Chapter - 1

CONCEPTUAL FRAMEWORK
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1.1 Introduction

Although in all the times, environmental issues influenced all human activities, few academic disciplines have integrated green issues into their literature. This is especially true and correct for green marketing. As society and becomes more concerned with the present natural environment, today's businesses have initiated to modify their attitude and behavior in a try to address society's new concerns. Wise businesses have been speedy to accept concepts like environmental management systems, along with waste minimization, and have tried to integrated environmental issues into all concerned organizational activities. (Michael Jay Polonsky, 1994).

Some vital evidence of this is the development of journals such as "Business Strategy and the Environment" and "Greener International Management," which are specifically intended to disseminate study relating to business in present environmental behavior. The first workshop on "Ecological Marketing" was conducted in 1975. The proceedings of this workshop stemmed in one of the very initial books on green marketing formally titled "Ecological Marketing" (Henion and Kinnear 1976). Since that time, numerous books on similar topic have been published and made available (Charter 1992, Cordington 1993, Ottman 1993).

On burning subject global warming, a documentary, "An Inconvenient Truth", supporting by celebrities speaking in defense of green living, has stimulated interest in issues nearby environmental protection and conservation in marketplaces in various countries (Mintel, 2006). Some genuine researches also discovered that despite conveying concern towards the natural environment the present market consumers were unwilling to deliver and pay higher prices for products and services which are environmentally friendly (Jay, 1990; Ottman, 1992; Schlossberg, 1991).

National Geographic magazine highlighted problems and related issues on "global warning". Climate change, mass extinction of available species, trees deforestation and the accelerating losses of natural habitats are facts accepted by most scientists and known to the public. (Dimick and Appenzeller, 2004).
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Prominent report by the Roper ASW (2002) produced slightly disappointing results with overall present environmental concerns amongst the countries in general with population on a decline with 58 percent of the general population not even interested in participating towards environmentally friendly goals and activities. The environmental issue and energy conservation has been studied as a social dilemma (also referred to as a resource conservation dilemma), where the short-term encouragement to consume the energy resource leaves a long-term unwanted consequences of shortage and higher prices for every consumer (Komorita and Parks, 1996).

Such suggested natural resource conservation dilemma ascends when the rate the supply, replenishment rate exceeds the rate of resource consumption by the group exceeds (Goldman and Kramer, 1995). In order to conserve this available supply, consumers find themselves in a social condition where they are forced to make adjustments between bearing the financial costs of personal sacrifice and against receiving the benefits of mutual cooperative behavior for the group (Messick and Brewer, 1983).

Practitioners of Marketing academics show attention in how current environmental issues impact marketing activities and it continues to grow rapidly (Chamorro, 2009), but certainly these are not new (Kinnear and Henion, 1976). A wide variety of marketing contexts witnessed the boundary between the natural, environmental and; consumer behavior in markets (Diamantopoulos, 2003), additionally, marketing strategy (Menon and Menon, 1997), public policy general initiatives by various organisation (Press and Arnould, 2009) and green product macro-marketing (Carlson and Kilbourne 2008).

Fisk (1974) suggests, most of the world’s environmental ills, marketing activities are at tiniest to blame, which repeatedly arise from consumption and over-consumption of it. Other authors advocate marketing can soundly assist in addressing environmental and other related social problems (Sheth and Sisodia, 2006). Unfortunately, ample number of prevailing researches failed to entrench existing environmental issues, as a core precept of marketing thinking. Therefore green firms marketing strategists habitually incorporate environmental considerations as an additional piece for competitive advantage to be leveraged (Bloom and Ginsberg, 2004), instead using the environment to shape their existing strategy for improving market conditions and social welfare in countries.
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In present days, to become or adopt 'green' is treated as both, a need and a growing opportunity for any companies, (Hart and Shrivastava, 1995). The reasons that push firms to go and adopt 'green policy' can be very different, such as legitimacy of marketers, competitiveness towards the competition, and ecological responsibility or corporate social responsibility; (Roth and Bansal 2000); González-Benito and González-Benito, 2006; Murillo-Luna et al., 2008). As a result on it, an increasing number of environmental conscious organizations are accepting and utilizing environmental sustainability into firm's operational strategies (Ettenson and Unruh, 2010).

One of the Green Research Paper on Integrated Product Policy states that one way to achieve the target of sustainable development for many countries is “a newest paradigm and a higher quality of life along with creation of wealth and competitiveness on the base of greener products in market”. (Commission of European Communities, 2001)

The Green Products development can also be a means for many organizations to achieve competitive benefit, the essential for companies to adopt a modern strategic approach to existing climate and to take suitable actions, accentuating the opportunity to gain green competitive advantage by creating valuable green products, which enable to exploit climate induced demand in upcoming markets (for example such as hybrid cars).

Research on Green Product innovation is growing in interest (Baumann 2002; Pujari 2003; Dangelico and Pujari,). In particularly developed rations, green products are receiving increasing consideration, as a means to improve organizational performance in respective areas (Pujari, 2006; Chen, 2006; Chung and Tsai, 2007). However, what constitutes a green product is the discussion point(Chen, 2001; Baumann, 2002; Berchicci and Bodewes, 2005) and discussions are still ongoing.

1.1.1 Climate: Walkway towards Green

Toward enormous problems of consistent climate change of our mother earth, humanity existing on earth mandatorily needs to respond vigorously. Individuals or organizations cannot show avoidance to the basic facts witnessed, and have been agreed by more than 2,500 Scientists across the globe that there is more than ninety percent chance that our emissions of greenhouse gases by various human applications are changing the climate
rapidly. There will be serious global concerns, if these emissions levels does not get controlled and reduced by society by year 2020. Today most of the developing countries are expressing willingness for addressing global warming issues by participating in the environmental suitable and protection regime by joining hands with many developed nations.

With the best will and intentions towards environment in all over the world, a large number of organizations are finding and joining the ideas of becoming greener and intimidating for taking a leap amongst others. Apart from this highlighted aspect, they are also trying to look on: What is the best possible way to go about? How much will it cost financially and socially? Will it justify in business as well as moral sense? The carbon footprint assessment is the inception point to begin of environmental protection regime, and addressing unmelodiousness noise on the, no clear message on where to start about climate change.

Eve Anderton reveals in his review of step by step reduction of carbon footprints, that individuals and businesses alike is often to work out about their carbon footprint activities. Incidentally, increased levels of carbon dioxide in the atmosphere is responsible for climate change, then knowing how much carbon we are responsible is the first step in mitigating the damage. It is therefore, also the first and the foremost step in achieving the desired goal of a “carbon neutral” classification.

The well-known organizations like World Wildlife Fund (WWF) and the Department for Environment, Food and Rural Affairs (DEFRA) have both created calculators for measuring carbon footprint, which are freely available online for anyone who would like to use its for businesses establishments and operations, for estimating emissions and working out their carbon foot prints.

