td>
<td>EB.6</td>
<td>Eco-brands are symbol of product reliability.</td>
<td>-.164</td>
<td>.010</td>
</tr>
<tr>
<td></td>
<td>EB.7</td>
<td>It is easy for me to identify green products in Kenya.</td>
<td>.099</td>
<td>-.780</td>
</tr>
<tr>
<td>Eco-Advertising</td>
<td>EA.1</td>
<td>Green advertisements should promote environmental friendly products in a credible manner.</td>
<td>-2.180</td>
<td>4.757</td>
</tr>
<tr>
<td></td>
<td>EA.2</td>
<td>Attractive environmental advertisements will encourage me to adopt green purchasing patterns.</td>
<td>-1.390</td>
<td>1.756</td>
</tr>
<tr>
<td></td>
<td>EA.3</td>
<td>I acknowledge that green advertisements are not exaggerated for green products in Kenya.</td>
<td>-.218</td>
<td>.286</td>
</tr>
<tr>
<td></td>
<td>EA.4</td>
<td>Environmental advertisement guide customers to making an informed purchasing decision</td>
<td>-.779</td>
<td>.394</td>
</tr>
<tr>
<td></td>
<td>EA.5</td>
<td>Environmental advertisements enhance my knowledge about green products.</td>
<td>-1.126</td>
<td>.928</td>
</tr>
<tr>
<td></td>
<td>EA.6</td>
<td>I enjoy watching broadcast environmental advertisements.</td>
<td>-.067</td>
<td>-.586</td>
</tr>
<tr>
<td></td>
<td>EA.7</td>
<td>There should be more visibility in the way in which green products are marketed in Kenya.</td>
<td>-1.576</td>
<td>2.110</td>
</tr>
<tr>
<td>Green purchase intention</td>
<td>P11</td>
<td>Over the next one month, I will consider buying products because they are less polluting</td>
<td>-.783</td>
<td>.073</td>
</tr>
<tr>
<td></td>
<td>P12</td>
<td>Over the next one month, I will consider switching to other brands for ecological reasons</td>
<td>-.460</td>
<td>-.396</td>
</tr>
<tr>
<td></td>
<td>P13</td>
<td>Over the next one month, I plan to switch to a green version of a product.</td>
<td>-.655</td>
<td>.038</td>
</tr>
</tbody>
</table>
4.6 Measurement Model

The hypothesized relationship were estimated using structural equation model (SEM). The initial phase involved exploring the data through exploratory factor analysis (EFA). EFA has critical phases that involves establishment of factor loading matrix, communalities and total variance extracted by principal components analysis (PCA) method. The next phase established the confirmatory factor analysis (CFA) that approximates the measurement model on multiple criteria such as internal reliability, convergent, and discriminant validity.

4.6.1 Exploratory Factor Analysis

Exploratory factor analysis was carried out to refine the constructs. Kaiser Meyer-Olin Measure of Sampling Adequacy, Bartlett’s Test of Sphericity and communalities tests were run to evaluate the data factorability. The KMO measure of Sampling Adequacy measure varies between 0 and 1, and values closer to 1 are better. The KMO statistic of sampling adequacy indicated an approximate score 0.856, well above 0.50 level, indicating an acceptable degree of sampling adequacy. Bartlett’s test of Sphericity show a Chi-Square of 1103.888 with associated significant P-value of 0.000<0.05 indicating that the items retained to measure eco-literacy, eco-branding, eco-advertising and green purchase were significant as shown in table 4.7.

Table 4.7 KMO and Bartlett's Test

<table>
<thead>
<tr>
<th>KMO and Bartlett's Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</td>
<td>.856</td>
</tr>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td>Approx. Chi-Square</td>
</tr>
<tr>
<td></td>
<td>Df</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
</tr>
</tbody>
</table>

4.6.2 Total Variance Explained

Table 4.8 indicates that only four components out of 16 factors had Eigen values greater than 1 in the initial solution. The four factors were pulled out based on kaiser’s criterion. The four extracted factors accounted for almost 70.849% of the variability in the original variables.
Table 4.8 Total Variance Explained

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of Variance</td>
<td>Cumulative</td>
</tr>
<tr>
<td>1</td>
<td>6.784</td>
<td>42.403</td>
</tr>
<tr>
<td>2</td>
<td>1.932</td>
<td>12.075</td>
</tr>
<tr>
<td>4</td>
<td>1.265</td>
<td>7.908</td>
</tr>
<tr>
<td>5</td>
<td>.648</td>
<td>4.051</td>
</tr>
<tr>
<td>6</td>
<td>.600</td>
<td>3.751</td>
</tr>
<tr>
<td>7</td>
<td>.587</td>
<td>3.668</td>
</tr>
<tr>
<td>8</td>
<td>.539</td>
<td>3.367</td>
</tr>
<tr>
<td>9</td>
<td>.434</td>
<td>2.715</td>
</tr>
<tr>
<td>10</td>
<td>.395</td>
<td>2.466</td>
</tr>
<tr>
<td>11</td>
<td>.352</td>
<td>2.200</td>
</tr>
<tr>
<td>12</td>
<td>.331</td>
<td>2.071</td>
</tr>
<tr>
<td>13</td>
<td>.259</td>
<td>1.620</td>
</tr>
<tr>
<td>14</td>
<td>.200</td>
<td>1.252</td>
</tr>
<tr>
<td>15</td>
<td>.164</td>
<td>1.025</td>
</tr>
<tr>
<td>16</td>
<td>.154</td>
<td>.965</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

