

Interpreting Green Advertising messages: A *Perspective of Environmentally-informed consumers in Kenya*

Leah Muchemi (PhD),

School of Journalism and Mass communication
University of Nairobi.
Nairobi, Kenya.
E mail: leahwm@uonbi.ac.ke
Mobile: 0721334736 (Corresponding Author).

Hezron Mogambi (PhD),

School of Journalism and Mass Communication ,
University of Nairobi,
Nairobi, Kenya
Email: hezron.mogambi@uonbi.ac.ke.

Ndeti Ndati (PhD),

School of Journalism and Mass Communication,
University of Nairobi,
Nairobi, Kenya
Email:ndanundeti@gmail.com.

Abstract: The objective of this study was to examine the environmentally-informed consumers' interpretation of green product advertising messages. The increasing awareness of environmental issues and diet related diseases resulting from use of unhealthy products has contributed to the growth of green-conscious consumers. This has prompted businesses to invest in green advertising (Ottman, 2003; Guber, 2003 & Karna et al, 2001). Studies by Lee (2013) and Yates (2009) reveal that consumers have difficulty in understanding green label messages. However, the studies were carried out among general consumer populations that did not have special interest in environmental issues and this could explain the difficulty in understanding the messages. Therefore, this study sought to investigate the views of consumers who are experts or students of environmental studies and were presumed to have a good understanding of issues related to green-consciousness so as to establish their interpretation of green advertising messages.

In this study, an exploratory mixed method approach was used. Data was collected through brand mapping, survey, in-depth interviews and focus group discussions. The convergent parallel design of data treatment was used. Results revealed that green messages among the environmentally-informed consumers do not have a clear universal meaning. Green messages were ambiguous and lacked elaboration hence difficult to understand. The study recommends that companies should move away from touting their products as green by mere use of green jargon; and embrace simplicity and clarity in their messages. Stringent regulatory measures need to be put in place to protect consumers against being misled by product manufacturers.

Index Terms: Green advertising, consumers, green messages.

I. INTRODUCTION

The green trend has become an area of great interest among scholars and practitioners especially in the twenty-first century. In an attempt to define green advertising, scholars have zeroed in on three main elements: planet preservation, human health and animal preservation (Iyer & Benerjee, 1993). The current study emphasizes that green advertising should encompass the totality of the greenness of company products and behavior and how these are communicated to the public. Environmental awareness in Kenya is largely attributed to Professor Wangari Maathai, the fearless environmentalist who advocated for adoption of green practices by individuals and organizations in order to protect natural resources which were being depleted. Her contribution gave rise to increased demand for government to act responsibly in environmental matters (www.greenbeltmovement.com). In her works, she recounts the beauty of nature when she was a child and decries its loss as years went by (Maathai, 2003, 2010). She recognizes the educated people as having the capability to understand what is being lost (Maathai, 2010) and bring change especially in protecting the environment. In the spirit of Maathai's wisdom, this study sought the views of environmentally-informed consumers in Kenya with the aim of viewing green advertising and corporate identity from a point of knowledge.

According to a market research by Euromonitor International (2014), Kapa Oil refineries and Bidco Company are the main local companies whose products are competing for shelf space in the product categories of personal care, homecare and oils and fats in Kenya. Consequently, this study projects that the environmentally-informed consumers participating in this study are likely to be users of products from these companies.

Bidco company is today known to have a wide range of products including *SunGold, Elianto, Golden Fry, Chipsy* (edible oils). Reports in the company website indicate that Bidco brands promote “*happy and healthy living by branding transforming and distributing the goodness of Mother nature*”(www.bidco-oil.com) among 650 million people across 16 countries in Africa. The sunflower plant is prominent in most of the company’s products’ packaging signified by the yellow color, the color of the sun and a symbol of natural warmth.

Kapa Oil company enjoys customer loyalty and a large market in Africa as its products are a household name in 14 African countries(www.kapa-oil.com). The company claims to be committed to eco care, product safety and quality. Its commitment statement in its official website states:

“We aim at providing our customers with premium quality consumer goods at competitive prices while operating in an environmentally sensitive and socially responsible manner”.
(www.kapa-oil.com).

It has a variety of cooking fat and edible oils, home and personal care products. These include *Tilly, Kasuku, Rina vegetable oil, Rinsun sunflower oil* and *Captain Cook corn oil* (edible oils and fats); *Prestige Margarine*, as well as *Toss* and *Jamaa* (washing soap).

The company’s website information also indicates that it was the first manufacturing company to introduce packing of cooking fats in reusable plastic containers. The cooking fats and oils containers are adorned with pictures of natural foods such as green leafy vegetables and tomatoes which can arguably signify that they are made from natural products hence portray the company as ‘green’.

One important government initiative that is relevant to green advertising is the publishing of Consumer Protection Guidelines document, warning consumers against misrepresentations by companies concerning product safety or attributes through false advertising media such as product labels. The guidelines published under the Consumer Protection Act of 2010 by the Competition Authority of Kenya (CAK) warn manufacturers against using environmental terminology without caution and assert that terms like green and environment-friendly do not have exact meaning and are difficult for consumers to check (www.cak.go.ke). This study endeavored to assess environmentally-informed consumers’ interpretation of the green messages as seen on product labels.

