Chapter 2: Literature Review

2.1 Introduction

Green Marketing is the buzz word today and has got central to many businesses. Esty & Winston (2009) remark in their book Green to Gold that, they were not aware of how big the Green Wave would be, when the first edition of book was rolled into the market. Thousands of Companies have now gone green and have changed the perspective from Environmental costs to seeing the opportunities and profits in the area of Green. Ottman (2001) rightly has put forth the tremendous change which world has noted in the case of green products. She says the innovators and reformists Green Consumers have witnessed the Green products available from few businesses mostly manufactured in the basements or garages. The Green products were seen gathering dust on the shelves of stores for various reasons like not working or lacking desired quality, heftily priced and had brand which no one had heard of. The then green laundry detergent left clothes dingy, light bulbs cast green haze, green media was rarity. The times have changed so have the green products and their consumers.

Ottman (2011) gives good news that 80% of Americans are some shade of Green today. With this as base and further guidelines from Greendex Survey (2012) it can be projected that Indians who topped Green Behavior for the third time in this worldwide survey are 100% some shade of green. But this is not enough to know above fact, as to improve the intensity of shade of green the strong motivation should come from Green Marketers and Regulators.

The extensive literature review for the current thesis has revealed the dire need for the Research in the field which in long term will help determine the very existence of Human Race. Otherwise, the day is not too far when something will remark “Like Dinosaurs Humans also existed and ruled this Earth once upon a time”. The need of the time is not only basic research but applied research where Green and organic becomes part of life for we organic human beings.
The severity of the problem demands not separate and segregated efforts here and there. It calls in for all of us to join hands together. We may be Government organization/ Non-Government Organization, Marketers or Consumers, Environmentalists/ Critiques, all have to play their roles to make it happen- The Green and Clean beautiful World for all of us, today and tomorrow. Any faulty attempt in such noble cause is far better than a perfect attempt with a faulty cause. Nonetheless, the Researcher draws inspiration from the quote rightly placed on the Walls of NASA “There is no scope for error”.

The success of a factor depends not only on how nicely it was designed but how aptly it was implemented and used. The Green Products and Services designed perfectly is not sufficient, their success will come by how they were accepted and entered into mainstream and became part of the lifestyle and habits. The Consumer point of view will be important in the case of Green too, as they are the ones who made Apple-Apple, Intel-Intel, Coke-Coke and so on. The Literature Review focuses on Consumers and especially their attitude and behavior for Green.

2.2 Methodology of Review:

The Literature review was conducted for the topic “A study of Customer’s Eco-conscious attitude and behavior in response to Green Marketing with reference to Nashik City”. The review has been conducted on the basis of search from three vast databases- the online databases of Sage International Journals, and Online Wiley Library, Electronic Green Journal also the Physical Library of J.D. C. Bytco Institute of Management Studies and Research and EBSCO software. The search on the topic started with key words “Green Marketing/ Environmental Marketing”. The search gave result of 266 Research Papers published in International and National level Journals. Out of these Research papers were further screened out on the basis of their relevance to the attitudinal and behavioral aspect of Eco-conscious consumer, the basics of Green marketing etc. Finally this report on Literature review includes 95 Research Papers International and National, 5 very relevant books for the topic, and 2 theses and important related reports. The literature review for Green Consumer Behavior has been organized on the basis of Conceptual format and then chronologically in case of Research papers, and for other sources it is just arranged chronologically.
The review covers a period from 1990 to 2012. Though early Research discussions date back to 1975, Green came to mainstream in Research discussions in late 1980’s or start of 1990’s (Polonsky 1994). The review thus exhaustively covers the time period and geographical distances. Indian studies are very few in number and that too just half of them are empirical. This emphasizes the need for such exhaustive and empirical based study which will be truly valuable contribution to the field of Knowledge.

The review of Research Papers has been organized conceptually covering:

- Genesis of Environmentalism and Green Marketing
- Green Marketing & Strategic perspective on Green Marketing
- Analytical Overview of Research - Green Marketing, Green Attitude and Green Behavior.
- Green Attitude, its Antecedents and Green Behavior
- Green Purchase Attitude and Green Purchase Behavior

The review also includes review of some important reports from Government and Non- Government Organizations. The review leads to the development of some summary graphs which will help researchers in future.

2.3 Genesis of Environmentalism

An environmental Movement date back to 1830’s when George Catlin proposed the idea of National parks to conserve the wild life (United Nations Environment Programme (UNEP), The Public and Environment, 1988). But Modern Day Environmentalism started in 1950’s and became more active in 1960’s with pressure coming from public and rising concern about nature. Fast Company (2012) has very well documented the Genesis of Environmentalism and Green Marketing in their article titled “A 50 Year History of Green Marketing”. World celebrates a half century of Era of growing Environmental Awareness, Concerns and even actions taken to help Save Environment. The birth of Green Marketing is hidden in this movement itself. This period is marked by Authors bringing awareness through their writings which became best sellers of the time, NGO’s being formed, Government taking actions, followed by Various Corporate Leaders also supporting the movement and some
being opportunists in seeing Green Marketing as the New Era in the field of Marketing.