4.6.3 Pattern Matrix

Communality measures the percent of variance in a specified variable explained by all the combined factors and is interpreted as the reliability of the indicator. A negligible value for communality (less than 0.3) could suggest the determinant in question is not synchronised well with other determinants in its component, and can be deemed unwelcome. Table 4.9 illustrates that the values for communalities were satisfactory as they were above 0.5. Table 4.9 shows
the factor loadings of the four components extracted with the first one been eco literacy whose loadings ranged from 0.736 to 0.867, Eco advertising was the second component with loadings ranging from 0.711 to 0.913, Eco branding was the third component with loadings ranging from 0.519 to 0.859, the last component was green purchase with loadings 0.820 and 0.987. All the factor loadings were greater than 0.5, an indication that the measures were well loaded.

<table>
<thead>
<tr>
<th>Item</th>
<th>Eco literacy</th>
<th>Eco advertising</th>
<th>Eco branding</th>
<th>Green purchase</th>
<th>communalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL.1</td>
<td>.808</td>
<td></td>
<td></td>
<td></td>
<td>.672</td>
</tr>
<tr>
<td>EL.2</td>
<td>.867</td>
<td></td>
<td></td>
<td></td>
<td>.734</td>
</tr>
<tr>
<td>EL.4</td>
<td>.824</td>
<td></td>
<td></td>
<td></td>
<td>.731</td>
</tr>
<tr>
<td>EL.5</td>
<td>.736</td>
<td></td>
<td></td>
<td></td>
<td>.639</td>
</tr>
<tr>
<td>EL.7</td>
<td>.738</td>
<td></td>
<td></td>
<td></td>
<td>.627</td>
</tr>
<tr>
<td>EB.4</td>
<td></td>
<td>.809</td>
<td></td>
<td></td>
<td>.633</td>
</tr>
<tr>
<td>EB.5</td>
<td></td>
<td>.859</td>
<td></td>
<td></td>
<td>.733</td>
</tr>
<tr>
<td>EB.6</td>
<td></td>
<td>.519</td>
<td></td>
<td></td>
<td>.581</td>
</tr>
<tr>
<td>EB.7</td>
<td></td>
<td>.763</td>
<td></td>
<td></td>
<td>.632</td>
</tr>
<tr>
<td>EA.2</td>
<td></td>
<td>.776</td>
<td></td>
<td></td>
<td>.750</td>
</tr>
<tr>
<td>EA.3</td>
<td></td>
<td>.711</td>
<td></td>
<td></td>
<td>.598</td>
</tr>
<tr>
<td>EA.4</td>
<td></td>
<td>.913</td>
<td></td>
<td></td>
<td>.729</td>
</tr>
<tr>
<td>EA.5</td>
<td></td>
<td>.764</td>
<td></td>
<td></td>
<td>.825</td>
</tr>
<tr>
<td>P11</td>
<td></td>
<td></td>
<td></td>
<td>.896</td>
<td>.832</td>
</tr>
<tr>
<td>P12</td>
<td></td>
<td></td>
<td>.987</td>
<td></td>
<td>.861</td>
</tr>
<tr>
<td>P13</td>
<td></td>
<td></td>
<td>.820</td>
<td>.759</td>
<td></td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

4.6.4 Confirmatory Factor Analysis.

Confirmatory factor analysis (CFA) was then done to measure the reliability and validity of the item measurements before using them in the hypothesised model. CFA was also executed
using IBM AMOS version 23 to measure the model fitness. The CFA model is shown in figure 4.8.

Figure 4.8 Confirmatory Factor Analysis Model for Study Variables
4.6.5 Model Fits for CFA Model

Table 4.10 presents the model fit measurement statistics for the overall measurement model for study variables. The fit statistics indices were within the satisfactory range therefore the CFA model fit the data adequately.

<table>
<thead>
<tr>
<th>Measure</th>
<th>CMIN</th>
<th>DF</th>
<th>CMIN/DF</th>
<th>CFI</th>
<th>SRMR</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate</td>
<td>152.448</td>
<td>97</td>
<td>1.572</td>
<td>0.958</td>
<td>0.055</td>
<td>0.033</td>
</tr>
<tr>
<td>Threshold</td>
<td>--</td>
<td>--</td>
<td>Between 1 and 3</td>
<td>&gt;0.95</td>
<td>&lt;0.08</td>
<td>&lt;0.06</td>
</tr>
<tr>
<td>Interpretation</td>
<td>--</td>
<td>--</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

4.6.6 Construct Reliability

Construct reliability was assessed using the Cronbach’s alpha and Composite reliability measures. The Composite reliability of indicator items were all above the threshold 0.7 and the Cronbach’s alphas values were all above the 0.7 threshold indicating that all the variables in the study demonstrated construct reliability as indicated in table 4.11.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Composite reliability (CR)</th>
<th>Number of item</th>
<th>Cronbach's alpha</th>
<th>Item removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eco literacy</td>
<td>0.850</td>
<td>5</td>
<td>0.859</td>
<td>EL.3,EL.6</td>
</tr>
<tr>
<td>Eco Branding</td>
<td>0.808</td>
<td>4</td>
<td>0.807</td>
<td>EB.1,EB.2,EB.3</td>
</tr>
<tr>
<td>Eco Advertising</td>
<td>0.866</td>
<td>4</td>
<td>0.863</td>
<td>EA.1,EA.6,EA.7</td>
</tr>
<tr>
<td>Green purchase</td>
<td>0.888</td>
<td>3</td>
<td>0.886</td>
<td>None</td>
</tr>
</tbody>
</table>

4.6.7 Convergent Validity.

To evaluate convergent validity, Average variance extracted (AVE) was used. Table 4.12 indicates that AVE of all factors were above the 0.5 threshold indicating that the latent
constructs account for at least fifty percent of the variance in the items. This indicates that the measurement scales revealed satisfactory measurement validity.

