

Extent of Adoption of Green Marketing Strategies by the Kenya Tea Firms

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Abstract

The study sought to explore the extent of adoption of green marketing practices by Kenya tea firms. A descriptive survey was undertaken, the population of study being all tea factories in Kenya operating under East Africa Tea Traders Association, whose number stood at 73 as at June 30th 2010. A sample of 63 tea factories was selected to participate in the study and primary data was collected with the aid of a self-administered questionnaire, targeting environmental management representatives of the selected factories. Data analysis was undertaken using Statistical Package for Social Sciences package version 19.0. The findings are presented with the aid of bar charts, frequency tables, percentages, standard deviations and mean scores.

Keywords: Adoption, Green marketing,

ABBREVIATIONS AND ACCRONYMS

4-Rs	Recycle, Refill, Reuse and Reduce
AMA	American Marketing Association
EATTA	East Africa Tea Traders Association
EM	Enviropreneurial Marketing
EMR	Environmental Management Representative
EMS	Environmental Management System
ENPD	Environmental new Product Development
EO	Environmental Orientation
EPZ	Export Processing Zone
ETP	Ethical Tea Partnership
FTC	Federal Trade Commission
GS	Greening Strategies
ISO	International Standards Organization
IT	Information Technology
KETEPA	Kenya Tea Packers Ltd
KTDA	Kenya Tea Development Agency
KTGA	Kenya Tea Growers Association
MNCs	Multinational Corporations
NEO	Natural Environmental Orientation
NGOs	Non Governmental Organizations
NPD	New Product Development
NTDC	Nyayo Tea Development Corporation
PDF	Product
PRF	Price
PRMF	Promotion
RA	Rainforest Alliance
RG	Regulations
SCDA	Special Crops Development Authority
SPSS	Statistical Package for Social Sciences
SSCM	Sustainable Supply Chain Management
UK	United Kingdom
WBCSB	The World Business Council for Sustainable Development

INTRODUCTION

Background of the study

Environmental issues such as global warming, deforestation, disposal of toxic waste, ozone depletion and reduction of resources have become regular features of everyday life. According to Polonsky & Rosenburger (2001), corporate greening could occur across such activities as market targeting, green design, green positioning, green pricing, green logistics, and green promotions. Menon & Menon (1997) proposed that greening is something that should be integrated into corporate philosophy, which can then be used to leverage the firm's position within the market place.

Review of the literature indicate that marketers are incorporating green marketing strategies into many activities, including: planning (McDaniel & Rylander, 1993); product and package design (Bhat, 1993; Polonsky, Bailey, Baker, Basche, Jepson & Neath, 1997); pricing (McCaughan, 1991; Kapelianis & Strachan, 1996), distribution (Schlegelmilch & Robertson, 1995), retailing (Duff, 1990); promotion (Davis, 1993); customer segmentation (Balderjahn, 1988); strategic alliances (Mendleson & Polonsky, 1995; Milne, Iyer & Gooding-Williams, 1996; Stafford and Hartman, 1996); industrial marketing (Drumwright, 1994) and overall marketing strategy (Menon & Menon, 1997). While going green may be in fashion, it is unclear why firms are making these changes. Polonsky (1995) asserts that “some reasons, such as matching the competition, might not necessarily mean marketers are concerned with their firms’ environmental behavior and thus they may not actually be improving their environmental performance”.

Research also indicates that consumers are integrating their concern for the environment into their purchasing behavior in a variety of ways. There is a growing amount of evidence indicating that consumers are choosing products or avoiding others based on their impact on the natural environment (Coddington, 1993, Davis, 1993; McDougall, 1993, Ottman, 1992a; The Roper Organization, 1990). Other studies suggest that consumers not only desire to purchase products that are less environmentally harmful but are willing to pay more to do so (Coddington, 1993, Davis, 1993; Ottman, 1992a).

Though green marketing has been an important academic research topic for at least three decades, most of the studies have been undertaken in the developed countries, as evidenced by (Kassarjian, 1971; Kinneer, Taylor & Ahmed, 1974); Coddington, 1993; Ottman, 1994; Peattie, 1995; Polonsky & Mintu-Wimsatt, 1995; Schlegelmilch, Bohlen & Diamantopoulos, 1996; and Kalafatis, Pollard, East & Tsogas, 1999). For instance, Dembkowski & Hanmer-Lloyd (1994) found that 82 per cent of British citizens rated the environment as an immediate and urgent problem, while Worcester (1993) established that 69 per cent of the general public believes that pollution and other environmental damage are impacting on their everyday life.

Studies on green marketing undertaken in Kenya include the following: Kiongera (2003) undertook a survey of green marketing practices in Bamburi cement in Kenya; (Obuya (2003) carried out a survey of the extent to which manufacturing firms in Nairobi practice green marketing; Kalama (2007) undertook a study on the green marketing practices by Kenya Petroleum refineries; Odhiambo (2008) surveyed the extent to which floricultural firms in Kenya practice green marketing; and Thiong’o (2009) undertook an investigation of green marketing practices among pharmaceutical firms in Kenya. According to Cresswell (2003), “a research problem is the question that exists that leads to a need for the study because no answers were found within the literature reviewed, in theory, or in practice”. This study therefore, attempts to bridge the gap.

Green marketing

Green marketing is a broad concept that is applicable to consumer goods, industrial goods and even services. It integrates a wide range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising. Polonsky (1994) observed that no definition of “green marketing” has been universally accepted. It is therefore, difficult to evaluate this issue since all researchers have a different perception of what they are researching. In order to fully comprehend this concept, it is important to review the research of other authors.

Fuller’s (1999, p.4) defined green marketing as

the process of planning, implementing, and controlling the development, pricing, promotion, and distribution of products in a manner that satisfies the following three criteria: (i) customer needs are met, (ii) organizational goals are attained, and (iii) the process is compatible with ecosystems.

Peattie & Charter (1994), proposed the definition of green marketing as, “the holistic management process responsible for identifying, anticipating and satisfying the needs of consumers and society, in a profitable and sustainable way”.

Polonsky’s (1995, p.2) defined marketing as

all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these need and wants occurs, with minimal detrimental impact on the natural environment.

Polonsky’s definition not only incorporates the traditional components of the marketing definition, but also includes the protection of the natural environment by attempting to minimize the negative impact that this exchange has on the environment. Polonsky’s definition was adopted for purposes of this study.

Prakash (2002) suggested that “firms can ‘green’ themselves in three ways: value-addition processes (firm level); management systems (firm level) and or products (product level).” Green the value-addition processes could entail redesigning them, eliminating source of them, modifying technology-all with the objective of reducing environmental impact aggravated for all stages (Charter & Polousky, 1999).

Ottman (1993) asserts that green marketing serves two key objectives: to develop products that

incorporate consumers' needs for convenience, affordable pricing and performance while having a minimal impact on the environment; and to project an image of high quality, including environmental aspects, both in regards to product attributes and the manufacturer's track record for environmental compliance. For purposes of this study, the definition by Fuller (1999) was adopted.

Tea sector in Kenya

The history of tea in Kenya dates back to 1903 when a European settler, Mr. G. W. Cain introduced the first tea plants in Limuru area of Central Kenya. The early settlers and the colonial government restricted tea and coffee growing to large-scale farmers and multinationals, ostensibly to maintain quality. The main reason was to lock out locals (read Africans) from the then very lucrative cash crop farming. Kenya's attainment of independence in 1963 saw the passing of various Land Reform Bills which have had far reaching impact on agriculture. Tea growing for instance was made open to the local farmers and the crop has since spread across the country and is currently an important economic mainstay for many small holder farmers.

There are about there are about 420,000 small-scale tea farmers in Kenya who have traditionally and by law been under the control of Kenya Tea Development Agency (KTDA). The KTDA promotes the plucking of two leaves and a bud, resulting in Kenya producing some of the best teas in the world. The control, management and organization of the tea industry in Kenya are structured as shown in figure 1.1 below. It is important to note that the Civil Society Organizations does not feature anywhere in the chart which makes it very difficult for non-governmental organizations to intervene on behalf of small-scale farmers (KTDA, 2011).

