

// A STUDY ON THE APPLICATION OF ECOLOGICAL
MARKETING PRACTICES BY OIL COMPANIES IN
NAIROBI. //

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A MANAGEMENT RESEARCH PROJECT SUBMITTED IN
PARTIAL FULFILMENT OF THE REQUIREMENT FOR
THE MASTER OF BUSINESS ADMINISTRATION (MBA)
DEGREE, FACULTY OF COMMERCE, UNIVERSITY OF
NAIROBI.

NOVEMBER, 2006

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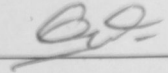


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DECLARATION

This project is my original work and has not been submitted for a degree in any other university for academic credit.

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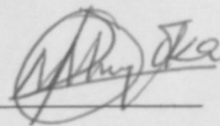
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This project has been submitted for examination with my approval as the University Supervisor.

SIGNED: University Supervisor:



DATE:

16/11/06

DR. R. M. Musyoka

ACK DEDICATION ENT

To my entire family from where I drew my inspiration for academic pursuit and who are always willing to sacrifice something to make my ambitions come true. More particularly to mum, mama Charles for her commitment in raising me up.

I am indebted to my supervisor Dr. R.M. Musyoka for his guidance, support and encouragement.

AND friends, too numerous to mention who helped me to bring this project to fruition, and their assistance is greatly appreciated.

Lastly to all lovers of nature.

May the Lord bless my journey and honors returns.

ACKNOWLEDGEMENT

PAGE

My sincere gratitude and appreciation goes to the University of Nairobi and Gandhi Smarak Nidhi Fund for awarding me the Scholarship to undertake this course.

I am indebted to my supervisor Dr. R.M. Musyoka for his guidance, support inspiration and humility.

Countless colleagues and organizations, too numerous to mention here, helped to bring this project to fruition, and their assistance is gratefully acknowledged.

Lastly to God almighty, may glory and honors returns.

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ABSTRACT

1.0 INTRODUCTION.

The academic thinking on ecological marketing draws mainly from developed countries. These practices are being lately adopted in developing countries. This study therefore attempts to find out the extent to which oil companies in Nairobi have adopted the greening practices.

Three objectives were pursued. First, the study sought to establish ecological marketing practices adopted by oil firms in Nairobi. Secondly, to find out the factors that lead to the application of ecological marketing by firms in the oil industry in Nairobi and lastly, to find out the challenges faced by oil firms in Nairobi upon adopting ecological marketing practices.

Primary data was collected through questionnaires that were administered by drop and pick latter technique. Structured and unstructured questions were both used. Likert type profiles, tables and percentages were used for analysis. The findings were that there were differences in the extent of application. The ecological practice was more profound in large oil companies than in medium and small firms.

However, certain limitations are evident. The study was limited to a single geographical locality, Nairobi. This therefore does not provide good measure of ecological practices in Kenya as a whole for generalization. The research focused on oil industry, but would be of interest if replicated into other sectors.

CHAPTER ONE

1.0 INTRODUCTION.

1.1 Background.

Environmentalism is regaining resurgence in today's society. The previous surge of public interest in the environment began in the 1970s a decade that saw the enactment of the various legislations. Thus, as society becomes more concerned with the natural environment, businesses have begun to modify their behavior in an attempt to address society's "new" concerns. Some businesses have been quick to accept concepts like environmental management systems and waste minimization, and have integrated environmental issues into all organizational activities. Some evidence of this is the development of journals such as "Business Strategy and the Environment" and "Greener Management International," which are specifically designed to disseminate research relating to business' environmental behavior.

One business area where environmental issues have received a great deal of discussion in the popular and professional press is marketing. Terms like "Green Marketing", "Environmental Marketing" and "Ecological Marketing" appear frequently in the popular press. Many governments around the world have become so concerned about Ecological Marketing activities that they have attempted to regulate them [Polonsky, 1994a]. In the United States (US) the Federal Trade Commission (FTC) and the National Association of Attorneys-General (1991) have developed extensive documents examining Ecological Marketing issues. One of the biggest problems with the Ecological Marketing area is that there

has been little attempt to academically examine environmental or Ecological Marketing. While some literature does exist [Carlson, Grove and Kangun 1993, Davis 1992, Davis 1993], it comes from divergent perspectives.

The terminologies used in this area are varied, it includes: Ecological Marketing, Environmental Marketing and Green Marketing. Ecological marketing is defined as the study of the positive and negative aspects of marketing activities on pollution, energy depletion and non-energy resource depletion [Henion and Kinnear, 1976].

Firms are members of the wider community and therefore must behave in an environmentally responsible fashion. This translates into firms that believe they must achieve environmental objectives as well as profit related objectives. This results in environmental issues being integrated into the firm's corporate culture.

The activities of the business also affect the environment either positively or negatively. Businesses therefore have to craft an integrated approach to social imperatives and this has given impetus to the expansion of the corporate business social responsibility. The needs and wants of the consumer is a subset of societal needs, thus satisfaction of the consumers need is not equal to satisfying the society. Thus, the concept of societal marketing has lead to upshot of ecological marketing. Broadly, the Social marketing programs are generic marketing programs carried out to change behaviors that are undesirable or to reinforce

others that are desirable for the societies or the individual's interests.

Kotler and Zaltman (1971) define social marketing as the design and implementation and control of programs seeking to increase the acceptability of a social idea or practice in target group(s). It thus aims to produce an optimal plan for bringing about a desired social change. The role of the business corporation in environmental protection is considered to be a major strategic focus for the new millennium and according to Varadarajan (1992) environpreneurial marketing is defined as the 'the process of formulating and implementing entrepreneurial and environmentally beneficial marketing activities with the goal of creating revenue by providing exchanges that satisfy a firm's economic and social performance objectives [Meadows, 1992].

Issues affecting our natural ecology have captured the public imagination and concern in recent years. The destruction of tropical rain forests and the depletion of the ozone layer leading to global warming have serious implication for our quality of life, not necessarily today, but for future generations. Even if all the companies in the developed world were to achieve zero emissions by the year 2015, the earth would still be stressed beyond what biologists refer to as its carrying capacity. Increasingly, the scourges of the late twentieth Century- depleted farmland, fisheries and forests; choking urban pollution; infectious disease; and migration are spilling over geopolitical borders [Stuart, 1997].

Over the past few years many new concepts 'sustainable development' 'environmental economics' 'global warming' 'the polluter pays principle', 'bioethics', 'egocentrism' and so on have come to occupy an increasingly prominent place in public debate (Charter, 1993). The magnitude and rate of climate change will strongly depend on efforts to reduce the level of green house gas (GHGs) concentrations (carbon dioxide, methane and nitrous oxide) in the atmosphere. With higher concentration of GHGs, the likelihood of irreversible and grave damage to human and biological systems also increases [Willums, 1998].

Climate change is directly linked to rising sea levels shrinkage of Glaciers, changes in rainfall frequency and intensity, shifting of climatic zones due to increased temperatures, shifts in the growing season, from early flowering of trees and emergence of insects. It also increases the frequency and magnitude of extreme weather events, such as droughts, floods and storms, which set back the development process for decades [Polonsky, 2001].

Climate change will further reduce access to drinking water, negatively affecting the health of poor people and will pose a real threat to food security in many countries in Africa, Asia and Latin America. While climate change is a global unprecedented phenomenon, its negative impacts are more severely felt by poor people in developing countries and countries in transition. They are more vulnerable because of their high dependence on agriculture and fishery resources and their limited human institutional and financial capacity to cope with climate variability and extremes [Ottoman, 1998].

The developed countries contribute most to global warming since they use most of the fossil fuels. Europe, Japan and North America are estimated to account for two thirds of carbon dioxide now in the atmosphere, with less than five percent of the world population. The US is emitting 24 percent of the worlds total carbon dioxide emissions [Willums, 1998]. The world has to reduce the emission of GHGs through using energy more efficiently and by using renewable energy like biomass, hydro, solar, wind and geothermal. The promotion of renewable energies is not only important for industrial countries; even developing countries should mainstream energy efficiency as well as renewable energy technology, which ensure both a positive effect on the reduction of GHGs and on poverty [Meadows and Randers, 1992].

1.2 The Oil Industry in Kenya

Over the past three decades major companies have been subjected to increasing pressure to improve their environmental performance. This arose from economic developments such as the energy crisis of the 1970's and from the growth in environmental legislation. The focus on hazardous wastes and emissions as well as accidental releases of chemicals mostly affected manufacturing operations. Customers are demanding more environmentally friendly products, which in turn is resulting in requirements for manufactures to recover and recycle products at the end of the products life [Boner, 1997]. Today, things are changing increasingly and the focus is on products. There are nationally sponsored eco-label programs and restrictions on the use of hazardous substance such as chlorofluorocarbons, volatile organic compounds or polyvinyl chloride (PVC) [Feldman, 1990].

