Green marketing Intervention Strategies and Sustainable Development: A Conceptual Paper

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Abstract

This paper reviews the literature on green marketing intervention strategies and sustainable development with an emphasis on green marketing intervention strategies to environmental problems facing the world today. The review indicates that individuals and organizations can benefit from green marketing strategies and at the same time protect the environment to achieve sustainable development. The weaknesses and the future of green marketing as a discipline and future directions for researchers are also reviewed.

Key Words: Green Marketing, Ecological Marketing, Environmental Marketing, Sustainable Marketing and Sustainable Development.

Introduction

Environmental Movement dates back to 1830s with George Catlin first proposing the idea of national parks in the United States of America in which wildlife would be conserved (United Nations Environment Programme (UNEP), The Public and Environment, 1988). However, modern environmentalism began in 1950s but became more active in 1960s with public pressure, which led to National Environmental policy act of 1969 in the United States. In 1970s, environmental issues became established as a permanent feature of national and international policy with first Earth day held in 1970 and first United Conference on the Human environment held in Stockholm in 1972. To date there are many types of environmental groups ranging from local, national and international groups and Non-governmental organizations (NGOs). Among the better known NGOs which campaign on many separate environmental issues are International Union for Conservation of Nature and Natural Resources (IUCN), The Green Belt Movement of Kenya (1977), The European Environment Bureau (EEB), African NGOs Environment Network (ANEN) and Environment Liaison Center (ELC) based in Nairobi (UNEP. The public and environment, 1988).

In addition to environmental groups, today nearly all countries have environmental machinery of some kind. At regional level there are inter-governmental organizations like the organization for Economic Co-operation and Development (OECD) and the Association of South East Asia Nations (ASEAN). At international level there is the United Nations Environment Programme (UNEP). Indeed, environmental movement is so diverse and environmental organizations often differ in their concerns over particular environmental issues, in the values and attitudes advocated, in the goals and objectives to be achieved, and in the types of strategies and tactics. Yet what is shared by all these organizations is a concern about socio-environmental relationships (UNEP, 1988).

Though the existence of active environmental movement has been there since mid 1900s and in 1970 for instance experts warned that the planet's natural systems were being dangerously destabilized by human industry (World Watch, March/April, 2000). Today, scientists and experts are still warning about excessive burning of fossil fuel that threatens the health of the planet (Mintu et al, 1993). The concerns of the scientists today are valid and genuine because the global environment and the living conditions for most of the planet's inhabitants have continued to deteriorate. Each year as many as 50,000 species become extinct; upto 17 million hectares of forest disappear; more than 8.2 billion tons of polluting carbon dioxide are dumped into atmosphere; some 6.5 million tons of refuse find their way into the world's seas, choking seabirds and poisoning fish; and the world Population is growing by about 100 million people annually (United Nations Chronicle June, 1992). The implication of the above statistics on environmental deterioration is that no serious actions have been taken toward addressing environmental problems/challenges. The lack of action to address environmental problems could be attributed to the failure of integrating the link between environment and development during the Stockholm Conference and other later environmental conferences (United Nations Chronicles, June 1992). In fact the integration of the environment and development for international action was not done until 1987 when the World Commission on Environment and Development called for an integration and translation of our understanding of the environment and development into action (United Nations Chronicles, June 1992).

The United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro in 1992 also focused on integrating environmental protection with economic development to bring about sustainable development. It was during this Earth summit that it was first highlighted that business and industry should play a crucial role in bringing about sustainable Development (United Nations Environment Programme, sustainable business, 1998). Marketing, just like other business functional areas has a role to play toward providing solutions, to environmental problems facing the world today and to bring about sustainable development (Polonsky et al, 1997). Indeed the public concerns over environmental deterioration in recent years have made marketers recognize both the need and value of green marketing. The purpose of this paper therefore, is to review how marketing is addressing the environmental problems facing the world today in order to bring about sustainable development.

1.2 Purpose of This Paper

The purpose of this paper is to review marketing responses to environmental concerns facing the world today through green marketing intervention strategies to achieve sustainable development. Other business area responses are not reviewed, as the scope of the paper is limited to the marketing discipline.