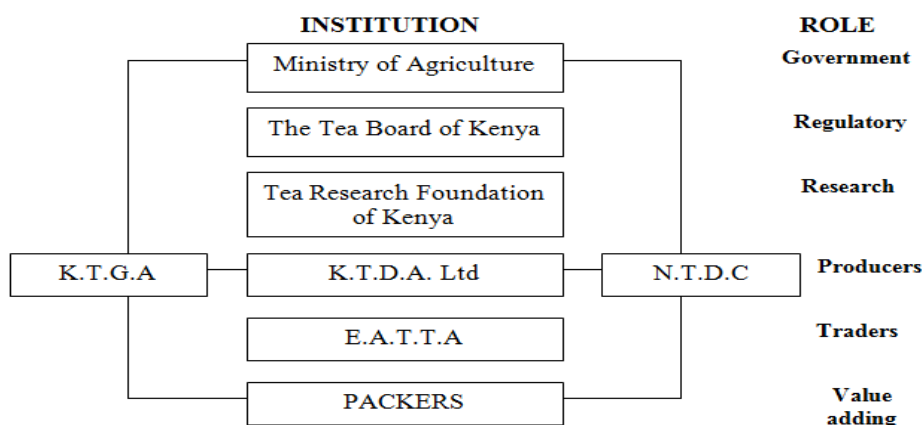


Figure 1.1: Structure of the tea industry in Kenya

Source: Tea Board of Kenya (2011)

The tea industry operates under the Tea Act (Cap 343) and Agricultural Act (Cap 318) of the laws of Kenya. While the former is vested with regulatory services, the latter is more managerial, overseeing the whole process of production as a technical arm. The Ministry of Agriculture has the overall responsibility for the tea industry development. The Tea Board of Kenya which was established in 1950 under the Tea Act (Cap 343) of the laws of Kenya, is a government body mandated to regulate the tea industry in all aspects of tea growing, research, manufacture, trade and promotion in both the local and the international markets. The Board also disseminates information relating to tea and advises the Government on all policy matters regarding the tea industry through the Ministry of Agriculture. Table 1.1 below gives a chronological picture and history of small-scale tea growing in Kenya, at five years interval except for special years when something notable happened.

Table 1.1: Chronological picture and history of small-scale tea growing in Kenya

Year	Activities
1963	The year of Kenya's independence
	The tea industry is liberalized and small-scale tea growers allowed to cultivate the crop for the first time
	Special Crops Development Authority (SCDA) is converted into KTDA; and KTDA mandated to run the small-scale tea industry
1972	Milestone in acreage - The small-scale tea acreage surpasses that of estate growers
1988	Milestone in production - The small-scale tea growers' production surpasses that of estate growers

Source: Tea Board of Kenya, 2007

Contribution of the Smallholder Tea Sub-sector to the economy include the following: dependents (direct and indirect) - about 10% of Kenyan population (around 4 million people); contribution to GDP about 2.4%; ownership of KTDA 100% by the small scale tea farmers; promotes rural industrialization with about 60%

of national tea output; and contribution to foreign exchange earning in 2009 was Ksh37 billion (342 million euro) expected to be above 49B (453 million euro) in 2010 (Mbadi, 2010). The small-scale farmers account for 60% of all the tea produced in Kenya. The large scale tea plantations are still under the control of big multinationals.

Green marketing within the tea firms in Kenya

The environmental impacts of the tea industry are considerable. There is significant biodiversity loss when high biodiversity areas such as forests are converted to tea plantations. Wal (2008) observed that along with habitat conversion, logging for firewood to process tea, in particular, has caused extensive deforestation in countries such as Kenya, Sri Lanka, Malawi and India. Energy consumption for tea processing is also high. In some countries, such as India, Sri Lanka and Vietnam, abundant application of pesticides is also negatively affecting the local and wider environment (water pollution, reduced soil biodiversity).

Most of the tea factories in Kenya are customer focused and committed to continually improving their process. They have ascribed to Information Communication Technology, process automation and International Standards such as ISO (EATTA, 2010). Some of the factories have undergone the certification process, and having met the requirements, they have been recommended for the following certifications: ISO 9001/2001; ISO 9001:2000; ISO 9001: 2008; ISO 9001: 22000; ISO 22000: 2005 (Food Safety Management Systems) certification after audits by Bureau Veritas Quality International (BVQI); and HACCP certification.

Statement of the problem

Some companies' green strategies include: repositioning products without changing product composition; modifying existing products to be less environmentally harmful; modifying the entire corporate culture to ensure that environmental issues are integrated into all operational aspects; and the formation of new companies that target green consumers only produce green products. Green product attributes may be environmentally sound processes, responsible product uses, or product elimination, which consumers compare with those possessed by competing conventional products. However, implementation of environmental strategies in Kenya is based very much on ad hoc practices and many of them do not actually subscribe to any particular environmental concept. Though green marketing has been an important academic research topic for at least three decades, most of the studies have been undertaken in developed countries. None of the studies assessed the extent of adoption of green marketing practices by the Kenya tea firms. The limited number of available literature reveals that there is a meager research to probe why the practice of green marketing is low or the low motivation for firms to adopt green marketing activities. Hence, there is a need to shed light on the establish the extent of adoption of green marketing by the Kenya tea firms.

Objective of the study

The study sought to explore the extent of adoption of green marketing practices by Kenya tea firms.

Scope of the study

This study focused on the Kenya tea firms registered with East Africa Tea Trader Association. Reviews of the relevant literature indicate that green marketing strategies may focus on the following areas: corporate focus; suppliers focus; production/processing (manufacturing) focus; product focus; price focus; place (distribution) focus; packaging focus; and promotion focus (Kilbourne, 1998; Menon, Menon, Chowdhury & Jankovich, 1999; and Baker & Sinkula, 2005). For purposes of the study, green marketing practices are limited to environmental adjustments of the traditional marketing mix elements (product, price, distribution, and promotion).

Justification for the study

The marketplace is placing an increasingly large amount of emphasis on green business. Studies on green marketing in relation to the tea sector, especially in Africa are very scarce. Ideally, it is the role of Universities and other institutions of higher learning to prepare their students to excel in their chosen field. Today's generation of business students will be the ones that will continue the transition from conventional business to sustainability. Those individuals that are able to understand the role green marketing practices will play in the marketplace, as well as how to successfully develop and implement green policies and processes, will hold a competitive advantage over those that lack this understanding. This is the impetus for this study.

LITERATURE REVIEW

Green marketing strategies

Review of the literature on green marketing practices reveals various actions that can be undertaken to enhance environmental sustainability. Some of the possible green marketing practices are discussed below.

Corporate focus

Fuller (1999), proposed the following green marketing practices: development of a mission statement that

explains commitment to the environment; development of an environmental workplace policy; development of achievable environmental goals for all stakeholders; conducting environmental audits at regular intervals; cooperation with groups/authorities on environmental issues; sensitization of key stakeholders on environmental issues; financial support for environmental projects; and investment in research and development for cleaner environment. In addition, and Polonsky & Rosenberger (2001), proposed the following: investing in new technologies for handling waste, sewage and air pollution (for example, in-house paper recycling program); evaluation of processes based on their environmental impact; formation of cross functional teams whose main responsibility is to improve our environmental performance; substitution of environmental questionable materials; and offering rewards to employees who develop new environmental ideas.

Supplier' focus

Peattie (1992), Grove, Fisk, Pickett & Kangun (1996) and Grundey & Zaharia (2008) proposed the following green marketing practices with respect to suppliers focus: budgetary allocation to assist suppliers purchase equipment for production prevention and waste water recycling; bringing together suppliers in the same industry to share their know how and problems; choice of suppliers by environmental criteria; guiding suppliers to establish their own environmental programmes; holding awareness seminars for suppliers/contractors; urging/pressuring suppliers to take environmental actions; developing specific environmental standards for evaluating suppliers; and ensuring that all supplies contain green attributes such as recycled or reusable items

Production/processing (manufacturing) focus

Vasanthakumar (1993) and Baumann, Boons & Bragd (2002), proposed the following green marketing practices with respect to production focus: optimization of processes to reduce waste/ air emissions/ noise; use of cleaner technology processes to make savings; use of environmentally friendly raw materials; use of waste of other companies; utilization of sustainable energy sources wherever possible; recycling of wastes produced during production process; and use of recycled raw materials wherever possible.

Product focus

Around the world there have been an increasing number of firms which have introduced green products (Carson & Fyfe, 1992). For example, 5% of all new products in the US in 1989 were identified as green products, whereas in 1990 this figure increased to 10% (Davis, 1992). The degree to which green marketing has been incorporated into a company's marketing strategies has varied between companies. Some companies' green initiatives include: repositioning products without changing product composition (Davis, 1992); modifying existing products to be less environmentally harmful (Ottman, 1992a); modifying the entire corporate culture to ensure that environmental issues are integrated into all operational aspects (McDaniel & Rylander, 1993); and the formation of new companies that target green consumers only produce green products (CHOICE, 1990).

Peattie (1992), Zeithaml, Parasuraman & Berry (2006), and Grundey & Zaharia (2008), proposed the following green marketing practices with respect to product focus: participation in the design of products for recycling, reuse or disassembly; recovery of the factory's end-of-life products; offering environmental friendly products; and undertaking product standardization to ensure environmentally safe products.

Price focus

Barrett (1991), Peattie (1992), Zeithaml *et al.* (2006) and Bridges & Wilhelm (2008), proposed the following green marketing practices with respect to price focus: the factory be proactive and by focusing on costs, there should be improved cost-effectiveness and a higher competitive edge; and the factory should support adoption of environmental accounting methods to assess costs associated with tea processing.