4.6.8 Discriminant Validity.

Table 4.12 shows the correlation matrix and the AVEs of the constructs. The bold elements in the diagonal are the square root of the average variance extracted (AVE) of all the latent constructs. If the diagonal elements are higher than other off-diagonal elements in their rows and columns then discriminant validity is assumed. Discriminant validity was confirmed for the measurement model.

Table 4.12: Correlation Matrix

<table>
<thead>
<tr>
<th>Variables</th>
<th>AVE</th>
<th>Eco Literacy</th>
<th>Eco Branding</th>
<th>Eco Advertising</th>
<th>Green Purchase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eco Literacy</td>
<td>0.531</td>
<td>0.729</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eco Branding</td>
<td>0.513</td>
<td>0.492***</td>
<td>0.716</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eco Advertising</td>
<td>0.621</td>
<td>0.628***</td>
<td>0.633***</td>
<td>0.788</td>
<td></td>
</tr>
<tr>
<td>Green Purchase</td>
<td>0.725</td>
<td>0.514***</td>
<td>0.584***</td>
<td>0.559***</td>
<td>0.852</td>
</tr>
</tbody>
</table>

Key: * p < 0.050, ** p < 0.010, *** p < 0.001

4.6.9 Correlation Coefficient.

Table 4.12 indicates the correlation coefficients. Eco Literacy was found to be positive and significantly related to Green Purchase (r=0.514, p-value<0.05). Eco Branding was found to be positive and significantly related to Green Purchase (r = 0.584, p-value<0.05). Eco Advertising was found to be positive and significantly related to Green Purchase (r = 0.559, p-value<0.05).
4.7 Structural Model Estimation

Figure 4.9 Structural Model for the Relationship of the Study Variables

4.7.1 Model Fits for Structural Model

Table 4.13 presents the model fit measurement statistics for the overall structural model for study variables. The fit statistics indices were within the satisfactory range therefore the structural model fit the data adequately.

<table>
<thead>
<tr>
<th>Measure</th>
<th>CMIN</th>
<th>DF</th>
<th>CMIN/DF</th>
<th>CFI</th>
<th>SRMR</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate</td>
<td>167.561</td>
<td>98</td>
<td>1.710</td>
<td>0.951</td>
<td>0.062</td>
<td>0.047</td>
</tr>
<tr>
<td>Threshold</td>
<td>--</td>
<td>--</td>
<td>Between 1 and 3</td>
<td>&gt;0.95</td>
<td>&lt;0.08</td>
<td>&lt;0.06</td>
</tr>
<tr>
<td>Interpretation</td>
<td>--</td>
<td>--</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
</tbody>
</table>
4.8 Regression Weights

4.8.1 Influence of Eco-literacy and Consumer Purchasing Patterns in Kenya

The path coefficient for the relationship between Eco-literacy and consumer purchasing patterns in Kenya was positive and significant at the 0.05 level ($\beta=0.531$, $T$-value =7.426, $p<0.05$) as indicated on table 4.13 and figure 4.9. The positive relationship indicates that one unit increase in access to Eco-literacy will result in 0.531 increase in consumer purchasing patterns in Kenya.

4.8.2 Influence of Eco-branding and Consumer Purchasing Patterns in Kenya

The path coefficient for the relationship between Eco-branding and consumer purchasing patterns in Kenya was positive and significant at the 0.05 level ($\beta=0.267$, $T$-value =2.783, $p<0.05$) as indicated on table 4.13 and figure 4.9. The positive relationship indicates that one unit increase in access to Eco-branding will result in 0.267 increase in consumer purchasing patterns in Kenya.

4.8.3 Influence of Eco-advertising and Consumer Purchasing Patterns in Kenya

The path coefficient for the relationship between Eco-advertising and consumer purchasing patterns in Kenya was positive and significant at the 0.05 level ($\beta=0.196$, $T$-value =2.783, $p<0.05$) as indicated on table 4.13 and figure 4.9. The positive relationship indicates that one unit increase in access to Eco-advertising will result in 0.196 increase in consumer purchasing patterns in Kenya.

Table 4.14 Regression Weights

<table>
<thead>
<tr>
<th>Path</th>
<th>unstandardized estimate</th>
<th>Standardized estimate</th>
<th>Standard Error</th>
<th>T value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Purchase &lt;--- Eco Literacy</td>
<td>0.854</td>
<td>0.531</td>
<td>0.115</td>
<td>7.426</td>
<td>0.000</td>
</tr>
<tr>
<td>Green Purchase &lt;--- Eco Branding</td>
<td>0.320</td>
<td>0.267</td>
<td>0.115</td>
<td>2.783</td>
<td>0.006</td>
</tr>
<tr>
<td>Green Purchase &lt;--- Eco Advertising</td>
<td>0.286</td>
<td>0.196</td>
<td>0.101</td>
<td>2.832</td>
<td>0.005</td>
</tr>
</tbody>
</table>
4.9 Predictive Relevance of the Model

In order to establish the value of the conceptual framework, the $R^2$ value is evaluated. The measurement illustrates the variance in the dependent variable (consumer purchasing patterns) that is explained by the independent variables (eco-literacy, eco-advertising and eco-branding). Based on the results reported in figure 4.9, the $R^2$ was found to be 0.493 indicating that eco literacy, eco branding and eco advertising can account for 49.3% of the variance in the consumer purchasing patterns in Kenya.