1.3 Green Marketing

Majority of people believe that green marketing refers solely to the promotion or advertising of products with environmental characteristics. Terms like Phosphate Free, Recyclable, Refillable, and Ozone friendly and environmental friendly are some of the things consumers most often associate with green marketing. While these terms are green marketing claims, in general green marketing is a broader concept, one that can be applied to consumer goods and industrial goods and services (Polonsky, 1994).

The misconception of green marketing by majority of people makes its definition very critical, yet defining green marketing is not a simple task. Indeed the terminologies and definitions used in this area are varied. The terminologies include; green marketing, Environmental marketing and ecological marketing (Polonsky, 1994). Therefore, there is no universally accepted terminology and definition of green marketing up to today. For the purpose of this paper the term green marketing will be used. According to the American Marketing Association green or ecological marketing refers to the "the study of the positive and negative aspects of marketing activities on pollution, energy depletion and non-energy resource depletion" (Henion and Kinnear 1976b, 1). According to Herbig et al (1993) green marketing refers "to products and packages that have one or more of the following characteristics; they are less toxic; are more durable; contain reusable materials and/or are made of recyclable materials". These two definitions are narrow in scope as they focus on a narrow range of environmental issues. Green marketing need to be broadly defined. Polonsky (1994) defines green marketing as "consisting of all activities designed to generate and facilitate any exchanges intended to satisfy human needs, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment". This definition is much broader and incorporates much of the traditional components of the conventional marketing definition and also includes the protection of natural environment. For the purpose of this paper Polonsky's definition will be used.

1.4 Sustainable Development

Sustainable development is a fashionable word in environmental conservation circles. It received its most popular exposition in the highly influential Brundtland report, in 1987 (World Commission on Environment and Development, 1987 as quoted by Pearce et al, 1994). Though the subject of sustainable development is of recent years many scholars, practitioners and academicians have defined this concept as evidenced by Pearce et al (1994) who has listed twenty-four definitions of different authors (see annex 1). Therefore, there is no universally accepted definition of sustainable development. To overcome this limitation this paper will use the World Commission on Environment and Development 1987 definition. "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Our common future, WCED, 1987).

1.5 Components of Sustainable Development

The components of sustainable development are two-folds according to Pearce et al (1994) namely; The natural constant capital stock and man-made built in constant capital stock. Natural capital stock is the stock of all environmental and natural resource assets, from oil in the ground to the quality of social and ground water; and from the stock of fish in the oceans to the capacity of the globe to recycle and absorb carbon.

On the other hand man-made built in capital stock comprises the stock of man-made capital machines and infrastructure such as housing and roads together with the stock of knowledge and skills, or human capital. The term constant is construed to mean constant or increasing (Pearce et al, 1994).

1.6 Green Marketing and Sustainable Development

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Sustainable development requires "sustainable marketing" that is marketing efforts that are not only competitively sustainable but are also ecologically sustainable (Polonsky et al, 1997). Indeed, marketing's role in the development process is well recognized (Kinsey, 1982; Riley et al, 1983; Dholakia, 1984; Carter 1986; Kotler, 1986). Much of the economic activity is triggered by the marketing process that offers and stimulates consumption to satisfy human needs and wants. However, marketing's critical role in development will only be appreciated when, through sustainable marketing, it meets the needs of the present without compromising the ability of future generations to meet their own needs (Polonsky et al, 1997).

In response to the challenge of advancing simultaneously in economic development and environmental protection as the sustainable development demand companies and academicians have developed and/or adopted green marketing strategies and other corporate strategies. Among the key strategies are; green product strategies, green logistic strategies, green pricing strategies, green promotion strategies, changing consumers from consumption culture to ecologically concerned consumers, adoption of eco-marketing orientation as a business philosophy, Government intervention, lifecycle inventory analysis and teaming up for success (Polonsky et al, 1997; Ottman, 1997; Willum, 1998; Charter et al, 1999).

Green marketing focus on undertaking all marketing activities while protecting the environment. On the other hand sustainable development demands that the future generations inherit the natural environment in the same state or better as inherited by the previous generations. This calls for the protection and improvement of the environment. Therefore, sustainable development is a dependent variable of green marketing and other factors (See fig I conceptual framework of green marketing and sustainable development which illustrates this relationship.)