Leading firms aim to achieve better market positioning, reduced costs and a greater degree of managerial control by being 'ahead of regulator'. Environmental credentials have become an essential part of market positioning for many companies. Xerox, for example, believes that, in the long term products can be marketed at least partly on the basis of environmental merit. Meanwhile, Hitachi's environmental objectives include increased customer satisfaction (Stuart, 1997). Clearly Industry or parts of it at least is earning much more public tolerance, even respect, by demonstrating that it can make a profit while reducing waste generation, pollution emissions and raw material consumption [Long, 1991].

1.2 The Oil Industry in Kenya

The oil industry plays a significant role in the economy of any country. The petroleum fuel is the major source of energy; thus it is often described as the wheel that moves the nation. In Kenya, the industry accounts for over 20 percent of the Gross National Product [Government of Kenya, 2000].

In terms of consumption, the transport sector is the largest consumer of petroleum products at approximately 60 percent of the total volume, followed by manufacturing (16 percent), commercial establishments (11 percent) household use (9 percent, made up of liquefied petroleum gas for cooking and kerosene for lighting and cooking) and agriculture (4 percent) [Government of Kenya, 2000].

the sector [East African, 1999]. The prices had remained erratic, a

The first multinational oil company is thought to have started its operation in Kenya at the turn of the 20th century. The first operation by the major oil companies were set up at the port town of Mombasa from where expansion was made to the rest of East Africa consisting of Kenya, Uganda and Tanzania. Kenya is not a producer of petroleum and thus it imports chiefly from Persian Gulf area, most of it as crude oil, with refined petroleum products accounting as yet for a small but rising share of the total import. The crude oil is refined in the country's only refinery at the port city of Mombasa and transported inland by pipeline, road and rail [Government of Kenya, 2000].

pipeline to western Kenya has been another milestone in the industry, impacting on the transportation

1.3 Challenges of the oil Industry

Oil industry in Kenya has undergone several major transformations that have been occasioned by the environmental changes that have been taking place locally and globally [Isaboke, 2001]. The effect of the economic downturn over the last two decades has aggravated the functioning of the industry. The liberalization of the oil industry by the Kenya government in the mid 90s after recommendations from the Breton woods institutions has impacted greatly on the industry [Isaboke, 2001]. The objective of the liberalizations was to create a competitive environment by allowing more marketers in the industry to improve on product availability at lower prices, with the long run benefits to the consumers [GOK: 1996-1998].

of the leaded fuel exhaust gases affects children's intellectual capacity and development [Sanjay, 2001].

The liberalization had the effect of reducing the market share of major oil players and created a significant level of indiscipline in

the sector [East African, 1999]. The prices had remained erratic, a situation attributed to changes in the global crude oil prices and government taxation [Economic Survey, 2002].

There has been a tremendous increase in the number of marketers in the oil industry since liberalization from the original seven, mainly subsidiary of the multinational oil companies to approximately fifty registered oil companies thereby increasing the turbulence in the industry [Isaboke, 2002]. The current number of registered oil companies is at 115 [Economic Survey, 2002].

The extension of the oil pipeline to western Kenya has been another milestone in the industry, impacting on the transportation and storage of oil products, particularly white fuels in the country. This has reduced the number of road accidents of oil tankers. Equally, there has been a substantial increase in the number of registered vehicles in Kenyan road despite the downturn in the economy. This had the positive effect of growth to the sub-sector due to increased use of petroleum products. The introduction of unleaded fuel in Kenya by oil companies is another change in the oil industry. The greatest challenge for motor owners was from sale of adulterated fuel to motorists who bear hidden costs like increased motor vehicle running costs, reduced life spans of vehicles, increased emissions of toxic gases and high medical costs for treatment of diseases resulting from toxic emissions. The toxic nature of the leaded fuel exhaust gases affects children's intellectual capacity and development [Sanjay, 2001].

1.4 Research Problem

Customers are demanding more and more environmentally friendly products and production processes. As issues touching on the environmental pollution take prominence, every company and sector – including the oil industry has to be more aggressive in their environmental innovations to be competitive.

Empirical research and practice have evidenced that there is a relationship in the long run between social responsiveness of an organization and corporate effectiveness [Kweyu, 1993]. Fenn [1971] concludes that a businessman who gives his time and companies that set social objectives and strive to achieve them position themselves to enjoy the benefits of such involvement.

With liberalization of the oil sector in the mid 90s, the industry in Kenya has undergone tremendous changes in the past decade. The ones profitable sector was opened for stiff competition. The new entrants in the industry eroded the market shares of the big players. Consequently the sector transformed into free-for-all with retail petrol stations sprouting in all localities. The sector become so disorganised, the petroleum institute of Kenya had to step in to bring back sanity. The need for environmental compliance and environmental legislation become crucial for the sector.

Several studies have been done on the oil industry and other sector in Kenya. Among them Wairachu [2000] concludes that oil firms in Kenya have had to adjust their marketing mix elements, be innovative and seek new ways of operating in order to achieve their marketing objectives and adapt to the turbulent business

environment. There are few researches done on the ecological marketing locally. Among these studies, Kiongera [2003] study was on the green marketing practices and challenges of firms in the cement industry. His findings were that firm needed to be environmentally friendly in its practices. Obuya's [2003] study surveyed the extent to which manufacturing firms in Nairobi practices green marketing. His findings were that many firms are succumbing to governmental pressure for environmental compliance. Also pressure to be competitive is driving greening processes.

Kenyatta [2004] studied the eco-marketing in Kenya on selected service organizations. He founds that some firms in the service sector were integrating eco-marketing as a positioning strategy for competitiveness.

Global concerns from the stakeholders for the natural environment have been growing by the day. These concerns have raised firm's level of environmental consciousness and performance. A niche consumer segment has been emerging and is often willing to pay extra in exchange for greener products. All over the world, manufacturers are gearing up to become ISO 14001 certified. Locally in Kenya, products are being ecolabelled for competitiveness. The environmental bodies and legislation has been growing. National Environmental Management Authority [NEMA] is one institution that had been mandated by the Kenya government to enforce environmental compliance for companies.

Thus, the oil sector will be used for the study primarily because of the intense harmful environmental effect the sector has in Kenya. This research will seek to answer the question: - How do oil companies in Nairobi practices ecological marketing?

1.5 Objectives of the study

The objectives of this study are as follows: -

- 1) To establish ecological marketing practices adopted by oil firms in Nairobi.
- 2) To find out the factors that lead to the application of Ecological marketing by firms in the oil industry in Nairobi.
- 3) To find out challenges faced by Oil firms in Nairobi upon adopting ecological marketing practices.

1.6 Importance of the study

This study will help to increase awareness on the need for the business community to present their business as part of the society. An improved appreciation of the issues surrounding ecological marketing will lead to more positive image of the firm.

The various Lobby groups will find the study invaluable. These include the environmentalists that are keen on the ecological issues. It will result on better understanding on the various greening practices. The companies will be able to respond positively to pressure groups on there ecologically wanting activities.

The study will create deeper understanding to the government policy makers on the ways of protecting its citizen against poor

business practices that will degrade the environment by minimizing environmental harm and not necessarily eliminating them. They will help them properly integrate environmental concerns into all areas of policy making in relation to economic development. To the scholars the study is a good groundwork to build on so that more insight can be thrown into the extent of use of eco-marketing practices. It will add an important contribution to the future of ecological marketing research.

Finally, for marketers ecologically concerned segments may exist in a size large enough to warrant exploitation. Thus the study may lay the foundation for further research on these segments. Marketing to this segment by changing existing products or introducing new ones may represent a new market opportunity to the marketer. The study will benefit the consumers because the aspects of consumer acceptance or preference will be a critical factor in influencing producer and production processes.

2.1 Importance of ecological marketing

The field is of great significant to any organizations because various stakeholders are taking great interest on the natural environment. Firms that adopt Ecological Marketing practices as a marketing strategy are citing various merits. Among them are: Organizations perceive environmental marketing to be an opportunity that can be used to achieve its objectives (Kotler, 1996).

CHAPTER TWO

2.0 LITERATURE REVIEW

Ecological marketing involves developing ecologically safer products, recyclables and biodegradable packaging, better production and pollution control and more efficient operations [Freeman, 1984]. Environmental or Ecological Marketing may be defined as all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment [Polonsky 1994b]. This definition incorporates much of the traditional components of the marketing definition, which is "All activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants" [Stanton and Futrell 1987].