Place (distribution) focus

Coddington (1993), Isherwood (2000), Bartlett & Howard (2000) and Rogers & Tibben-Lembke (2001), proposed the following green marketing practices with respect to place focus: change for more environmental-friendly transportation; location of the factory products being consistent with the image which the factory wants to project; adoption of "green" distribution, including redesigning physical facilities; converting to a more fuel efficient fleet; and redesigning distribution to minimize transportation.

Packaging focus

Zeithaml *et al.* (2006) proposed the following green marketing practices with respect to packaging focus: redesigned packaging to reduce environmental impact; and use of packaging that is of lighter weight.

Promotion focus

Davis (1993), Carlson, Stephen & Kangun (1993) and Grundey & Zaharia (2008), proposed the following green marketing practices with respect to promotion focus: providing customers with information on environmental friendly products and/or production methods; in their communications, the factories should clearly state their environmental efforts, characteristics and benefits achieved; the factories should use sustainable marketing and communication tools and practices to reinforce environmental credibility; the firms should understand that the key to successful green marketing is credibility, and such, the firm never overstates environmental claims or establish unrealistic expectations; the factories should advertise the expenditures that it has used on the environmental protection; the truthfulness and specificity of the green marketing claims should

be monitored and the claims be informative by nature; and the factories should have newsletters communicating environmental actions to all employees.

Implementing a green marketing strategy requires a fundamental, holistic, integrated approach across all functional marketing areas, which include the entire marketing mix of targeting, pricing, design, positioning and promotion (Polonsky & Rosenberger, 2001). According to Fuller (1999, p.109), “only companies that are truly committed to environmental concerns and are willing to translate those concerns into action through marketing mix decisions can develop viable strategies”. However, for purposes of this study, only the traditional “4 Ps” of marketing, namely product, price, place and promotion will be considered. These are discussed in the next section.

Green marketing mix

Ottman (1993) argues that “like conventional marketers, green marketers must address the ‘four Ps’ in innovative ways”. Bridges and Wilhelm (2008, 39), state that the 4Ps marketing mix is a useful means of categorizing the sustainability concepts and tools relevant to marketing decision making. These are discussed as follows:

Products

Zeithaml, Parasuraman & Berry (2006, p.26), define product by the features of the related physical goods, quality level, accessories, packaging, warranties, product lines and branding. Product can be classified into three levels, which include the core product, actual product and augmented product. *Core product* solves the problem of the customer and is the reason for buying the product. As an example, if the core product is a nature experience in intact natural environment, then the whole service needs to be developed accordingly. The environmental impacts of product can be minimized by effective use of raw materials and energy as well as paying attention to reusing and recycling the related end products

Actual product includes brand name, quality, styling, features and packaging. According to Peattie (1992, 235), “green *brand name* can be created by attaching some environmental meaning to it or something related to a product feature, such as clean or natural, production related, like recycled, or by relating some green symbols, colors or forms to the brand”. Grundey and Zaharia (2008, 138), argued that being branded as a green company can potentially be beneficial to business organizations and it might for example enhance the overall perception of product quality. The green quality features of physical products include energy and resource efficiency, minimization of the amount of waste and pollution, product life, reuse and recycling possibilities. With respect to *packaging*, there are several possibilities to reduce environmental impacts, for example by selling bigger unit sizes, offering products in refillable containers and reducing extra package layers (Peattie 1992, 222; Grove *et al.*, 1996, 57; Grundey & Zaharia 2008, 136).

Augmented product is surrounding the core product and actual product and includes extra benefits and services such as after sales services, delivery and credit, installation and warranty. The aim of the *product* is to increase the lifetime of the product to which they are attached by utilizing maintenance and repair services (Bridges & Wilhelm, 2008, 37).

According to Charter (1992), greening of products could take place in the following ways: “*repair*- extend the life of a product by repairing its parts; *recondition*- extend the life of a product by significantly over handling it; *re-manufacture*- the new product is based on old ones; *re-use* – design a product so that it can be reprocessed and converted into a new material to be used in another or the same product and *reduce*- even though the product uses less material or generates less disposable waste, it delivers benefits comparable to its former version or to competing products”.

Although the study of relationship between green products and industry from a marketing perspective is relatively new (Baumann *et al.*, 2002), the literature also recognizes that managers should be aware that green marketing begins with green design (Vasanthakumar, 1993), and that product design constitutes an active interface between demand (consumers) and supply (manufacturers) (Baumann *et al.*, 2002). For example, super-concentrated laundry detergents are associated with energy saving reduced packaging and space, and money (Ottman & Terry, 1998).

Ottman (1992b) concluded that entrepreneurs wanting to exploit emerging green markets either; identify customers’ environmental needs and develop products to address these needs; or develop environmentally responsible products to have less impact than competitors. Whatever the product or service, it is vital to ensure that products meet or exceed the quality expectations and is thoroughly tested.

Price

Price consists of flexibility, price level, terms, differentiation, discounts and allowances (Zeithaml *et al.*, 2006, p. 26). Peattie (1992, p. 250) argues that while developing environmentally sustainable practices, extra costs often arise, which normally diminish again with learning, as such, both costs and demand have to be considered in the price. Barrett (1991) observed that most customers are prepared to pay a premium if there is a perception of additional product value. This value may be improved performance, function, design, visual appeal or taste. Environmental benefits are thus an added bonus but will often be the deciding factor between products of equal

value and quality.

Bridges & Wilhelm (2008, p. 35), noted that “to practice sustainable marketing, practitioners will need to rethink assumptions and those necessary changes include lengthening corporate time horizons for return on investment and valuing financial continuity over profit”. Bridges & Wilhelm thus support the adoption of environmental accounting methods to assess costs associated with product production, ownership, use, and disposal which will ensure that environmental costs are taken into consideration in product pricing decisions. Grundey and Zaharia (2008, p. 141), concluded that marketers need to assess the cost of new laws and regulations as well as the cost of endless litigation as integral and critical components of an ecological approach. Therefore, companies should be proactive and by focusing on costs they can improve their cost effectiveness and possibly gain competitive edge.

Place (distribution)

Place involves ensuring that goods are available to consumers in convenient ways. Distribution choices include decisions of channel type, exposure, intermediaries, outlet location, transportation, storage and managing channels (Zeithaml *et al.*, 2006, 26). Green distribution activities include (i) redesigning physical facilities; (ii) implementing reverse logistics (Bartlett & Howard, 2000); and (iii) converting to a more fuel efficient fleet; and redesigning distribution to minimize transportation (Rogers & Tibben-Lembke, 2001).

According to Imballagio (2002), green distribution should be considered because product distribution systems can constrain green design solutions since they must guarantee the tangible “ecological nature” of the products on the market. Additionally, distribution often increases the environmental impact of products, and is constantly regulated for environmental compliance. This is a common situation in the United States (Isherwood, 2000).

However, it is generally less clear if consumers can or will be able to objectively assess the environmental implications of distribution since many distribution activities are not typically known by consumers. Coddington (1993), argued that very few customers go out of their way to buy green products merely for the sake of it and concluded that location of the products must be consistent with the image which a company wants to project, and that the location must differentiate a company from its competitors.

Promotion

Promotion includes advertising, public relations, sales promotion and direct marketing among others. According to Davis (1993), the key to successful green marketing is credibility, and as such, marketers should never overstate environmental claims or establish unrealistic expectations (Grundey & Zaharia, 2008, 130) suggest that the company should advertise the expenditures that it has used on the environmental protection and note that the green products probably require special attention.

Carlson *et al.* (1993) suggested that there are four types of environmental information that can be included in environmental advertising: *Product orientation*: the claim focuses on the environmentally friendly attributes that a product possesses. (Biodegradable is an example of such product); *Process orientation*: the claim deals with an organization’s internal technology, production technique and/or disposal method that yields environmental benefits. (For example, 20 per cent of the raw materials used in producing this good are recycled.); *Image orientation*: the claim associates an organization with an environmental cause or activity for which there is broad-based public support. (For example “we are committed to preserving our forests”); *Environmental fact*: the claim involves an independent statement that is ostensibly factual in nature from an organization about the environment at large, or its condition.

METHODS

Research design

Brown, Askew, Baker, Denvir & Millett (2003) observed that “research design provides the glue that holds the research project together”. A design is used to structure the research, to show how all of the major parts of the project, which include the samples or groups, measures, treatments or programs, and methods of assignment that work together to try to address the central research questions. In order to undertake the study a descriptive survey was used. According to Mugenda & Mugenda (1999) descriptive statistics enable meaningful description of a distribution of scores or measurements using a few indices or statistics. Descriptive statistics help to simplify large amounts of data in a sensible way. Each descriptive statistic reduces lots of data into a simpler summary. Measures of central tendency give the expected score or measure from a group of scores in a study. Measures of variability, such as standard deviations inform about the distribution of scores around the mean of the distribution. Frequency distributions show a record of the number of times a score or record appears. Presentation of the information was done using frequency tables and percentages.

