

Factors Contributing Towards Adoption of Green Marketing Practices in the Mobile Phone Service Providers in Kenya

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The effects of the changing weather patterns and climatic conditions have started being felt the world over. Social norms regarding the environment are changing and consumers today are increasingly holding brands accountable for what they do rather than just what they say. As a result, more companies are responding to consumer concerns about the environment by making investments that strengthen the brand value. Consensus on the need for organizations to preserve the environment in which they dwell is what prompted this study. The objectives of the study were twofold: to study the green marketing practices adopted by the mobile phone service providers in Kenya; and to study the factors that have contributed towards adoption of green marketing practices by the mobile phone service providers in Kenya. A descriptive study was conducted. This was a census survey of all the four mobile phone service providers operating in Kenya. Data was collected using a semi-structured questionnaire that was sent to each of the respondents via email. The findings revealed that to a large extent all the mobile phone service providers practice green marketing.

Keywords: Green Marketing Practices, Environment, Mobile Phone Service Providers, Kenya

INTRODUCTION

Green Marketing has become an important area of focus for companies in Kenya. Rising global temperatures, skyrocketing fuel costs and changing weather patterns are considered payback for years of neglecting the environment (Kelly, 2008), and to this end Kenya is no exemption. Such extreme weather sets back the development process for decades (Polonsky, 2001). Destruction of the tropical rain forests, depletion of the ozone layer and emission of carbon, have all led to global warming. Issues affecting the natural environment have elicited public debate and concern in recent years. The degradation of the water catchment areas

around the country are the topic of choice in most forums.

In Kenya, there has been heated debate about saving the Mau, rehabilitating the Aberdares, ban on use of thin polythene bags, a ban on noise and a myriad of other issues that are seen to be harmful to the environment. Nobel laureate Wangari Maathai has for a long time been a lone voice in the struggle to conserve the environment. The time is ripe for the entire country to join in the fight to save the environment.

The objectives of this study were twofold: First, to examine the green marketing practices adopted by the mobile phone service

providers in Kenya; and secondly, to assess the factors that have contributed towards adoption of green marketing practices by the mobile phone service providers in Kenya.

THEORETICAL BACKGROUND

Green products can be defined as products that cause less damage to the environment. This is because the ecological objective in designing and producing green products is to reduce resource consumption, pollution as well as to increase conservation of scarce resources (Kellerman, 1978). Entrepreneurs who want to exploit emerging green markets must identify the consumers' environmental needs so as to develop products that can address those needs (EPA, 2007). Products and their usage are central to how people express their concern for the environment. More products from socially responsible companies are consumed as opposed to those from companies perceived to have a poor environmental track record. Opportunities exist for businesses to use green products and their marketing messages to educate consumers, thus establish themselves as environmental leaders.

Green marketing practices focus on environmental sustainability. Sustainability involves using resources at a rate that allows them to be replenished to ensure their long term survival and not exceeding the environment's ability to absorb pollution (Peattie, 1992). Sustainable development does not enrich one group of people at the expense of another; neither does it reduce the productivity and viability of the world's ecosystems. Environmental sustainability is about generating profits while helping to save

the planet. To make the environment a better place, pollution levels must be reduced.

With dwindling supply of raw materials, companies need to relook at their sourcing strategies with an aim of simplifying the number and types of materials used in their company's production lines. Making use of raw materials that is easily recycled makes more economic sense and helps companies adhere to their sustainability goals. Companies are encouraging consumers to return used products or older models to the manufacturer so that they can replace them with modern models. This goes a long way in helping solve the problem of getting enough dumpsites and landfills for obsolete products.

Some companies urge customers to mail back their used products or they organize to pick up the used product and deliver the new replacement. The obsolete products are then dismantled and either down-cycled or up-cycled (HBR, February 2008). For example, in Kenya, MFI leases their photocopiers and printing machines to corporate entities. When the machines break down, MFI replaces them and collects the old ones for possible repair and disassembly. Renting and leasing prolong product life and ensure that used products are returned to the manufacturer turning the traditional value chain into a value cycle.