**Figure 2.1 History of Environmentalism 1960-80**

(Source: www.fastcompany.com)

**1960-1980:**

Expert observer’s remark that Green Movement has its root in 1960’s which is evident with Rachel Carson’s best seller book ‘Silent Spring’ which was later nicknamed ‘The Godmother of Modern Environmentalism’, the credit is due to this book for the ban of DDT in US. Another important work by Ralph Nader titled as ‘Unsafe at Any Speed’, is credited to give us many of today’s anti-pollution and safety features. 1970’s can be seen as responsible step towards better Environment after the various disasters being reported starting with Santa Barbara Oil Spill and various scientific studies followed thereafter. The historical developments can be marked by establishment of EPA by Nixon, signing of Clean Air Act. The world first time celebrated Earth Day in 1970. UNEP was formed in 1972 at the first UN conference of Human Environment in Stockholm. In 1976 US NASA confirms Ozone depletion theory, GE stops dumping PCB’s in Hudson River, followed by 1979’s Second Energy Crisis.
Figure 2.2 History of Environmentalism 1980-90

1980: US Congress creates superfund to clean up hazardous waste sites; polluters responsible for cleaning up the most hazardous sites
1980: Volkswagen begins testing solar-powered cars
1980: ARCO Solar produces more than one megawatt of photovoltaic modules
1982: Dioxin contamination forces government to purchase homes in Times Beach, MO
1982: US Congress enacts laws for safe disposal of nuclear waste; US votes against the UN World Charter for Nature
1983: Cleanup actions begin to rid the Chesapeake Bay of pollution; Moratorium on radioactive waste dumping at sea
1983: EPA encourages homeowners to test for radon gas
1984: Union Carbide’s fertilizer plant leaks methyl isocyanide in Bhopal, India
1985: Vienna Convention for the Protection of the Ozone Layer
1986: Chernobyl disaster takes place in a nuclear power plant in the Ukraine
1987: Our Common Future published
1987: Montreal Protocol
1988: US Congress bans ocean dumping of sewage and industrial waste; Intergovernmental Panel on Climate Change established
1989: Exxon Valdez spills 11 million gallons of crude oil in Alaska’s Prince William Sound
1990: Organic Valley co-op of organic farmers formed

(Source: www.fastcompany.com)

1980-1990:

The beginning of decade marked at positive note with Volkswagen testing a solar powered vehicle and creation of superfund by US Congress to clean up hazardous wastes and enacted laws for safe disposal of nuclear wastes. The events followed by includes worst tragedy in history of India i.e. leakage of Methyl Isocyanides from Union Carbide’s fertilizer plant in Bhopal. In the beginning of the era of Green marketing we can see Dupont selling substitute for CFC refrigerants. Chernobyl disaster was one of the worst in the history, the Sustainability definition comes from a famous book ‘Our Common Future’ published in 1987. The next year marks formation of Organic Valley co-operative and ends with another disaster of Exxon Valdez spill in 1989.
Figure 2.3 History of Environmentalism 1990-95

The world changing faster than ever in response to the call from Mother Earth is evident in this period. This half decade has noticed celebration of 20th anniversary of Earth Day, signing of London Protocol, marked by 76% Americans calling themselves as Environmentalists. Apple led the Green way by introducing first Environmental policy. 1992 marks the Earth Summit held in Rio de Janeiro, Brazil. The period followed by marks Toxic Racism, Clorox crowned by FORTUNE’s amongst top ten companies in Environmental Management, followed by EPA launching Brownfield’s Program.

(Source: www.fastcompany.com)

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Figure 2.4 History of Environmentalism 1995-99

(DataSource: www.fastcompany.com)

1995-1999:

The second half of 1990’s saw various Governmental interventions to reduce auto emissions and Carbon Dioxide. An environmental activist who was elected President of Sierra Club at the age of 23 authored ‘Act Now Apologize Later’. The work gave hope to thousands of people. 199 mark the history with launch of Honda’s Insight which became world’s first hybrid by dodging Toyota’s Prius by 7 months. Nonetheless Prius was launched with correction and lessons learnt from Insights launched thus making it a huge historical success in due period.
Figure 2.5 History of Environmentalism 2000-03

(Source: www.fastcompany.com)

2000-2003:

The beginning of new decade also marks the fresh interest in the field of Sustainability. SCIENCE published a NASA report of over 2000 glaciers shrinking. Global warming became topic of grave discussion with 2001 as second warmest year on record. An increasing demand for organic products gave birth to a third party certification with strict scrutinizing.
Figure 2.6 History of Environmentalism 2004-06

(Source: [www.fastcompany.com](http://www.fastcompany.com))

2004-2006:

‘Green’ now appears as Consumer Marketing push with evidence from Vanity Fair, and Green Week. Ted Nordhaus and Michael Shellenberger released a controversial essay ‘The Death of Environmentalism’. The period marks some of the worst disasters Indian Ocean Tsunami, and Hurricane Katrina. 2006 is recorded as hottest year in last 12,000 years with population reaching 6.5 billion. Former US Vice President Al Gore released ‘An Inconvenient Truth’ making $ 49 million and winning two awards too.
Figure 2.7 History of Environmentalism 2007-10

(Source: www.fastcompany.com)

2007-2010:

This period oversees the several notable milestones in the history of Environmentalism with Governmental actions, corporate investments. European Union also promised to reduce emissions. The short period with important events also includes Obama promising in his campaigns the Environmental reforms, Retail giant Wal-Mart creating a new Sustainable labeling system.
2.4 Green Marketing and Strategic Perspective on Green Marketing

2.4.1 Evolution of Conventional Marketing into Green Marketing


**Figure 2.8 From Conventional to Green Marketing**

![Diagram showing the transition from Consumption to Sustainable Marketing](Source: Sheth & Parvatiyar 1995)

Majlath (2008) supports this new orientation of Marketing arguing that there are challenges faced in Marketing leading to the natural evolution of the totally new concept of Green Marketing which partially demise the aims and tools of traditional marketing concepts.

This journey of Green Marketing as mentioned above is simultaneous and grows along with Environmentalism. First usher in the comfort zone was created by the ripple of Rachel Carson’s book “Silent Spring” frightening people of environmental problems. Green Marketing as a concept flourished with more serious problems of Environmental nature surfacing and striking the human race. The approach was
mainly responsive in nature and a result of a specific environmental problem. So Peattie (2001) remarks that Green Marketing was the game of minority and seem to influence only few customers.

2.4.2 Genesis of Green Marketing:

The discussions on the topic dates back to a workshop held by American Marketing Association titled as ‘Ecological Marketing’ way back in 1975 (Polonsky 1994). The Green Marketing soon became popular with Corporate Social Responsibility reports and Sustainable development and Green Consumerism movement (Mansvelt 2011).

Figure 2.9 Genesis of Green Marketing

(Source: Own Creation on the basis of work by Meyers 2011)

Great environmental catastrophes of the 80’s as mentioned above like Chernobyl Disaster, Exxon Valdez spill called in for the account of human-nature interaction. Meyers (2011) remarks in his article that 1980s ended with an explosion
of new green products as companies both large and small tried to take advantage of consumer interest. Between 1989 and 1990, as the number of new green products more than doubled, they represented over 10 percent of all new household products. A big Brand like Mc Donalds was tamed and had to change packaging in response to protest of many consumers including Kids against pollution.

Though in 1990’s Green Marketing was still considered a Niche Market, this period noticed the biggest change in the Consumer attitudes. According to a survey by Ropers Organization in 1990, 82% Americans showed readiness to pay 5 % more for Green counterparts. Green brands in the market showed steady growth but the Mainstream brands introducing green brands had to struggle. However late 90’s posed burden on the development, because of negative attitude shown in Media towards ‘Green’ and growing skepticism of Consumers towards Green Advertisements (Majlath 2008).

2000’s saw the exponential growth in the desire for Green Products. Brands Greenness became the major for the selection in purchase decision making. Introduction of Hybrid Cars can be seen as major milestone. The Future of Green Marketing as suggested by Majlath (2008) includes following trends:

1. Environmental costs as part of economic costs and not separate. (Kilbourne-Beckmann co-authors 1998)

2. Focus on Cost savings and not price.

3. Rearrangement of Industrial Structures with more emphasis on Recycling (from Cradle to Grave/ to say Cradle again)

4. Resources efficiency improved may be by borrowing than consuming.

5. Getting more co-operation from Supply chain partners (Wong, Turner, Stoneman 1996)

6. Strategic Alliances for Green Innovations to ensure faster spread. (Peattie 2001)

**2.4.3 The Term and Concept: Green Marketing**

The very first attempt to define Green Marketing in the AMA workshop dates back to 1970’s. The Ecological Marketing was defined as “The study of the positive
and negative aspects of marketing activities on pollution, energy depletion and non-energy resource depletion (Henion and Kinnear 1976b)

Green Marketing has been defined by American Marketing Association as “1. (Retailing definition) The marketing of products that are presumed to be environmentally safe. 2. (Social marketing definition) The development and marketing of products designed to minimize negative effects on the physical environment or to improve its quality. 3. (Environments definition) The efforts by organizations to produce, promote, package, and reclaim products in a manner that is sensitive or responsive to ecological concerns (marketingpower.com).

There are various terms which lay man associates with Green Marketing it includes Phosphate Free, Eco-friendly, Recyclable, Ozone friendly and so on. Though Green Marketing does make these marketing claims, Green Marketing concept is very broad and as stated earlier in Review it is a New Marketing Orientation. The Green Marketing encompasses the areas of Consumer Goods, Industrial Goods and now Services too like Ecotel, Eco-tourism and so on (Polonsky 1994). Polonsky (1994) gives a comprehensive definition of 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 comprehensive and at the same time incorporates much of the traditional components of the conventional marketing definition and nonetheless includes the most important aspect of protection of natural environment. The definition serves much purpose for understanding Green Marketing concept for the thesis in consideration and thus also featured in Section 1.6.