Eco marketing is a subset of social responsibility. It developed in part by the pressure of consumers and other stakeholders who are committed to increasing environmental awareness and bringing about changes in production and marketing in order to safeguard the natural environment [Kotler, 1996].

2.1 Importance of ecological marketing

The field is of great significant to any organizations because various stakeholders are taking great interest on the natural environment. Firms that adopt Ecological Marketing practices as a marketing strategy are citing various merits. Among them are: Organizations perceive environmental marketing to be an opportunity that can be used to achieve its objectives [Keller 1987,

Shearer 1990]; Organizations believe they have a moral obligation to be more socially responsible [Davis 1992, Freeman and Liedtka 1991, Keller 1987, McIntosh 1990, Shearer 1990]; Governmental bodies are forcing firms to become more responsible. Competitors' environmental activities pressure firms to change their environmental marketing activities. Cost factors associated with waste disposal, or reductions in material usage forces firms to modify their behavior [Azzone and Manzini, 1994].

2.2 Green Marketing Opportunities

Equipped with a better grasp of ecological issues, enlightened businesspeople voluntarily adopt environmentally responsible business practices. A growing number of CEOs now appreciate the link between environmental responsibility and more efficient - and profitable - business practices. And more and more business communicators know how to use green marketing strategies to take advantage of opportunities to boost their corporate environmental images [Ottoman, 1998].

2.2.1 Better Returns.

Many companies, and especially those in such highly polluting industries as chemicals, oil, and electrical power generation, now have management systems in place to make sure corporate environmental profiles and products exceed consumers' expectations. Today, major Kenyan companies conduct environmental audits and recycle their waste. Countless others upgrade their facilities with energy-efficient technologies. Such steps reduce operating costs and liability while boosting profits. Producing eco-efficient products creates less waste, uses fewer

raw materials and saves energy, too. The changes required to make and market environmentally sensitive products enhances employee morale and productivity with a payoff in improved customer relations and overall returns on investment. Enhanced corporate imagery ensues, and this can help attract investors and top talent.

2.2.2 Competitive Advantage.

Many marketers now know that being the first to the shelf with an environmental innovation brings competitive advantage. Since the first edition of Green Marketing was published in 1993, Rayovac introduced Renewal brand reusable alkaline batteries and redefined the market for rechargeable. With 50 percent of the production capacity for phosphate detergents, German-based Henkel pioneered the market for zeolites and claimed market leadership when their consumers shifted to phosphate-free detergents. Philips Lighting, inventors of compact fluorescent lighting technology, stood ready when businesses and electric power utilities came calling for replacements for energy guzzling incandescent. Wellman, Inc., has expanded its business definition from plastics recycler to pioneers in the market for branded polyester fiber made from used Coke bottles.

Many of these leaders have been showered with any number of eco-accolades now offered by industry, media, government or environmental groups. One example is the Special Edison Award for Environmental Achievement bestowed by the American Marketing Association. It has been won by Fortune 1000 firms including 3M and Procter and Gamble as well as by a raft of up-

and-coming firms with a deep-green orientation like Natural Cotton Colours, Patagonia, and Tom's of Maine [Wellford, 1997].

Looking to cash in on the potential for future green-oriented sales, well-established mass marketers now shop for green companies with promising green brands; recent acquisitions include Earth's Best Baby Foods (by Heinz), Murphy's Oil Soap (Colgate-Palmolive), EarthRite Cleaning Products (Reckitt & Colman). After nearly two decades of compromising on quality –and languishing on once-dusty health food store shelves as a result–today's crop of green products finally embody all that consumers demand: an opportunity to clean up the mess without having to give up price or quality. With the deepened consumer confidence in green products that results, the market becomes legitimized.

2.2.3 Increased Market Share.

Times are tough for marketers of branded products. Brand loyalty is near all time lows, and the percentage of Americans who feel that some brands are worth paying more for is declining. In this tough, competitive climate, environmental compatibility breaks ties at the shelf (Ottoman,1993). Pragmatic consumers skew purchases to those products and packages that must be recycled or otherwise safely disposed of in their communities. All else being equal, many consumers look to do their bit by happily switching brands, or boycotting those companies and products deemed environmentally sound and boycotting the brands of companies with disappointing environmental track records.

These growth opportunities have not been lost on such market leaders as Procter & Gamble, McDonald's, and Compaq. They offer the greenest of mainstream products and take pains to project environmentally appropriate corporate images. Pick up a bottle of Tide laundry detergent and learn how it is "phosphate-free," contains "biodegradable cleaning agents," and is packaged in a "recycled-content" bottle.

2.2.4 Better Products.

While much brand switching is conducted in the name of altruism, what attracts many consumers to greener products is quite simply the prospect of higher quality: water-saving showerheads slash energy bills, concentrated laundry detergents are easier to carry and store, and nontoxic garden products are safer for children. Except these enhanced primary benefits—of performance, convenience, price, and safety, for example—that accompany environmental improvements to continue to propel the market for environmentally preferable products in the years and decades ahead [Ottoman, 1998].

2.2.5 Personal Rewards.

Green marketing offers a rare opportunity to integrate one's values into the workplace. Creating products that are more in sync with nature allows one to personally contribute to environmental cleanup and help ensure a more secure future for our children [Charter, 1999].

2.3 The Climate

The climate debate has been on the board agendas ever since the United Nations Convention on Climate Change was signed in Rio summit of 1992 with the aim of stabilizing emissions of greenhouse gases at 1990 levels by the year 2000. Most birds, mammals and plants have been identified, but little is known, however, about other orders, such as insects, or about organisms that inhabit poorly explored habitats, such as the deep-sea floor. The current total of all identified species is about 1.7 million. However, this number pales next to estimates of the total number of species, which has been put conservatively at close to 14 million by an international group of experts (but could range from 3 million to 111 million species). Much of this wide range is accounted for by insects, which could number anywhere from 2 million to 100 million species [Winter, 1995].

Many of the world's species are gravely threatened. Various projections suggest that from 1975 to 2015 between 1 and 11% of the world's species per decade will become extinct. The three most important causes include habitat loss, species introductions (accidental and deliberate), and the hunting of species for food or for wildlife trade. In fact, trading in illegal wildlife is second only to illicit narcotics (in dollar value) in the illegal trade economy. Such losses, impose profound costs are both a practical and intangible level. Species diversity provides a host of wild and domestic

Wild plants and animals are vital to human survival. Science is constantly discovering new ways in which biodiversity can help alleviate human suffering. Conserving the genetic species and ecosystem assets of the world help to improve and sustain the quality of life. But the activities of a rapidly growing human population are destroying natural habitats at the accelerating pace. Life on earth is possible in large part because of the presence of the atmosphere. Apart from providing the oxygen upon which life depends, the atmosphere: Absorbs, distributes and re-emits solar energy; Some re-emission is held back by the atmosphere, which is part of the natural "greenhouse effect," keeping average temperatures at levels suitable for life; Shields all forms of life from harmful ultraviolet (UV) radiation, through its protective stratospheric ozone layer. This thin layer of gases is today being affected by human activities as never before. Local air quality remain an urgent priority in the developed world and is also in the process of becoming an urgent priority in many transition economies and developing countries, where the damage caused by air pollution is believed to be as much as 2-3% of GNP [Ottoman, 1998]. Regulatory and monitoring programs, regional programs and legally binding agreements have been launched. Although oceans cover three-quarters of the earth, only a small fraction is readily available for human consumption: 97% is saltwater in the oceans, and the vast majority of the remainder is locked up in ice caps and glaciers or as groundwater. Unchecked withdrawal of freshwater reduces the amount available for use as drinking water and leads in coastal regions to increasing Stalinizations of the remainder [Wellford, 1997]. million people are

undernourished today and about 180 million children suffer from

Pressure on local water sources is increasing as cities grow. Even relatively developed mega-cities, such as Mexico City, face massive challenges. With 20 million inhabitants, Mexico City largely depends for its water on an underground aquifer, which is rapidly being depleted. Other linked problems are the loss of up to a third of the city's supply through cracked pipes and extensive water contamination - more than 90% of liquid industrial waste is still discharged untreated into the sewer [Ottoman, 1998].

countries. However, shortages of food are common in Sub-

Between three and four million tonnes of oil enters the oceans annually. Shipping accidents, although very visible and widely publicized, account for only one-eighth of the total. Oil released by accident, or as part of deliberate routines in "normal" marine transportation activities, is estimated to be about three times the amount spilled by ship disasters. The result is that input of nitrogen compounds, particularly from fertilizers, sewage and combustion processes, result in the loss of valuable fisheries. This is happening with disturbing and increasing regularity in "enclosed" marine environments such as the North Sea and the Mediterranean. Regulatory and monitoring programs, regional programs and legally binding agreements have been launched, such as the London Dumping Convention and the Mediterranean Action Program [Charter, 1999].

pointed that trees have a profound effect on local climates by

The issues affecting the agricultural sector range from questions about how more food can be produced to the longer-term sustainability of the systems and processes used to produce it. According to Elkington (1997) more than 800 million people are

undernourished today and about 180 million children suffer from malnutrition. Even though 1.5 billion more people are adequately fed compared to thirty years ago, population growth continues to make the food issue a rising challenge for society.