Globally, the human race has become very materialistic; products are used for a very short time, disposed of and newer models acquired. This makes an assumption of infinite supply of resources and infinite space for dumping waste. Product take back programs are a good alternative to land filling

(Ottman, 1998). Product take back programs help build up long-term relationships with the customer, thus more companies have started designing their products for repair, remanufacture and re-use. Mobile phones and accessories can be recycled. Nokia encourages consumers to use one of their 5,000 Nokia Care points globally to drop off their old mobile phones (www.nokia.com).

A growing number of CEOs now appreciate the link between environmental responsibility and more efficient and profitable business practices. They are using green marketing strategies to take advantage of opportunities to boost their corporate environmental images (Ottman, 1998). Globally, many companies and organizations have adopted green marketing; the factors that have driven them to adopt green marketing practices are discussed herein.

When producers are held directly accountable for their products end of life impact or recycling under Extended Producer Responsibility laws, they end up facing either a financial or physical burden of recycling their electronics after use. The producers are then willing to design more sustainable, less toxic and easily recyclable electronics. They are encouraged to use less material and design their product to last longer in order to cut costs and avoid planned obsolescence. When consumers hold producers legally responsible if a product does not meet its environmental requirements; manufacturers have no choice but to continue searching for better ways to recycle as well as take advantage of all of the materials they can reuse (The Fair Trading Act, 2008).

Producing eco-efficient products creates less waste, consumes fewer raw materials and ultimately saves energy. This ensures higher returns on investment and enhanced corporate image that lures investors and top talent. Being the first to the shelf with an environmental innovation brings competitive advantage. A lot of energy-efficient products offer inherent convenience benefits that can be showcased for competitive advantage. For instance, Phillips lighting, inventors of compact fluorescent lighting technology took the world by storm as the CFL bulbs need infrequent replacement making them cheaper in the long term (Ottman, et al 2006).

Seeking to cash in on the potential for future green-oriented sales, well established mass marketers now shop for green companies with promising green brands; for example, Heinz acquired Earth's Best Baby Foods while Colgate Palmolive acquired Murphy's Oil Soap, which in turn improves their market share.

Consumers are attracted to green products as they are perceived to be of higher quality. For instance, energy saving bulbs reduce the electricity bills and are thus worth buying. The marketer's role in product management is to provide product designers with market-driven trends and customer requests for green product attributes such as energy saving, organic, green chemicals and local sourcing of material.

Green marketing offers a rare opportunity to integrate personal values into the workplace. Creating products that are more in sync with nature allows one to personally contribute to environmental clean-up and helps ensure a

more secure future for the future generations of mankind. The ability to demonstrate a responsible environmental attitude dramatically improves the image of a corporation and reflects well on the entire management and personnel fostering better relations with the corporation's stakeholders (Ottman, 2003)

In minimizing wastes firms often develop more effective production processes that reduce the need for some raw materials thus serving as a double cost savings. In other cases firms attempt to find end-of-pipe solutions; instead of minimizing waste by trying to find markets or uses for their waste materials, one firm's waste becomes another firm's input of production. Governmental regulations relating to green marketing are designed to control the amount of hazardous wastes produced by firms by issuing of various environmental licenses. This is done in a bid to protect consumers through regulations intended to modify organizational behavior, for example the ban on thin polythene bags in Kenya required that any Kenyan citizen found carrying a polythene bag that was not within the required thickness would be liable to pay a fine (www.nema.go.ke).

Consumers are not indifferent to the value offered by environmental benefits. Home buyers recognize the practical long-term cost savings and comfort of natural lighting, passive solar heating and heat-reflective windows (Ottman, et al 2006). Consumers are demanding more transparency on environmental issues and will not purchase products from a company known for green washing. Humans depend on a sustainable

and healthy environment, and yet we have managed to damage the environment in numerous ways. It is time that more companies respond to the changes that are happening around us on a daily basis by providing products that are less harmful to the environment.