1.1 SIGNIFICANCE OF THE STUDY

Despite the popularity of the green trend, studies in Kenya have not taken interest in green advertising though a few have been done in green marketing (Kinoti, 2012, Mungai, 2009, Mwangi, 2015). There is need to create awareness concerning the dynamics of green advertising among various players in Kenya. This study will also be significant to the manufacturing companies in Kenya. It may be a wake-up call to reconsider their green label advertising strategies and focus on the effectiveness of their messages. Attention is drawn towards viewing their green adverts objectively, since this study shows that some consumers have the capability to view green product messages with scrutiny.

II. LITERATURE REVIEW

The importance of understanding green messages is clear, especially when investigating their effect on the consumer and the concerned company. Chan (2001), confirms that consumers look for the inclusion of eco-labels and current trends in packaging and labeling as part of environmentally-friendly messages.

Ottman (2003) asserts that the variety of labels, packaging and environmental appeals are still confusing rather than informative to those who want to join the green consumption movement. Ottman makes remarkable contribution to the debate of green advertising since he goes beyond description of the green messages to the concept of information processing hence it is imperative to interrogate whether the messages are understood by the target audience. This is one of the key objectives this study sought to achieve.

This line of thought is further advanced by Murphy, Laczniaak and Prothero (2012) who in their study reveal that the terminologies used in green advertising are not easy to understand. An example given is the use of such terms as energy “efficacy” or “smart energy”(Murphy et al, 2012: 136). The scholars argue that these terms are jargon and can only be understood by people of some good educational level and a high cognitive ability. This study holds that those who have some understanding on environmental issues are likely to have the ability to construe the meaning of those technical terms. This explains the decision by the current research to seek views from those who understand environmental issues at the university level.

Other studies suggest that green advertising messages will be more effective if simplicity and clarity and numerical fluency are emphasized (Alter, 2006; Lee, 2004; Shan, 2007). However, it can be argued that numerical fluency such as giving percentages and figures in communicating a green message may only be effective for a specific audience-those who have the cognitive ability to interpret the figures. This means excluding the larger section of the consumer society who may not comprehend the figures. To comprehend or not to comprehend figures by a consumer can be understood from the point of view of central and peripheral routes to persuasion advanced by Petty and Cacioppo (1986) in the Elaboration Likelihood Theory (ELT) as explained later in this study.

The use of nature in green advertising has been used to arouse consumer liking for the products. Hartmann and Ibanez (2009) confirm that both informational claims and virtual nature experiences greatly influence consumer attitude towards the brand. Big companies such as Shell and BP have utilized beautiful imagery of nature in their adverts to achieve this effect(Cox,2008). However, the use of nature in green advertising has been criticized as being vague and unspecific as opposed to being substantive and informational (Peterson, 1991; Kilbourne, 1995; Zinkhan & Carlos, 1995). This is because the interpretation of nature portrayal in advertising is largely likely to be subjective thus different consumers respond differently to different nature appeals) (Easterling, et al 1996).

A major factor identified by Melody and Roxanne (1995) confirms that the level of involvement (interest) with environment determines the level of persuasion and attitude formation. The scholars found out that those who were more environmentally involved were less influenced by green adverts. It can be argued that this is because theirs is a self and intrinsic conviction not influenced by other exterior factors. On the flip side, Bickart and Ruth (2012) argue that consumers with a high environmental interest seek out brands that give information about their green attributes. Further, they associate green product attributes with the company behavior. The participants in this study are presumed to have a good understanding of environmental issues thus are likely to be keen in seeking green attributes of the products they buy.

The current study focuses on Petty and Cacioppo’s Elaboration Likelihood theory, 1986). This theory has three characteristics that are in line with the focus of this study:

- a) Viewing persuasion as a process rather than an act.
- b) The emphasis is on cognition or information processing.
- c) The receiver is given a more active role and not seen as a passive player.

The Elaboration Likelihood Theory has successfully been applied to advertising and public relations and achieved widespread acceptance (Ajzen & Fishbein, 1980; Hartmann & Ibanez, 2009). A major argument advanced by the theory is that persuasion occurs through the central and the peripheral route. Persuasion through the central route requires both the ability to process the message and the motivation to pay attention to the message. A review of literature indicates that high involvement in the green product use and advertising is a result of environmental awareness which also needs efficiency of cognitive persuasion strategies (Carlson, et al, 1996; Shrum, et al 1996; Wells, 1997). The peripheral route does not involve extensive elaboration. The consumer’s interpretation of the advert focuses on surface characteristics such as the physical attractiveness of the advertisement rather than the argument presented.

A number of factors may influence a person’s ability or motivation to understand a message. The likelihood of following either route varies with the level of the presence of distractions and the relevance of the information conveyed. Davis (1993) discusses specific versus vague green claims and concludes that claims perceived as specific foster positive perceptions of the product and are more likely to be persuasive and to lead to higher levels of product purchase intent. This demonstrates that messages processed through the central route are more persuasive.