The growth in food supply has more than kept pace with population growth since 1950. In developed countries overproduction has dominated in recent years. On average, food as calories per capita has increased continuously in developing countries. However, shortages of food are common in Sub-Saharan Africa and south Asia, where supply has declined in recent years. This is mainly due to poor infrastructure, political unrest and low investments in agriculture and agricultural research. Part of the problem is also due to considerable losses during harvesting, storage and transport of food products. Yields are low and often declining because more and more marginal and poor land with either low productivity or prone to erosion has had to be used for crop production. Often, the soil is mined for nutrients, causing yields to continually decline. One cause is that plant residues and manure are burnt instead of being incorporated into the soil in order to maintain soil organic matter.

Forests cover one-third of the earth's land surface. Three-quarters of those forests are outside developed countries. Fieldman (1990) pointed that trees have a profound effect on local climates by absorbing and releasing water vapour while their root structures provide soil stability, which helps to prevent erosion. Forests provide immense economic benefits. While the wooded areas in most developed countries have stabilized in the last 20 years, the

rate of deforestation in developing countries has accelerated. The world's forest areas can possibly be reduced by, as much as one-third within the next 40 years if appropriate actions are not taken. The tropical rain forests, which span the equator in Africa, the Americas and Asia, cover only 6% of the earth, yet they are host to half of all living species. These forests have been under increasing pressure both from logging and, increasingly, from clearance and other activities arising from local population growth and agriculture [Gladwin, 1993].

Energy supply and demand has been at the center of many of the major environmental and sustainability controversies of the past couple of decades. During the 1970s, with successive OPEC oil shocks, energy supply occupied center-stage politically. At the time, the key question was how quickly supplies of fossil fuels would run out. New industries have grown up around energy efficiency and renewable energy supply, although relatively low energy prices have slowed momentum in both areas in recent years. By the late 1990s and into the new millennium, attention has switched to another set of constraints: global warming and other forms of environmental change.

2.4 Environmental Agreements and Conventions

The surge in public interest in the environment began in the 1970's, a decade that saw the enactment of important legislation such as the clean air Act in 1970, the Resource conservation and Recovery Act in 1976, and the clean water Act in 1977 [Cairncross 1992]. As environmental problems such as ozone depletion, global warming and rainforest destruction became high priority items in

the public agenda. Various governments and international bodies entered into various environmental agreements and conventions.

2.4.1 Basel Convention on the Control of Trans boundary Movement of Hazardous Waste and their Disposal

The Purpose of the convention was to control the transboundary movement of hazardous wastes for final disposal and recycling. Basel was developed primarily but not exclusively in response to concerns of developing countries that hazardous waste from developed countries was increasingly being dumped in the developing world. The Convention originally included a well-defined prior informed consent procedure that required a state of export to have the consent of the state of import prior to any trans-border movements commencing. The state of export also had to be convinced the wastes would be handled in an environmentally sound manner in the state of import before authorizing the movement. In addition, states party to Basel were prohibited from having any waste trades with non-parties unless a bilateral agreement requiring environmentally sound management was in place. State parties were also given the right to ban the import or export of any hazardous waste in the exercise of its national sovereignty.

The purpose of the rules are to protect wildlife, both flora and

2.4.2 Prior Informed Consent for Trade in Hazardous Chemicals

The objectives were to protect the environment and human health in a receiving state by regulating the export of a chemical or chemical product from a state where its use is banned or severely restricted, and its import into the receiving jurisdiction. The basic

tool of the agreement were a prior informed consent (PIC) procedure for the trade in hazardous chemicals, understood as those chemicals banned or severely restricted in the country of manufacture.

4.3.2 Montreal protocol on the substance that deplete the ozone layer

The goals of the Montreal protocol were to prevent the continuing depletion of the ozone layer that surrounds the planet and protects it from harmful ultra-violet rays. The Ozone Protocol included phase-outs and bans on ozone-depleting substances. To ensure a broad application of these requirements, incentives for developing country participation were included. The Protocol includes a prohibition on trade with non-parties, and a phase-out on production and trade between the parties, of ozone-depleting substances or products containing them. This Protocol was the first major environmental agreement dealing with emissions or wastes, as opposed to wildlife protection, to include significant trade measures [Wellford, 1995].

2.4.4 Convention on International Trade in Endangered Species (CITES)

The purpose of the CITES is to protect wildlife, both flora and fauna, that are designated as endangered under the Convention's procedures. CITES has been best known for its steps to protect wild animals from extinction, in particular ivory-bearing animals. 132 countries have signed the Convention, which came into force in 1975. CITES was the first very broadly accepted environmental agreement to include trade measures. These included prohibitions

on the trade in live animals or parts of animals that are endangered. This was designed to remove the profit brought by the international trade that lies at the root of the demand for rare wild flora and fauna.

2.5 Environmental Management Systems (EMS)

Environmental certification is a process by which industries are encouraged to change production patterns and product qualities to incorporate environmental values. This influence is often effected when independent, third-party organisations, either private or public, inspect a company's operations and grant green labels if, among other things, the production and product(s) meet established, environmentally friendly standards. The company can then use the green labels in production marketing, a practice that gives the company several advantages access to the growing group of consumers who will only buy environmentally friendly products, a potential price premium for the product as a specialty item, and an increase in product quality along with less quality variation of the product.

2.6 Ecological Marketing Practices

The traditional tools within the marketing mix are extended with the greater emphasis being on communication policy (Public Relations) and the product policy (eco-design). The products durability, design for recycling and design for disassembly are considered. Eco-design, social corporate responsibility and Public relations are the tools for the new approach of marketing that are replacing advertising in the traditional approach. In the traditional

approach, advertising was geared to demand stimulation and for planned obsolescence. To achieve more sustainable products and services, industry and other societal sectors will need to think and act in new ways. Businesses need to rethink the value their products provide and consider whether that value would not be better delivered wholly or in part by a service (Charter, 1992).

▪ Disposal	→	▪ Re use
▪ Products	→	▪ Services
▪ Obsolescence	→	▪ Durability
▪ Take-back	→	▪ Restore

Figure 1: The Sustainability Paradigm

Source: J. Ottoman Consulting Inc

The traditional marketing approach was grounded on linear, departmentalized thinking, through – put society with growth objective (cradle to grave orientation). The new marketing approach focuses on life cycle thinking from product development to final disposal (cradle to cradle) and product stewardship. The main objective of the new approach is sustainability. The trend in the new approach is efficiency revolution with new eco-design products, consuming more services (up-cycling, re-use, product sharing, product leasing) and responsibility of the consumer through lifestyle change.

2.6.1 Extension of product use: value chain to value circle

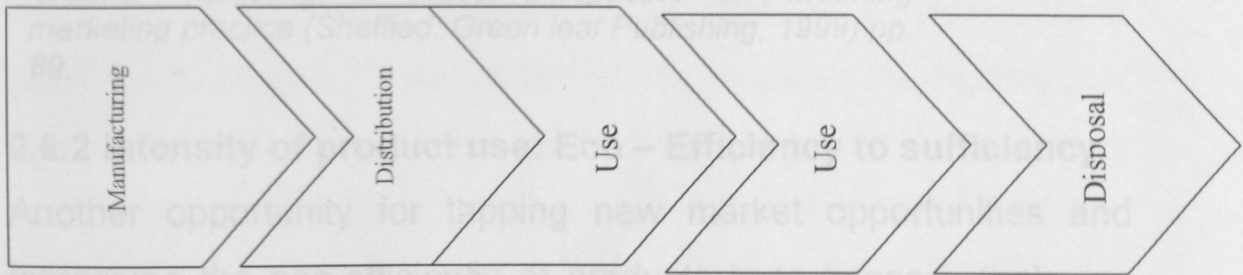
One means of tapping into new market opportunities and increasing the material and energy efficiency of products is to prolong the use of product. In many cases, products are used for a relatively short period of time, disposed of and replaced by new ones, which adds to the high level of material and energy consumption of industrialized countries. It follows the 'take-make-waste' rationale of the current 'industrial system which assumes indefinite supplies of resources and infinite sinks in which to dump waste. Landfill disposal costs, rising costs of raw materials and energy, as well as extended product responsibility laws, make companies think in cycles. Product take back programmes have become a serious alternative to land filling (Ottoman, 1998). The product take back programmes help build up long-term relationships with the customer. Thus, eco-marketing is closely related to relationship marketing [Payne, 1995].