Finally, Organizations the world over are beginning to realize that they are members of the wider community as we have become one global village. It is of utmost importance that they behave in an environmentally responsible manner that will result in environmental issues being integrated into the organization's corporate culture. The Post Bank of Kenya has reduced their paper consumption by adopting paperless banking. Other Banks offer mobile banking and internet banking. Customers can transfer funds at a click of a button and view their account statements online. Some employers no longer print out payslips for their staff as all employees can view their payslips online. Mobile telephone service providers in Kenya are giving customers the option to purchase virtual airtime as opposed to scratch cards.

METHODS

The study employed a descriptive research design. It was a census survey as it focused on the companies licensed to provide mobile telephone services in Kenya. According to the industry regulator; the Communications Commission of Kenya, as at May 2010 there were four companies that were actively providing Global System for Mobile Communications (GSM) technology mobile telephone service. These are Safaricom Limited, Zain Kenya (Bharti Airtel Kenya), Telkom Kenya Limited (Orange Mobile) and

Econet Wireless Kenya Limited (Essar Telecom Kenya - Yu).

Primary data was collected using a semi-structured questionnaire which was distributed to the respondents via email. The respondents were drawn from mid level management. Some of the respondents returned the completed questionnaire via email while the rest were collected by the researcher. The questionnaire had three parts; part one gave background information of the company and bio data of the respondent; part two contained the green marketing practices while part three contained the factors contributing towards adoption of green marketing by the mobile phone service providers in Kenya. The questionnaire made use of Likert type questions and a few open ended questions.

The data collected was first checked for completeness, edited and then coded. Descriptive statistics was used to analyze the data. This involved the use of factor analysis in the SPSS module. Factor analysis was used to summarize the large number of

variables into fewer numbers of factors. The standard deviation and mean scores were used to show the distribution of the findings. These results were then used to validate the objectives of the study.

FINDINGS AND DISCUSSIONS

The findings of the research study based on the questionnaires administered to the four companies licensed to provide mobile telephone services in Kenya is as follows.

Respondent Profile

All the respondents were in mid level management in their respective companies; one respondent was targeted in each company.

Green Marketing Practices

The second section of the questionnaire introduced the concept of green marketing. This question was meant to gauge from the outset whether the respondents understood what green marketing is and whether to their understanding of the concept, green marketing is practised by their organization as shown in Figure 1.

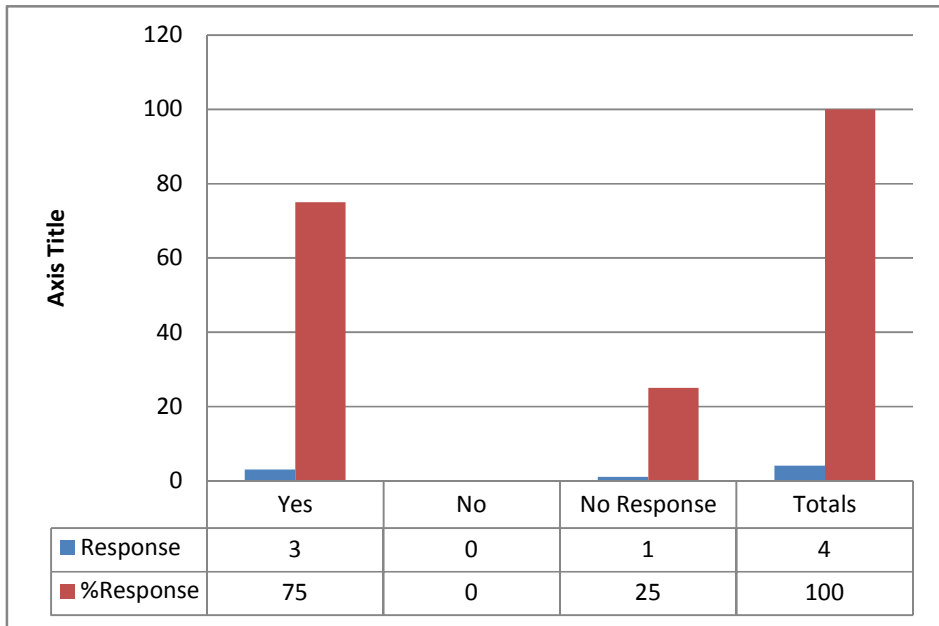


Figure 1: Graphical Representation of Response to the Question - Does your organization Practice Green Marketing