2.4.4 Green Marketing & Sustainable Development: A broader perspective

Sustainable Development is a buzz word today in the field of Environment and received its due charm in the Brundtland report, in 1987 (World Commission on Environment and Development, 1987 as quoted by Kinoti, 2011). For the purpose of this thesis, following definition will be considered which is given by World Commission on Environment and Development (1987) “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).
Sustainability is a very high goal and can be achieved with support from Sustainable Marketing. In the field of Marketing the discussion is more on competitive sustainability but what is of core importance is actually ecological sustainability (Polonsky & Mintu, 1997).

We are facing the biggest paradox of the 21st Century. Everyone is striving on one hand to improve the quality of life and overall happiness, Consumption of quality products is considered to be an important parameter to measure the quality of life (Mishal 2012). More developed the nation more sophisticated products better the quality of life. But this consumption is eating up the resources and degrading the environment in the process in turn degrading the quality of life in long run. Life is mainly about balancing, and an imbalanced approach can lead to major challenges and catastrophes. The solution lies in the understanding how with Green Marketing we can advance economically and at the same time protect the nature (Kinoti 2011).

Marketing’s critical role in sustainable development has been elaborately thus discussed in section 1.1
A study of Customers’ Eco-conscious attitude and behavior in response to Green Marketing with special reference to Nashik City

Figure 2.10 Conceptual Frameworks for Green Marketing Intervention Strategies and Sustainable Development

(Source: Kinoti 2011)
2.4.5 Green Marketing Strategies:

Grant (2011) in an innovative way describes in his book the Marketing Strategies also in the shades of Green as follows:

1. Green Strategy: by setting new standards with commercial objectives only marketing and bringing to consumers notice how green products are.

2. Greener Strategy: With the motive of sharing responsibility keeping both commercial and green objectives, educating how people should use the products.

3. Greenest Strategy: With third dimension of cultural objective apart from commercial and green objectives reshaping and innovating making new business models acceptable.

2.4.6 Green Marketing Mix Strategies:

Kinoti (2011) suggests in his paper the Green Marketing mix strategies:

1. Green based Product Strategies:

Comprises of or is combination of recycling, reduced packaging, reconsumption, dematerializing of products, use of sustainable raw material sources, making of durable products and repairable ones, compostable. Thus in essence these strategies should have goal of making products safe and pleasant for use (Bhat, 1993; Ashley, 1993; Polonsky et al, 1997; Ottman, 1998 and Charter et al, 1999 in Kinoti 2011).

2. Green Logistics Strategies:

The most common form being Reverse channel system where the buyer becomes the seller and the seller organization becomes the buyer. It includes sorting and accumulation followed by reverse flow of recyclable material. (Fuller & Allen 1997 in Kinoti 2011)

3. Green Pricing Strategies:

Kinoti (2011) remarks in his paper, that many consumers assume green products as priced very high. But he clarifies with an explanation given by Peattie (1999), where he argues that the conventional products are exceptionally cheap as they exclude the socio-environmental costs which are part of Green products.
4. **Green Promotion Strategies:**

Green promotion is an activity that promotes products which essentially does not harm natural environment. Scholossberg (1993) as quoted by Kinoti (2011), the aim of Green promotion is to help consumer overcome greatest environmental hazard that is lack of environmental information. Oattman (1997) as quoted by Kinoti (2011) companies should educate consumer on the environmental problems, empower them with solutions, and provide performance reassurance of green based products. Use suitable mix of media, appeal to Consumer self-interest by bringing out benefits of green products.

2.4.7 **Green Marketing System:**

Nair & Mennon (2008) suggest in their contribution an Environmental Marketing System based on Indian experience and which has been thoughtfully built and can guide companies all stages of their green strategy. The system has been logically divided into three parts:

1. **Preparatory System:** It helps organization prepare for Green Marketing Practice and shall serve as foundation for the same. In this initial stage the organization has to take review of the environmental performance of company and its products followed by collaboration with important stakeholders mainly customers and consultation with Green experts.

2. **Process System:** It starts with implementation of selected Environmental Standard followed by Green products/services development. The system rightly includes Awareness and Education component for the important stakeholders. The system then focuses on Green supply chain management followed by Public relations activity related to Green Marketing.