Conceptual Framework

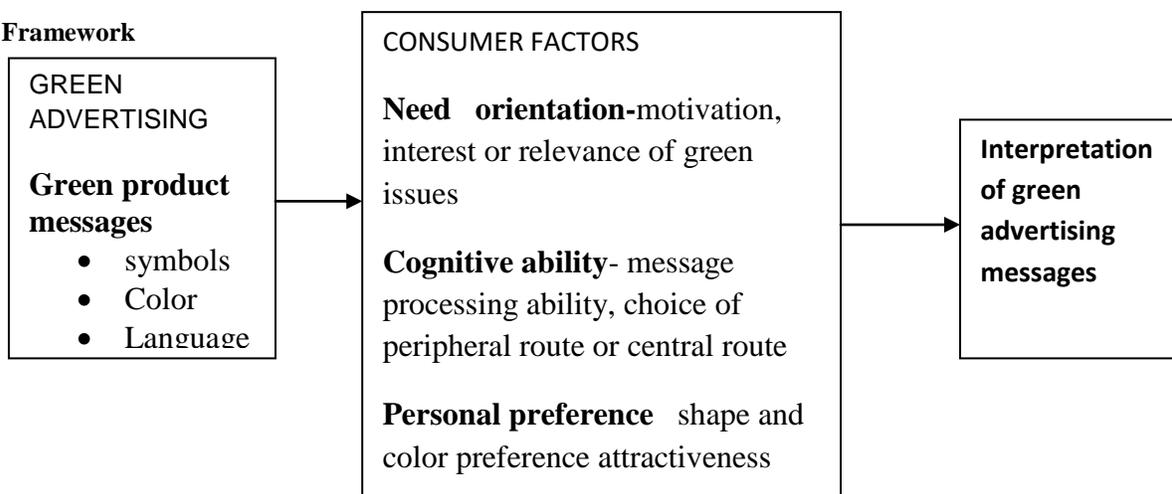


Figure 2.1:A conceptual framework showing the process of consumer interpretation of green advertising messages.

III. METHODOLOGY

This is an exploratory study utilizing a mixed method approach. A case study survey design was employed. Scholars advocate for the mutual exclusivity of case studies and surveys arguing that they are “incomplete without each other” (Attewell and Rule, 1991: 314). As guided by the pragmatic paradigm, the study employed both qualitative and quantitative approaches to research as these were best suited to address the objectives of the study. The study was conducted within Nairobi region specifically at the University of Nairobi. The region is cosmopolitan; occupied by a heterogeneous population. Practitioners’ views from Kapa and Bidco companies were sought. In addition, Competition Authority of Kenya as a regulator of green advertising was included in the study.

The population consisted of 297 students and 59 members of teaching staff from the selected departments; 18 communication officers from the selected manufacturing companies and 5 personnel from the Competition Authority of Kenya. Three sections, ie, Wangari Maathai Institute for peace and Environmental studies, department of Ecology and Environmental sciences and department of Geography and environmental studies were also used.

This study employed mixed methods (MM) sampling strategies specifically stratified purposive sampling. It involves dividing the population into strata and then purposively selecting a group of interest from the strata (Patton, 2002). Secondly, purposive sampling was used to select a sample from the strata.

Consequently, a purposively selected sample of PhD, master and undergraduate students in the thematic area of environmental studies was obtained. The sample obtained was 152. Qualitative data which essentially constitutes depth of information was obtained through purposively seeking experts’ information; hence the choice of 9 university lecturers in the relevant departments was appropriate. The choice of 2 communication personnel from each of the two companies (Kapa and Bidco) was also purposive. To sample them, those who had an inclination in the companies’ advertising activities were preferred.

This study employed a multi-method data collection as recommended by (Yin, 2003). Methods used included brand mapping, in-depth interviews, focus group discussions for qualitative data and the survey method for quantitative data. Brand mapping involved the use of visual data such as photos, film and videos as advocated by Knoblauch et al (2006) and Creswell (2007). In this study, various photographs of homecare, personal care and edible oils and fats from Kapa and Bidco companies were provided to the subjects so as to elicit their reactions on exposure. This made the study more practical and authentic as it showed the real picture in the industry.

IV. DATA ANALYSIS, INTERPRETATION AND DISCUSSIONS

4.1 Integrating Qualitative and Quantitative data

In this study, the convergent parallel design of data treatment was used. Quantitative and qualitative data were collected simultaneously. Results and interpretation from the quantitative survey were merged with the qualitative in order to explain any arising congruence or contradictions arising of the results.

4.2 Meaning of terms: What green messages communicate

Respondents were asked to indicate what they understood certain terms to mean. They reported different interpretations of different green messages found on product labels and packaging material.