Companies have started designing their products for repair, remanufacture and re-use: the German company Grammer AG guarantees to take back and re-use its 'Natura' office chairs with no cost to the customer. Returned chairs are disassembled, the separated parts are tested, and up to 90% of the old chair are re-used in the manufacture of the new ones. SONY, the world market leader in 'consumer electronic, design all their products in line with ecological principles, i.e. durable, repairable, reusable etc. Xerox has closed its loop in an economic way by leasing its copy machines. This case example shows that redistribution has become equally important to marketing as distribution; the competence to recycle old products and thus close the loop has

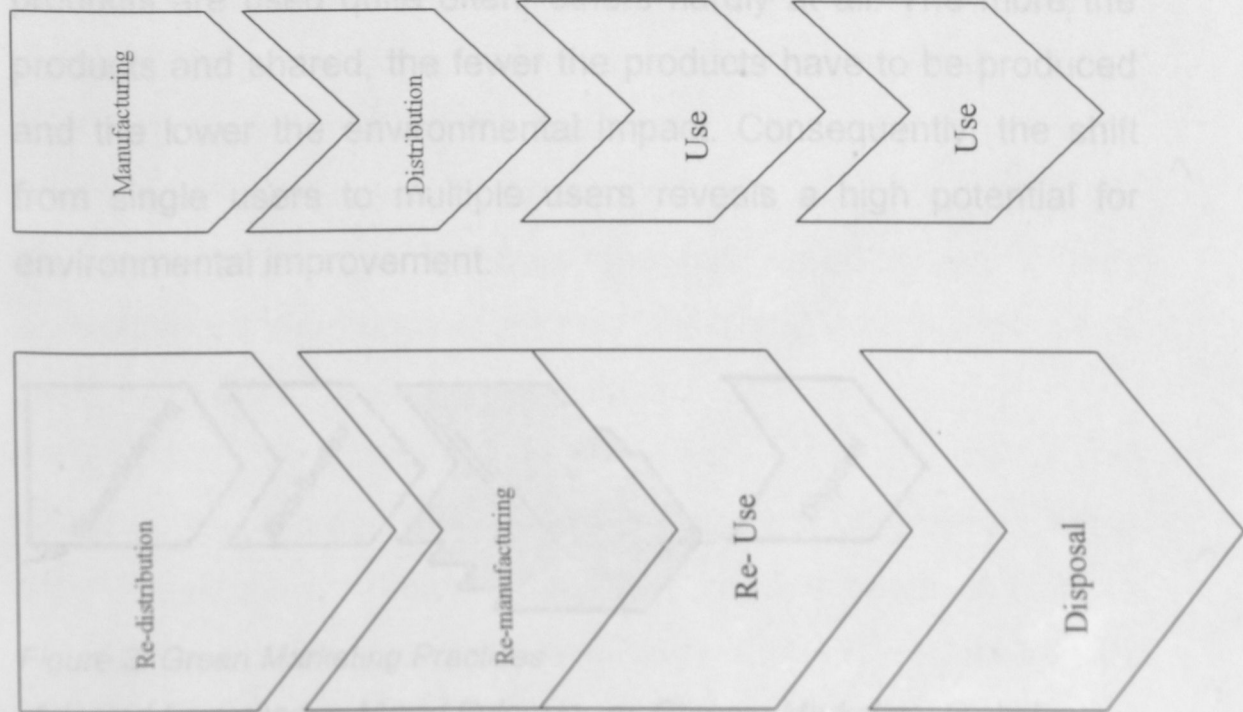
become critical success factor for the future. Renting and leasing are ways of prolonging product life and making sure that used products is returned to the manufacturer. Eventually, the linear ‘throughput’ economy is transformed into ‘circular ‘ economy; the traditional value chain turned into a value cycle.

Prolonged value chain to a value cycle.

Prolonged Value Chain 1.



Prolonged Value Chain 2.



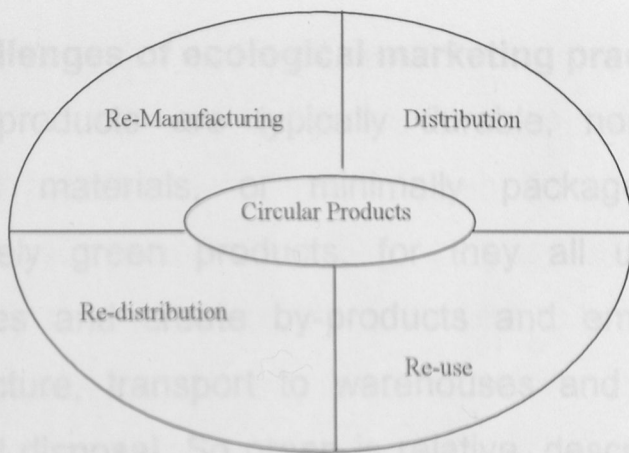


Figure 2. From prolonged value chain to Value circle.

Source: adapted from Charter, M and Polonsky, M.
Greener Marketing: A Global perspective on Greening marketing practice (Sheffield: Green leaf Publishing, 1999) pp. 89.

2.6.2 Intensity of product use: Eco – Efficiency to sufficiency

Another opportunity for tapping new market opportunities and increasing the eco-efficiency of products is to intensify their use. Products vary according to the intensity of their use. Some products are used quite often, others hardly at all. The more the products are shared, the fewer the products have to be produced and the lower the environmental impact. Consequently, the shift from single users to multiple users reveals a high potential for environmental improvement.

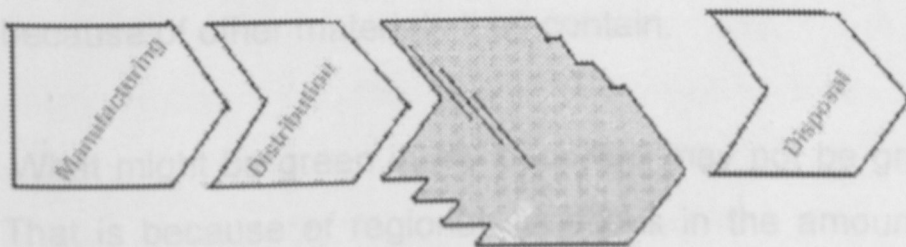


Figure 3: Green Marketing Practices

Adapted from charter, M and Polonsky, m. *Greener Marketing: Global Perspective on Greening Marketing Practice* (Shieffield: Green Lead publishing, 1999) pg. 90.

2.7 Challenges of ecological marketing practices

Green products are typically durable, non-toxic, made from recycled materials, or minimally packaged. There are no completely green products, for they all use up energy and resources and create by-products and emissions during their manufacture, transport to warehouses and stores, usage, and eventual disposal. So green is relative, describing those products with less impact on the environment than alternatives.

Ask the question, "What is green?" If any certainty exists at all, too often the answer is "It depends." That's because the factors that make a product "green" often depend upon the specific product or product category, where it will be used, how often, by whom, and for what reason.

Biodegradability, for example, may be a highly desirable feature for laundry detergents whose suds can pollute local waterways, but it may not be appropriate for paper cups or plastic trash bags destined for landfills where decomposition occurs slowly, if at all. Conventional alkaline batteries are considered green if they contain no added mercury, but they are highly toxic nevertheless, because of other materials they contain.

What might be green in my backyard may not be green in yours. That is because of regional variations in the amount or types of natural resources that are available, the local climatic and topographical conditions, and whether reduction, reuse, recycling or composting is options. Washable cloth diapers may be environmentally preferable in the Northeast where landfill space is

at a premium and water is plentiful, but may be less desirable in the Southwest where water supplies are tight and there are still plenty of potential spots to bury trash. Because they take up less space, plastic supermarket bags may actually be environmentally preferable to paper bags where land filling is the only option, but in areas where composting is a possibility, paper might be the optimal eco-choice.

Is a product likely to be used once and thrown away, or over and over again? According to one chemist, if a ceramic mug will not be used at least 1,000 times, then the energy it takes to make it doesn't justify its presumed environmental prefer ability over polystyrene. Compact fluorescent light bulbs cost more than incandescent for a reason: all those weighty materials consume a lot of energy in their manufacture and transport. If they are used in lamps that are turned on and off frequently, the long-term energy savings likely won't be realized; incandescent may be preferable.