Population of the study

Cooper & Schindler (2005) define a population as the total collection of elements about which the researcher wishes to make some inferences. Zikmund (2003, p.739) defines a population as “a complete group of entities sharing some common set of characteristics”. The population of this study was all tea factories in Kenya that are

members of East African Tea Trade Association (EATTA), whose number at 17 as at 30th June 2010 (EATTA, 2010). Kenya Tea Trading Agency Ltd has a total of 57 factories, which operate independently and were all included in the study. In total, the study targeted a total of 73 tea factories. A sample of 63 organizations was conducted (the 10 tea firms that participated in the pre-testing of the questionnaires were excluded). The unit of analysis of the study was the individual tea factory. The study respondent in each of the factories was the environmental management representative.

Data Collection

In order to investigate the research objective, both secondary and primary data were collected and analyzed. The first stage of the research process was an extensive search of articles, reports and professional information concerning green marketing strategies in general and the international dimension of these strategies in particular, using the internet and academic databases. Secondary data was collected in order to ensure relevance to the research problem, eliminate duplication of what has been done and provide a clear understanding of existing knowledge base in the problem area. The analysis of secondary information provided the general context for initiating the collection, analysis and the interpretation of primary data. In the second stage, primary data was collected. Saunders, Lewis & Thornhill (2003) argued that primary data is needed to thoroughly answer the research question and is collected specifically for the research project being undertaken. Hair, Black, Babin, Anderson & Tatham (2006, p. 64) defined primary data as “gathering of first-hand, new information by the researcher”. Saunders *et al.* (2003 p. 245) concluded that “use of interviews and questionnaires help to collect valid and reliable data relevant to the research questions and objectives.

Data collection instrument

Primary data was collected with the aid of a detailed questionnaire that was completed by the environmental management representative. According to Neuman (1997), a questionnaire is a written document in quantitative research that has set of questions directed at respondents. It is used by an interviewer to pose questions to respondents and to record the answers. The questionnaire was designed to answer the questions identified in the problem statement.

Structured questions were presented on a likert scale. The likert scale, commonly used in business research was used because it allows participants to respond with degrees of agreement or disagreement. The ratings were on a scale from 1 (lowest impact or least important) to 5 (highest impact or most important). The advantage of closed questions is that it is easier and quicker for respondents to answer. Furthermore, the answers of different respondents are easier to compare code and statistically analyze. There are also fewer irrelevant or confused answers and replication is easier. Closed questions are an appropriate means of asking questions that have a finite set of answers of a clear-cut nature. Sometimes this is factual information, but closed questions are also used for obtaining data on attitudes and opinions (Anon, 2003d).

The questionnaire included questions that were relevant to the study and followed a logical sequence to ensure that accurate answers were given and that misunderstandings were avoided. The questionnaire was based on a quantitative method of data collection. The advantage of this method, as observed by Respini (2000), is that the researcher is able to collect all the data before analysis and to convert it into numerical values, which are then manipulated in order to discover patterns or relationships.

Data collection procedure

Prior to launching a full-scale study, the questionnaire was pre-tested on 10 tea factories to ensure its workability in terms of structure, content, flow, and duration. According to Cooper & Schindler (2005) a pre-test is “the testing of the questionnaire on a small sample of respondents, preferably 10 or more”. After the pre-testing of the questionnaire, modifications were made in the questionnaire to reduce the possibility of ambiguity of some of the questions before delivering them to the respondents. Experts and colleagues who are experienced in research were also requested to examine the questionnaire to check whether there were any items that needed to be changed or rephrased, as well as the appropriateness of the time set for completing it. At the end of the exercise, the items in the questionnaires were considered to be satisfactory in term of both wording and format. The researcher administered the questionnaires by drop-and-pick method after explaining the purpose of the study and agreeing on the time frame for the completion of the questionnaires. The data collection was stopped two months after its commencement.

Validity and reliability of measures

Validity

Validity refers to the extent to which the data collection instrument measures what it is supposed to measure. Zikmund (2003) defines validity as the ability of a measuring instrument to measure what was intended to be measured. According to (Sekaran, 2003), content validity is a judgmental act where experts check whether the items represent the construct which is being studied as well as the wording, formatting and scoring of the instrument. Two steps were taken to ensure validity. Firstly, wherever possible, research questions from prior studies were used to improve the validity of the research instrument, in particular (Hall, 2000). Secondly, the questionnaire was sent to selected academicians as well as 10 randomly selected members of EATTA for perusal

and to assess the structure, length, and appropriateness of the questions used.

Reliability

Reliability is the degree to which measures are free from error and therefore yield consistent results (Zikmund, 2003). The researcher relied on the guidance of the supervisors for reliability of the data collection tool. Factor analysis was performed for testing the validity of measures used in measuring the drivers for green marketing. According to Sekaran (2003), “reliability analysis is conducted to ensure that the measures of variables have internal consistency across time and across the various items that measure the same concept or variable”.

Data analysis and presentation

The following is a brief description of the statistical methods that were employed for this study. According to Marshall & Rossman (1999), data analysis is the process of bringing order, structure and interpretation to the mass of collected data. The data collected with the aid of questionnaires was systematically organized in a manner to facilitate analysis. Data analysis involved preparation of the collected data - coding, editing and cleaning of data in readiness for processing using Statistical Package for Social Sciences (SPSS) package version 19.0. The coded data was keyed into the SPSS program where it was developed into a database and hence analyzed. SPSS was preferred because it is very systematic and covers a wide range of the most common statistical and graphical data analysis.

Extent of adoption and drivers of adoption of green marketing

In order to determine the extent of adoption and drivers of green marketing by the Kenya tea firms, descriptive statistics were used to illustrate the means and the standard deviation of each research variable. Measures of central tendency gave the expected score or measure from a group of scores in the study. Measures of variability, such as standard deviation, informed about the distribution of scores around the mean of the distribution. Frequency distributions show a record of the number of times a score or record appears.

RESULTS AND DISCUSSIONS

Introduction

The aim of this chapter is to provide a summary of the data collected through the use of questionnaires. General trends are explained using percentages, tables, figures and descriptions of data as a way to present the findings of the investigation. The primary data was collected using questionnaires. A total of 63 questionnaires were hand delivered to respondents (the 10 factories that were used for pre-testing the questionnaire were omitted from the study), out of which 58 were returned completed (92.1% return). The data collected was then analyzed using the Statistical Package for Social Science (SPSS) – version 19.0. The findings are presented as per the objectives, research questions and hypotheses of the study.

Extent of adoption of green marketing by Kenya tea firms

The study objective was met through seeking answers to the research question “to what extent has green marketing been adopted by the Kenya tea firms?” Objectives and decision making criteria; green policies and practices adopted; greening strategies adopted; environmental actions; and green marketing strategies adopted, were assessed. This section presents details of the findings.

Objectives and decision making

The respondents were asked to indicate the basis upon which their respective factories set their business objectives and decision making by ticking one alternative from a given list. The responses are summarized and presented in table 4.1 below.

Table 4.1: Objectives and decision making criteria

Criteria for objective setting and decision making	Percentage	Mean score	Standard deviation	Ranking
<i>All respondent factories</i>				
Economic Prosperity	19.0			3
Social Equity	8.6			4
Environmental protection	22.4			2
Combination of 1,2,3	50.0			
Average ranking (N = 58)		3.03	1.169	2.50
<i>ISO 9000 and ISO 14001 Certified tea factories</i>				
Economic Prosperity	6.7			3
Social Equity	0.0			4
Environmental protection	33.3			2
Combination of 1,2,3	60.0			1
Average ranking (N = 15)		3.47	0.834	2.50

Findings above show that the main basis upon which the tea factories set their objectives and decision

making was a combination of “economic prosperity”, “social equity”, and economic prosperity” as indicated by (50.0%) of the respondents, followed by “environmental protection”, as indicated by 22.4% of the respondents. Social equity was the least ranked criteria upon which the tea factories set the business objectives and decision making. The Standard Deviation is 1.169 and mean is 3.03.

Findings further show that the main basis upon which the tea factories that had obtained both ISO 9000 and ISO 14001 Certification set their objectives and decision making was a combination of “economic prosperity”, “social equity”, and economic prosperity” as indicated by (60.0%) of the respondents, followed by “environmental protection”, as indicated by 33.3%% of the respondents. “Economic prosperity” scored only 6.7% whereas social equity was ranked by any of the respondents. The Standard Deviation is 0.834 and mean is 3.47.