Table 4.1: Heart friendly and attached Meaning

Heart Friendly	PhD N (percent)	Master N (percent)	Undergrad N (percent)	Total N (percent)
Product contains no cholesterol	9 (75.0)	11(39.3)	39 (51.3)	59 (50.9)
Natural Product	0 (0.0)	1 (3.6)	9 (11.8)	10 (8.6)
Can’t cause heart ailment	3 (25.0)	13 (46.4)	26 (34.2)	42 (36.2)
Does not cause high blood pressure	0 (0.0)	2 (7.1)	0 (0)	2 (1.7)
None of the above	0 (0.0)	1 (3.6)	1 (1.3)	2 (1.7)
Don’t know	0 (0.0)	0 (0.0)	1 (1.3)	1 (0.9)

As seen above, 50.9 percent of the respondents said that “heart friendly” message meant that the product contains no cholesterol while 36.2 percent said the message meant that the product could not cause heart ailment. This finding underscores the fact that the term has no clear meaning to the consumers as a relatively equal number of respondents understood it differently. The issue of the vagueness of green advertising messages has largely been discussed by Zinkhan and Carlson, (1995) and Easterling et al, (1996) arguing that the communicators are never willing to write informational messages about their products; and one way of doing this is by being vague.

This raises a question not only about the genuineness of the companies but also of the quality of the products. This finding was seen across other messages as seen in the tables below:

Table 4.2: Natural and attached meaning by study participants

Natural	PhD N (percent)	Master N (percent)	Undergrad N (percent)	Total N (percent)
No Additives	9 (75.0)	19 (67.9)	33 (42.9)	61 (52.1)
Raw material naturally grown	0 (0.0)	4 (14.3)	28 (36.4)	32 (27.4)
None processed product	3 (25.0)	5 (17.9)	14 (18.2)	22 (18.8)
None of the Above	0 (0.0)	0 (0.0)	2 (2.6)	2 (1.7)

As for “Natural” as a message, 52.1 percent of the participants thought it meant that the product had no additives while 27.4 percent thought the raw materials used to make the product were grown naturally.

Table 4.3: Herbal and attached meaning by study participants

Herbal	PhD N (percent)	Master N (percent)	Undergrad N (percent)	Total N (percent)
Made of herbs	10 (83.3)	21 (75)	57 (74)	88 (75.2)
Non processed	0 (0.0)	3 (10.7)	1 (1.3)	4 (3.4)
Traditional	1 (8.3)	3 (10.7)	12 (15.6)	16 (13.7)
Natural	1 (8.3)	1 (3.6)	7 (9.1)	9 (7.7)

The term herbal was seen to have a relatively common meaning among all respondents with 75.2 percent attaching its meaning to herbs. The explanation to this high percentage could be that this term had been indicated to be the most commonly seen on product labels, it is also possible that it was easy to understand by simply drawing its meaning from the noun “herb” hence it was easier to construe the meaning from it.

Table 4.4: Recyclable and attached meaning by study participants

Recyclable	PhD N (percent)	Master N (percent)	Undergrad N (percent)	Total N (percent)
Packaging used again	9 (75.0)	17 (60.7)	33 (43.4)	59 (50.9)
Packaging used to make new item	3 (25.0)	7 (25.0)	39 (51.3)	49 (42.2)
Biodegradable	0 (0)	3 (10.7)	3 (3.9)	6 (5.2)
Natural substances	0 (0)	1 (3.6)	0 (0)	1 (0.9)
Don't know	0 (0)	0 (0)	1 (1.3)	1 (0.9)

Although the term “recyclable” had been indicated as the third most commonly seen term on product labels, the respondents were divided almost by half on its meaning, where 50.9 percent indicated that it meant that the packaging can be used again while 42.2 percent said that the packaging can be used to make new items.

The results clearly show that the messages on the products may not have universal meaning to the consumers. This confirms previous research which shows that green advertising messages are ambiguous (Lee, 2013; Yates, 2009). Key informants noted that there was a clear attempt by manufacturers to make the messages even more ambiguous. For example, a brand of cooking oil is indicated to be *pure* vegetable oil and some pictures of fresh vegetables appear below the message. It is not clear what the manufacturer intended to communicate to the consumers as some thought they were just cooking suggestions or they stood for the raw materials used in manufacturing the oil.

During our meeting with one of the FGDs, it was clear that single green terms had various meanings to different participants. The brand mapping strategy which included displaying photos of the products or brands being studied worked well to elicit a healthy discussion about the messages seen. The use of color was also seen not to be clear as some participants indicated that green or yellow color used on some product packaging could have just been a result of the preference by the designer and not necessarily as having a specific green meaning.

Two out of six participants indicated that they did not know the meaning of the term *eco-friendly*. This significant number was unexpected because the selected respondents were those assumed to have an understanding of green issues since they were students of environmental studies.

This finding suggests that it must be more complicated for the ordinary consumer in the market in Kenya who has no knowledge of environmental issues or even a university level education. Murphy et al (2012) asserts that consumers find it difficult to understand green advertising messages. It further confirms assertions by previous studies which accuse green advertising messages of being unspecific and lacking the ability to be substantive and informational (Peterson, 1991; Kilbourne, 1995).

Asked to indicate to what extent certain terms as used on products were able to communicate as clearly as possible the product’s environmental friendliness, the responses showed that some messages were regarded more highly than others as having a clear message.