Figure 1 illustrates that 75% of the respondents answered in the affirmative, 25%, representing one respondent did not give a response.

Factor Analysis

The next section outlined various green marketing practices. These variables listed under green marketing practices were analysed through factor analysis and the

Eigen Values used to summarize the green marketing practices employed by the companies surveyed. The findings are presented in Tables 1, 2, 3, and 4.

Table 1 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.793
Bartlett's Test of Sphericity	Approx. Chi-Square	51.302
	Df	25
	Sig (P-value)	.002

Table 1 show that the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.793. In addition to the KMO measure, the Bartlett Sphericity test was done. To

determine the number of components, only the Eigen Values greater than or equal to 1 were considered (Cooper, 2003). The extraction method was Principal Axis

Factoring; the rotation method was Varimax with Kaiser Normalization (Shajahan, 2004). With the recommended value of 0.6 in order to perform Factor Analysis in the KMO

measure, it was necessary to perform Factor Analysis on the data as illustrated in Table 2, since the KMO measure was 0.793.

Table 2: Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.934	7.130	7.130	1.934	7.130	7.130
2	1.884	6.978	14.108	1.884	6.978	14.108
3	1.803	6.678	20.786	1.803	6.678	20.786
4	1.710	6.333	27.119	1.710	6.333	27.119
5	1.623	6.011	33.130	1.623	6.011	33.130
6	1.598	5.919	39.049	1.598	5.919	39.049
7	1.521	5.633	44.682	1.521	5.633	44.682
8	1.455	5.389	50.041	1.455	5.389	50.041
9	1.381	5.115	55.186	1.381	5.115	55.186
8	1.315	4.870	60.056	1.315	4.870	60.056
9	1.260	4.667	64.723	1.260	4.667	64.723
10	1.213	4.493	69.216	1.213	4.493	69.216
11	1.051	3.893	73.109	1.051	3.893	73.109
12	.968	3.585	76.694			
13	.812	3.001	79.695			
14	.721	2.670	82.365			
15	.699	2.589	84.954			
16	.634	2.348	87.302			
17	.587	2.174	89.476			
18	.511	1.893	91.369			
19	.453	1.678	93.047			
20	.419	1.552	94.599			
21	.398	1.474	96.073			
22	.337	1.248	97.321			
23	.279	1.033	98.354			
24	.242	.896	99.250			
25	.203	.271	99.521			
26	.073	.247	99.768			
27	.063	.232	100.000			

From Table 2 it is discernible that, 27 variables were reduced into 11 factors. The eleven factors explain 73.11% (Cumulative percentage) of the total variation, the

remaining 16 factors together account for 26.89% of the variance. The explained variation 73.11% is greater than 70% and therefore, Factor Analysis was important for

reducing factors by putting similar ones together.

From the total variance explained by the Eigen values, factor extraction was done to determine the factors using Eigen values

greater than 1. Factors with Eigen values less than 1.00 were not used because they account for less than the variation explained by a single variable as shown in Table 3.