4.10 Chapter Summary

The study results presented and discussed in this chapter reveals that eco literacy, eco branding and eco advertising are among the factors that influence the consumer purchasing patterns in Kenya. Furthermore, the study indicated that eco literacy, eco branding and eco advertising influenced consumer purchasing patterns in Kenya positively. The next chapter provides a summary of the study, a discussion of results, conclusions and recommendations for each objective based on the findings presented in Chapter 4.
CHAPTER FIVE

5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS.

5.1 Introduction
This chapter includes a summary of the study, discussion of the findings vis-a-vis content covered in the studies literature review and conclusions of each objective derived from the studies analysis. The recommendations are in two folds: recommendations for areas of improvement and recommendations for further studies.

5.2 Summary
The general objective of this study was to investigate the effect of green marketing strategies on consumer purchasing patterns in Kenya. The specific objectives were: to investigate the effect of eco-literacy on consumer purchasing patterns in Kenya, to investigate the effect of eco-branding on consumer purchasing patterns in Kenya and lastly to investigate the effect of eco-advertising on consumer purchasing patterns in Kenya. The study provided insight to academics, marketing professional, and environmental legislators.

This study used a descriptive research design to investigate the effect of green marketing strategies on consumer purchasing patterns. This approach was appropriate for this study as it aimed to establish or describe the existing relationships of the variables central to the conceptual framework. The population of study comprised of all students of United States International University-Africa located in Kasarani area Nairobi; approximately 6,508 students from an undergraduate to doctoral level. This study utilized a stratified random sampling technique where population was divided into strata and a random sample drawn from each stratum. From the target population of 6,508, the Cochran (2014) sample size formula was used to compute a sample size of 138 respondents. The study utilized a questionnaire to collect data from respondents, and the analysis employed both descriptive and inferential statistics.

The descriptive findings of the first objective concerning eco-literacy indicated that 87% of respondents agreed that if all of us, individually, made a contribution to environmental protection, it would have a significant effect, 83% agreed that the increasing deterioration of the environment is a serious problem, 71% agreed that it is important to them that products
they use do not harm the environment, 69% agreed that they would describe themselves as environmentally responsible, 58% agreed that they see themselves as typical buyers of environmentally friendly products, 40% agreed that they know how to select products and packages that reduce the amount of waste ending up in landfills, 40% agreed that humans do not have the right to modify the natural environment to suit their needs. On the inferential, coefficient for the relationship between Eco-literacy and consumer purchasing patterns in Kenya was positive and significant at the 0.05 level (β=0.531, T-value =7.426, p<0.05). The positive relationship indicates that one unit increase in access to Eco-literacy will result in 0.531 increase in consumer purchasing patterns in Kenya.

In regard to the second objective related to eco-branding, the findings reveal that; 77% agreed that they acknowledge that information on packaging is an important criterion, 76% of the respondents agreed that they feel good about buying brands which are less damaging to the environment, 44% agreed that they understand the environmental phrases and symbols on product packages, 41% agreed that eco-brands are symbol of product reliability, 36% agreed that they trust well-known green branded products in Kenya, 36% agreed that they are well aware of eco-brands, and 33% agreed that it is easy for them to identify green products in Kenya. On the inferential statistics, coefficient for the relationship between Eco-branding and consumer purchasing patterns in Kenya was positive and significant at the 0.05 level (β=0.267, T-value =2.783, p<0.05). The positive relationship indicates that one unit increase in access to Eco-branding will result in 0.267 increase in consumer purchasing patterns in Kenya.

Descriptive findings in regard to the final objective concerning eco-advertising the results indicate that 89% of the respondents agreed that green advertisements should promote environmental friendly products in a credible manner, 81% agreed that there should be more visibility in the way in which green products are marketed in Kenya, 78% agreed that attractive environmental advertisements will encourage them to adopt green purchasing patterns, 75% agreed that environmental advertisements enhance their knowledge about green products, 68% agreed that environmental advertisement guide customers to making an informed purchasing decision, 42% agreed that they enjoy watching broadcast environmental advertisements and 30% agreed that they acknowledge that green advertisements are not exaggerated for green
products in Kenya. On the inferential statistics, coefficient for the relationship between Eco-advertising and consumer purchasing patterns in Kenya was positive and significant at the 0.05 level ($\beta=0.196$, $T$-value =2.783, $p<0.05$). The positive relationship indicates that one unit increase in access to Eco-advertising will result in 0.196 increase in consumer purchasing patterns in Kenya.

5.3 Discussion

5.3.1. Effect of Eco-Literacy on Consumer Purchasing Patterns in Kenya.

The inferential statistics clearly showed coefficient for the relationship between Eco-literacy and consumer purchasing patterns in Kenya was positive and significant at the 0.05 level ($\beta=0.531$, $T$-value =7.426, $p<0.05$). The positive relationship indicates that one unit increase in access to Eco-literacy will result in 0.531 increase in consumer purchasing patterns in Kenya. The $R^2$ was found to be 0.59 indicating that eco literacy can account for 59% of the variance in the consumer purchasing patterns in Kenya. Hence eco-literacy is an important factor that accounts for more than half of consumer purchasing difference in Kenya.