Table 4.5: Ability of term to communicate environmental friendliness of the product

Term used on product	Strongly Disagree %	Disagree %	Not Sure %	Agree %	Strongly Agree %
Natural	5.2	7.8	12.1	35.3	39.7
Herbal	6.9	5.2	14.7	41.4	31.9
Recyclable	2.7	3.5	7.1	46	40.7
Mercury-free	13.9	10.4	33.9	23.5	18.3
Organic	3.4	5.2	9.8	44.8	26.7
Biodegradable	2.6	3.5	11.3	52.2	30.4
Non processed	11.2	12.9	34.5	23.3	18.1
Heart-friendly	9.5	12.9	25.0	31.0	21.6
Free of harmful chemicals	3.9	10.4	31.3	29.6	14.8
Environment-friendly	2.6	5.3	12.3	39.5	40.4
Eco-consciousness	8.6	8.6	33.6	35.3	13.8
Energy-saving	9.5	6.9	18.1	43.1	22.4
Reusable	0.0	7.8	9.6	39.1	43.5
Pure	8.7	14.8	29.6	28.7	18.3

The terms *reusable*, *recyclable* and *environment-friendly* were regarded by majority of participants as being able to clearly communicate the products environmental friendliness with over 40 percent of the participants strongly agreeing with the statement. Only 13 percent and 14 percent strongly agreed with *eco-consciousness* and *free from harmful chemicals* as terms which communicated clearly products environmental friendliness.

Although consumers assert strongly that the term “recyclable” communicates clearly (86.7%), there were an almost equal number of respondents attaching different meanings to the term when used on product labels. It can be argued that the consumers assume that they understand it due to its commonness of usage in the classroom context but they don’t understand it when used in green advertising. This ambiguity of terms as revealed in this study is associated with the sin of vagueness as advanced by TerraChoice (2009) .

These results were confirmed during FGDs as it was more evident that the consumers did not understand the terms despite their interaction with them in the classroom. Different consumers gave diverse answers when exposed to the green product messages. Several respondents indicated that *recyclable* means “taking it back to the company for re-use” while others indicated that it meant that the product or container could be used again. Asked whether they had ever considered returning a container to the manufacturer of the product, the participants indicated that the companies did not communicate how to do this.

This statement elicited a discussion on how the information can be communicated to the consumers and it emerged that it was possible to indicate on the packaging next to the green message.

Key informants indicated that it was futile for companies to be giving information without understanding their target consumers.

A United Nations Environmental Programme (UNEP) report concurs with this assertion and explains that general descriptions such as *green*, *earth-friendly*, *non-polluting*, *all natural* and *good for the environment* do not have any meaning if not elaborated. While all

these terms give the impression that the product has particular environmental benefits, the concepts are rarely qualified as seen from the products which were used in brand mapping during data collection.

Majority of the participants, 69.2 percent, agreed with the statement that they paid attention if information was clearly written. Only 8.5 percent of the participants agreed that the use of eco labels indicated that the product was safe to use as shown in the table below:

Table 4.6 Consumer response to various green messages

Consumer Response	PhD percent	Masters percent	Undergraduate percent	Total percent
Don't pay attention to detail	41.7	28.6	39.0	36.8
Pays attention if clearly written	33.3	71.4	74.0	69.2
Understands figures and percentages	50.0	21.4	24.7	26.5
Understands better nature / colors	58.3	32.1	33.8	35.9
Use of eco – labels indicates safe to use	0.0	3.6	11.7	8.5
Use of eco-labels does not enhance greenness	41.7	32.1	18.2	23.9

Therefore, clarity of language is a key element in communicating green advertising messages with 69.2 percent indicating that they pay attention if messages are clearly written. Half of the respondents (50%) at PhD level viewed figures as being able to communicate easily. Scholars have argued that message simplicity, clarity and numerical fluency are paramount in communicating green messages (Alter, 2006& Shan, 2007). Interpreting unelaborated figures requires high cognitive ability and this finding can be explained by the fact that the respondents were of a high educational level.

In the FGDs, participants noted that writings on the product packs were discouraging. Some of the writings were too small and illegible. They doubted whether by using such illegible writings, the companies actually intended to communicate to the consumers.

It is also noted that PhD students were the most sceptical about eco labels and symbols. Table 4.13 shows that none of them (0%) thought that eco-labels represented product safety. They viewed them as not having the ability to communicate the greenness of a company. In her campaigns, Maathai considered education as an asset in solving societal issues. The scholar asserts that educated people are in a position to understand what is being lost” (Maathai 2009). This finding indicates that the more educated a consumer is, the more critical he is in interpreting issues.

4.3 Use of nature and color

Thirty five point nine per cent (35.9 percent) of the respondents indicated that they understood green message better if natural colors and features were used. This was a significant figure indicating that these are important elements of green advertising though not as high as those who supported clear messaging (69.2). Here, natural colors refer to green and earth brown while natural features are such as mountains, hills, rivers and valleys rocky places among others (Hartmann & Ibanez, 2009).

In an interview with one of the experts, the use of green color was indicated as one of the strategies that most companies are using to show their greenness. The informant noted that corporate websites communicating CSR programs undertaken by companies contain a lot of green highlights.

4.4 Green Symbols

Table 4.13 contains items that investigate green symbols. Asked to indicate the extent to which consumers agreed with statements regarding eco labels, 8.5 percent of the respondents thought that eco labels indicated that a product is safe while 23.9 percent agree that the use of eco labels does not enhance the view that a product is green. The findings reflect the view that the use of eco-symbols such as the *recycle symbol* (Mobius loop) or the *Don't litter* symbol (Tidy man) had no significant contribution towards communicating positive green information about the products or the manufacturing companies.