Author Anderton further in this similar concern, offered a classic definition of the term “carbon neutral”, which he described it as the state where a firm has done everything possible to estimate, reduce and counterbalance its carbon footprints, which is as a matter of fact is concern for future studies for sustaining environment. An exciting example is witnessed from aviation sector. Airlines are now encouraging passengers to travel guilt free by buying carbon offsets.
In Reducing Emissions Regime: The Carbon Trust, the Energy Saving Trust and Environ wise, stepped as leader and advices individual and business firms on these and other steps to help reduce emissions globally.

Globally Competitive-Edge: Many prudent venture capitalists and universities researchers recommend energy as the contemporary great thing, and sufficient investment of money and manpower poured into latest research and development for sustainable green perspectives suggests that there are many new businesses, upcoming markets and future technologies on the coming way.

Example: HSBC is dedicated towards carbon neutrality, Bank has adopted the carbon reduction regime, and have taken appropriate measure where ever possible, like cutting and avoiding travel by introducing video conferencing among authorities, replacing heavy energy consuming light-bulbs with energy efficient options, all possible and suitable measures to reduce waste, creating paper less offices, choosing recycled products and procuring materials from local and sustainable sources to prevent environment.

Many large multinationals businesses like, Coca Cola, Walkers and Indian Tesco, are deeply aware and open about carbon emissions. In fact it has been observed a suitable way of winning customers. Informing existing customers is one of the most suitable ways. Such informer companies not only does the company appear active when it comes to natural climate change, but it provides an adequate assistance to individuals and business entity who are trying to work out and efforts for neutralizing their carbon emissions today.

Coca-Cola, Tesco is insisting that all of the items it sells must start to feature carbon emissions on packaging. Their arguments are: - Customers should be able to choose their products on green attributes. Likewise, one Chinese engineer who turned his business’s responsiveness towards technology and business of solar panels is now among the richest well-known individual in China. Marketing tool and terminology adopted by General Electric, renowned initiative- Ecomagination, has highlighted green products, and increased GE’s Sales. This, clears that from business perspective with a little innovation climate change can be an opportunity as well as it is a threat.
1.1.2 Biosphere

For more than 3.5 billion years Earth is sustaining complex, self-running and regulating biosphere which is a brilliant working system that has created prolific life without interruption till date. Geologist Eduard Suess defined the biosphere in the year 1875, as “the place on earth’s surface where life dwells”. Clarion’s call for business in present time is sustainability, which natural scientists defined as the capacity of healthy ecosystems to continue functioning indefinitely.

*Nature employs production processes that are surprisingly efficient, environmentally sound—and widely imitable.*

“Gregory C. Unruh”

Gregory C. Unruh (2008), *bio-logic* is considered as the building blocks for the biosphere’s operating system, which nature uses to assemble components of life and structure ecosystems. It relies on assembling organisms molecule by molecule using nanotechnology. *Industrio-logic* in contrast to the previous one of, which adopts that mostly synthetic materials are used, which can any time, be assembled or molded in required desired shapes and size, generally known as human manufacturing.

Today learning can take place by organizations and managers by studying the interdependent principles relation for the sustainability of Earth. This is principally required to build ecologically friendly products that decrease cost of manufacturing, and establish highly attractiveness to existing consumers. Moreover, existing companies require taking part in green technological revolution generously by adopting and implementing green manufacturing practices which are both sustainable and profitable currently.

Remarkable work of Gregory C. Unruh suggested following three important biosphere rules in domain of green revolution which enterprising organizations are adapting for consideration of both environmental as well as economic gain:-

1. *Development and adding uses of parsimonious palette:* Biospheres conserves its elegant simplicity, but the approach undertaken by mostly manufacturers who enthusiastically adopt untested new synthetic material is exact opposite of it, which many times are not found environmentally friendly.
2. **Cycle up all:** Nature evolutionary growth is achieved by repeating and reusing materials in and all development, cycling them up all continuously. Nature adopted virtuous cycle of increasing complexity and value by utilizing the same materials, permitting the biosphere to evolve later even more combined and sustainable materials. Primarily virtuous recycling is considered as counter intuitive, with the reason it relies on planned obsolescence- bane of today’s environmentalists. Wisely planned obsolescence in business firms can become sustainability, directing and leading any firm towards environmentally superior designs and products offerings for their customers.

3. **Importance of Platforms:** By designing the general purpose platform with today’s advancements in technology, provide the flexibility of leveraged over and over again to explore and develop the earths astounding bio-diversity. Therefore, today’s firm manager should implement industrio-logic approach in addition to compliance with biosphere rules. For example: Microsoft, World’s leading computer operating system software company’s product “Windows” is a universal purpose platform that provides its users, flexibly and leveraged for numerous applications and uses. Similarly contemporary automobile industry develops platform parts for various available and upcoming variants.

For exploiting the real potential of sustainable platform, Author Gregory C. Unruh (2008) research highlighted that the biosphere rules should be applied in action by integrating in to an overall organizations strategy. Further by proper selection of materials which are environmentally friendly could simply palette results in the products well in advance than those available through current industrial knowledge.

Moreover, Nature suggests that the prospective for inventive uses of easily recycled materials is in huge available. Author suggests while drafting conclusion remark, the available traditional mantra for environmental responsible material management has been classified in three domain “Reduce, Reuse and Recycle” but its mismanagement can lead organizations to dead end on the way of sustainability in future.
1.1.3 Why Green

Noah Walley and Bradley Whitehead (1994), are of the view that in today's new world, both business firms and the sustainable environment can achieve victory, which is the ultimate objective of business organizations and the environment seems despairingly irreconcilable. In present market situation, being green product manufacturer is no longer a cost of doing only business; but needs to be catalyst for constant innovation in their business area, which is monetary for new market opportunity and wealth firm's creation. Authors further argue that win-win situations always do not come in existence; but they are achieved very rarely and will likely be dominated by the total cost of a company's environmental program. Environment and business win-win opportunities become insignificant in the face of the enormous expenditures that will rarely generate a desired positive financial return.

The challenges for today's green organization managers are to develop know how to choice the task and activates that will have the supreme impact in business, society and on earth. Green firm's managers must concentrate on finding smarter intermediate solution between their business and country's environmental concerns to achieve truly sustainable environmental better solutions for addressing serious issues.

Across the nations of developed and developing countries, bronchitis problems are speedily increasing and infecting and damaging lungs of thousands of people, animals and even harmful for plants, witnessed every year, all seasonal crops and wildlife habitat are seriously getting affected in many nations. "Additionally more than dozens of other relevant studies in the, South American countries like Brazil, Peru, developed Europe region including England, some parts of Mexican continent, whole of United States of America and countries like South Korea and adjoining China, Taiwan have established significant relations between air, water and land pollutants with low birth rate, less weighted premature births, still birth and infant deaths".