Policies and practices

Respondents were asked to indicate the extent to which their tea factories had incorporated the 4-Rs (Recycle, Refill, Reuse and Reduce), which are the cornerstones of the green marketing strategy in their policies and practices. The responses are summarized and presented in table 4.2 below.

Item code

PP 1: *Recycle* – the factory collects all types of packaging for recycling

PP 2: *Refill* – all outlets provide product refill service

PP 3: *Reuse* – the factory encourages reuse of promotional materials such as posters

PP 4: *Reduce* – the factory eliminates all unnecessary packaging

Table 4.2: Cornerstones of the green marketing strategy (4-Rs)

The cornerstones of the green marketing strategy (4 - Rs)	Much	Very much	Total (%)	Mean score	Standard deviation	Rank
<i>All respondent factories</i>						
PP 1	51.7	29.3	81.0	4.10	0.693	3
PP 2	55.2	32.8	88.0	4.21	0.642	2
PP 3	58.6	36.2	94.8	4.31	0.568	1
PP 4	27.6	50.0	77.6	4.28	0.812	4
Average Rank (N = 58)						2.50
<i>ISO 9000 and ISO 14001 Certified tea factories</i>						
PP 1	60.0	13.3	73.3	3.87	0.640	4
PP 2	60.0	26.7	86.7	4.13	0.640	2
PP 3	80.0	20.0	100.0	4.20	0.414	1
PP 4	33.3	46.7	80.0	4.27	0.799	3
Average Rank (N = 15)						2.50

Findings above indicate that “Reuse” was the highest ranked green marketing strategy incorporated by the tea sector factories in their policies and practices, as indicated by all (100%) response. “Refill” was ranked 2nd, as indicated by (88%) of the respondents. “Reduce” was the least ranked”, as indicated by (77.6%) of the respondents.

Findings also indicate that “Reuse” was the highest ranked green marketing strategy incorporated by the tea sector factories that had obtained both ISO 9000 and ISO 14001 Certification in their policies and practices, as indicated by (94.8%) of the respondents. “Refill” was ranked 2nd, as indicated by (86.7%) of the respondents, “Recycle”, as indicated by (73.3%) of the respondents.

Greening strategies

The respondents were asked to indicate the extent to which they agreed/disagreed that their respective tea factories had adopted each of the three listed greening strategies. The responses are summarized and presented in table 4.3 below.

Item codes

GS 1: *Value-addition processes (firm level)* - redesigning processes with the objective of reducing environmental impact aggravated.

GS 2: *Management systems (firm level)* – adoption of management systems that create conditions for reducing the environmental impact of value-addition processes.

GS 3: *Products (product level)* – adoption of new technologies

Table 4.3: Relative importance of the greening strategies adopted by the tea sector

Item Codes for Greening Strategies	Agree	Strongly agree	Total (%)	Mean	Standard deviation	Rank
<i>All respondent firms</i>						
GS 1	39.7	36.2	75.9	4.10	0.810	3
GS 2	56.9	31.0	87.9	4.19	0.634	1
GS 3	32.8	50.0	82.8	4.31	0.799	2
Average Rank (N = 58)						2.0
<i>ISO 9000 and ISO 14001 Certified tea factories</i>						
GS 1	33.3	40.0	73.3	4.13	0.834	3
GS 2	53.3	33.3	86.6	4.20	0.676	2
GS 3	33.3	60.0	93.3	4.53	0.640	1
Average Rank (N = 58)						2.0

The findings above indicate that majority of the tea factories (87.9%) had adopted the “*Management systems (firm level)* - adoption of management systems that create conditions for reducing the environmental impact of value-addition processes”. “*Value-addition processes (firm level)* - redesigning processes with the objective of reducing environmental impact aggravated” was the least ranked greening strategy (75.9%) adopted by the tea sector in Kenya.

The findings also indicate that majority of the tea factories that had obtained both ISO 9000 and ISO 14001 Certification (93.3%) had adopted the “*Products (product level)* – adoption of new technologies (for instance, a steel firm may install a state-of-the art of furnace)”. “*Value-addition processes (firm level)* - redesigning processes with the objective of reducing environmental impact aggravated” was the least ranked greening strategy (73.3%) adopted by the tea factories that had obtained both ISO 9000 and ISO 14001 Certification in Kenya.

Relative importance of green marketing activities undertaken in the tea sector in Kenya

This section presents findings related to the relative importance of green marketing activities undertaken in the tea sector in Kenya.

Products

Respondents were asked to indicate the extent to which they agreed/disagreed that their factories had taken environmental actions in each the listed product areas. The responses are summarized and presented in table 4.4 below.

Item code

PDF 1: Design of products for recycling, re-use or disassembly

PDF 2: Recovery of the factory’s end-of-life products

PDF 3: Offering environmental friendly products

PDF 4: Undertaken product standardization to ensure environmentally safe products

Table 4.4: Product focus

5 = Extremely Important 1 = Not important	Agree	Strongly Agree	Total (%)	Mean	Standard deviation	Rank
<i>All respondent firms</i>						
PDF 1	51.7	37.9	89.6	4.28	0.643	6
PDF 2	39.7	41.4	81.1	4.19	0.826	12
PDF 3	43.1	46.6	89.7	4.36	0.667	5
PDF 4	39.7	51.7	91.4	4.43	0.652	3
Average Rank (N = 58)						6.50
<i>ISO 9000 and ISO 14001 Certified tea factories</i>						
PDF 1	60.0	33.3	93.3	4.27	0.594	7
PDF 2	33.3	60.0	93.3	4.53	0.640	2
PDF 3	53.3	40.0	93.3	4.33	0.617	6
PDF 4	26.7	66.7	93.4	4.60	0.632	1
Average Rank (N = 15)						4.0

The findings above indicate that “product focus” was the highest ranked overall, with an average ranking of (6.50). The item that was highest ranked for product focus in terms of percentage was “undertaken product standardization to ensure environmentally safe products”, with a mean score of 4.43 and a total percentage of (91.4%) of the respondents indicating either “agree” or “strongly agree”. The least ranked item was “recovery of the factory’s end-of-life products”, with a mean score of 4.19 and a total of (81.1%) of the respondents indicating “agree” or “strongly agree”.

The findings also indicate that “product focus” was the highest ranked overall, with an average ranking

of (4.0). The item that was highest ranked for product focus in terms of percentage was “undertaken product standardization to ensure environmentally safe products”, with a mean score of 4.60 and a total percentage of (93.4%) of the respondents indicating either “agree” or “strongly agree”. The least ranked item was “design of products for recycling, re-use or disassembly”, with a mean score of 4.27 and a total of (93.3%) of the respondents indicating “agree” or “strongly agree”.

Price

Respondents were asked to indicate the extent to which they agree/disagree that their factories had taken environmental actions in each of the listed price areas. The responses are summarized and presented in table 4.5 below.

Item code

PRF 1: The factory is proactive and by focusing on costs, there is improved cost-effectiveness and a higher competitive edge

PRF 2: The factory supports adoption of environmental accounting methods to assess costs associated with tea processing

Table 4.5: Price focus

5 = Extremely Important 1 = Not important	Agree	Strongly Agree	Total (%)	Mean	Standard deviation	Rank
<i>All respondent factories</i>						
PRF 1	60.3	24.1	84.4	4.09	0.629	16
PRF 2	44.8	39.7	84.5	4.24	0.709	9
Average Rank (N = 58)						12.50
<i>ISO 9000 and ISO 14001 Certified tea factories</i>						
PRF 1	86.7	13.3	100.0	4.13	0.352	13
PRF 2	40.0	53.3	93.3	4.47	0.640	4
Average Rank (N = 15)						8.5

Findings above show that, overall, price focus was the least ranked of the 4 Ps of marketing, with an average ranking of (12.50). The item that was highest ranked for price focus in terms of percentage was “the factory supports adoption of environmental accounting methods to assess costs associated with tea processing”, with a mean score of 4.24 and a total percentage of (84.5%) responses for either “agree” or “strongly agree”, while second ranked was “the factory is proactive and by focusing on costs, there is improved cost-effectiveness and a higher competitive edge”, with a mean score of 4.09 and a total of (84.4%) of the respondents indicating “agree” or “strongly agree”.

Findings above also show that, overall, price focus was the 2nd ranked of the 4 Ps of marketing, with an average ranking of (8.60). The item that was highest ranked for price focus in terms of percentage was “the factory supports adoption of environmental accounting methods to assess costs associated with tea processing”, with a mean score of 4.47 and a total percentage of (93.3%), while second ranked was “the factory is proactive and by focusing on costs, there is improved cost-effectiveness and a higher competitive edge”, with a total of (100%) of the respondents indicating “agree” or “strongly agree”.

Place

Respondents were asked to indicate the extent to which they agreed/disagreed that their factories had taken environmental actions in each on the listed place/distribution areas. The responses are summarized and presented in table 4.6 below.