Findings from the FGDs showed that a considerable number of participants had come across eco labels but it was not clear what they intended to communicate. Through the brand mapping strategy, symbols were displayed before the participants to test their knowledge about them. The most commonly seen symbol was the Mobius loop, followed by the Tidy man. The participants disagreed that the Mobius loop had any specific meaning. This is consistent with the views of Chan (2001) and Ottman (2003) who note that environmental labels end up misrepresenting information rather than informing. They note that some companies mislead consumers because even the quality of some of the containers was not good enough for reuse despite the presence of the Mobius loop.

Participants noted that the assumption by companies that the symbols are universal and should, therefore, be understood by the all consumers was mistaken.

The participants, though having a higher education level and having been exposed to environmental studies confessed that it was normal to throw used containers on the road. This view was expressed by one of the key informants who noted that it was due to lack of a sense of responsibility that proper disposal of used materials as indicated on product labels was rarely followed regardless of the education level or green messages available.

Therefore, the findings clearly show that green product advertising messages are barely understood even by this category of consumers, who are environmentally-informed contrary to the study expectations. Ambiguity, vagueness and lack of the necessary information are some of the causes of this problem. In a study where only the environmentally-informed consumers were used, it is expected that some uniformity in the meaning attached to different terms would have been achieved. In the conceptual framework, cognitive ability was indicated as one of the variables that might interfere with message comprehension. Yet the results showed that even with a relatively homogenous study group cognitively, homogeneity in the interpretation of meanings of green advertising terms was not achieved. The Elaboration Likelihood Theory indicates that one of the key things to persuasion is the ability to process the message.

It is expected that all the participants in this study had the ability to process the messages. This is unlike in previous studies which were largely done among general consumers regardless of their education level or interest; hence it did not surprise that the majority did not understand these messages (Murphy et al, 2012; Yates, 2008). If environmentally-informed consumers could have very divergent views of what different messages mean, then it can be expected that the average consumer may not even have the slightest idea about what they mean. The use of symbols was also common in communicating green messages. The revelation that a good number of participants did not recognize, leave alone understand the meaning of some of the symbols was unexpected. The "recyclable" symbol comes in different shapes and some of the consumers were not able to recognize all. This finding is supported in various studies such as ECHA (2012), Ottman (2003) and Alter (2006). Contrary to the Elaboration Likelihood Theory (Petty and Cacioppo, 1986), the consumers had difficulty in interpreting the messages despite having a high cognitive ability and a high level of involvement in environmental issues. This means that the two variables indicated as intervening variables in this study do not have significant ability to influence message processing. This is contrary to Chan and Lau, (2008) who argue that a consumer's environmental orientation is a major factor in enhancing understanding of green messages.

The fact that there were consumers who confessed not knowing the meaning of terms such as recyclable when used on product labels - which must be a familiar term among the environmentally-informed consumers given their area of study - tells that there are numerous people in the general consumer population who have no idea what the terms mean. This is a call to the manufacturers to rethink on how to craft their messages

V. CONCLUSIONS

Reviewed literature showed that previous studies on consumer views were conducted among general populations without considering their academic inclinations or interest in environmental issues and could not understand the messages. In this study, the consumers were of a considerably high level of education and more specifically were drawn from the relevant field of environmental studies at the University of Nairobi. Hence it was presumed that they had the cognitive ability to understand green messages. However, there was a consensus among them that they experienced difficulty in understanding the messages. This is in line with findings by Lee, (2013) and Yates (2009). Thus educational level is not a factor in effective communication where jargon is used. Findings emanating from the survey, key informant interviews and FGDs have revealed that there is no association between green product advertising and the construction of corporate identity according to the environmentally-informed consumers in Kenya.

It is also observed that there is no association between understanding green product advertising messages and the cognitive ability of the consumers as all consumers had a university level of education, yet a substantial number of them could not get a clear meaning out of the terms used in green advertising. Each term provided was given different interpretations. Terms and symbols used in GA are understood different depending on the participants' needs or orientation at that time. This view is congruent with Melody and Roxanne (1995) in their assertion that the level of involvement or interest determines ones level of persuasion and comprehension of an issue.

This study was carried out among consumers who are environmentally-informed and who overwhelmingly indicated that they are environmental conscious. However, the fact that a substantial number of them did not understand some of the commonly used terms in green product advertising is an indication that the companies have a task in educating the consumers on what they intend to communicate to them.

VI. RECOMMENDATIONS

Corporations need to be conducting regular research among the consumers in order to know their perceptions about the companies and their products. They need to find out what inhibits communication between them and the consumers.

Consumers need to be aware that not all green advertising is genuine and should seek clarification about suspicious messages from concerned companies.

VII.FUTURE RESEARCH

Future research may be based on a wider variety of university level educated consumers. Further research may also be conducted among the general population of consumers to allow a wider generalization of results so as to get a true view of general consumer perceptions in the market.