As resources are available insufficient and human wants are unrestricted and growing rapidly, it is important for all the marketers to utilize the resources efficiently without waste to achieve the firm's objective in business and social perspective. Taking above
facts in consideration, it can be said, and understood that green marketing is unavoidable in current and coming time.

Further there is consistently growing interest among the class of consumers, in all over the world showing concern about protection of available natural environment, which is supported worldwide by evidences indicating people are concerned about the environment and are ready to change their previous behavior of consumptions. As a result of it green marketing has emerged which clearly expresses a growing market opportunity in the area of sustainable and socially responsible products and services.

People have realized various problems; therefore they want to bequeath a clean earth to their offspring. Eventually rapidly growing awareness among all the category of consumers as well as users all over the world, and efforts being observed regarding protection of the environment in which they live and their future generation grows, are responsible for Green Marketing growth and development.

Consumer Unity and Trust Society (CUTS 1997), conducted a survey for the ministry of environment and forests, India. The study focused on the consumer attitude and knowledge practice regarding the environmental pollution and eco-mark scheme. The study highlighted the manufacturer’s awareness and willingness to go for eco labeling in India. The general trend brought out the fact that the maximum tendency has been to pay less than 10% premium for any particular product. The study highlighted that 43% of manufacturers had effluent treatment plants. Out of these, only 40% had the capacity of treating 100% of the discharged pollutants. The awareness of the Indian eco-mark scheme exists merely amongst 30% of sample respondents.

Das and Nath (2003) conducted a study in Delhi to examine the environmental impact of fast food industry. The study revealed that while 77% of the consumers were aware of the ingredients of the product, 62% of them didn’t consider any environmental impact. Less than half of the consumers (44%) noticed the environmental benefits that fast food houses provided. Around 50% of the consumers were willing to take part in programs related to environment conservation while 40% said that they are willing but didn’t have time and awareness for it.
Vinod Kala, (2004), Founder & CEO of Emergent Ventures India (EVI) says he realised that there is huge business potential in environment. He further adds that, financial investors are progressively looking towards Green Technologies as profit opportunity, than only a morally right thing to do, but there are many entrepreneurs who have found in reality that the capital expenditure in such ventures are overwhelming and funds to be uncertain to invest in them.

A survey by well-known management consultancy, Mckinsey and company revealed that: (1) 92% of CEO’s believe that environment should be top management priority; (2) 35% CEO’s believe that their companies have adopted strategies to anticipate impacts of environment on business.

Again it is meaningful to sight example of companies that are exploring the branches of green business opportunity, like General Electric’s ambitious Eco-magination project for environmental prevention, Coca-Cola’s efforts to protect and ensure water quality in their product offerings, Wal-Mart’s attempts to decrease preserving and packaging wastage at their retail outlets and warehouses, and Nike’s principle decision on removal of toxic chemicals in manufacturing process from its shoes.
1.1.4 Gap Analysis and Problem Identification

According to Peattie (1999), the ongoing marketing paradigm is based on using the earth’s resources and systems in an unsustainable manner. The available Green Marketing strategy traditional view argues in favor of firm’s managers and top management is that they are only responsible for developing and protecting sustainability of environment, maximizing profits and benefits to end customers. This Green Marketing strategy traditional view started changing in the early nineties of the century. The vital responsibility is not only on the shoulder of firm’s top management and manager to develop and adopt Green Marketing strategy for providing environmentally friendly and sustainable product and services offering to customers. Today’s customer and end users are also in line equally responsible for protecting and maintain sustainability towards environment.

In recent times; all living species including humanity, plants and animals are facing numerous serious issues due to modern development and the pursuit of never ending human’s greed for economic growth today, Peattie (1999). Author claims that in order to confront those matters of paradigm shift towards sustainable environment. Regulated protection and consumption will need to take effect (as referred by Peattie 1999). However adoption of these critical changes require more than individual mindset change, which further change extend to grow in primarily in societal and economic level will be necessity (Grant 2007, Ibanez and Hartmann 2006). Hence Government will need to pledge for developing forward thinking about current future environmental policies (Peattie 199 and Grant 2008).

Firms and organization must integrate greening prospective into their business strategy and invest in the development of greening, as they normally invest in any other aspect of their existing business (Polanski & Rosenberger, 2001). Finally, at the end of trade cycles the consumers have to take pains for actual purchase of the environmentally friendly products. So far customers only claim to be interested in green products (Ginsberg & Bloom, 2004). In many author’s final end thought and conclusion about it, going green needs to be sensible in today’s business ranging from small firms to large multinational, and not compromise principally on product attributes for the consumers.
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With the advent of technology, marketers have a tremendous potential to help and support this paradigm shift by pushing firms and big organizations to implement general or specific green marketing strategy (Peattie & Crane, 2005; Grant 2007). Marketers also have the ability and power to help in selling new ideologist lifestyle (Grant 2007).

According to Ottman (1993) Green Marketing serves two key objectives and purposes: a) To develop contemporary products that combines today’s consumer needs for their convenience, made available in affordable pricing and performance while having a negligible impression on natural environment. b) To venture an image of high quality offering, including environment aspects both in regards to product attributes and the environmental compliance in manufacturing of it.

With all the said efforts as paradigm shifts from conventional to green marketing firms will need to incorporate sustainability into their existing as well as future strategies or risking themselves being left behind (Grant, 2008). It will be very important for existing business firms and marketers to be well versed on the concerned subject and have a detailed understanding of Green Marketing and how it can create value in market for their customers.

Middle of nineties witnessed increased environmental legislation, which eventually overtime till now, is leading to a higher level of awareness of environmental issues in the business community and many firms being required unavoidable to consider these issues in their firms strategic planning in order to encounter issues and satisfy stricter environmental standards (Banerjee, 1999; Olson 2008). Regardless of legislations and existing imposed standards, many people and customers are calling for corporation in general to take more efforts responsible for their actions and the consequences observed thereafter.

The concept of Green Marketing is fairly in its beginning and as a consequence it has not been extensively explored or undergone deep research (Grant 2007; Ibanez & Hartmann 2006; Baker & Sinkula 2005). Olson (2008) claim that although many firms and corporation have implemented some or the other form of Green Marketing initiatives in their respective customer market, but among those very few firms have actually established and enterprise adequate level Green Marketing Strategies. His augment was that, it may vary depending on industry and possibly on individual business and early
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adoption of formalizes and well-articulated green strategy can permit firms the available opportunity of achieving competitive advantage in all the times.

Considering Olson’s Statement further, many wise intellectuals think how firms have indeed incorporated some form of green thinking in to the businesses have done so far, and for what reasons. Therefore the purpose of this study is to gain a deeper understanding of the subject of Green Marketing Strategy in present time context. Further how Strategic green marketing for new products can be developed and what incentives companies have to do for it. In order to fulfill this purpose some major research question were developed, as detailed below:-

**Research Question 01: Does any generalized Green Product Marketing Strategy exist?**

Implementing a general or distinctive Green Marketing Strategy requires a fundamental holistic integration approach, across all functional including marketing areas, further downwards including the entire marketing mix of targeting product designing, pricing structure, Positioning of product and promotion and adequate branding (Polonsky & Rosenberger, 2001). According to Filler (1999), only truly committed companies to environmental concerns and additionally are willing to translate those concerns into their course of action through marketing mix decisions can develop viable green marketing strategies. Keeping this fact in mind further research questions was developed.