Different authors have discussed the importance of eco-literacy which in turn affects the purchasing pattern. According to D’Souza et al. (2007) consumers green knowledge and ecological consciousness can stems from two perspectives, the first being that consumers must understand the overall impact of the product on the environment and the second regards consumer’s knowledge of the product and whether it was produced in an environmentally friendly way. Cheah and Phau (2011) further contributes to eco-literacy as a tool to measure consumers’ ability to identify different ecologically related symbols, behaviors and concepts. They clearly stated an individual’s attitude towards the importance of ecological problems generally may influence the willingness to purchase environmentally friendly products (Cheah & Phau, 2011). This was validated by Kumar and Ghodeswar (2015) and Khare (2014) research on green consumers in India. They both found out consumers buying decisions were influenced by acknowledgement of their ecological responsibilities, quest for gaining knowledge, self-interest and inclination to conserve resources and mitigate negative environmental impact. Furthermore, familiarity with eco-friendly value propositions, a sense of ecological accountability and organizations exhibiting concern for conservation of natural
eco-systems were established to be significant factors in regard to their impact buying on buying behavior.

Similarly, Juwaheer and Pudaruth (2012) carried out a study that investigated the impact of green marketing strategies on consumer purchasing patterns in Mauritius found out consumers purchased based on their literacy on Supporting environmental protection, and drive for environmental responsibility. The results demonstrated that consumers are sympathetic to the protection of the environment and have strong concerns about the environment and its degradation. Furthermore, findings indicated that there was an overall positive correlation between effective green marketing strategies and consumers buying patterns of green products. The study suggested that business executives should host seminars and workshops in order to sensitize consumers on how environmentally-friendly products positively impact the environment.

Also, Khare (2014) study on the antecedents of green buying behavior on Indian consumers found out Consumers’ self-identification with environment-friendly traits was a major predictor to green buying behaviour which was driven by their knowledge on green products. Mida (2009) and Gan et al. (2008) both agree that environmental consciousness has a direct impact on customers’ willingness to pay for a green product and it is directly linked to green purchasing behavior. Likewise, “consumers’ environmental knowledge” is presented as the major indicator in the “green customers’ purchasing model” (Young W. et al, 2010). According to D’Souza et al (2007), these factors were determined by the environmental friendly knowledge of the consumers derived to eco-literacy.

Though the above discussion on eco-literacy and purchasing power were positive, Pickett-Baker and Ozaki (2008) have argued that individuals that are environmentally conscious don’t necessarily behave in an environmentally friendly manner. Consumers purchasing patterns based on environmental grounds is a highly debated issue as it’s argued that claims that strong views on environmental issues don’t necessarily translate to the purchase of green products and services. Findings from previous studies reveal that regardless of widespread ecological sentiment, concern about harmful vehicle emissions, willingness to engage in recycling, and readiness to pay premium prices for green products, only a minority of consumers have
consistently made green purchases on a regular basis (Mintel, 2006). This depicts the gap between the knowledge and practice. Research in environmental consumerism shows evidence in support of consumer attitude theory with mixed results that support both a positive relationship between attitude towards the environment and behavior (Kellgren & Wood, 1986) as well as weak relationships (Tanner & Kast, 2003). These findings show the eco-literacy is not the only factor that determines the purchasing power as other factors such as individual behavior plays key role.

5.3.2 Effect of Eco-Branding on Consumer Purchasing Patterns in Kenya.

From the inferential statistics, it is clear the coefficient for the relationship between Eco-branding and consumer purchasing patterns in Kenya was positive and significant at the 0.05 level (\( \beta = 0.267 \), T-value = 2.783, p<0.05). The positive relationship indicates that one unit increase in access to Eco-branding will result in 0.267 increase in consumer purchasing patterns in Kenya. The \( R^2 \) was found to be 0.27 indicating that eco-branding can account for 27% of the variance in the consumer purchasing patterns in Kenya. Though 27% is lower compared to eco-literacy, eco-branding is important in determining the purchasing variance on green pattern in Kenya.

Branding as a subject on environmental product has been discussed widely. According to Roe et al., (2001), it is fundamental that marketing practitioners have an in-depth understanding of how brands impact purchasing patterns of consumers. This impact is often referred to as known as brand equity. The eco-brand is a name, symbol or design of products that are harmless to the environment. Several researchers have found out utilizing eco-brands features can help to consumers differentiate them in some way from other non-green products (Staff, 2009; Rahbar & Wahid, 2011). A research conducted in western countries supported that consumers have positive green perceptions on eco-branded products such as Body Shop and Green Energy in the USA and Germany (Wustenhagen & Bilharz, 2006).

A prior study by Rahbar and Abdul Wahid (2010), Malaysian consumers consider glass based, household cleaning, aerosols, pesticides and plastics as non-green product categories with high level of impact to environments. Hence, consumers will respond positively to products with
environmental features known as eco-branded products. The earlier research in western countries supports this idea that consumers in the USA and Germany take action positively to eco-branded products (Wustenhagen & Bilharz, 2006). Lastly, Chatterjee, (2009) purports that environmentally conscious consumers will seek to purchase green products that have a nil to minimal negative impact on the environment as opposed to non-green alternatives that in some respect contribute to environmental deterioration.