Research may be carried out on consumer reactions towards green advertisements on electronic media especially television and the new media; where the audio and visual techniques are integrated. A comparative study may also be done to evaluate the effect of green label advertising versus green advertising on TV.

REFERENCES

- [1] Ajzen, I. & Fishbein, M. (1980). *Understanding Attitudes and predicting social Behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- [2] Alter, S. (2006). Defining information systems as work systems: Implications for the IS field. *European Journal of Information Systems*.17, 448-469.
- [3] American Heart Association. (2014). What is cardiovascular disease? Retrieved from www.heart.org.(accessed January, 2015).
- [4] Attewel, P., and Rule, B. (1991). Survey and Other Methodologies Applied to IT Impact Research: Experiences from a Comparative Study of Business Computing. In *The Information Systems Research Challenge: Survey Research. Methods* ,3, (Kraemer K L, Ed.), pp.299-315, Harvard Business School Press, Boston, MA.
- [5] Bickart, B., & Julie A. (2012). "Green eco-seals and advertising persuasion". *Journal of Advertising*.41 (4), 51-67.
- [6] Bitner, M., & Obermiller, C. (1985). The Elaboration Likelihood Model: Limitations and extensions in marketing. *NA-Advances in Consumer Research* (12), 420-425.
- [7] Bryman, A. (2006). Integrating qualitative and quantitative research: How is it done? *Qualitative Research*.6 (1), 97-113.
- [8] Carlson, L., Grove, J., Kangun, N., & Polonsky, M. (1996). An international comparison of environmental advertising: Substantive versus associative claims. *Journal of Macromarketing*. 16(2), 57-68.
- [9] Carvalho, H., & Mazzon, J. (2013). Homo economicus and social marketing: Questioning traditional models of behavior. *Journal of Social Marketing*.3,162-175.
- [10] Chan, R. (2001). "Determinants of Chinese consumers' green purchase behavior," *Psychology & Marketing*.18(4), 389-402.
- [11] Collins, T., Onwuegbuzie, J., & Jiao, G. (2006).Prevalence of mixed methods sampling designs in social science research and beyond. Paper presented at the meeting of the American Educational Research Association, San Francisco.
- [12] Cornelissen, J. (2011). *Corporate Communication: A Guide to Theory and Practice*. New York: McGraw hill.
- [13] Cox, M. (2008). *Sustainable communication: A study of green advertising and audience reception within the growing arena of corporate social responsibility: case study: British petroleum*. School of Earth and Environment.
- [14] Cox, R. (2010). *Environmental Communication and the Public Sphere*. (2nded.).Thousand Oaks: Sage Publishers.
- [15] Creswell, J. & Clark, V. (2007).*Designing and conducting mixed methods research*. Thousand Oaks, CA: SAGE.
- [16] Creswell, J. (2002). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson Education.
- [17] Davis, J. (1993). Strategies for environmental advertising. *Journal of Consumer Marketing*, 10(2), 19-36.
- [18] Daymon,C. and Holloway, I. (2002). *Qualitative research methods in Public Relations and Marketing Communications*. London and NewYork: Routledge.
- [19] Easterling, D., Kenworthy, A., Nemzoff, R. & College, B. (1996). The greening of advertising: a twenty-five year look at environmental advertising. *Journal of Marketing- Theory and Practice*, 20-34.
- [20] Erdman, B. (2008). "Is Green Really Your Colour?" *Brandweek*, 49(5).
- [21] Euromonitor International. (2014). *Market Research for Kenya*. Retrieved from www.euromonitor.com/kenya.
- [22] Gallicano, T. (2011). A critical analysis of greenwashing claims. *Public Relations Journal*, 5(3).
- [23] Guber, D. (2003). *The Grassroots of a Green Revolution: Polling America on the Environment*. Cambridge, MA: The MIT Press.
- [24] Hartmann, P., & Ibáñez, V. (2009). "Green Advertising Revisited: Conditioning Virtual Nature Experiences." *International Journal of Advertising: The Quarterly Review of Marketing Communications* 28 (4), 715-39.
- [25] International Colleges and Universities.(2015). *Universities in Kenya by 2015 University Web Ranking*.www.4icu.org.
- [26] International Colleges and Universities (2014). *Top Universities in Kenya: 2014 Web Ranking*.
- [27] Kalafat, J., & Illback, J. (1999). Evaluation of Kentucky's school based family resource and youth services centres: Part I. Louisville, KY: REACH of Louisville.