**Research Question 02: What are the major factors/dimensions which contribute and differentiate Green Product Marketing Strategy implemented by different sector firms?**

Author such as Porter and Vander Linde (1995) and Elkington(1994) well argued that environmentally superior strategies exists, which can create a competitive advantage for firms by encouraging innovation and tapping into customer latest concerns. Fuller (1999) stated that worldwide corporate practices suggest that a competitive advantage can indeed be earned rapidly and companies not implementing green marketing strategy will be viewed as uncompetitive, unresponsive, and not coping with emerging globally expanding markets. However, other authors in contrast argued that greening strategy is difficult to implement in practice (Walley & White Head, 1994). Firm’s managers need strategies that transform environmental investments into sources of competitive advantages by optimizing the economic and social returns of their investments (Orsato, 2006). This led to another pinpointed questions:
Research Question 03: To obtain competitive advantage, how firms need to review effectiveness, improve Green Product Marketing Strategy implementation in Indian context?

One primary objective of the marketing strategy is to optimize the marketing mix in relation to satisfy wants and needs of the target market (Fuller, 1999). Data collected from targeted business consumers can provide valuable inputs for the decision making process of addressing such issues. Fuller (1999) further stated that mass undifferentiated marketing efforts of firms will often fail in ensuring customers happiness and profit. Segmenting the target market and adopting suitable differentiated Green marketing Strategy provides a more realistic market interpretation and penetrations.

Research Question 04: For various firms, how segmentation of market is helpful in increasing Green Product adoption in present Indian context?

Polonsky and Rosenberger (2001) claim that “in addressing true green marketing environmental issues become an overriding strategic corporate focus in last decade and rather than simply one strategic action”. When forming a green marketing strategy by firm it is important to realize that just as in conventional marketing there is no single strategy that will work for all firms and companies, is similarly applicable to green marketing strategy (Ginsberg & Bloom, 2004; Fuller 1999). Instead each company must examine what strategy will work best depending on its own individual firm’s objectives, available resources, business target market, available competitive conditions etc (polonsky & Rosenberger, 2001).

1.1.5 Rationale behind the Study:

Origin of the concept ‘Green’ and adoption of ‘Green Marketing’ spreading across the globe, even in various conditions and circumstances were responsible to explore the area. A fragrance of “green” was felt in all the parts of civilization across borders to preserve earth’s natural environment. Green Marketing is putting steps forward in this direction to start a “Green” revolution across the globe. Even today Green area is virgin and considered as untouched to explore more dimensions in day-to- day lives. Thus companies dealing to serve their customers are exploring ways to offer new products & services which are environmental friendly or fall under the “Green” Category. But due to lack of information and sometime additional cost factors resistance is being witnessed. To
overcome these hurdles companies and marketers are adopting new innovative strategies to take competitive advantages. Here are few comments which highlight strategic importance in Green Product Marketing.

"If you are not playing in the green space, you are competing against it. Either fold it into your strategy or have a clear competitive advantage over green competition. Being green is not enough. Consumers expect companies to have green products that are superior or at least on par with conventional products."

"There is no "one magnitude fits all users" green product strategy available. Companies must need to align possible green attributes to the product category."

"Companies' green initiatives do influence consumer purchasing behavior – but only when communicated through the right channels. Less money doesn't necessarily mean less green. Consumers continue to buy (and switch to) green, even in a recession."

Quoted by "Grail Research"

In all the above quotations, this highlights the importance of strategic move by green marketers in some or the other way. Compared with developed countries, growth of Green Marketing did not spread substantially in Indian Context. Keeping this in mind about "Green" area's which are almost untouched in India, various steps towards deep study about "Green Product Marketing Strategy" are mandatory to increase the awareness, adoption, and use to increase the environmental protective measures in India. With this aim proposed study was undertaken to understand these aspects, attributes and dimensions which are needed to keep in mind by anyone while preparing Green Product Marketing Strategies in Indian Context.

The Study was undertaken with the following objectives:-

- To study different dimensions for building Green Product Marketing Strategy in Indian Context.
- To draft the guidelines and to build a model for Green Product Marketing Strategy in Indian Context.
- To identify and validate the factors which majorly contribute to Green Product Marketing Strategy.
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Secondary Objectives

- To suggest the methods/Strategies which are helpful in increasing Green Products adoption in India.
- To highlight the sectors in which Green Product Marketing Strategies should be improved and implemented.


**Evolution of Green**

1.2.1 Introduction to Green Marketing

"Environmentally friendly society is a social form in which participated people and nature accreted harmoniously". Its core concept is to build sustainable development of human and the nature system on earth. Green Marketing purpose is also one of the social requirement management, to satisfy the common interest of the consumer and the participators. Further main aim of Green Marketing is to protect the ecological environment and sustain it in its natural form. It is also considered as the innovation of traditional marketing theory, many preliminary activity and studying structure. Such kind of suggested innovation can improve the green consciousness of human beings, develop the green culture construction of the existing as well as upcoming corporation, and promote the harmonious development among firms, society and the environment, called as *Green* Marketing Innovation. (Yang Zhang and Liwen Chen, 2011).

Unfortunately many readers believe that green marketing refers solely to the new way of promotion or advertising of products and services with addition of environmental characteristics. Wording Terminology like lead free, Phosphate Free, Recyclable products, Refillable products, Ozone layer Friendly, and Environmentally friendly are some of the thing consumers most frequently link with green marketing. Green marketing roots generally is having a much broader concept. It can be applied to consumer, industrial goods and even all type of commercial and personal services offered to customers. For example, many good international resorts around the five continents of world have started promoting themselves as "ecotourist" facilities, meaning facilities that "specialize" in experiencing natural environment or operating in a manner that minimizes their harmful environmental impact (Durst and Ingram 1989, Troumbis 1991).

Therefore green marketing incorporates a comprehensive range of activities, including product development and modification, changes to the existing production process in production facility, exciting packaging changes, additionally modifying advertising in latest fashion.

The American Marketing Association (AMA) organized first workshop on "Ecological Marketing" in 1975. This early workshop suggested definition of Ecological Marketing.
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which has three key major components, 1) It is considered as a subset of the overall marketing activity; 2) It further examines both the positive and negative activities in concerned respect; and 3) a narrow range of environmental issues are also examined. The following definition explores much broader perspective than those of other researchers and it comprehends all major components of other definitions.