3. **Reinforcement System;**

The system thoughtfully includes the Sustainable development view for Green Marketing and thus includes Relationship building module followed by Refinement in system on a need basis and feedback loop.
Figure 2.11 Environmental Marketing System

(Source: Nair & Mennon 2008)
2.4.8 Motivations for Green Marketing:

Polonsky (1994) pens down in his article the motivations for Organization to follow Green Marketing. Organizations motivations can be from positive or negative perspective as follows:

1. Green Marketing as an opportunity to achieve its objectives. (Keller 1987, Shearer 1990 in Polonsky 1994)


3. Force from Governmental Bodies to ensure Organizations become more responsible. (NAAG 1990 in Polonsky, 1994)

4. Force from Corporate Competitors Environmental Activities thus forcing the firm also to change. (NAAG, 1990 in Polonsky, 1994)

5. Cost associated with waste disposal and resources purchase forces firms to modify their behaviors' and be Resources efficient (Azzone and Manzini 1994 in Polonsky 1994)

2.4.9 Benefits of Green Marketing:

Oattman (1998) remarks in her paper that the enlightened Chief Executive Officer have along with personal rewards taken advantage of opportunities like increased profitability, competitive advantage, increased market share and better products, better physical environment, and sustainable development. Polonsky (1994) remarks in his paper, the Green Marketing for being effective must ensure that claims give clear benefits, focus on environmental problem addressed, and differences justified with non-green thus use meaningful terms and pictures.
2.5 Green Marketing Research: An Analytical view

The selected 95 Research papers were analyzed to find the trend in Green Marketing Research. The number of articles published in the initial period of 1990-1999 was just 12, which is seen in fig. 2.12 to suddenly rise to 48 articles in the period 2000-2009. This amounts to a phenomenal 400% rise over the articles published in 1990-99. The number of articles published in the period 2010 onwards which includes not even complete 4 years is 35. This trend shows the rising concern of academician and research scholars in the area of Green Marketing as well the need for the development of this field of knowledge which brings the desired change in the behavior of Consumers.

Figure 2.12 No. of Articles Published 1990 onwards

A further analysis of Average number of Articles published per year in various comparative periods shows a steady growth in the articles published. The average articles published in 1990-99 was 1.2, which got 4 times in the period 200-2009 and which then almost has doubled in the period 2010 onwards as seen in fig. 2.13.
The Research papers have been classified on the basis of Area of Study whether it is Developed Nation or Developing Nation. Almost 68% Articles have been based on the study carried out in developed nation. Surprisingly the majority comes from European Union and not United States of America or Australia. 32% articles have featured to be based on a study from Developing Nation as shown in fig. 2.14.

(Source: Own Creation)
As seen in fig. 2.15 a further analysis of Country of Origin for Articles published on the basis of study in Developing Nation reveals interesting fact. Majority which is 10 out of total 30 i.e. 33.33% of articles published are Indian studies followed by China and Malaysia. But 40% of the articles are desk research and thus the need for more empirical based researches in Indian Context.

(Source: Own Creation)
The Research papers have been classified on the basis of Type of Research carried out. 73% Papers have documented the empirical studies carried out whereas, only 17% are based on theoretical approach mainly focusing on the general Green Marketing understanding and related strategies as per ref. fig. 2.16.

As per fig. 2.17 a deeper analysis of Subjects of focus for Articles published include a startling majority of 61 out of 95 articles for Green Consumer Behavior. This drives home the point that this is still the area of interest and which will help Green Wave Sweep the Consumer Behavior world over. Other subjects include Green Marketing and Strategies followed by Willingness to pay which is the rising subject of discussion in the recent years. Eco-labeling and packaging, Green Food, Green Advertising are other nascent subjects followed by Green Services which should become area of interest for Researchers in near future, considering its importance.

**Figure 2.17 No. of Articles Published for a Subject of Focus**

<table>
<thead>
<tr>
<th>Subject of Focus</th>
<th>No. of Articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Consumer Behaviour</td>
<td>61</td>
</tr>
<tr>
<td>Green Marketing &amp; Strategies</td>
<td>16</td>
</tr>
<tr>
<td>Willingness to Pay</td>
<td>6</td>
</tr>
<tr>
<td>Eco-labelling &amp; Packaging</td>
<td>3</td>
</tr>
<tr>
<td>Green Food</td>
<td>4</td>
</tr>
<tr>
<td>Environmental Advertising</td>
<td>4</td>
</tr>
<tr>
<td>Green Services</td>
<td>1</td>
</tr>
</tbody>
</table>

(Source: Own Creation)

Further Literature Review shall focus on the Green Consumer Behavior and willingness to pay which is area of concern for the current thesis.
2.6 Theoretical Models and Hypothesis:

A literature review has been carried out in the previous section giving the genesis of Environmentalism and the history of Green Marketing followed by the Strategic perspective, Systems model, Motivations and benefits of Green Marketing. The analytical perspective on Green Marketing Research has been presented and now we move on to the discussion on theoretical models and hypotheses studied during meta-analysis so as to help design constructs and model for further research which shall be tested further. The discussion starts with basic models and advances further to more complicated models as discussed and appear chronologically in the review.