Fig 1.Conceptual Framework of Green marketing intervention strategies and sustainable development

According to the framework organization through conventional finance and accounting; production processes and technology; general management practices; marketing; human resources management; research and Development; and other variables contribute to environmental concerns facing the world today.

In addition macro-environmental factors; Economic, socio-cultural, Technological, Demographic, Political-legal and individuals also contribute to environmental concerns today. The model further proposes that marketing through green marketing intervention strategies can respond to the environmental concerns challenge. Other business functional areas can also intervene through various strategies to provide solutions to the environmental problems. These intervention strategies will result in improved organizational performance and better physical environment, which in turn will result in sustainable development. Table 1 shows the ingredients of environmental concerns today, green marketing intervention strategies, improved organizational performance, better physical environment, and sustainable development.

Table I:	Ingredients	of selected	components	of green	marketing	and	sustainable	development	conceptual
framework									

Environmental concerns today	Green marketing intervention strategies					
Global warming	Green product strategies					
Industrial air pollution	Green distribution strategies					
Industrial waste pollution	Green pricing strategies					
Hazardous waste	Green promotion strategies					
Depletion of vital natural resources	Green consumption strategies					
Desert consuming agricultural lands	• Green probe strategies (marketing information system)					
Disappearance of rain forest and animals						
• Landfills						
Other concerns						
Improved organizational performance	Better physical environment					
Market share	Reduced air and water pollution					
Customer satisfaction	Conservation of natural resources					
Competitive advantage	More energy reservoirs					
Profitability	Reduced raw materials usage					
Positive company image	More forests					
• Others	Conservation of animals					
	Other environmental improvements					
Sustainable Development						
Constant natural capital stock						
Constant manmade capital stock						

1.7 Theoretical Literature Review on Green Marketing intervention Strategies for sustainable development

The purpose of this sub-section is to review the theoretical literature on green marketing strategies that have been or can be used by organizations to solve environmental concerns facing the world today of pollution, acid precipitation, threat to earth ozone layer, accumulation of greenhouses gases, deserts consuming agricultural land, fast depletion of vital habitual resources, the disappearance of rain forests and loss of species with an aim of achieving sustainable development (Chandler, 1990). The challenge of achieving sustainability over the next few decades according to some experts requires a radical change in entire production and consumption in industrial societies (Ottman, 1997). Academicians and practitioners have suggested green marketing strategies to deal with the challenge of sustainability. These strategies for the purpose of this paper are divided into two categories: Marketing mix strategies and general strategies.

1.7.2 Green marketing mix based strategies

Green marketing mix strategies include developing green-based products, green logistics, green promotion, green pricing and green consumption. The general strategies are not limited to marketing discipline but may be used by marketing as well as other functional areas of organization in dealing with problem of sustainability. They include; adoption of eco-marketing orientation as a business philosophy, government intervention, undertaking life-cycle analysis and teaming up for success (Polonsky et al, 1997; Ottman, 1997; Willum, 1998).

• Green based product strategies

The activities associated with sustainable development may be construed by business either as a potential threat or as an opportunity. Green products represent a substantial product opportunity, the opening of a provocative strategic window (Polonsky et al, 1997). Green products are typically durable, non-toxic, made from recycled materials, or minimally packaged (Ottman, 1997). Green based product strategies comprise any or a combination of recycling, reduction of packaging materials, reconsumption, dematerializing the products; using sustainable source of raw materials, making more durable products; designing products that are repairable, making products that are safe for disposal, making products and packagings that are compostable, and making products that are safer or more pleasant to use (Bhat, 1993; Ashley, 1993; Polonsky et al, 1997; Ottman, 1998 and Charter et al, 1999).

• Green Logistics strategies

The most common form of greening logistics is reverse channel system. Reverse channel systems deal with the issue of post-consumer recycling. The term recycle mean '...to extract and reuse useful substances found in waste' (American Heritage Dictionary, 1985) while the traditional approach to product disposal can be described as linear in which waste materials are indiscriminately dumped (Neace, 1990 as quoted by Fuller, 1997). The definition of recycle clearly demonstrates that the goal is to reverse this result by achieving a circular flow that effects a reintegration of materials with markets (Fuller et al, 1997).