Item code

PLF 1: Change for more environmental-friendly transportation

PLF 2: Location of the factory products is consistent with the image which the factory wants to project

PLF 3: Adoption of “green” distribution, including redesigning physical facilities

PLF 4: Converting to a more fuel efficient fleet

PLF 5: Redesigning distribution to minimize transportation

Table 4.6: Place (distribution) focus

5 = Extremely Important 1 = Not important	Agree	Strongly Agree	Total (%)	Mean	Standard deviation	Rank
<i>All respondents tea factories</i>						
PLF 1	50.0	32.8	82.8	4.16	0.696	14
PLF 2	36.2	50.0	86.2	4.38	0.718	4
PLF 3	46.6	39.7	86.3	4.26	0.690	8
PLF 4	27.6	58.6	86.2	4.45	0.730	1
PLF 5	39.7	41.4	81.1	4.22	0.750	11
Average Rank (N = 58)						7.60
<i>ISO 9000 and ISO 14001 Certified tea factories</i>						
PLF 1	60.0	20.0	80.0	4.00	0.655	15
PLF 2	40.0	53.3	93.3	4.47	0.640	4
PLF 3	60.0	33.3	93.3	4.27	0.594	7
PLF 4	13.3	53.3	66.6	4.20	0.941	10
PLF 5	33.3	46.7	80.0	4.27	0.799	7
Average Rank (N = 15)						8.60

Findings in table 4.6 above indicate that place (distribution) focus was the 2nd ranked overall, with an average ranking of (7.60). The item that was highest ranked for place focus was “converting to a more fuel efficient fleet” with a mean score of 4.45 and a total percentage of (86.2%) of the respondents indicating either “agree” or “strongly agree”. The least ranked item was “redesigning distribution to minimize transportation”, with a total of (81.1%) of the respondents indicating “agree” or “strongly agree”.

Findings in table 4.6 also indicate that place (distribution) focus was the 3rd ranked overall, with an average ranking of (8.60). The item that was highest ranked for place focus in terms of percentage was “location of the factory products is consistent with the image which the factory wants to project”, with a mean score of 4.47 and a total percentage of (93.3%) of the respondents indicating either “agree” or “strongly agree” for each item. The least ranked item was “change for more environmental-friendly transportation”, with a mean score of 4.00 and a total of (80.0%) of the respondents indicating “agree” or “strongly agree”.

Promotion

Respondents were asked to indicate the extent to which they agreed/disagreed that their factories had taken environmental actions in each of the listed promotion areas. The responses are summarized and presented in table 4.8 below.

Item code

PRMF 1: The factory provides customers with information on environmental friendly products and/or production methods

PRMF 2: In its communications, the factory clearly states environmental efforts, characteristics and benefits achieved.

PRMF 3: The factory uses sustainable marketing and communication tools and practices to reinforce environmental credibility.

PRMF 4: The factory understands that the key to successful green marketing is credibility, and such, the factory never overstates environmental claims or establish unrealistic expectations.

PRMF 5: The factory advertises the expenditures that it has used on the environmental protection

PRMF 6: The truthfulness and specificity of green marketing claims are monitored and the claims are informative by nature

PRMF 7: The factory has a newsletter communicating environmental actions to all employees

Table 4.8: Promotion focus

5 = Extremely Important 1 = Not important	Agree	Strongly Agree	Total (%)	Mean	Standard deviation	Rank
<i>All respondent factories</i>						
PRMF 1	63.8	15.5	79.3	3.95	0.605	18
PRMF 2	41.4	36.2	77.6	4.14	0.760	15
PRMF 3	44.8	29.3	74.1	4.03	0.748	17
PRMF 4	41.4	37.9	79.3	4.17	0.752	13
PRMF 5	51.7	37.9	89.6	4.28	0.643	6
PRMF 6	37.9	53.4	91.3	4.45	0.654	1
PRMF 7	37.9	43.1	81.0	4.24	0.757	9
Average Rank (N = 58)						11.29
<i>ISO 9000 and ISO 14001 Certified tea factories</i>						
PRMF 1	80.0	6.7	86.7	3.93	0.458	17
PRMF 2	33.3	33.3	66.6	4.00	0.845	15
PRMF 3	60.0	13.3	73.3	3.87	0.640	18
PRMF 4	40.0	40.0	80.0	4.20	0.775	10
PRMF 5	73.3	20.0	93.3	4.13	0.516	13
PRMF 6	20.0	66.7	86.7	4.53	0.743	2
PRMF 7	26.7	46.7	73.4	4.20	0.862	10
Average Rank (N = 15)						12.14

The findings in table 4.8 above indicate that promotion focus was the 3rd ranked overall, with an average ranking of (11.29). The findings also show that “the truthfulness and specificity of the green marketing claims are monitored and the claims are informative by nature” was ranked highest with a mean score of 4.45 and a total of (91.3%) of the respondents either indicating “agree” or “strongly agree”.

The findings in the table above also indicate that promotion focus was the least ranked overall, with an average ranking of (12.14). The findings also show that “The truthfulness and specificity of the green marketing claims are monitored and the claims are informative by nature” was ranked highest (91.3%) and “The factory advertises the expenditures that it has used on the environmental protection” was ranked 2nd with (89.6%) of the respondents indicating a total of “agree” and “strongly agree”. The overall findings of the study with respect to the relative importance of green marketing activities undertaken in the tea sector in Kenya are summarized and presented in table 4.9 below.

Table 4.9: Summary of findings with respect to the relative importance of green marketing activities undertaken in the tea sector in Kenya

Status of ISO Certification	Ranking of relative importance of green marketing activities			
	1 st ranked	2 nd ranked	3 rd ranked	4 th ranked
All tea factories irrespective of ISO 9000 and ISO 14001 Certification (N = 58)	Product focus (6.5)	Place/ Distribution (7.60)	Promotion focus (11.29)	Price focus (12.50)
Only the tea factories that were both ISO 9000 and ISO 14001 Certified (N = 15)	Product focus (4.0)	Price focus (8.50)	Place/Distribution (8.60)	Promotion focus (12.40)

Findings above indicate that the relative importance of green marketing activities undertaken in the tea sector in Kenya (irrespective of ISO 9000 and ISO 14001 Certification) is as follows in terms of average rank: 1st ranked was product focus with an average rank of (6.50); 2nd ranked was place (distribution focus), with an average rank of (7.60); 3rd ranked was promotion focus, with an average rank of (11.29); and the least ranked was price focus, with an average rank of (12.50).

Further, the findings in that table above also indicate that the relative importance of green marketing activities undertaken by the tea factories that were both ISO 9000 and ISO 14001 Certified in Kenya is as follows in terms of average rank: 1st ranked was product focus with an average rank of (4.50); 2nd ranked was price focus, with an average rank of (8.50); 3rd ranked was Place/Distribution focus (average of 8.60); and the least ranked was Promotion focus (average of 12.40).

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the findings of the study, this section presents the conclusions.

The ideas conveyed in this study are in response to the study objective set forth. This study achieved its primary objective, which was to establish the extent of adoption of green marketing by the Kenya tea firms. Hence, it is

concluded with some contributions to the literature.

The first significant contribution of this study is that green marketing was researched from a different approach; hence a broader and deeper picture of marketing was investigated. Previously, many researches on green marketing were often conducted in Western countries such as Germany and United States. An argument supported by Carter & Carter (1998). In this study, the ideas of green marketing were brought to an emerging economy (Kenya). This study's purpose was not to compare between these two groups of countries, it was to put the research concepts in different situations and environments in order to see the reactions of managers toward environmental issues.

The results offer evidence for green marketing as an important role to improve firms' performance. Bearing this in mind, firms' managers can work on researching efficient solutions to reduce negative effects as well as increase positive effects of green marketing activities.

Companies that develop virgin and improved products and services with environment inputs in mind give themselves access to new markets, increase their profit and enjoy competitive advantage over the companies which are not concerned for the environment. The advantages of green marketing are specified below.

Green marketing saves money in the long run, though initially the cost is more; It helps in accessing the new market and enjoying competitive advantage; Green marketing ensures sustained long term growth along with profitability; It helps companies market their products and services keeping the environment aspects in mind; As resources are limited and human wants are unlimited, it is important for the marketers to utilize the resources efficiently without waste and to achieve organization's objectives; and Green marketing helps to protect the ozone and whole the environment (Chopra, 2007).

Recommendations

In view of the findings of the study, the following recommendations for policy and practice are made:

Like conventional marketers, green marketers must address the 'four Ps' in innovative ways.

Product: Businesses wanting to exploit emerging green markets either: (a) identify customers' environmental needs and develop products to address these needs; or (b) develop environmentally responsible products to have less impact than competitors. The increasingly wide variety of products on the market that support sustainable development and are good for the triple bottom line include: products made from recycled goods; products that can be recycled or reused; efficient products, which save water, energy or gasoline, save money and reduce environmental impact; products with environmentally responsible packaging; products with green labels, as long as they offer substantiation; organic products, which offer promise of quality; and certified products, which meet or exceed environmentally responsible criteria. Whatever the product or service, it is vital to ensure that the product meets or exceeds the quality expectations of customers and is thoroughly tested.