"Green Marketing or Environmental Marketing consists of all possible activities designed to produce and facilitate any possible exchanges which intended to satisfy needs of human. Such satisfaction of these needs and wants occurs, with negligible unfavorable impact on the natural environment. (Polonsky, 1994)

1.2.2 Definitions of Green Marketing:

According to the American Marketing Association (AMA, Chicago); Green Marketing is the “Marketing of products that are presumed to be environmentally safe”.

“Marketing products and services based on environmental factors or awareness. Companies involved in green marketing make decisions relating to the entire process of the company’s products, such as methods of processing, packaging and distribution.”

“Green marketing companies looks above and beyond traditional view. Core values environmental promotion by marketing in the hope that consumers will associate these values with their company identity or product brand. Engagement in these green sustainable activities can lead to creating a new product line which caters to a new target market”.

"Satisfying the requirements of customers and other stakeholders more sustainably, through integrated efforts to improve the environmental and social responsibility of the organization, its products, services and communications" Therefore, green marketing integrates many activities like, desired product modification, production process changes, packaging preference changes, contemporary modification of advertising.

“Integrating business practices and products that are friendly to the environment while also meeting the needs of the consumers"
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“Promotional activities aimed at taking advantage of changing the consumer attitudes toward a developing brand. These changes are being influenced and increased by a firm’s policies and practices that affect the quality of the environment, and reflect the level of its concern for the community”

According to Cooper T (2000), green products are complex in nature. In a strict sense, there is no such thing as a truly sustainable product as all products we buy, own, use and discard in our everyday life will have negative environmental impact at some stage in their lifecycles. However, products can be classified according to the scale of its impact, and a quality threshold can be drawn if a product has a low environmental impact, it is regarded as an environmentally sustainable product (green products).

Kotler (2006) has defined marketing as “a societal process by which individuals and groups obtain what they need and want through creating, offering, and freely exchanging products and service’s value with others”. While consumers ‘environmental concerns have moved into mainstream marketing,

Another definition of an environmentally sustainable product for consideration in this research is that, products should be readily available for purchase and include those supplied by companies with a reputation for reducing environmental impacts from their manufacturing processes. It is useful from a marketing perspective to investigate how consumers make informed choices about green products. Social marketing literature views green consumer behavior as a form of ethically oriented consumer behavior that is motivated not only by consumer’s own personal needs, but also by their concern for the welfare of society. In general for marketers, environmentalism has become a criterion influencing and diverting consumer purchase intentions and their behavior.

1.2.3 Meaning of Green Marketing

After the proceedings of the first workshop on Ecological marketing held in Austin, Texas (United States), in 1975, Green marketing was given prominence in the late 1980s and 1990s. According to Joel makeup, during that time, green marketing faced a lot of challenges because of non-availability of relevant standards and public consensus to what constitutes "Green". The green marketing has progressed slowly over a period of time.
Although, globally there is growing concern and interest among the consumers all over the world regarding protection of environment, which indicates that people worldwide are seriously concerned about the environment, and are changing their behavior in patterns of purchasing and consumptions. As a result of this, green marketing has come into new broad view which loudly speaks for tremendously growing market for sustainable and socially responsible products and services. Green marketing is part and parcel of the overall corporate strategy implemented by any business firm (Menon and Menon, 1997).

To achieve success, by adopting firms overall corporate strategy implemented in accordance of their business model, American Marketing Association provides a guideline and road map and suggests that, Green Marketing is the marketing of products that are presumed to be environmentally safe. It comprises of a comprehensive range of activities, including product alteration and modification, changes to the existing production procedure, changes in the style of packaging, as well as transforming advertisements as per modern psychology.

Therefore, it can be understood by green marketers that the subject of green marketing is vast, having important implications for business strategy and public policy. However, defining green marketing is complex task as it suggests several meanings which intersect and contradict with one another. There are other similar terms used for Green Marketing as Environmental Marketing and Ecological Marketing as well.

Further guidelines by Peattie (2001), suggested that the evolution of green marketing has three phases. First phase was termed and can be named as "Ecological" green marketing, and during this period all marketing activities by firms were concerned to concentrate in helping and finding existing environment problems and provide remedies for identified environmental problems. Second phase was consisting of "Environmental" green marketing and the focus shifted on adopting clean technology that involved designing of innovative new products for market, which also should take care of existing pollution and waste issues. Third phase was to attain "Sustainable" green marketing. It came into prominence in the late 1990's and early 2000's, and still in development stage.
1.2.3.1 Process of Green Marketing: Firms can green themselves in three ways:

Exhibit: 01 – Process of Green Marketing

1.2.3.2 Green Value Addition of in present context: Any value addition processes could require redesigning in various fronts,

1. In starting, Green Value Addition with eliminating some unrequired features in existence offers, adding new features and modifying previous technology and / or welcoming totally new technology. The total exercise in projecting towards the objective of reducing the environmental impact aggregated for all designing and making stages.

- A steel manufacturing firm may replace a state-of- the-art furnace (new technology) in their production facility, thereby using less energy to produce steel or steel products.

2. Firms could adopt, Green Value Management Systems, which create conditions for decreasing the environmental impact. However, this Green Value Management systems efficacy for greening value-addition is difficult to quantify if they are not supplemented by performance measures. Thus, by having measurable performance indicators, firms can make verifiable claims about the environmental impact of their Green Value management systems.

- A good example can be sited from chemical industry, among all some of which establish Accountable Care Programs to promote environmental protection, under health and safety objectives.
3. Firms, third greening strategy pertains to the domain of products., which could happen in the following ways: (i) facilitation to repair – life of a product can be extend by repairing its, and replacing old parts; (ii) recondition – life of a product also extend by overhauling it; (iii) remanufacture – the new product is made on the bases of old ones; (iv) reuse – product design should be such that, it can be used several times; (v) recycle – products can be converted into raw material, by reprocessing, to be used in another product or the same product. and (vi) reduce – even though the product uses less raw material or generates less disposable waste, it delivers benefits comparable to its former version or to competing products.

Charter (1992), suggested additionally, greening products could include, designing programs and products for the natural environment and conceiving new institutions to reduce environmental impact of product use.
1.2.4 Green Product Definitions, Characteristics and Classifications

Numerous authors had discussed about definitions and classifications of green products and relevant meanings of the word ‘green’ have been discussed in the previous literature (Kleiner, 1991; Silverstein, 1993; Miller and Szekely, 1995; McDonagh and Prothero, 1996).

Some recent authors have tried to redefine ‘green products’ as ‘green’ “when its environmental and societal performance, in the area of production, in its use, application and disposal, is significantly improved and improving in comparison to conventional or competitive products offerings”. This definition highlights the different life cycle phases during which a product can show its environmentally friendly features. (Peattie, 1995)

In particular, McDonagh and Prothero have identified several dimensions of green aspects such as ecological prospective, in respect of political perspective, corporate social responsiveness front, facilitation of fair trade in markets, conservation of natural environment and earth’s resources, government non-profit initiatives, emergence of new-consumerism, total environmental and business sustainability, and equality to all.