The review has been summarized and published in conference proceedings at Mumbai University. The fig. 2.18 reveals that Eco-conscious attitude and Environmental concern have been talked about in maximum research papers. The relationship between and attitude and behavior is most explored in these research papers (Foxal 2001; Laroche, Tofolli, Kim Muler 1996; Hofmeister – Toth, Kelemen & Piskoti 2011). In recent times Researchers’ are talking about Green Purchase attitude and Green Purchase behavior, rather than General Environmental Attitude and General Green behavior (Chan 2001; Kim & Choi 2005; Leonidou, Leonidou & Kvasova 2010; Tilikidou 2007; Mostafa 2007; Tan & Lau 2011). Individual Green consumption is the focus of majority studies, but a meaningful argument is directing toward the family green consumption processes than the individual one (Gronhoj 2006; Easterling, Miller, & Weinberger 1995; Gronhoj & Olander 2007).
2.6.1 Variables included in earlier Researches and their hypothesized relationship

Figure 2.18 An Analytical View of Factors studied in relation to Green behaviour

(Source: Own Creation)
Figure 2.19 Theory of Reasoned Action

(Source: Davies, Foxall, Pallister 2002)

The theory was formulated by Ajzen and Fishbein in 1980 which lays the foundation for all researches in the area of Attitude and Behavior, at basic level, the theory postulates that behavior is a function of salient beliefs relevant to the behavior. The theory talks about mainly two types of belief: behavioral beliefs and normative beliefs. The important point missed by many researchers which being focal point in Green Consumer behavior research today is that the Specific attitude determines specific behavior, which means green attitude determines green behavior. Critique of the model says that the theory does not take into account the non-attitudinal personal and situational factors which are quite likely to influence the strength of the attitude behavior relationship. Second, it deals with the prediction of behaviors and not the outcomes of behaviors. Third, the degree of formation of intentions affects the way in which attitudes influence behavior.
Theory of Planned behavior is otherwise identical with Theory of Reasoned Action except for the addition of an important factor which is Perceived behavioral control. It is been defined by Ajzen and Madden (1986: 457) as ‘the person’s belief as to how easy or difficult performance of the behavior is likely to be’. The critique of the theory is as its predecessor it also assumes contiguity between intention and behavior and neglects the personality and situational factors. Secondly it can become problematic to measure PBC as opposed to recording control beliefs. Thirdly, most important critique is that the theory introduces only one new variable whereas the behavior in reality is far more complex.
Schwartz tried to separate the altruistic behavior and attitude from the rest, where he mentions that such process starts with Social norms regarding moral behavior which people generally agree upon but in an abstract way. These norms represent the values and attitudes of significant others may be whom we consider important in our life. We expect others to act in the morally proper way and same is the expectation of others. Though derived from socially shared norms, what distinguishes personal norms is the consequences of violating or upholding them are tied to one’s self-concept. Schwartz thus identifies two variables that influence whether or not personal norms translate into behavior, which are: the awareness of consequences (AC) that action or inaction may have and the ascription of responsibility (AR) for those consequences. If AC and AR are high, personal norms shall guide subsequent behavior.

The authors end the discussion of the paper with an integrated model for the attitude–behavior study.
The integrated model takes into consideration multiple attributes like attitude which is specific and not general, Perceived behavioral control, Ascription of Responsibility, Personal norms, Affective evaluation, subjective norms, demographics. **It deletes behavioral intentions as not found to be relevant during analysis.** Major findings of the study were:

1. Intentions did not predict recycling behavior
2. Attitudes had a direct and significant influence on intention to recycle but subjective norms did not.
3. Past behavior is associated with intention which could be augmentation in the original theory.
4. Perceived behavioral control significantly predicts recycling behavior, it further increased sufficiency of TPB. Inclusion of affect and personal norms increases predictability further.
5. Schwartz model is more predictive and its sufficiency increases with PBC and personal norms.
6. Demographic variables like education and marital status can help predict recycling behavior better.
Figure 2.23 Children Socialization and Family Resocialization model by Easterling et.al. (1995)

(Source: Easterling, Miller, Weinberger 1995)

As a novel and important approach authors argue that they believe that children who are motivated to act upon their environmental concern will in turn attempt to influence their parents’ choices—in terms for both products and retailers. This represents considerable market power, as an influential market, children are known to exert considerable power over their parents’ purchases. Such influence can be evident in case of various product categories—from computer software to fruits and vegetables to family cars and vacations. A mind boggling figure of this influence is evident, it was estimated that children from age 4 to 12 influence annual family purchases of more than $130 billion way back in 1991, which must be heavily swelled up figure by now (“Getting them,” Business Week, 1991 as quoted in Easterling, Miller, Weinberger 1995). This research paper along with another authored by Gronhoj (2001) formed the foundation for the decision to take sampling unit as households and not just individuals in the current research.
Bhate (2001) has carried out an ecological study across three countries, India, UK, and Greece. The research focuses on the aspect of public awareness and how it translates into the purchase of environmentally friendly products. The findings from the study reveal a non-committal attitude on the part of respondents from UK, whereas a more involved attitude by respondents from India. The availability and price of these products are expressed as the main concerns by respondents from all these countries.