Environmental impact is literally designed into products upfront. So existing products can only be tweaked so much before a jump to an entirely new or different technology capable of filling the same consumer need is necessary to make a significant improvement in environmental performance. For example, no amount of tinkering with incandescent light bulbs (which throw off 90 percent of their energy in excess heat) will ever achieve the cooler-burning efficiency of compact fluorescents. Use recycled envelopes and stationery, fill the trucks with natural gas, but e-mail will always be environmentally preferable to even the greenest conceivable "snail mail".

Making "green" even tougher to pin down is the fact that no agreed-upon method exists to measure the precise relative environmental impact of one product against alternatives. In the debate over cloth versus disposable diapers, for example, value judgments come into play - plastic and paper production and solid waste, or cotton production and the water and energy to wash the diaper?

McDonald's Big Macs may soon be under fire regardless of whether produced domestically or in the Amazon rain forest.

Environmental issues are constantly changing, reflecting new discoveries such as the hole in the ozone layer, shortages in natural resources, population shifts, and fewer places to bury everyone's trash. Technology is constantly advancing. Consumer tastes and attitudes evolve. Laws and marketing strategies are rewritten accordingly. Thus, no matter how well companies do their homework, what is accepted as "green" today may easily wind up being viewed as "brown" tomorrow. The aerosol industry and McDonald's learned this the hard way.

In the late 1970s, in response to reports linking chlorofluorocarbons to ozone layer depletion and subsequent consumer outcry, the aerosol-packaging industry quickly switched to hydrocarbon-based propellants. However, it is known that hydrocarbons create smog when mixed with sunlight; so the move is on to find a viable alternative, lest further sales be lost to pumps and other competitive technologies.

Since the 1970s, the packaging for McDonald's hamburgers has evolved from one technology to another in response to environmental as well as economic considerations. First,

polystyrene foam replaced paper, but then was replaced altogether by quilt wraps. This much heralded, source-reduced alternative may one day be replaced itself by compostable packaging, now in test. Environmentally speaking, the folks at McDonald's can't rest. Because of escalating global food demands, coupled with the environmental degradation associated with cattle raising, the very beef in McDonald's Big Macs may soon be under fire regardless of whether produced domestically or in the Amazon rain forest.

With green a moving target, planning gets tricky; industry can only respond as quickly as the market demands.

3.2 Population of the study

The population of the study consisted of oil companies in Nairobi. Nairobi was chosen because it has the highest consumption of Oil products in Kenya [Government of Kenya, 2000].

The population was sub-divided into three sub-groups: small, Medium and Large. The sub-division was in terms of the number of employees, which according to the statistical abstract of 1998:

- | | |
|-----------------|------------------------------|
| - Small firms: | Less than 10 employees. |
| - Medium firms: | between 10 and 50 employees. |
| - Large firms: | Above 50 employees. |

A list containing the oil companies in Nairobi was obtained from the petroleum institute of Kenya. Since the number of oil companies in Nairobi was small, a census survey was carried out.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

This section deals with the research design that was used to conduct the study. It consists of the research design, the population of study, the survey method, the research instrument and Data Analysis.

3.1 Research Design

This is a descriptive study designed to determine the application of ecological marketing practices by oil companies in Nairobi.

3.2 Population of the study

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A list containing the oil companies in Nairobi was obtained from the petroleum institute of Kenya. Since the number of oil companies in Nairobi was small, a census survey was carried out.

3.3 Data Collection

CHAPTER FOUR

The managers / owners of smaller oil firms were the targeted respondents. In the medium and large oil firms the marketing manager or senior member of the marketing departments were the targeted respondents. The data was collected using a structured undisguised questionnaire. The first section of questionnaire consisted of questions aimed at obtaining general organizational data. The second section consisted of specific questions aimed at obtaining data for the objectives of the study.

One questionnaire per company was administered using the "drop and pick latter method". The "drop and pick latter" is a modified technique of the mail survey where the researchers leave the unfilled data collecting instruments with the respondents to complete and collect them latter, when ready.

3.4 Method of Data Analysis

Data was summarized using descriptive statistics. This was in form of percentages, frequencies and mean scores. The percentages and frequency tables was used to summarize and reflect the relative weight of the specific characteristics of firms. The mean scores were calculated from the responses that were rated on a five point likert scale.

Of 98 questionnaires received, 11 questionnaires were incomplete and therefore not used in data analysis. 87 questionnaires therefore were used for data analysis. A response rate of 81% was deemed appropriate.

4.0 DATA ANALYSIS AND FINDINGS

4.1 Overview

This section reports on statistical basis the tabulation of simple questions in the questionnaires. The results are based on those respondents who answered the particular questions being analyzed with the exclusion of non-respondents. Data collected was summarized, analyzed and presented by use of tables, percentages, bar charts and likert type profiles.

Table 1: Response Rate

NO. OF QUESTIONNAIRES	FREQUENCY	PERCENTAGE
NOT SENT	3	3%
RECEIVED INCOMPLETE	11	10%
SENT AND NOT RECEIVED	7	6%
RECEIVED COMPLETE	87	81%
TOTAL	108	100%

Source: Response data.

Out of the 108 oil companies that consisted the population of this study 105 oil companies received the questionnaires. Out of them, only 98 questionnaires were received back. Of 98 questionnaires received, 11 questionnaires were incomplete and therefore not used in data analysis. 87 questionnaires therefore were used for data analysis. A response rate of 81% was deemed appropriate.

4.2 Size of Firm by Number of Employees

The size of the firms was an important factor in establishing the organizational learning curve. For purpose of data analysis, oil companies were categorized into three grouping namely: Large, Medium and Small companies based on the following criteria.

Table 2

NO. EMPLOYEES	OF	FREQUENCY	PERCENTAGE
1-9		58	67%
10-50		20	23%
ABOVE 50		9	10%

Source: Response data

According to these classifications it was found that 58 oil companies could be classified as small, 20 of them as medium and 9 of remainders as large. Of these firms, 10% had over 50 employees and 23% had 10 – 50 employees. The majority of companies, 67% had less than 10 employees.

4.3 Profile of Ownership and Respondents

Firms were classifieds in terms of ownership. This was deemed important in determining whether differences existed based on their ownership.

Table 3: Profile of Ownership of Oil Companies

OWNERSHIP	FREQUENCY	PERCENTAGE
Locally owned	78	89.65%
Foreign owned	2	2.29%
Multinational	3	3.45%
Subsidiary		
Parastatals	1	1.15%
Others	3	3.45%
Total	87	100%

Source: Response data.

In terms of ownership of oil firms, different form of ownership was found. Majority of oil companies studied had local ownership (89%), foreign ownership (2%), subsidiary of multinational companies (3%), parastatals (1%), while other form of ownership represented the rest (3%). This comprised of both locally and foreign owned companies.

Table 4: Profile of Respondents

It was important to find out the position of the respondents, as this was indicative of the level of understanding of operational issues of any firm.

RESPONDENTS	FREQUENCY	PERCENTAGE
Managers	53	60%
Account assistants	19	22%
Sales Representatives	8	10%
Others	7	8%
TOTAL	87	100%

Source: Response data.

A large proportion of the respondents to the study were managers mostly handling the operations of the business. They accounted 60% of the respondents. Accountant assistants and sales representative accounted 22% and 10% respectively. Others represented 8% of the respondents. It was crucial to determine the title of the respondents, as this was indicative of the level of understanding of ecological marketing practices by the firms.

The oil companies that are foreign owned elicited a clear understanding of green marketing than either those locally owned multinational subsidiary and parastatals. This could be explained by the fact that social responsibility generally and green marketing specifically are more pronounced in their home countries.

4.4 Products Offering by Oil Companies.

Table 5: Products mix of oil companies.

PRODUCTS	FREQUENCY	PERCENTAGE
Leaded gasoline	87	100%
Unleaded gasoline	20	24%
Oil lubricants	33	38%
Fertilizers	4	5%
Waxes	1	2%
Shampoos	3	4%
Battery acid	59	68%

Source: Response data.

100% of the respondents oil companies have gasoline retailing as their core business. Large oil companies, due to economies of scale, they have diversified into other ventures. This large oil companies accounted to only 10%.

4.5 Other Business Operations of Oil Companies.

Table 6: Other products mix

OTHER BUSINESS ACTIVITIES	FREQUENCY	PERCENTAGE
Exploration	1	1.14%
LPG and accessories	23	26.4%
Insecticides	3	3.45%
Illuminating kerosene	68	78.2%

Source: Response data.

Table 7: Oil Companies ISO 14001 Certification.

	FREQUENCY	PERCENTAGE
YES	4	4.5%
NO	83	95.4%

Source: Response data.

4 oil companies representing 4.5% of the oil companies are ISO 14001 certified with the largest chunk not being environmentally certified. This represented 95.4%.