Eco-literacy also contributes to eco-branding. Studies have demonstrated that the growing environmental awareness of consumers have encouraged them to be more inclined towards brands that seemed to be environmental friendly (Juwaheer, Pudaruth, & Noyaux, 2012). Likewise, Ottom (1998) has stated affective marketing has the power to shift passive green consumers who are keen to pay premium prices for environmental products to greener consumption patterns. Effective green positioning involves brand communication and differentiation based on functional attributes and emotional benefits (Aaker, 1992; Hartmann et al., 2005). Similarly, other researchers have suggested that green positioning is an important element in the success of green branding strategies as studies demonstrate that the growing environmental awareness of consumers have encouraged them to be more inclined towards brands that seemed to be environmental friendly (Juwaheer, Pudaruth, & Noyaux, 2012).

Besides the knowledge on environmental friendly products, behavior is a key factor. The significant factor motivating consumers to change actual purchase behavior to buy eco-friendly products is emotional brand benefits (Hartmann et al., 2005). Hartmann et al. (2005) expounded on how respective ways consumers can benefit from brands they relate to emotionally which included an overall sense of contentment, ecological related benefits and recognition from peers for engaging in green consumerism. Thus, the purchasing behavior will switch to buy environmental friendly products as a result of consideration of the benefit of green brands.

However, Juwaheer et al. (2012) report that some consumers have an unfavorable perception of eco-friendly products due to the products functional performance falling short of their expectations. (Juwaheer, Pudaruth, & Noyaux, 2012). Indeed, the significant factor motivating consumers to change actual purchase behavior to buy eco-friendly products is emotional brand
benefits (Hartmann et al., 2005). Pickett et al. (1995) suggest that marketing campaigns should place an emphasis on environmentally friendly product features in order for the green products to be commercially viable. Aaker (1996) stated that conventional positioning strategies that emphasize on functional attributes do have shortcomings as they; presume that all buyers are rational thinkers, are mimicked with relative ease by competitors, and restrict avenues of future differentiation. Such studies indicate that eco-branding is a key element in consumer purchasing patterns.

5.3.3. Effect of Eco-Advertising on Consumer Purchasing Patterns in Kenya.

On the last objective, the coefficient for the relationship between Eco-advertising and consumer purchasing patterns in Kenya was positive and significant at the 0.05 level (β = 0.196, T-value = 2.783, p < 0.05). The positive relationship indicates that one unit increase in access to Eco-advertising will result in 0.196 increase in consumer purchasing patterns in Kenya. The R² was found to be 0.20 indicating that eco advertising can account for 20% of the variance in the consumer purchasing patterns in Kenya. The study concludes advertising has significant effect on consumer purchasing pattern in Kenya.

According to Baldwin (1993), the formation of consumer values and the subsequent translation of these values into purchase of green products is strongly influenced by environmental advertisements. Mathur and Mathur (2000) and Habib et al. (2010) argued that consumers are more positive towards environmental friendly products due to the fact that environmental messages in advertisements are more credible. Eco-advertisements should be geared towards also generating associations between the product offering and idealistic environmental visuals, as well as articulately expressing the eco-friendly attributes (Kumar & Ghodeswar, 2015).

Effective green advertisements have three key elements, firstly the advertisement begins with a statement of corporate concern for the environment. Secondly, the advertisement describes the way the corporation has changed its procedures in order to demonstrate its concern and dedication into improving the environment. Thirdly, the advertisement describes specific environmental actions in which the corporation is involved and/or results for which the corporation takes credit (Davis, 1995). According to a prior study by Rahbar and Abdul Wahid
(2010), Malaysian consumers consider glass based, house hold cleaning, aerosols, pesticides and plastics as non-green product categories with high level of impact to environments. Hence, it can be predicted that consumers will respond positively to products with environmental features known as eco-branded products on advertisement. Also, D'Souza et al. (2006) outlined that marketers have the responsibility to publicize environmental information as customers seek more concrete and authenticated product information from these advertisements to guide them in their purchasing decision (Chan, 2004).

Chase and Smith (1992), state that a large proportion of consumers disregard eco-friendly themed advertisements on the grounds of excess use hyperbole and colorful language. Further, environmental advertisements help to form a consumer’s values and translate these values into the purchase of green products (Carlson, Grove, & Kangun, 1993). Other researchers found out that providing information on environmental issues influences the emotional content which increase customers’ attention towards these advertisements; eco-advertisements should be geared towards also generating associations between the product offering and idealistic environmental visuals, as well as articulately expressing the eco-friendly attributes (Kumar & Ghodeswar, 2015).

However, Rose (2002) has affirmed that although some manufacturing companies cannot influence consumer choice towards green products, they can shape green consumption patterns in the way the products are being offered and marketed. Juwaheer, Pudaruth, and Noyaux (2012) further found out marketers should emphasize the ecological knowledge in their organizations, their products offerings and their advertising campaigns in order to achieve the goal of changing consumer purchasing behavior since growing environmental awareness of consumers encourages more inclement towards brands that seemed to be environmental friendly.

Studies in the past have revealed that eco-advertisements do have their shortcomings; a study conducted by Pickett-Baker and Ozaki (2008) suggested that with the exception of household cleaning products, majority of consumers found it difficult to distinguish green products from conventional products. Hence, green communication is a major area of weakness for green marketers. Carlson et al. (1993) have observed a simultaneous emergence of environmentally
themed advertisements and a growing consumer concern for the conservation of the environment. Chase and Smith (1992), reported that majority of respondents in their study agreed that environmental themed advertisements lacked considerable credibility in terms of accurately communicating factual information regarding the benefits of green products. This supports the assumption that providing information regarding environmental issues does not necessarily encourage pro-environmental attitudes in consumers as pointed out by Pooley and O’Connor (2000).