Above mentioned concepts are immensely broad and embrace with very different aspects; also it is generating confusion on the actual meaning of ‘green’ and not giving clear directions to companies willing to participate and adopt green activities. Similarly, at the product level, several attempts have been made to define what a green product is! (Peattie, 1995; Roy, 1996; Ottman, 1997). Nevertheless, confusion remains, on what actually constitutes a product which is totally environmentally friendly (Baumann, 2002; Bodewes and Berchicci, 2005).

Reinhardt (1998) stated that, environmental product differentiation comes in to existence whenever: “a business firm creates and offers products that provide greater environmental benefits to its consumers, or that impose reduced relevant environmental costs, than similar products imposing higher environmental protection costs”. This definition arguments and highlights that green products are products with a lower environmental impact, but also providing higher environmental benefits compared to conventionally available products.
GREEN PRODUCT MARKETING STRATEGY: A STUDY

Ottman et al. (2006) clearly stated that “consumer product which has a zero impact on the environment is difficult to get. In today’s business ‘green products’ or ‘environmental product’ terms are used universally to describe those available products in market, that attempt to protect or enhance the natural environment by conserving energy in its manufacturing and application and/or reducing wasteful resources by reducing or eliminating use of poisonous agents, pollution, and end waste”. This stated definition generally stresses the main types of environmental focus of green product development, namely energy conservation, resources utilisation, pollution and waste controls.

The Commission of the European Communities (2001) defines green products as products that “use fewer resources in its making, and have lower impacts and risks to the natural environment and further prevent waste generation, already planned at the conception stage”. This definition fully emphasizes the importance of conceptualizing-to-designing products as ‘green’ since the first phase. Many definitions and characteristics suggested for green products prompt the bare minimum need to develop a coherent framework which integrates greening. Although, by few authors’ definitions and characteristics of green products highlighted earlier social performance is mentioned, for product as ‘green’ and not only on the basis of its environmental performance.

The literature also suggests different viewpoints to classify products, which have been identified namely: marketing, organization, engineering design, and operations management (Ulrich and Krishnan 2001). Green product design can be thought of as a fifth perspective, is most important today (Wallace, and Sousa 2006). The natural environment in reality is a catalyst to redesign existing products, making them more energy efficient and less material intensive both as per today’s business needs (Shrivastava, 1995).

Numerous green product classifications have been developed and differentiated for various category classification purposes, and their related taxonomy dimensions can be on the basis of product characteristics (Rombouts, 1998), further its level of environmental impacts should also be measurable (Hanssen, 1999), or types of environmental improvement strategies requirement consideration for future (Rose, 1999).
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Since things are getting complex, Kaeberaick and Soriano (2000) suggested a simplified approach to assess the conceptual design phase, by classifying different products into various groups according to its built-in environmental features. They considered product life cycle in four phases (First materials, Second process, Third usage, and Fourth and final, disposal) and divide broadly in two groups, namely energy based and material based.

State of the art, “Eco-design Matrix” introduced by Dewberry and Goggin (1996) which was subsequently used by Roy (1996), further classified the environmental impact of products on the basis of two dimensions: mainly, life cycle stage (production, use, and disposal) and subsequently, on environmental focus (energy, materials/resources, pollution/toxic waste). To simplify, Sousa and Wallace (2006) developed an automated classification system guiding the identification of product groups constructed upon environmental categories.

Peattie (1995) classified products on the basis of their eco-performance, distinguishing different shades of ‘green’ (from deep green to black) and types of products (absolute green or relative green).

Further specifying, absolute green products contribute towards the improvement of human society or the natural environment and relative green products reduce the harm they cause to society or environment. Reinhardt’s (1998) also made additions in it.

Principal green product is near to ‘ameliorative product’, defined as a product essential to survive environmental deterioration (Ryan, 1992), and of ‘sustainable function product’, defined as “a product or service that reduces a negative impact in its surroundings at a specified reduced level suggested by the product’s life cycle itself” (Wever and Boks, 2007).

Despite its high potential argument by Wever and Boks (2007) and Wever (2008), this type of innovation lacks commercial attention in business world. Based on these considerations, “characterization”, new type of environmental impact is added as a separate dimension for green products.
Table 01: Summarizing - Review of the characteristics of Green Products

<table>
<thead>
<tr>
<th>Authors/Year</th>
<th>Characteristics associated with the ‘green’ nature of a product</th>
</tr>
</thead>
</table>
| Elkington and Hailes (1988) | • The health of the consumer or of others is not endangering.  
• Effect on environment during manufacture, use or disposal: Causing no significant damage.  
• Not consuming a disproportionate amount of energy during manufacture, use and disposal.  
• Not causing unnecessary waste, either because of excess packaging or because of an unduly short useful life.  
• Non consumption of materials derived from threatened species surviving or from threatened environments exists.  
• Not involving unnecessary use or cruelty to animals.  
• Not adversely affecting other countries, particularly the third world. |
| Simon (1992) | • High recycled content with Reduced raw material.  
• Non-toxic materials and Non-polluting manufacture.  
• No unnecessary animal testing.  
• No impact on protected species.  
• Low energy consumption during production/use/disposal.  
• Minimal or no packaging.  
• Reuse/refill ability possible wherever.  
• Long useful life, updating capacity.  
• Post-consumer collection/disassembly system available.  
• Remanufacturing capability adopted. |
| Schmidheiny (1992) | • Eliminate or replace product with new.  
• Eliminate or reduce harmful ingredients.  
• Substitute environmentally preferred materials or processes.  
• Decrease weight or reduce volume.  
• Produce concentrated product.  
• Produce in bulk for common people.  
• Combine the functions of more than one product.  
• Produce fewer models or styles.  
• Redesign for more efficient use in application.  
• Increase product life span for efficiency.  
• Reduce wasteful packaging in final offer.  
• Improve reparability of product.  
• Redesign for consumer reuse in various application.  
• Remanufacture the product is possible. |
| Peattie (1995) | • Recyclability importance covered.  
• Resource efficiency managed and increased.  
• Emissions reduction as per ISO.  
• Impact on ecosystems very less.  
• Social impact is good.  
• Sustainability of resource use.  
• Waste and disposal is manageable.  
• Eco-efficiency of production and organization always. |
<table>
<thead>
<tr>
<th>Author(s) (Year)</th>
<th>Key Points</th>
</tr>
</thead>
</table>
| Robert (1995)    | - Minimize the use of nonrenewable materials universally  
                  - toxic materials Avoid in use of it  
                  - Use renewable resources in accordance with their replenishment rate |
| Shrivastava and Hart (1995) | - During usage low environmental impact.  
                              - Easily composted, reused, or recycled at the end of their useful application life |
| Roy et al. (1996) | - Capable of lessening global environmental problems originated  
                     - Energy efficient in all possible respect  
                     - Easily repairable for long lasting use  
                     - Designed to last, or to be reused, reconditioned or recycled  
                     - Generates minimum pollution and waste by it  
                     - Can be disposed of safely in environment and earth  
                     - Minimal use of materials, including packaging and transportation  
                     - Manufactured from renewable or abundant resources, or recycled materials  
                     - Manufactured, if possible, locally and from locally obtainable materials to reduce transport requirements  
                     - Environmental information on product available to purchaser  
                     - Not harmful to human health and living creatures  
                     - Satisfies a genuine human need of customers |
| Luttropp and Lagerstedt (2006) | - Do not use toxic substances and utilize closed loops for toxic ones wherever necessary  
                                    - Minimize energy and resource consumption in the production phase and transport  
                                    - Use structural features and high-quality materials to minimize weight  
                                    - Minimize energy and resource consumption in the usage phase  
                                    - Promote repair and upgrading  
                                    - Promote long life in all respects  
                                    - Invest in better materials, surface treatments or structural arrangements  
                                    - Prearrange upgrading, repair and recycling by provider  
                                    - Promote upgrading, repair and recycling everywhere  
                                    - Use as few joining elements as possible |
| Ljungberg (2007)  | - Reduce the materials and the use of energy for a product  
                     - Reduce emissions, dispersion and creation of toxics  
                     - Increase the amount of recyclable materials  
                     - Maximize the sustainable use of renewable resources  
                     - Minimize the service intensity for products and services  
                     - Extend the useful life for a product  
                     - Assess and minimize the environmental impact  
                     - Having a “functional economy”  
                     - Use “reverse logistics” where ever possible and economical  
                     - Increase the efficiency in the usage phase |