Price: Pricing is a critical element of the marketing mix. Most customers are prepared to pay a premium if there is a perception of additional product value. This value may be improved performance, function, design, visual appeal or taste. Environmental benefits are usually an added bonus but will often be the deciding factor between products of equal value and quality. Environmentally responsible products, however, are often less expensive when product life cycle costs are taken into consideration.

Place: The choice of where and when to make a product available has a significant impact on the customers being attracted. Marketers looking to successfully introduce new green products should, in most cases, position them broadly in the market place so that they are not just appealing to a small green niche market. The location must also be consistent with the image which a company wants to project. The location must differentiate a company from its competitors. This can be achieved by in-store promotions and visually appealing displays or using recycled materials to emphasize the environmental and other benefits.

Promotion: Promoting products and services to target markets includes paid advertising, public relations, sales promotions, direct marketing and on-site promotions. Smart green marketers will be able to reinforce environmental credibility by using sustainable marketing and communications tools and practices. For example, many companies in the financial industry are providing electronic statements by email. E-marketing is rapidly replacing more traditional marketing methods, and printed materials can be produced using recycled materials and efficient processes, such as waterless printing. Retailers, for example, are recognizing the value of alliances with other companies, environmental groups and research organizations when promoting their environmental commitment. The key to successful green marketing is credibility. The marketers should never overstate environmental claims or establish unrealistic expectations, and communicate simply and through sources that people trust.

Implementing a green marketing strategy requires a fundamental, holistic, integrated approach across all functional marketing areas, including the entire marketing mix of targeting, pricing, design, positioning and promotion. For successful implementation, it is critical that green marketing is integrated across all organizational areas and activities. Thus, the role of green marketing in environmental sustainability development is to offer the common philosophy and practical tools for implementing environmental

sustainability into the company practices.

Although a large number of firms are using green marketing, there are a number of potential problems which need to be addressed. Green marketing claims of a firm must: clearly state environmental benefits; explain environmental characteristics; explain how benefits are achieved; ensure comparative differences are justified; ensure negative factors are taken into consideration; and only use meaningful terms and pictures.

Consumer marketers need to develop strategies to develop strategies which will allow them to overcome three problems associated with green marketing: poor credibility; consumer cynicism; and consumer confusion. The problem of consumer cynicism is also related to green marketing's past history, as many producers simply jumped on the green marketing bandwagon without considering the full ramifications of their actions. If these problems cannot be overcome, it is questionable whether environmental marketing, as a whole, will be effective.

The benefits searched for by buyers of green products include improvement of the environment in which they live. In some cases direct benefits can be obtained, such as perceived health advantages of organic food, the savings on domestic heating and lighting budgets, or the sometimes quite returns on investments in environmental technologies. The marketer's best strategy will consequently be to deliver detailed information to consumers about the environmental credentials of a product or service, or the consequences of advocated forms of behavior. Thus marketers should typically emphasize the efficiency of cognitive persuasion strategies, assuming the consumers' high involvement regarding environmental issues to be a consequence of a growing environmental consciousness.

Going green is not an easy undertaking for most businesses, it is a process. Not only do you have to examine every aspect of operations in order to pinpoint areas of waste and pollution, but a responsible business owner will also check out the supply chain for harmful practices and then try to implement eco-friendly standards along every step of the way. While some companies never make it beyond installing recycling bins around the office or switching to recycled paper products, there are plenty that go the extra mile by conserving energy and water, using chemical-free products and processes, working with eco-friendly vendors, and even securing a LEED certified office space.

Presented below are some of the green marketing best practices from other industries that the tea sector could adopt:

General sustainability: Sustainability can help cut costs as well as build sales. The marketers should therefore be transparent about green marketing claims by ensuring that they are verifiable by an independent, third party. The marketers should also include their colleagues in their sustainability efforts; often the best ideas come from the bottom up, rather than from the top down. The marketers should spread the word about the sustainability efforts their organizations are taking. Simple changes in the offices can have a huge impact: use energy efficient light bulbs and put recycling bins at every desk. Old batteries, light bulbs and other household materials should be recycled for free. Employee education is key, and sustainability must be part of the company culture. If so, it is much easier to implement (and less likely to be cut). The marketers should also make sure that they back up their green marketing efforts with truly sustainable business practices throughout their organizations (Chopra, 2007).

Green Printing: The tea sector should either share or recycle the printed piece. Sustainability is more than the materials used, and it involves the lifecycle of the items. The stakeholders should consider using chlorine-free paper. The best papers to use are bleached using an oxygen-based process, thus avoiding the creation of chlorine-related pollution. Vegetable-based inks should be used when possible. Not only are they generally refined in the United States, but they also reduce our use of petroleum, the majority of which comes from foreign sources. Consider papers with a high degree of post-consumer content, as they require fewer resources (energy, water, etc.) to produce. When using eco-friendly papers, make sure to explain the environmental benefits derived from these choices. These calculations should come from a third-party source rather than a calculation from an industry source. (Grundey & Zaharia, 2008). The tea sector should also use renewable energy (like wind or solar power) in the production process.

Best Practices in marketing

Green Design: When designing products, the organizations should consider how the products are produced. When sustainability is important, colors that works well with vegetable-based inks on recycled paper. By designing a lighter, smaller piece, you can save energy, freight costs, as well as reduce the amount of paper used. This can also help keep postage costs down if the piece is being mailed (Murphy & Poist, 2003).

Green promotional products: Corn plastic is practically indestructible. Choosing promotional corn plastic coffee mugs is a wise decision for the office since you can be sure that if they are dropped they will not break. They are also practical, attractive and economical as well as biodegradable. Recycled grocery bags can carry twice as many items as plastic shopping bags and are easier and more comfortable to carry. In addition, they are made from strong fabric that will last for many years, keeping your brand top-of-mind. Not only is organic cotton chemical and pesticide-free, but it is also softer and more comfortable to the touch than blended

cotton. The tea sector should consider alternative materials as a way to send a sustainable message. These include recycled fabrics, bamboo, biodegradable substrates, and solar-powered items (Zhu *et al.*, 2005).

Perception: The 5th P – moving beyond Product, Price, Place and Promotion: allow consumers to contribute to a solution, make sustainability a part of your value proposition and make sure goals are easy to locate and articulated. When goals are achieved, let it be known; be pro-active: form a partnership or sponsor an event; Internal Marketing: boost employee morale through education and empowerment; Involve them in a dialogue on strategies with committees, giving them tools and resources; Downstream stakeholder relations; and Work with key customers whose initiatives overlap with both operations (Zeithaml *et al.*, 2006).

Limitations of the study and recommended areas for further study

The following limitations could affect the generalisability of the study results:

To date literature on the extent of adoption, the drivers and influence of green marketing initiatives on firm performance in Kenya is scarce. There is thus limited empirical data for comparison. In addition, the sample size of the study is relatively small (58 tea factories) to draw generalized conclusions on factors driving the decision to adopt green marketing strategies and explore the influence of adopting such strategies on performance of firms across different industries in Kenya. Therefore, there is a need to replicate this study using managerial samples from other countries with different cultural characteristics and/or levels of economic development to allow for comparison of findings which can then be generalized across diverse sectors. The following areas are suggested for further study:

As opposed to industry wide generalization of the current results, a new study could be replicated in specific industry settings. Some industry sectors such as chemicals and health care services usually deal with more hazardous materials than others and consequently may view green marketing as a more integral part of marketing strategy. Therefore, it would be intriguing to see how significant a role industry differences, corporate culture, and financial capacity play in the adoption and maturity of green marketing; and Consider time dimension through comparing green marketing between different stages of adoption, such as innovators, early adopters, late adopters and laggards. This comparison may facilitate the identification of the drivers of each stage of adoption, which in turn, may enrich knowledge about these drivers.