5.4 Conclusions

5.4.1 Effect of Eco-Literacy on Consumer Purchasing Patterns in Kenya.

On the inferential, coefficient for the relationship between Eco-literacy and consumer purchasing patterns in Kenya was positive and significant at the 0.05 level ($\beta=0.531$, T-value =7.426, $p<0.05$). The positive relationship indicates that one unit increase in access to Eco-literacy will result in 0.531 increase in consumer purchasing patterns in Kenya. The $R^2$ was found to be 0.59 indicating that eco literacy can account for 59% of the variance in the consumer purchasing patterns in Kenya. Hence eco-literacy is an important factor that accounts for more than half of consumer purchasing difference in Kenya.

5.4.2 Effect of Eco-Branding on Consumer Purchasing Patterns in Kenya.

On the inferential statistics, coefficient for the relationship between Eco-branding and consumer purchasing patterns in Kenya was positive and significant at the 0.05 level ($\beta=0.267$, T-value =2.783, $p<0.05$). The positive relationship indicates that one unit increase in access to Eco-branding will result in 0.267 increase in consumer purchasing patterns in Kenya. The $R^2$ was found to be 0.27 indicating that eco branding can account for 27% of the variance in the consumer purchasing patterns in Kenya. Though 27% is lower compared to eco-literacy, eco-branding is important in determining the purchasing variance on green pattern in Kenya.
5.4.3 Effect of Eco-Advertising on Consumer Purchasing Patterns in Kenya.

On the inferential statistics, coefficient for the relationship between Eco-advertising and consumer purchasing patterns in Kenya was positive and significant at the 0.05 level (β = 0.196, T-value = 2.783, p < 0.05). The positive relationship indicates that one unit increase in access to Eco-advertising will result in 0.196 increase in consumer purchasing patterns in Kenya. The R² was found to be 0.20 indicating that eco advertising can account for 20% of the variance in the consumer purchasing patterns in Kenya. The study concludes advertising has significant effect on consumer purchasing pattern in Kenya.

5.5 Recommendations
5.5.1. Recommendations for Improvement

5.5.1.1 Effect of Eco-Literacy on Consumer Purchasing Patterns in Kenya.

The study findings illustrate that eco-literacy significantly influences the purchasing patterns of consumers in Kenya. The study recommends that marketing managers should utilize informative and factual green marketing communication strategies in order to enhance consumer eco-literacy which will facilitate in bridging the value-action gap. Furthermore, there is need for the formation of regulatory policies that will protect and guide consumers against misleading information that intends to convince environmentally conscious consumers that non-green products are eco-friendly.

5.5.1.2 Effect of Eco-Branding on Consumer Purchasing Patterns in Kenya.

The study findings revealed that eco-branding significantly influences consumers purchasing pattern in Kenya. Marketers who intend to capitalize on the nascent green market should clearly outline detailed information on packaging that distinctly identifies products as environmentally friendly and are fundamentally based on fact. In order to build robust and credible green brands, marketing messages should clearly articulate how green-brands are less harmful to the environment than conventional alternatives. Furthermore, policy makers should develop legislation that protect consumers from products and firms that falsely claim to be to be eco-friendly through charging offenders with penalties and/or fines.
5.5.1.3 Effect of Eco-Advertising on Consumer Purchasing Patterns in Kenya.

The study findings revealed that eco-advertising is as a significantly influences consumer purchasing patterns in Kenya. More than 70% of respondents in the study agreed that it’s important that products they purchase should not harm the environment, although 80% of the respondents also agreed that there should be more visibility in the way eco-friendly products are marketed. These findings suggest that ineffective green marketing strategies are a contributing factor to the existence of a value action gap. Marketers harnessing eco-advertisements should; promote green products on a factual basis, incorporate clear and informative messages, and enhance visibility through associating product offerings with an environmental cause. Such an approach will help customers make informed purchasing decisions. Policy makers should develop legislation that clearly outlines the environmental criteria a product should meet in order to be considered a green product; such a threshold should be met before a product is marketed as environmentally friendly.

5.5.2 Recommendations for Further Research

The research focused on the effect of green marketing strategies on consumer purchasing patterns in Kenya. The sample size was derived from university students; hence there is need for such a study to be conducted with a population that represents general consumers in Kenya and is not limited to students. The research also focused on general environmental friendly products – there is need for further research on specific environmental friendly product categories to clearly stipulate how eco-literacy, eco-branding and eco-advertisements on impact the purchase of different products. Lastly, further research should sample marketing practitioners in order to determine their perspective on how effectively green marketing strategies influence sales and consumer purchasing patterns.
REFERENCES


Massachusetts Department of Environmental Protection. (2002, August 2014). *Barrier/Motivation Inventory No. 3*. Retrieved from http://www.state.ma.us


APPENDICES

Appendix A: Cover Letter
Nicholas Gicharu Mwaura

United States International University - Africa,
P.O. Box 14634, 00800,
January 20th, 2018
Dear Respondent,

RE: GRADUATE RESEARCH QUESTIONNAIRE.