Table 3: Factor Loading of Variables

Component	Factor	Reliability Coefficient	Eigen Value
F1	Participate in environmental clean-ups	0.713	1.934
F2	Use of locally manufactured products to reduce carbon emissions associated with shipping in similar goods from abroad	0.850	1.884
F3	Encourage staff to switch off lights not in use by posting reminders at the power switches	0.885	1.803
F4	Encourage customers to use electronic top-ups or virtual air time	0.785	1.710
F5	Endeavoring to source for supplies from environmentally conscious suppliers	0.884	1.623
F6	Use of office furniture made of recycled wood products like Medium Density Fiberboard(MDF)	0.725	1.598
F7	Use of natural lights during the day to save on electricity	0.694	1.521
F8	Use of biodegradable paper for making scratch cards	0.801	1.455
F9	Open up windows during the day to let in fresh air as opposed to using air conditioning system in the office	0.712	1.381
F10	Consider uses of various forms of energy in various projects like wind energy, solar energy and others	0.720	1.315
F11	Printing internal correspondence in back to back format	0.8407	1.260

The reliability in the factors was achieved through calculation of Cronbach Alpha

coefficient; it explains to what extent the variable in the study are explained by the

factors. From Table 3 it is evident that Factor one explains variables by 71.3% with the high Eigen Value of 1.934 meaning that participation in environmental clean-ups is the most widely adopted green marketing practice

by the mobile phone service providers. The rank of each factor reduces with the reduction in the level of Eigen Value. Table 4 present the factor correlation matrix.

Table 4: Factor Correlation Matrix

Factor	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11
F1	1.000	.376	.324	.387	.402	.311	.289	.421	.315	.301	.317
F2	.376	1.000	.398	.371	.383	.354	.455	.388	.397	.365	.318
F3	.324	.398	1.000	.345	.312	.328	.367	.302	.361	.333	.321
F4	.387	.371	.345	1.000	.311	.296	.415	.360	.329	.344	.356
F5	.402	.383	.312	.311	1.000	.354	.312	.345	.365	.371	.387
F6	.311	.354	.328	.296	.354	1.000	.398	.315	.432	.324	.318
F7	.289	.455	.367	.415	.312	.398	1.000	.376	.301	.328	.421
F8	.421	.388	.302	.360	.345	.315	.376	1.000	.360	.344	.296
F9	.315	.397	.361	.329	.365	.432	.301	.360	1.000	.376	.398
F10	.301	.365	.333	.344	.371	.324	.328	.344	.376	1.000	.345
F11	.317	.318	.321	.356	.387	.318	.421	.296	.398	.345	1.000

From Table 4 it is clear that there is weak correlation between different factors, the maximum being 0.455 (between the factors “F2- Use of locally manufactured goods to reduce carbon emissions associated with shipping in similar goods from abroad” and “F7- Use of natural lights during the day to save on electricity”). This means that all the

11 factors are independent, which implies that they are measuring unrelated dimensions. These factors were further analysed by computing the mean score to ascertain the extent through which mobile phone internet providers practice green marketing mean scores as contained in Table 5.

Table 5: Descriptive Statistics – Green Marketing Practices

	Factors	N	Mean	Std. Deviation
Use of biodegradable paper for making scratch cards	F8	4	5.00	.000
Printing internal correspondence in back to back format to save paper	F11	4	4.50	.577
Encourage customers to use electronic top-up or virtual air time	F4	4	4.50	.577
Participate on environmental clean-ups	F1	4	4.25	.957
Open up windows during the day to let in fresh air as opposed to using air conditioning system in the offices	F9	4	4.00	.000
Use of office furniture made of recycled wood products like Medium Density Fiberboard (MDF)	F6	4	4.00	.000
Use of natural lights during the day to save on electricity	F7	4	3.50	.577
Use of locally manufactured products to reduce carbon emissions associated with shipping from abroad	F2	4	3.50	.577
Consider use of alternative source of energy in various projects like wind energy, solar energy and others	F10	4	3.25	2.062
Endeavoring to source for suppliers from environmentally conscious suppliers	F5	4	2.25	.957
Encourage staff to switch off lights not in use by posting reminders at power switches	F3	4	1.50	.577
Overall Mean Score			3.66	

Table 5 shows that the overall mean score of the extent to which mobile phone internet providers practice green marketing is 3.66, meaning that most firms practice green marketing to a larger extent. The use of biodegradable paper for making scratch cards had a mean score of 5 meaning that it is practiced by the firms to a very large extent while encouraging staff to switch of lights not in use by posting reminders at power switches is practiced to a very small extent with a mean score of 1.5. The standard deviation gave the deviations of various responses from the mean; in the case of considering use of

alternative source of energy in various projects like wind energy, solar energy and others, there was divergent opinion as shown by Std. 2.062 since respondents gave non-consistent response.