- [28] Karna, J., Hansen, E., & Juslin, H., (2003). Social Responsibility in Environmental Marketing Planning. *European Journal of Marketing*, 37, 61-65.
- [29] Kemper, E., Stringfield, S., & Teddlie, C. (2003). Mixed methods sampling strategies in social science research. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social & behavioural research* (pp. 273-296). Thousand Oaks, CA: Sage.
- [30] Kenya national bureau of statistics. (2009). Census summary of results. www.knbs.or.ke.
- [31] Kerlinger, F. (1986). *Foundations of behavioral research* (3rd ed.). Fort Worth: Harcourt Brace Jovanovich.
- [32] Kilbourne, W. (1995). "Green advertising: Salvation or Oxymoron?" *Journal of Advertising*, 24 (2), 7-19.
- [33] Kinoti, M. (2012). *Green Marketing Practices, Corporate Image, Organizational characteristics and Performance of ISO 9000 and 14000 Certified Organizations in Kenya*. (Unpublished Thesis): University of Nairobi. Kenya.
- [34] Knoblauch, H., Flick, U., & Maeder, C. (2006). *Qualitative Methods in Europe: The Variety of Social Research*. *Forum Qualitative Social Research* 6/3 <http://www.qualitative-research.net>.
- [35] Kuhn, T. (1970). *The Structure of Scientific Revolutions (2nd ed)*. Chicago, IL: Chicago University Press.
- [36] Lee, J. (2013). "The effects of persuasion knowledge on consumers' responses to green advertising: Focusing on skepticism as mediator." Master's Thesis, University of Tennessee.
- [37] Lee K. (2008). Opportunities for Green Marketing: Young Consumers. *Marketing Intelligence and Planning*, (26) 573-586.
- [38] Lodhia, S. (2006). The World Wide Web and its potential for corporate environmental communication: A study into present practices in the Austrarian Minerals Industry: *The International Journal of Digital Accounting research*. 6(11).
- [39] Lyer, E., & Barnerjee, B. (1993). Anatomy of Green Advertising. *Advances in Consumer Research*, 20,494-501.
- [40] Maathai, W. (2003). *The Green Belt Movement: Sharing the Approach and the experience*. New York: Lantern Books.
- [41] Maathai, W. (2010). *Replenishing the Earth: Spiritual Values for Healing Ourselves and the World*. Amazon: Doubleday Religion.
- [42] Melody, E., & Roxanne, L. (1995). Green or non-green? Does type of appeal matter when advertising a green product? *Journal of Advertising* ,24(2), 45-54.
- [43] Mungai, J. (2009). *An Investigation of Green Marketing practices among Pharmaceutical Firms in Kenya*. Unpublished Thesis: University of Nairobi.
- [44] Murphy, P., Laczniak, G., & Prothero, A., (2012). *Ethics in Marketing: International Cases and Perspectives*. Oxon, UK: Routledge.
- [45] Mwangi, M. (2015). *Adoption of green marketing strategies by fast-moving consumer goods manufacturers in Nairobi City County*. Unpublished thesis: University of Nairobi.
- [46] Ottman, J. (1993). *Green marketing: challenges and opportunities for the new marketing age*. Lincolnwood, IL: NTC Business Books, Ottman, J. (1993). *Green Marketing: Challenges and Opportunities*. Chicago: NTC Business Books.
- [47] Peterson, R. (1991). Physical environment television advertisement themes-1979 and 1989. *Journal of Business Ethics* 10 (3) 221-228.
- [48] Petty, R., & Cacioppo, J. (1983). Central and peripheral routes to persuasion: application to advertising, in Percy, L. & Woodside, A.G, (eds) *Advertising and Consumer Psychology*. Lexington, MA: Lexington Books, pp. 3-2.
- [49] Schreier, M. (2012). *Qualitative content analysis in practice*. Thousand Oaks, CA: Sage.
- [50] Shrum, J. (1996). Psychological processes underlying cultivation effects. Further tests of construct accessibility. *Human Communication Research*, 22, 482-509.
- [51] Stacks, D. (2011). *Primer of Public Relations Research*. (2nd ed.) New York: The Guilford Press.
- [52] Tashakkori, A., & Teddlie, C. (2003b). The past and future of mixed methods research: From data triangulation to mixed model designs. In A. Tashakkori & Teddlie, C. (Eds.), *Handbook of mixed methods in social & behavioral research* (pp. 671-702). Thousand Oaks, CA: Sage.
- [53] Teddlie, C. (2005). Methodological issues related to causal studies of leadership: A mixed methods perspective from the USA. *Educational Management Administration & Leadership*, 33(2), 211-217.
- [54] Teddlie, C., & Tashakkori, A. (2003). Major issues and controversies in the use of mixed methods in the social and behavioral sciences. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social & behavioral research* (pp. 3-50). Thousand Oaks, CA: Sage.
- [55] Terrachoice, Environmental Marketing Inc. (2009). *Environmental Claims in Consumer Markets*. Summary Report: North America. <http://sinsofgreenwashing.org>.
- [56] University of Nairobi. (2014). *Faculties and Schools*. www.uonbi.ac.ke.
- [57] UNOPS. (2009). *A guide to environmental labels for procurement practitioners of the United Nations system*. United Nations Office for project services. www.unops.org.
- [58] Wells, D. (1997). *Measuring Advertising Effectiveness*. Mahwah NJ: Lawrence Erlbaum
- [59] Yates, L. (2009). Green expectations: Consumer understanding of green claims in advertising. *Consumer Focus*. Retrieved from <http://www.gov.uk>.
- [60] Yin, R. (2003). *Case study research: Design and methods (3rd ed.)*. Thousand Oaks, CA: Sage.
- [61] Zinkhan, G. & Carlson, L. (1995). Green Advertising and the Reluctant Consumer. *Journal of Advertising*, 24(2), 1-5.