I am a Graduate student at United States International University-Africa. As partial fulfilment of my MBA degree, I am conducting a research on “The effect of Green Marketing Strategies on Consumer Purchasing Patterns”. The study relates to consumers purchasing green products (environmentally friendly products e.g. energy saving products, recyclable products, organic foods, biodegradable products, reusable products etc.)

You have been selected as one of the respondents for this study. It is estimated that it will take between ten to twenty minutes to complete the questionnaire. Please respond as objectively and candid as possible. Your participation will be highly appreciated and is essential for the accomplishment of this study.

I guarantee that the information provided will be handled with utmost confidentiality and will be used only for academic purposes where confidentiality is strictly emphasized. Kindly spare some time to complete the questionnaire attached.

Thank you.

Yours faithfully,

Nicholas Gicharu
Appendix B: Questionnaire

As partial fulfilment of my MBA degree, I am conducting a research on “The effect of Green Marketing Strategies on Consumer Purchasing Patterns”. The study relates to consumers purchasing green products (environmentally friendly products e.g. energy saving products, recyclable products, organic foods, biodegradable products, reusable products etc.)

Your participation will be highly appreciated and is essential for the accomplishment of this study. All responses will be kept strictly confidential. Thank you for your assistance.

Please answer all questions

SECTION 1: GENERAL INFORMATION

1. Kindly indicate your Gender
   
   [ ] Male  [ ] Female

2. Your age bracket (Tick where appropriate)
   
   18-25 years [ ]  26-30 years [ ]  31-35 years [ ]  36-40 years [ ]
   41-45 years [ ]  46-50 years [ ]  Above 50 years [ ]

3. What is your level of education?
   
   Primary [ ] High school [ ] Undergraduate [ ] Graduate [ ]

4. What is your level of income per month? (Kes)
   
   Less than 15,000 [ ]  15,000 – 39,000 [ ]  40,000 – 69,000[ ]
   70,000 – 99,000 [ ]  100,000 and above [ ]

5. What is your marital status?
   
   [ ] Single  [ ] Married  [ ] Separated  [ ] Divorced

6. How many people live in your current residence?
   
   1 to 2 [ ]  3 to 4[ ]  More than 4 [ ]

7. Are you familiar with Green Marketing?
   
   [ ] Yes  [ ] No
SECTION 2: EFFECT OF ECO-LITERACY ON CONSUMER PURCHASING PATTERNS

Please circle the choice that you feel suits your situation/opinion from the choices provided by the likert scale (1-5) where; 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL1.</td>
<td>It is important to me that products I use do not harm the environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EL2.</td>
<td>I would describe myself as environmentally responsible.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EL3.</td>
<td>I know how to select products and packages that reduce the amount of waste ending up in landfills.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EL4.</td>
<td>The increasing deterioration of the environment is a serious problem.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EL5.</td>
<td>I see myself as a typical buyer of environmentally friendly products.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EL6.</td>
<td>Humans do not have the right to modify the natural environment to suit their needs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EL7.</td>
<td>If all of us, individually, made a contribution to environmental protection, it would have a significant effect.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Adapted from Hsu Y. C. (2015)

SECTION 3: EFFECT OF ECO-BRANDING ON CONSUMER PURCHASING PATTERNS

Please circle the choice that you feel suits your situation/opinion from the choices provided by the likert scale (1-5) where; 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>EB1.</td>
<td>I feel good about buying brands which are less damaging to the environment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB2.</td>
<td>I trust well-known green branded products in Kenya.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB3.</td>
<td>I acknowledge that information on packaging is an important criterion.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB4.</td>
<td>I am well aware of eco-brands.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB5.</td>
<td>I understand the environmental phrases and symbols on product packages.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB6.</td>
<td>Eco-brands are symbol of product reliability.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB7.</td>
<td>It is easy for me to identify green products in Kenya.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Juwaheer, Pudaruth, & Noyaux (2012)
SECTION 4: EFFECT OF ECO-ADVERTISING ON CONSUMER PURCHASING PATTERNS

Please circle the choice that you feel suits your situation/opinion from the choices provided by the likert scale (1-5) where; 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

<table>
<thead>
<tr>
<th>EA1</th>
<th>Green advertisements should promote environmental friendly products in a credible manner.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>EA2</td>
<td>Attractive environmental advertisements will encourage me to adopt green purchasing patterns.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EA3</td>
<td>I acknowledge that green advertisements are not exaggerated for green products in Kenya.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EA4</td>
<td>Environmental advertisement guide customers to making an informed purchasing decision</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EA5</td>
<td>Environmental advertisements enhance my knowledge about green products.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EA6</td>
<td>I enjoy watching broadcast environmental advertisements.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EA7</td>
<td>There should be more visibility in the way in which green products are marketed in Kenya.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Adapted from Juwaheer, Pudaruth, & Noyaux (2012)

SECTION 5: GREEN PURCHASE INTENTION SCALE

Please circle the choice that you feel suits your situation/opinion from the choices provided by the likert scale (1-5) where; 1 = Very Unlikely, 2 = Unlikely, 3 = Neutral, 4 = Likely, 5 = Very Likely.

<table>
<thead>
<tr>
<th>PI1</th>
<th>Over the next one month, I will consider buying products because they are less polluting.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI2</td>
<td>Over the next one month, I will consider switching to other brands for ecological reasons.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>PI3</td>
<td>Over the next one month, I plan to switch to a green version of a product.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Adapted from Mostafa (2006) and Chan (2001).