**Figure 2.24 Chan’s model for Green behavior and its antecedents (2001)**

![Diagram of Chan's model for Green behavior and its antecedents](source)

Note:
- MNO = man-nature orientation; COLLECT = collectivism; EK = ecological knowledge; EA = ecological affect; AGP = attitudes toward green purchases; GPI = green purchase intention; and GPB = green purchase behavior.

(Source: Chan 2001)

The author starts discussion with an important remark saying China is paying high ecological price for its rapid economic growth. Though India’s growth is not equal but is comparable and we can say that India and China are sailing in the same boat. SEM analysis for the model proposed by author confirms the influence of respondent’s man–nature orientation, degree of collectivism, ecological affect, and marginally, ecological knowledge, on their Green Purchase attitude. Their attitudes toward green purchases, in turn, have significant influence on their green purchase behavior via the
mediator of green purchase intention. The paper contributes importantly with suggestions for governmental organization and marketers to help them fine tune their environmental programs.

Attitudinal and behavioral analysis of Indian Consumers by Jain & Kaur (2004):

The findings reveal that the respondents do believe in genuineness of sudden rise in environmental concern and that the Indians are ready to take steps further in environmental protection. Respondent don’t see Government, politicians playing their responsible role in the matter and see laws as not enforced with strictness. Respondent see their restricted role in the matter of helping improve environment. Respondents are seen to conspicuously lack the knowledge about environmental legislation.

It is noted during the study that the respondents have been influenced by Green communication campaigns. The respondents have shown readiness for environmentally friendly actions, seek related information and pursue activities that help preserve environment but they lack in environmental activism. The findings as remarked by authors are shown to contradict studies from developed countries. The author’s remark that the Green consumerism is still in a nascent stage in India, may be due to more serious problems like over-population, poverty, unemployment and so on.

However for marketers they remark that the growing environmentalism can be seen as an opportunity for them. The findings reveal very important fact that the respondents don’t see the efforts by these organizations as a sales gimmick. The research does not study the environmental awareness and environment friendly behaviors. The paper ends with a great note which was tested further in the current thesis with the criteria’s for selection of a product. Authors say that the Consumers tend to buy green products more as a means to improve their own lives rather than as a part of their philanthropic concern for preserving the environment.
Figure 2.25 Kim & Choi’s Model for Antecedents of Green Behavior (2005)

The model in a simple manner takes into consideration only three important antecedents to Green Behavior which includes Environmental Concern, Collectivism, and Perceived Customer Effectiveness. The study reveals that Collectivistic individuals who value group goals and cooperation are better motivated to make pro-environmental choices as they have strong beliefs that their behavior will make a difference by mitigating environmental problems. Greater perceived self-efficacy is shown to directly influence the likelihood that consumers actually engage in green purchase behavior. Environmental concern is also shown to have direct and positive effect on the Green purchase behavior.
A study of Customers’ Eco-conscious attitude and behavior in response to Green Marketing with special reference to Nashik City 2013

Figure 2.26 Antecedent forces, Attitudinal factors, Behavioural factors, and Outcomes Model

(Source: Leonidou & Leonidou, Kvasova 2005)

The model for the first time puts together various motives, attitudes, behavior, and satisfaction of consumers with regard to ecological issues. It concurrently examines the cultural, societal and ethical issues in formation of environmental attitude, also draws clear distinction between the attitude and behavior. It distinguishes the inward and outward environmental attitude which in turn affects specific consumer behavior aspect. For the first time it takes into consideration of the outcome of behavior to examine its sustainability, thus combining micro and macro factors together. To summarize findings from the study a pro-environmental attitude is more likely to occur when the consumer is collectivistic, long-term oriented, politically active,
deontological, and law obedient. The direction of this attitude, shall determine the outcome. An inward environmental attitude will trigger green purchasing behavior and thus leading to higher product satisfaction, on the same lines outward environmental attitude will cause general pro-environmental actions on the part of consumer which will determine greater life satisfaction.


The research brings to light the family process perspective on green consumption which still constitutes the niche in consumer research. Author brings to light the argument that the individualist approach is very dominant in the Green consumption researches whereas, many green consumption practices involve many family members and thus influence household subscription to such practices. The study utilizes qualitative approach to understand these influences. This research further strengthened the decision to include households from Nashik and not just individuals as the sampling unit for the current research.