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APPENDIX I: LISTING OF TEA FACTORIES THAT ARE MEMBERS OF EAST AFRICAN TEA TRADE ASSOCIATION (EATTA)

No.	Tea Company
1	Ceres Estates
2	Eastern Producers Kenya
3	James Finlay Kenya Ltd
4	Kaisugu Ltd
5	Karirana Tea Estates
6	Kenya Tea Development Agency Ltd
7	Keritor Ltd
8	Kipkebe Ltd (Sasini Tea & Coffee Ltd)
9	Kiptagich Tea Estates Ltd
10	Koisagat Tea Estate Ltd
11	Maramba Tea Factory Ltd
12	Nandi Tea Estates Ltd
13	Ngorongo Tea Factory Ltd
14	Sotik Highlands Tea Estates
15	The Sotik Tea Company
16	Tinderet Tea Estates Ltd
17	Unilever Tea Kenya Ltd

Source: East African Tea Trade Association (EATTA, 2011)

LISTING OF KENYA TEA DEVELOPMENT AGENCY LTD (KTDA) FACTORIES

Zone	Name	Physical Location	No. of registered tea growers
1	Kambaa tea factory co. Ltd	Githunguri Division, Kiambu County	5473
	Mataara tea factory co. Ltd	Chania Division, Kiambu County	3,485
	Gachege tea factory co. Ltd	Thika District, Kiambu County	3451
	Theta tea factory co. Ltd	Gatundu Division, Kiambu County	6924
	Kagwe tea factory co. Ltd	Lari division, Kiambu County	5345
2	Makomboki tea factory co. Ltd	Kigumo division, Murang'a County	4157
	Nduti tea factory co. Ltd	Thika, Kiambu County	5448
	Gacharage tea factory co. Ltd	Kigumo division, Murang'a County	4650
	Ikumbi tea factory co. Ltd	Kigumo division, Murang'a County	5,263
	Ngere tea factory co. Ltd	Gatanga division, Kiambu County	6737
	Njunu tea factory co. Ltd	Gatanga division, Kiambu County	3440
3	Gatunguru tea factory co. Ltd	Mathioya Division, Murang'a County	6872
	Githambo tea factory co. Ltd	Kahuro, Murang'a County	8349
	Kanyenyaini tea factory co. Ltd	Kangema Division, Murang'a County	8724
	Kiru tea factory co. Ltd	Mathioya Division, Murang'a County	6048
4	Iriaini tea factory co. Ltd	Othaya Division, Nyeri County	5747
	Chinga tea factory co. Ltd	Othaya Division, Nyeri County	4684
	Gathuthi tea factory co. Ltd	Othaya Division, Nyeri County	7158
	Gitugi tea factory co. Ltd	Othaya Division, Nyeri County	5433
	Ragati tea factory co. Ltd	Mathira Division, Nyeri County	5960
5	Mununga tea factory co. Ltd	Kirinyaga County	8246
	Ndima tea factory co. Ltd	Kirinyaga County	8202
	Kangaita tea factory co. Ltd	Kerugoya, Kirinyaga County	3,700
	Kimunye tea factory co. Ltd	Gichugu Division, Kirinyaga County	7302
	Thumaita tea factory co. Ltd	Gichugu Division, Kirinyaga County	10,785
6	Kathangariri tea factory co. ltd	Manyatta division, Embu County	8,387
	Rukuriri tea factory co. ltd	Embu-Meru highway, Embu County	6075
	Mungania tea factory co. Ltd	Runjenyes North Division, Embu County	9,160
7	Kiegoi tea factory co. ltd	Igembe Division, Meru County	11520
	Kionyo tea factory co. Ltd	Near Meru town, Meru County	7,746
	Michimikuru tea factory co. Ltd	Nyambene Hills, Meru County	9849
	Imenti tea factory co. Ltd	Meru Central, Meru County	5189
	Githongo tea factory co. Ltd	Meru Central, Meru County	4,985
	Kinoro tea factory co. Ltd	Igoji division, Meru County	5680
	Weru tea factory co. Ltd	Meru South, Meru County	9500
8	Tegat tea factory co. Ltd	Belgut division, Kericho County	16,175
	Litein tea factory co. Ltd	Near Kericho town, Kericho County	9475
	Kapkatet tea factory co. Ltd	Kapkatet Division, Kericho County	7596
	Momul tea factory co. Ltd	Sigowet division, Kericho County	9,611
	Kobel tea factory co. Ltd	Near Kericho town, Kericho County.	19, 293
	Tirgaga Tea Factory Company Ltd	Bomet, Kericho County.	9,666
9	Mogogosiek tea factory co. Ltd	Konoin Division, Kericho County.	18,572
	Kapset tea factory co. Ltd	Near Kericho town, Kericho County.	7500
	Kapkoros tea factory co. Ltd	Bomet, Kericho County.	11,299
10	Kebirigo Tea Factory Co.Ltd	Nyamira division, Nyamira County	10,000
	Gianchore tea factory co. Ltd	Near Kisii Town, Kisii County	10,913
	Tombe tea factory co. Ltd	Nyamira County	20,186
	Nyankoba tea factory co. Ltd	Borabu division, Kisii County	13,600
	Nyansiongo tea factory co. Ltd	Borabu division, Kisii County	10750
	Sanganyi tea factory co. Ltd	Ekerenyo Division, Nyamira County	18617
11	Nyamache tea factory co. ltd	Nyamache Division, Kisii County	25300
	Kiamokama tea factory co. Ltd	Nyaribari Central, Kisii County	15,989
	Ogembo tea factory co. Ltd	Gucha, Kisii County	28,500
12	Kapsara tea factory co. Ltd	Kaplamai Division, Trans- Nzoia County	1,619
	Chebut tea factory co. Ltd	Kapsabet Division, Nandi County	7915
	Mudete tea factory co. Ltd	Mudete township, Vihiga County	13,514
	Kaptumo tea factory co. Ltd	Near Eldoret, Uasin Gishu County	15,000

Source: Kenya Tea Board (June, 2011)

BIOGEOGRAPHICAL SKETCH

Small-scale Tea Research in Kenya

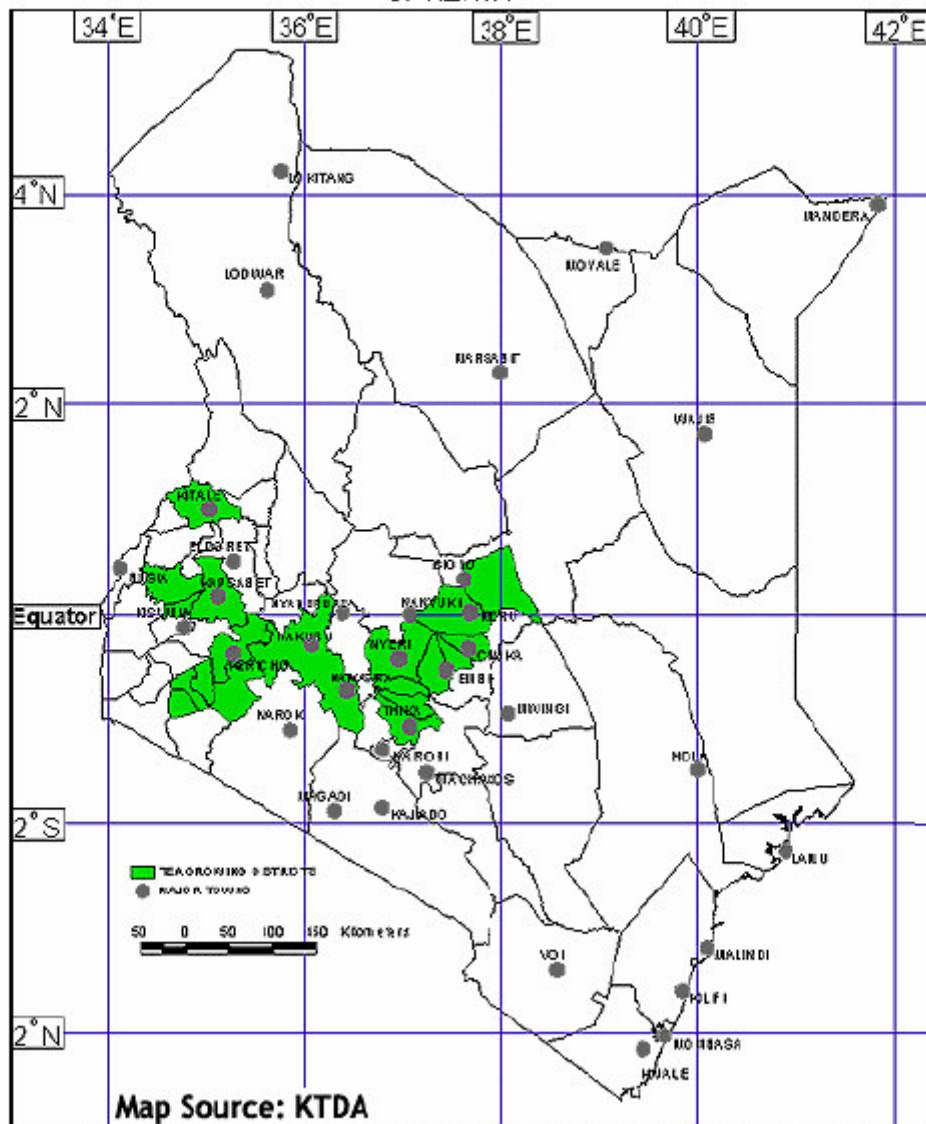


Figure 1: Map of Kenya showing tea growing areas (Source KTDA, 2006)

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