Factors Contributing Towards Adoption of Green Marketing

To determine the factors contributing to the adoption of green marketing the data was subjected to Kaiser-Meyer-Oklin (KMO) measure of sampling adequacy as shown in Table 6.

Table 6: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.471
Bartlett's Test of Sphericity	Approx. Chi-Square	28.773
	df	12
	Sig.	.000

The KMO value obtained of 0.471 is below 0.6 which is the recommended value for factor reduction, so factor reduction was not

necessary. The responses were therefore analysed using mean scores as shown in Table 7.

Table 7: Descriptive Statistics – Factors Contributing Towards Adoption of Green Marketing

	N	Mean	Std. Deviation
Corporate social responsibility-giving back to the community that you serve	4	5.00	.000
Having concern for the environment	4	5.00	.000
Adhering to government policy requirements	4	5.00	.000
Competition for scarce resources	4	5.00	.000
Personal satisfaction for contributing towards a sustainable environment	4	5.00	.000
Having better and superior products that ensure repeat business from customers	4	5.00	.000
Increasing the firms market share	4	5.00	.000
Having a competitive advantage in the market	4	5.00	.000
Enhanced corporate image that lures investors	4	5.00	.000
Posting higher returns on investment	4	5.00	.000
Producer responsibility-every firm is held accountable for their products' impact on the environment	4	4.50	.577
Serving green conscious consumers	4	4.25	.957
Complying with environmental pressure groups	4	4.25	.500
Overall Mean Score		4.85	

The overall mean score as shown in Table 7 is 4.85 meaning that all the factors are very important when it comes to contribution in the decision that a firm makes on whether to adopt green marketing or not. Corporate social responsibility was taken to be the most important factor in contributing to the adoption of green marketing while complying with environmental pressure groups was the least contributing factor. The Standard deviation for all the factors was less than 1 meaning that, the responses were almost similar to each other. All the factors listed were deemed to be of equal importance to the companies surveyed in contributing to their decision to adopt green marketing.

CONCLUSION

From the findings, it was evident that all the four mobile phone service providers practice green marketing. Various factors were found to have driven the companies into adopting green marketing practices. The findings further indicated that all the factors identified were deemed important in making the decision to adopt green marketing practices by each company.

The green marketing practices adopted by the mobile phone service providers to a very large extent were: use of biodegradable paper for making scratch cards; printing internal correspondence in back to back format to save paper; encouraging customers to use electronic top-up or virtual air time and participating in environmental clean-ups. Opening up windows during the day to let in fresh air as opposed to using air conditioning systems in the offices; use of office furniture made of recycled wood products like Medium Density Fiberboard (MDF); use of natural

lights during the day to save on electricity; use of locally manufactured products to reduce carbon emissions associated with shipping from abroad was practised to a large extent. Use of alternative sources of energy in various projects like wind and solar energy; endeavoring to source for supplies from environmentally conscious suppliers and encouraging staff to switch off lights not in use by posting reminders at power switches was practised to a very small extent.

The most important factors that drove the mobile phone service providers to adopt green marketing practices were: corporate social responsibility; concern for the environment; adherence to government policy requirements; competition for scarce resources; personal satisfaction; having better and superior products; increasing the firm's market share; competitive advantage, enhanced corporate image and higher returns on investment. Producer responsibility, serving green conscious consumers and complying with environmental pressure groups were not deemed to be as important as the rest of the factors. These three marginally contributed towards adoption of green marketing practices by all the companies surveyed.

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