The reverse channel systems possess the following characteristics. Firstly, the consumer becomes the seller and manufacturer the buyer (Zikmund and Stanton, 1971 as quoted by Fuller, 1997). Secondly, they emphasize on the function of sorting and accumulation (Fuller, 1997). Thirdly, the recyclable materials can flow backwards through reverse channels to any of three generalized industrial markets: (1) original manufacturer, (2) firms in the raw materials producing industry; or (3) other industries that can use recyclables as virgin material substitutes (Guibinah and Nwokoye, 1974 as quoted by Fuller, 1997), and finally the consumers (sellers) tend to play a more passive role rather than proactive role of the typical seller in conventional channel (Ginter and Starling, 1978 as quoted by Fuller, 1997). Figure 4 depicts reverse flow of recyclable materials from consumer/households to industrial user market through various types of reverse channel intermediaries.

The modified reverse channel system proposes that consumer waste sources are individual consumers and households. The remaining recyclable materials after individual consumers/household own consumption moves through Jua kali* artisans or micro enterprises, manufacturer own system, local authorities, agents/wholesalers and street "children" to industrial user markets: original manufacturers, firm in raw materials industries and micro enterprises. Table 3 shows the functions performed by consumer waste sources, reverse channel types and industrial user market (Fuller, 1997).

Other components of green logistics strategies include reduction of packaging material to directly or indirectly lower distribution costs, use of integrated transportation systems and the Internet. However, more emphasis has been given to reverse channel systems (Willums, 1998; Polonsky, 2001).

Channel members	Functions				
Consumer waste sources – individual	Collection and sorting				
households					
Reverse channel types	Collection, processing, accumulation and transportation.				
Industrial user market	Reintegration into production consumption cycle.				

 Table 3: Functions of channel members of reverse channel systems

*Jua kali literally means "harsh sun " and is a Kiswahili word for micro enterprises it is a common terminology for Kenya informal sector.

• Green pricing strategies

Many consumers assume that green products are often priced higher than conventional products (Peattie, 1999; Polonsky, 2001). While their assumption may be true Peattie (1999) argues that these products are not unusually expensive, but the conventional products are unrealistically cheap because they exclude socio-environmental costs of production, product use and disposal.

He suggests that one way to deal with the high price controversy is to ask the consumer "whether they want to continue buying inexpensive products that damage the environment?" The implication of the above is that consumers need more information on benefits of green products in order to judge their value more objectively.

Green promotion strategies

Green promotion is an activity of promoting products as having characteristics that do not harm the natural environment (Polonsky et al, 1997). According to Benerjee et al (1995) it should meet one or more of the following criteria: -

- Explicitly or implicitly addresses the relation between a product/service and the bio-physical i) environment.
- Promotes a green lifestyle with or without highlighting a product/service. ii)
- Presents a corporate image of environmental responsibility. iii)

According to Scholossberg (1993) as quoted by Polonsky (1997), green promotion helps consumers to overcome the "greatest environmental hazard", that is, the lack of environmental information. Scholossberg sentiments are shared by Ottman (1997) and Zint and Frederick (2001) who argue that green companies should not assume that consumers are knowledgeable about environmental issues or actions they engage in.

To lessen the gap on environmental information through promotion Ottman (1997) has suggested several green promotion strategies. Thus the green companies should;

- i) Educate consumers on the environmental problems that a green product solves.
- ii) Empower consumers with solutions by demonstrating to consumers how environmentally sound products and services can help consumers protect health, preserve the environment for future generations.
- iii) Provide performance reassurance of green-based products, as many consumers perceive them to be inferior to conventional products.
- Consider a suitable mix of media. For instance environmental consumers are more receptive to messages iv) conveyed through direct marketing, community programs, public relations, and packaging and
- Appeal to consumer self-interest by bringing out the benefits of green products to both actual consumers v) and potential consumers.
- Change of consumer behaviour from consumption culture to ecologically concerned consumers or encourage green consumption.

It is the task of the marketer to redirect the needs of the consumer towards consumption that is ecologically least harmful. This redirection can be achieved through market research, and promotion. According to Our Common Future, a publication of World Commission for Environment and Development (WCED) (1987), sustainable development requires the promotion of values that encourage consumption standards that are within the bounds of the ecological environment. The fact that marketing during the past few decades has been so successful in increasing societal consumption and in meeting human needs, make us confident that it will also be successful in redirecting consumption (Polonsky et al, 1997).