Sources: Rosa Maria Dangelico a,*, Pierpaolo Pontrandolfo (2010)
1.2.5 Impediments and opportunities in Green Marketing

1.2.5.1 The Core Problem:
The earth ecosystem observed as one of the very complex mechanism, from ancient origin ages to current times, which in all-inclusive system, subsystem that integrates the atmosphere (living creature breaths, the air), geosphere (available land, in the form of soil, Rocks and Mountains), hydrosphere (covers 70% earth surface by water) and biosphere (all living species on earth) is considered (Neace, 1995).

Unfortunately, today’s marketers only in constricted view comprehend the importance of related business systems and use systems and networks thinking extensively to facilitate business exchange subjects, particularly in the business-to-business and business to consumer context (Hakansson, 2009).

Firm’s owners and marketers many times ignore such broader system approaches. Today it is extremely important to understand or integrate the nature into firm’s strategy formulation. The attention of marketing’s impact on the natural environment is often classified as macro-marketing. This gives due importance to micro-marketing impacts society, society's influence on the broader macro-system, and systems interact (Fisk, 1982).

Unfortunately, professionals from academics fraternity and professional business practitioners perceive a disconnection exists between macro-marketing and micro-marketing, which creates core problem inability of green marketing transformation. Environmental issues cannot easily capture by the traditional micro-formation of marketing, because classical micro-economics advocates that consumers seek to maximize their own welfare (Russell and Russell, 2010).

Potentially, that is, generally in present time, people integrate environmental issues in their decision-making because the environment is considered important by them. But many times the society welfare and the natural world are given least importance, unless they are embedded in consumer’s individual’s values.
According to this perspective it assumes that mankind controls their environment is not correct. The fact remains that sustainability and environmental issues are generally macro-focused is at the core problem that transformational green marketing faces (van Dam and Apeldoorn, 1996).

Governments are forced to keep a watch and regulate activities to prevent distortions in the market from being exploited, which also provides directives to marketers and society, consequentially, encouraging micro-focused individuals and organizations to integrate broader macro issues and systems into their individual thinking (Carman and Harris, 1984). For creating fewer negative personal impacts, social marketers need to encourage consumers to change their behavior (Rothschild, 1999).

Consider example of tragedy of the commons suggests that because no-one owns the shared communal space, no individual has an incentive to protect the shared space. This suggests, the aggregation of self-interested, individualist behavior destroys the value for all, and short term self-interest appears to offset the longer term benefits. Keeping this in mind, some self-regulation of individual behavior is obligatory, so that the commons are available in perpetuity for all users (Libecap, 2009).

Considering link with environmental issues, the catastrophe of commons is a metaphor that can be translated understood for consumer behavior in present markets, firms within countries, or even countries within regions, in every circumstances, ecosystem is used by all but controlled by none (Aarde and Jackson, 2007).
1.2.5.2 Green Opportunities in emerging Indian Market

Today the contemporary consumer of India emphasizing on caring for mother earth, and wants to adopt green in their lifestyle. Therefore, marketers as per the observed demand are sticking green label on their products. This is mainly because marketers know that their consumers want to move in the direction of green regime. Today marketers also perceive environmental marketing to be an opportunity that can be used to achieve firm’s objectives and generate adequate profit by providing the alternatives to customers better than their competitors. This is also one of the key to differentiate their brand, and to access to larger market share in India. Thus, global companies from world over including India are putting their best steps and becoming responsible entities.

1. Environment friendly products increments: Since educated consumers from Indian community now a day’s favor environment-friendly products and adopting habits for keeping them healthy as much as possible, the opportunities and business growth for green marketing has increased tremendously. All aware firms want to in cash these opportunities, to have competitive edge over non-environmental friendly firms. Surf Excel water-saving detergent is one such examples with the marketing message-(doo balti paani rozz bachaana) and LG’s electronics are highlighting the opportunities available for green marketing in India. These attractive marketing messages of the firm’s integrated profit as well as environmental objectives together result into firms higher market share and subsequently incremental profits in their respective business.

2. Regulatory Government Pressures: In all the developed nations, protection of their living society and the consumer’s interest is one of the major concerns under good governance of the any government. In last two decades, various regulations in India are framed by the ruling government to protect interest of consumers and the society at large. It is todays need and responsibility of the government to protect consumers from false and misleading claims offered and made by the business firms. The Indian government also in last two decades has been gradually active in drafting steps and formulating appropriate laws for reduction in production of detrimental goods and by products. Government made it possible by the introduction of various environmental licenses and guidelines to concerned manufacturing. The result of such strict practices reduces the industry's production
and consumers' consumption of harmful goods and at end, encourages the modern consumers to become more responsible towards nature, and also try to educate the maximum target consumers so that they can evaluate themselves about firm's claims.

3. Corporate social responsibility by established firms: Over the last decade, importance of Corporate Social Responsibility has been rising tremendously in Indian market. In true sense, corporate social responsibility means that the firms willingly behave in ethically conducting the firm's business activities. Further contributing to the economic development and also improving the quality of life society. Being the responsible virtual member of the society, human social community anticipates the business firms to act as responsible members of the business and social community as well as to provide goods and services efficiently. Some organizations are also motivated to maximize its positive impact and minimize its negative impact on society by finding the possible new ways to dispose of garbage, recycle and reuse the packaging material used in marketing and distributions. A universally accepted example is Coca-Cola which has invested huge sums in various recycling activities as a corporate social responsibility in their operational domain.