4.6 Importance of ecological marketing activities to respondents.

Table 8

Activity	Critically important	Important	Neutral	Not Important	Not Important at all	Total
Returns	48 (55%)	5 (6%)	19 (22%)	7 (8%)	8 (9%)	87
Legislation compliance	12 (14%)	17 (19%)	20 (23%)	18 (21%)	20 (23%)	87
Green consumers	4 (4%)	42 (48%)	5 (6%)	28 (32%)	8 (10%)	87
Stakeholders goodwill	13 (15%)	14 (16%)	22 (25%)	28 (32%)	10 (12%)	87
Competition	15 (17%)	8 (9%)	29 (33%)	20 (23%)	15 (18%)	87
Own initiative	18 (21%)	12 (14%)	22 (25%)	18 (21%)	17 (19%)	87
Resolutions	20 (23%)	8 (9%)	9 (10%)	15 (18%)	35 (40%)	87

Sustainable growth	13 (15%)	32 (36%)	18 (21%)	10 (12%)	14 (16%)	87
Environmental disasters	16 (18%)	14 (16%)	22 (25%)	6 (8%)	29 (33%)	87
Social responsibility	35 (40%)	12 (14%)	8 (9%)	28 (32%)	4 (5%)	87
Conservationists	15 (17%)	15 (17%)	12 (14%)	32 (36%)	13 (16%)	87
Environmental groups	35 (40%)	12 (14%)	18 (21%)	10 (11%)	12 (14%)	87

Source: Response data.

The above table indicated that 55% of the respondents said that return was critically important green marketing activity. All respondents ranked social responsibility and environmental compliance second with a score of 40%. 48% of the respondents said green consumer was important, while 36% of respondents rated sustainable growth second. 33% of the respondents were indifferent with regard to competition. 25% were indifferent to past environmental disaster, stakeholder's goodwill and own initiative. 36% of the respondents said that an environment activist was not important. 28% of respondents rated social responsibility, stakeholder's goodwill and green consumerism equally with a score of 32% as not important. Compliance with international bodies resolutions was rated highest as not very important with 40% of respondents. This probably was because it has no relevance on the companies operating environment. Past environmental disasters was ranked second by 33% respondents.

4.7 Level of importance on ecological practices

In this section the research sought to find out how critical greening practices are in the oil sector. Of importance was to test if firms are making any attempt to portray themselves in this direction.

Table 9:

PRACTICES	Critically important	%	Important	%	Neutral	%	Not Important	%	Not Important at all	%	%
Biodegradable Products	29	59%	10	45%	5	62.5%	0	0%	2	100%	
Product take back Programme	5	10%	2	9%	1	12.5%	2	34%	0	0%	
Eco-labeling	4	8%	5	23%	0	0%	1	16.5%	0	0%	
Greening as a core objective	1	2%	0	0%	1	12.5%	0	0%	0	0%	
Clean up involvements	5	10%	4	12.5%	1	0%	1	16.5%	0	0%	
Green sponsorships	3	6%	0	12.5%	0	0%	0	0%	0	0%	
Greening as a strategy	2	5%	1	0%	0	0%	1	16.5%	0	0%	
Stakeholders involvement	0	0%	0	0%	0	0%	1	16.5%	0	0%	
Promotion	0	0%	0	0%	0	0%	0	0%	0	0%	
Prompt resolution	0	0%	0	0%	0	0%	0	0%	0	0%	
Totals	49	100%	22	100%	8	100%	6	100%	2	100%	
PERCENTAGE	57%		25%		8%		8%		4%		100%

Source: Response data.

From the analysis on table 9, it is evident that (49) 57% of respondents find the ecological marketing practices to be critically crucial. Of this 49 respondents, 59% cited oil products biodegradability as most important environmental practice. 10% of the respondents cited both product take back programmes and companies involvement in clean up activities as critically important. Thus product recycling come in handy in restoring and re-use of the oil products.

Source: Response data.

Other ecological marketing practices of oil companies that respondents cited were products eco-labeling (8%), sponsorship of greening activities (6%), adoption of greening as a strategy (5%) as well as an organization core objective (2%).

4.8 Challenges on Adopting Ecological Practices

Table 10: Challenges of ecological practices

CHALLENGES	Critically Important	Important	Indifferent	Not Important	Not Important at all	Totals
Costs	23	4	1	1	0	29
Owners resistance	2	0	1	0	0	3
External Pressure	2	3	0	0	0	5
Negative Publicity	0	10	5	0	0	15
Employee Resistance	0	0	2	0	0	2
Departmental Rivalry	0	0	0	1	0	1
Supplier Resistance	0	0	0	11	1	2
International Bodies	0	0	0	2	0	2
Governmental Pressure	11	6	3	2	2	24
Pressure from Supplier of fund	0	0	0	0	4	4
Totals	38	23	12	7	7	87
PERCENTAGES	43%	26%	13%	9%	9%	100%

Source: Response data.

In this section the research sought to look at challenges being faced by oil companies in undertaking greening issues, if any. From the result, 43% of respondents said that the challenges facing the oil companies were critically important, with 26% saying they are important. 13% said they were not sure whether this challenges are important or not. 9% of the respondents said that the challenges were not important and neither not important at all. In total 34 respondents said that that costs for compliance and government pressure was the two main critical challenges facing the oil companies in the pursuit of ecological practices. 10 respondents ranked negative publicity also highly as important factor. 3 of the respondents cited external pressure from environmental groups as important. Employee's resistance, departmental rivalry, supplier of funds and pressure for compliance from international bodies had equal ranking with no respondents their favor.

In relation to the first objective, various marketing practices were identified. Production of products and by-products that are biodegradable was identified as the most critical greening practices being adopted by oil companies. This also involved usage of packaging materials that are environmentally friendly. Equally, oil companies' engagement in clean up activities in their locality was cited as an important ecological practice in the oil industry. Other activity carried out in greening practices includes Oil Company's involvement in products and by-products take back programmes. Oil products and by-products are ecologically harmful if mishandled, thus the involvement in products take back

programme become crucial to ensure proper products and by-products disposal.

In relation to the second objective, the study sought to examine the

5.0 SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

In the oil industry, few factors were identified. Oil firms cited the

This chapter summarizes and discusses the findings of the study on the objectives. It also presents the conclusions as well as the limitations of the study and suggestions for future research.

5.1 SUMMARY

The research outlined here was formulated to establish three main issues. First, was to find out the ecological marketing practices adopted by oil firms in Nairobi. Secondly, we aimed to examine the factors that lead to application of ecological marketing by firms in oil industry and lastly we aimed to examine the challenges oil firms in Nairobi faced upon adopting greening practices.

In relation to the first objective, various marketing practices were identified. Production of products and by-products that are biodegradable was identified as the most critical greening practices being adopted by oil companies. This also involved usage of packaging materials that are environmentally friendly. Equally, oil companies' engagement in clean up activities in their locality was cited as an important ecological practice in the oil industry. Other activity carried out in greening practices includes Oil Company's involvement in products and by-products take back programmes. Oil products and by-products are ecologically harmful if mishandled, thus the involvement in products take back

programme become crucial to ensure proper products and by-products disposal.

In relation to the second objective which sought to examine the factors that lead to the application of ecological marketing practice in the oil industry, few factors were identified. Oil firms cited the engagement of these practices as mainly driven by profitability. 55% of the respondents cited returns as critically important factor in adoption of ecological practice.

When asked the reasons that had necessitated the adoption of ecological practices, over 40% of the respondents cited social responsibility as critical factor. This may be explained by the need of oil companies to comply with external pressure. This was confirmed by equally the same number of respondents that cited pressure from environmental groups (40% of respondents) as a factor.

In regard to the challenges the oil firm's face on adopting the ecological marketing practices, costs involved in practice of orientation was cited as the single most crucial challenge. The cost for engaging on greening marketing practices are enormous, incurred in the short run and their benefits to the industry or oil firms are in the long run. Majority of products and by-products of the oil companies are environmentally unfriendly. Government was cited as a critical element in the oil sector as it was found to exert enormous pressure to the players in the oil industry to engage in ecologically safer practices.

5.2 RECOMMENDATIONS AND CONCLUSION

This section marks the end of the study. The study's findings are largely consistent with the literature in that big players in the oil industry are reshaping their practices in line with the ecological marketing practices. Medium and smaller firms are yet to integrate wholly the greening practices. Many firms have the high cost of compliance with the ecological marketing practices in its operations. These costs are in the short run for long run gains on the bottom line.

With the enactment of new legislations, many players are succumbing to governmental pressure. Stakeholder's requirement has also played a key role in the action of oil players. Negative publicity has made some players to redefine themselves. Environmental pressure group also has played their role to the same end.