1.7.3 **General Strategies**

As mentioned earlier the general strategies are not limited to marketing discipline but they cut across the entire organization. However, they are very necessary in facilitating adoption or success of green marketing mix strategies.

Adoption of eco-marketing orientation as a business philosophy

The success of organizations in green marketing or sustainable marketing lies on reorganization, restructuring and redesigning of many processes and systems within the organization. In fact those who think that marketing people alone will be able to develop green marketing orientation for the firm are mistaken. Like total quality management, sustainable marketing requires the involvement of employees from all functional areas, including marketing, production, procurement, accounting and information systems (Polonsky et al, 1997). Ottman (1997) has suggested various strategies that may help the companies to make reasonable progress toward environmental oriented business philosophy. They include:-

Undertaking environmental audit to assess current performance and establishing a benchmark upon which (i) to measure progress.

- (ii) Being proactive by going beyond what is expected by government and other stakeholders.
- (iii) Being a visible CEO who demonstrates commitment to environmental issues.
- (iv) Empowering employees through thought provoking educational programs on ecological issues.
- (v) Constantly integrating, learning and refining products and processes.
- (vi) Regularly reporting on environmental performance through annual reports and special advertising and public relation efforts.

• Government intervention strategies

The support for government intervention in dealing with environmental degradation is widespread. Polonsky et al (1997) argue that the visible hand of government must guide the market toward environmentally sound production and consumption practices. Kenya Land Alliance further argue that Kenya losses over US\$1.8 billion each year to environmental degradation and call on Kenyan government to urgently formulate policies to deal with land use and other environmental challenges facing the Country (The East African Standard April 8, 2002). Porter et al (1995) are also in support of government intervention with their hypothesis that government intervention can stimulate innovation.

Polonsky et al (1997) propose four government intervention strategies: -

- i) Formulation and adoption of regulation policies that promote the balancing of ecological and economic activities.
- ii) Reforming the production and consumption practices through mandate and incentives.
- iii) Government participation in procurement, R&D and international cooperation; and
- iv) Actively promoting environmental issues by partnering with the industry.

These government related strategies are recommended when free markets process does not sufficiently promote sustainable development (Polonsky et al, 1997).

• Undertake lifecycle inventory analysis/Assessment (LCA)

Lifecycle analysis, which was initially developed in 1970, is an approach, which involves listing the various positive and negative environmental aspects of a specific product throughout its life cycle (Ottman, 1997; Willum, 1998). This analysis accounts for the environmental impact of raw materials procurement, packaging, distribution, use and disposal. The information gathered from the analysis can help marketers change the way the products are made, packaged, transported, sold, used, re-used, recycled and disposed of or develop entirely new products. Despite the above benefits of life cycle analysis it can be both expensive and difficult (Ottman, 1997; Willum 1998).

• Teaming up with all stakeholders for success

Complex environmental problems cannot be solved by organizations alone; instead there is a need of various societal stakeholders to pool together their collective skills, capabilities and resources. The stakeholders/marketers should form strategic partnerships or coalitions with general public, employees, retailers, suppliers, environmental groups, educators and government (Ottman, 1997).

1.7.4 Benefits of using green marketing and general strategies

Environmental concerns present both challenges and opportunities. Enlightened Chief Executive Officers have taken advantage of opportunities by using green marketing strategies which has resulted in various benefits (Ottman, 1997):

- i) Profitability: Green based products create less waste, use fewer raw materials, and saves energy.
- ii) Competitive advantage: Companies that are first to put their environmental innovation on the shelve enjoys competitive advantage.
- iii) Increased market share: Brand loyalty is near all time low. In fact the percentage of Americans who feel that some brands are worth paying more for is declining. According to a poll conducted by the Porter Novelli consumers viewed company's record on the environment as an important determinant of their purchase decision.
- iv) Better products: Green based products are higher in quality in terms of energy saving, performance, convenience, safety, etc.

- Personal Rewards: Green products offer consumers with the benefits of healthier, more fulfilled lives and v) power to make the world a better place.
- vi) Better Physical Environment: Well co-ordinated use of all green marketing strategies will result in better physical environment in terms of reduced air and water pollution, waste energy depletion, global warming, deforestation, depletion of natural resources, and rate of landfills. Fig.5 summaries the benefits discussed above.
- Sustainable development: meeting the needs of the present without compromising the ability of future vii) generations to meet their needs.