4. Competitor's Pressure in Business Markets: Green marketing is taken up by various firms with the reason and desire to enhance firm's competitive position and create a competitive advantage over others. Additionally green marketing initiatives by niche firms prompted many mainline competitors to follow the trend in past. Numerous market leaders have also started introducing interesting green marketing programs to create significant competitive advantage against competitors, which would not only consolidate and uphold their leadership position in market, but also enhance their market share in long run business. Revive 100% Recycled paper by Xerox is one of the prominent example few years ago was introduced to address the problem of recycled photocopier paper, in printing industry.

5. Cost in terms of financial and non-financial: in gradual practices, firm's also use green marketing to address the issues related to profit and market share. The general understanding of green marketing leads to higher profit and at same time lower cost
GREEN PRODUCT MARKETING STRATEGY: A STUDY

of firms operations and Consumer are willing to pay higher price for a green product. Since the consumer feel and understand that the environmental degradation is not solely the responsibility of the firm’s, consumers also want a cleaner environment for their living and is willing to pay adequate higher price for it. To minimize the waste caused by firms, the firms examine and reexamine their production process, which leads to development of the superior production process which reduces the production of harmful by-products. This in further steps reduces the need for extra raw materials and in some cases the waste material also become another firms input for production. An example:- Chemical firms that produces acidic waste water can be used by another firm who then uses it to neutralize base water.
1.2.5.3 Organizations adopting Green Marketing in India

Here researcher felt primary duty to highlight some lead organization adopting green Marketing in India.

Green IT Project of State Bank of India:
During the financial year 2009-2010, State Bank of India undertook a large implementation of Automated Teller Machines (ATM's). Since the Bank was conscious of the need to reduce the carbon footprints as there were more than 10,000 ATMs to be installed all across the country. The project helps in reducing the carbon footprints impacting the quality of life of the society at large, in addition to savings of recurring costs to the bank. The project also supported the cause of the central bank’s objective of spreading retail electronic payment culture and reduced dependence on paper based transactions all over the country, done through speedy expansion of Automated Tailor Machines and debit cards. In all the new Automated Tailor Machines, LCD monitors were deployed instead of conventional CRTs. LEDs were used instead of tube lights/CFL, Five star Energy Efficient Rating (EER) 3.1 rated Air Conditioners were installed. This project expected to helped to save an enormous 48503500 Kilo Watts per annum, Converted in more than Rupees twenty four crores of energy savings per annum. Even solar powered ATMs were developed for rural areas. ATMs were installed closer to the customer residences and their workplaces; reduce their travel time therefore saving time and fuel. More benefits include the convenience of 24x7 banking, increased use of e-transactions by customers. Most other banks in India, after SBI operations also realized the benefits of adopting green practices and therefore gradually adopted the same site preparation specifications as used by SBI in this deployment.

Indian Oil's Green Scheme

Fortune five hundred company Indian Oil is an actively participating in Global Compact Programme of United Nations is fully focused on sustainable development in India and abroad. Indian oil, identifies protection of environment as a fundamental commitment of its business and activities and has adopted a comprehensive safety, health & environment management system and provided with full-fledged effluent treatment plants consisting of physical, chemical, biological & tertiary treatment facilities. For the treatment of oily sludge and acid tar, Technologies like
"Oilivorous-S" & "Oilivorous-A" are being regularly used and treated effluent is better than stipulated MINAS quality and quantum standards. Treated effluent is being reused to the extent of roughly 70% in the refinery units. In Indian rural and urban sensitive areas, to achieve minimum impact on environment maximum care is taken in refinery operations. All the refineries use sulphur free fuel to control gaseous emissions, further refinery uses fuel gas desulphurization process in their plants, energy conservation measures to reduce fuel consumption by advent of advanced process control systems in all plants. Automatic continuous monitoring air instruments are installed in all the refineries. The recorded results of sulphur dioxide emissions at Indian Oil Refineries are well under the prescribed limits by State Pollution Control Boards and the Ministry of Environment & Forests.

Tata Going Green:
India's oldest industrial business house running more than eighty brands across the globe, TATA is marching to reduce its carbon footprint across the value chain, starting from manufacturing processes in plants to their distribution networks to eco-friendly consumer products. Tata Motors has setup up an eco-friendly showroom using natural building material for its flooring and energy efficient lights. The Tata’s premium hotel all over India are in the process of creating eco rooms which will have energy efficient restaurants and bars, organic sleeping bed linen and napkins made from recycled waste paper and with no carpets. Illumination of the rooms will be done by energy efficient lighting only. About five percent of the total rooms at a Tata’s Taj hotel would adopt Eco room design. Some hotels use the waste generated at the hotel to meet its cooking requirements. Indica EV another eco-friendly consumer product, an electric car runs on polymer lithium ion batteries. Tata Motors introduced the Indica EV in select European markets also.

Wipro Green Initiatives
Wipro created their position because of its performance in the chemical criterion and for using recycled plastic in their product line. Besides their conventional business, the company has recently launched Green Ware range of computer desktops which are hundred percent recyclable, and free from any toxins. Wipro feels pride in being a responsible IT firm and proactively participating in the green regime. The firm's Green
Ware range has a thirteen percent share of the company’s total product output. The principal mission of Wipro’s green computing is to work towards clean and sustainable IT products and solutions, which not only help Indian and overseas customers, to achieve high productivity in energy, but provides space and asset management through the life-cycle. Out of the twenty-five green buildings in India that IT industry have, nine belong to Wipro. According to the statement by Wipro, they are not only trying to create all their existing buildings green, but are also committed towards building all their future premises green too. The Wipro maximum complexes, uses solar panels for electricity generation and recycles all the used water within its premises.

Healthy Home Paints in India
A leading paint manufacturing company in India, Kansai Nerolac Paints Ltd claims to be the India’s first in to manufacture lead-free paints and has transformed its entire range of decorative paints to suit environment and people's health. This new concept of Nerolac is called Healthy Homes and all these products are lead-free. In the recent past, as the focus is on safer and eco-friendly paints, the company launched Nerolac Impressions Eco Clean, an interior paint with low-Volatile Organic Compounds (VOC). Company has introduced a new range of emulsions that are low in (VOC) subsequently had low odour. The aim is to create a clean and healthy environment inside one’s home, which has low odour, easy to maintain and stains can be easily washed off. The Company adopted this approach to safeguard people from prolonged exposure to heavy metals present in paint which may cause many health related issues ranging from skin irritation, eye infection, and respiratory problems to chronic blood, liver and kidney disease. In a significant move of company, the brand has repositioned itself. In practice they have gone for global positioning of its parent Kansai Paints, Nerolac also adopted the positioning based on environment friendly attribute. The new campaign positions Nerolac as a healthy paint with no lead content and Eco-clean property.

Thus above highlighted cases suggest clear path for taking appropriate steps for Green Marketing and relevant Green Product Marketing Strategy for emerging Indian markets.