In relation to the objectives of the study, the researcher feels that a number of recommendations can be considered. This recommendations will go along way in fulfilling the needs of the various stakeholders namely; Government, Consumers, environmentalists, employees and employers.

The researcher recommends that the government may introduce a properly planned ecological tax reform that moves taxes from labor to polluting resources. This would move the energy mix towards more sustainable resources. Tax exemption for investment in

alternate energy technology and in other eco-friendly initiatives can also be considered.

The transport sector is the largest consumer of oil products in Kenya and thus poses a huge threat to the environment. The need for transport rises with economic growth and the availability of transport lead to economic prosperity. Given that different transport modes produce very different effects per passenger-kilometer or ton-kilometer traveled, government may tilt the balance in favor of a particular mode, notably the rail transport. The researcher recommends the government to enhance development of the rail sub-sector using alternate energy and to de-emphasize usage of oil based road sub-sector to enhance ecological stability.

The researcher recommends that the voluntary partnership initiatives between government agencies, non-governmental organization and businesses in the areas of sustainable environmental management should be embraced. Also, Manager's performance may be appraised along the whole life cycle of the company's products. The policy makers should formulate and enforce implementation of tough take-back requirements for such

sectors as oil manufacturers and marketers to prevent environmental pollution.

The insurance industry may shape the sectors investment strategy by supporting eco-friendlier organization with lower insurance premiums. Organizations with long term environmental problems or even from those with potential problems ecologically may be reflected on their premiums. The researcher recommends that the corporate accounting should expand the accounting reporting and disclosure to accommodate the environmental reporting to reflects on the risk ness of an organisation.

The Gross Domestic Products as an indicator of economic health rises when costs are incurred in repairing damage from disasters. The researcher recommend that national indicators such as GDP should reflect environmental degradation, what may be called Green Gross Domestic Product.

5.3 LIMITATIONS OF THE STUDY

The following constituted the limitations of the study. First, the study was limited to a single geographical location, Nairobi. The firms in one location could have unique shared characteristics that could bias the generalizations of the study findings.

Secondly, time was also a limiting factor, as most question needed sometimes for respondents to react appropriately. Though the researcher did his best by explaining certain silent issues in the questions, it was obvious that some responses required further consultations with the researcher, which was not possible within the time limit. Most respondents seemed to be in hurry to fill the questionnaire.

The study also focused on only one sector and the findings may not be generalized to other sectors. This was limiting in its setting.

5.4 SUGGESTION FOR FUTURE RESEARCH

The following areas can be recommended as possible areas of future research. First, a research of a similar nature can be carried to other sectors considering only one sector was studied. This will elicit any fundamental differences in the practices.

Secondly, further research should be done particularly if there are sufficient funds, time and labor to comprehensively include firms from all over the country. This could give more balanced findings.

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P.N. Mungai

MBA STUDENT

Dr. R. M. Musyoka

SUPERVISOR

APPENDIX 1

APPENDIX 2

INTRODUCTION LETTER

QUESTIONNAIRE

Faculty of Commerce

Department of Business Administration

University of Nairobi

P.O Box 30197

Nairobi

July 2005

Dear Respondent

RE: MBA RESEARCH PROJECT QUESTIONNAIRE

The attached questionnaire is designed to gather information on the ecological marketing practices by oil companies in Kenya.

This study is being carried out for a marketing research project as a requirement for the degree of masters in Business Administration. Any information that you disclose will be treated in strict confidence and only used for academic pursuit. In no instance will your name or that of your firm be mentioned in the report.

However findings of the research can be availed to you upon completion.

Your cooperation will be highly appreciated.

Thank you

Yours' sincerely

.....
P.N. Mungai
MBA STUDENT

.....
Dr. R. M. Musyoka
SUPERVISOR

APPENDIX 2

1. Tick appropriately (✓) the various product categories that your company produces or market in Kenya.

QUESTIONNAIRE**PART 1: GENERAL INFORMATION**

• Unleaded gasoline

• Oil Lubricants

• Waxes

• Shampoo

1. Title of respondent in the firm

2. How long has your company been in operation in Kenya (Please tick)?

a. 1 to 5 years

()

b. 6 to 10 years

()

c. 11 to 15 years

()

d. 16 to 20 years

()

e. Over 20 years

()

3. How would you classify your company as regard to ownership?

a. Locally owned

()

b. Foreign owned

()

c. Multinational subsidiary

()

d. Parastatal

()

e. Others, specify

4. Indicate the total number of employees in your company

1-9 []

10-50 []

Above 50 []

1. Tick appropriately (✓) the various product categories that your company produces or market in Kenya.

- Leaded gasoline ()
- Unleaded gasoline ()
- Oil Lubricants ()
- Fertilizers ()
- Waxes ()
- Shampoos ()
- Battery acid ()

If other (s) specify

2. In Kenya, is your company engaged in any other business?

☐ Yes

☐ No

If yes, which are these activities?

3. Tick (✓) the statement that most appropriately describe the term ecological Marketing.

- All activities designed to generate and facilitate any exchanges intended to satisfy human needs. ()

- All activities and actions that contribute to the welfare and interests of society as well as those of the organization. ()

- All activities designed to generate and facilitate any exchanges intended to satisfy human needs, such that the satisfaction of these needs occurs with minimal detrimental impact on the natural environment. ()

- All activities that identifies, anticipates and supplies customer requirements, efficiently and profitably. ()

4. To what extent do you agree with the following statements regarding your Company involvement in addressing ecological marketing issues?

[Use the following key to tick appropriately (√)]

5 = Critically important

4 = Important

3 = Neutral

2 = Not important

1 = Not important at all

	5	4	3	2	1
▪ Returns are higher than cost.	[]	[]	[]	[]	[]
▪ To comply with government legislation.	[]	[]	[]	[]	[]
▪ To target and win green customers.	[]	[]	[]	[]	[]
▪ To enhance stakeholder's goodwill.	[]	[]	[]	[]	[]
▪ Competition from other players in the industry	[]	[]	[]	[]	[]
▪ Company own initiative.	[]	[]	[]	[]	[]
▪ To comply with international bodies resolutions	[]	[]	[]	[]	[]
▪ To attain sustainable growth	[]	[]	[]	[]	[]
▪ Past environmental disasters.	[]	[]	[]	[]	[]
▪ Social responsibilities of the company.	[]	[]	[]	[]	[]
▪ Consumer protection groups.	[]	[]	[]	[]	[]
▪ Environmental groups pressure	[]	[]	[]	[]	[]

5. By ticking appropriately (✓), indicate the importance your company attaches to the following in determining the success of ecological marketing program.

[Key: As in Question 4.]

	5	4	3	2	1
Changes towards degradable products.	☐	☐	☐	☐	☐
Product take-back programmes.	☐	☐	☐	☐	☐
Eco-labeling of products.	☐	☐	☐	☐	☐
Ecological issues being among the firm core objectives.	☐	☐	☐	☐	☐
Clean-up involvements.	☐	☐	☐	☐	☐
Disposal of product waste	☐	☐	☐	☐	☐
Sponsorship of environmental conservation activities	☐	☐	☐	☐	☐
Adoption of environmental issues as a strategy	☐	☐	☐	☐	☐
Stakeholders empowerment on environmental issues through education	☐	☐	☐	☐	☐
Promotion of ecological products.	☐	☐	☐	☐	☐
Prompt resolution on ecological issues.	☐	☐	☐	☐	☐

☐

Yes

☐

No

6. What are the challenges being faced by your company while adopting ecological marketing practices.

[Please tick as appropriate (√)]

	5	4	3	2	1
▪ Increased costs of environmental compliance.	[]	[]	[]	[]	[]
▪ Resistance from the company owners.	[]	[]	[]	[]	[]
▪ External pressure from the environmental group rivalry from competitors.	[]	[]	[]	[]	[]
▪ Negative publicity from media.	[]	[]	[]	[]	[]
▪ Resistance from employees.	[]	[]	[]	[]	[]
▪ Departmental resistance and rivalry.	[]	[]	[]	[]	[]
▪ Resistance from suppliers/buyers.	[]	[]	[]	[]	[]
▪ Pressure from international bodies	[]	[]	[]	[]	[]
▪ Pressure from government.	[]	[]	[]	[]	[]
▪ Pressure from suppliers of funds	[]	[]	[]	[]	[]

If other (s) please specify

7. (a) Is your company ISO 14001 (Environment) certified?

☐

Yes

☐

No

(b) If No to 7(a), what is your company doing to attain the ISO 14001 certification?

THANK YOU FOR YOUR VALUABLE TIME AND COOPERATION!