Fig 5: Benefits accruing from Green marketing strategies

Constraints/Challenges of Green marketing intervention strategies and general strategies 1.7.5

Despite the numerous benefits of green marketing it is not without constraints/challenges. The weaknesses include:

- In general all the green marketing strategies are expensive and difficult to implement in the short run. i)
- ii) The environmental benefits are intangible, indirect or insignificant to consumers For example, consumers cannot see the emissions being spared when they use energy saving appliance.
- Environmental benefits are difficult to measure or quantify. iii)
- Some strategies (e.g. promotion) are subject to manipulation For example some marketers use false iv) environmental claims in order to gain competitive advantage.
- The success of green marketing depends on several stakeholders who must work as a team. These v) include; general public, employees, retailers, government, environmental groups, and suppliers. Any group can derail the exercise.
- vi) The costs saved through recycling are doubtable.

1.7 Critique of Green Marketing

Green marketing according to Ottman (1997) offers several benefits to individuals, organizations and to the natural environment. Specifically green marketing leads to personal rewards of healthier life, and more fulfilled lives, improved organizational performance, better physical environment and ultimately to sustainable development (Ottman, 1997; Polonsky et al, 1997; Willum, 1998; Charter et al, 1999).

Due to the above benefits, government regulations and environmental movement, several firms in various industries have adopted green marketing especially in developed countries.

Despite of the above positive aspects of green marketing the discipline has several constraints: -

- (i) Though the initial birth of green marketing can be traced in 1970s the discipline did not grow until 1990s as the following discussion shows; many scholars made important contributions to ecological perspective of marketing in 1970s (Fisk, 1973, 1974, 1975; Kangun, 1974; Perry, 1976; Shapiro, 1978; Claver, 1994 as quoted by Polonsky, 1997). Despite these early efforts, other marketing scholars channeled their intellectual pursuits in other direction in the 80's. However, the 1990s witnessed a dramatic rise in green marketing references in news, business and trade sources (Morgan, 1992 as quoted by Polonsky, 1997). Polonsky (1997) further state that it is during the 90's marketers begun to recognize both the need and value of environmental marketing.
- (ii) There is no universal terminology and definition of green marketing (Polonsky, 1994). The implication is that scholars, researchers and practitioners should work toward standardization.
- (iii) Green marketing is in its infancy (Polonsky, 1997) and has not been incorporated in business curriculum (Mintu et al, 1993). The implication of the above is that researchers and academicians should focus on green marketing research and business schools should incorporate the subject in their curriculum to facilitate the growth of the discipline.
- (iv) Green marketing research or green probe has not received any coverage or attention in green marketing literature while green pricing has received shallow or a narrow coverage. The researchers and academicians should develop literature in above areas.

In a nutshell a lot still need to be done in the field of green marketing but as indicated in the following section the future of green marketing is bright as it has important role to play in sustainable development.

1.7.6 The Future of Green Marketing as a discipline

This paper is not complete without discussing the future of green marketing as a discipline . According to Chase as quoted by Willum (1998) environmental issues and the agenda for sustainable development have an increasingly international dimension. This means that the challenge facing organizations globally is adoption of sustainable business practices. The implication of this is that the future of the discipline is bright. In fact several authors, academicians and practitioners hold the same opinion. Polonsky et al (1997) asserts that marketing has to assume a more responsible role for sustainable development. Williums (1998) projects that environmental issues and sustainable development will dominate board meetings agendas twenty years from now. Ottman (1997) states that conventional marketing is out and green marketing is in. Charter (1999) argues that businesses are faced with increasing challenges of environmental protection and demand for environmentally friendly products and services. Though the future of green marketing seems to be bright, its growth may be slow and long. To quote Polonsky (1997) "green marketing research is in its infancy".

Conclusion

This paper has suggested that marketing like other functional areas of a business contribute to environmental concerns facing the world today. Therefore, it has a role to play in looking for solutions to these environmental problems. The paper further suggests that marketing through green marketing and specifically green marketing strategies is addressing the challenge with positive outcomes of improved organizational performance, better physical environment which will lead to sustainable development.

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