Sustainability Perception Matrix by McDonald and Oates (2006):

The research discusses the need to go further from the apparently contradictory results and discussion on the demographic and socio-demographic factors in the earlier researches. The authors investigated 40 Sustainability tasks on the basis of two dimensions, one being perceived effort and another being perceived difference to the environment. This study serves as basis for the Sustainability Perception Matrix prepared by the researcher for 8 major sustainability tasks considering the scope of the same in overall thesis. This will help marketers to know how the consumers see various sustainability tasks.
The paper focuses on the psychological factors and more so the personality variables with the help of Big Five-Factor Structure scale. Personality is multifaceted concept and is positively related with ecological behavior as confirmed from the SEM and logit analysis used in the research. Focus on the people with extroversion, agreeableness, and conscientiousness for a green product is supported by the findings.
Table 2.1 Previous research results of pro-environmental purchasing behavior across demographics, attitudes and knowledge

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Relationship</th>
<th>Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Positive</td>
<td>Balderjahn, 1988; Scott and Willits, 1994; Roberts, 1996</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
<td>Buttel, 1979</td>
</tr>
<tr>
<td>Income</td>
<td>Positive</td>
<td>Webster, 1975; Balderjahn, 1988; Arcury, 1990; Scott and Willits, 1994; Tilikidou, 2001</td>
</tr>
<tr>
<td>Gender</td>
<td>Women</td>
<td>Webster, 1975; Roberts, 1996</td>
</tr>
<tr>
<td></td>
<td>Men</td>
<td>Arcury, 1990; Scott and Willits, 1994</td>
</tr>
<tr>
<td>Attitude</td>
<td>Positive</td>
<td>Crosby et al., 1981; Antil, 1984; Balderjahn, 1988; Scott and Willits, 1994; Schlegelmilch et al., 1996; Roberts, 1996; Minton and Rose, 1997</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Unrelated</td>
<td>Maloney and Ward, 1973; Pickett et al., 1993; Laroche et al., 1996; Tilikidou, 2001</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>Antil, 1984; Arcury, 1990</td>
</tr>
</tbody>
</table>

(Source: Tilikidou 2007)
As seen in table 2.1 the author has very well summarized Meta analysis carried out and presented the various independent variables acting as antecedents to pro-environmental purchasing behavior. The demographic factor Age is majorly shown to positively influence the Green Purchase behavior, except for one study which has shown its negative influence. The Education is positively influencing the GPB, followed by Income which is again shown positively influencing the behavior except for finding from one study again. The studies are distributed in case of gender, where some say Women are greener while in others men seem to be greener in GPB, which may be attributed to cultural differences across the world. All studies show positive influence of Attitudes and Knowledge in some cases is unrelated whereas others show it to be positively related.

The major findings of the study suggest that Greeks are more willing to choose eco-friendly products provided they show equal efficacy and not heavily priced. Consumers can be predicted make an environmentally friendly choice more willingly when other motives such as finance and health are promoted along with their environmental concerns. Arguments have been previously made that consumers are most likely to show pro-environmental behaviors with minimization of cost and/or inconvenience.
The author analyzed the effect of various cultural and psychological factors on the green purchase behavior as seen in fig. 2.28. The proposed model was tested using empirical verification covering a sample of 1000 respondents and above. The concept of translation of the questionnaire to local language and back translation is contributed to the work of this author. (Mc Gorr, 2000 in Mostafa 2007). The author for the first time introduces the concept of perceived environmental knowledge to be measured in relation to green purchase behavior and not Environmental Knowledge. The SEM analysis confirms the influence of Natural Environmental orientation, Ecological knowledge, and environmental concern on the Green purchase attitude which in turn showed the influence of Green behavior through intention but it is weak. One of the
main remarks of the author are that the ecological concern may not be manifested consistently in all situations and circumstances.

**Figure 2.29 The relation between contemporary research on the green consumer and different types of determinism**

<table>
<thead>
<tr>
<th>Determinism</th>
<th>Cultural determinism</th>
<th>Psycho-demographic determinism</th>
<th>Calculative determinism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segmentalism</td>
<td>Individual characteristics such as values, beliefs, opinions, gender, social class</td>
<td>Defines the attitude towards environmental friendliness</td>
<td>Consumer as a rational follower of his or her values and opinions</td>
</tr>
<tr>
<td>Situationism</td>
<td>Values might create the basis for benefit maximisation</td>
<td></td>
<td>Cost/benefit maximizing behaviour across different situations; fate of greenness might change accordingly</td>
</tr>
<tr>
<td>Macro structuralism</td>
<td>Culture and value systems as pre-determinants</td>
<td>Values and opinions, feeling of empowerment and responsibility as dependant on the prevalent cultural frame</td>
<td></td>
</tr>
</tbody>
</table>

(Source: Reijonen 2010)

The emerging discussion on determinism tries to explain why attitude many times does translate into behavior. According to author, Macro-structuralists often give the explanation in terms of cultural determinism, segmentalists in terms of psycho-socio-demographic determinism, and situationalist’s talks in terms of calculative determinism. Sometimes however in reality we can employ more than one type of determinisms simultaneously.

**Figure 2.30 Values Belief Norm Theory**

(Source: Jansson, Morell, Nardlund 2011)
The model was originally tested by Stern et.al. (1999) for the ecological movement in America. The authors originally also considered factors from Schwartz model of Altruistic behavior along with values and readiness to change values. The study aimed to employ VBN model to high involvement behaviors’ which impact environment to a great extent such as purchase of Alternative Fuel Vehicle. The adopters of these eco-innovations were analyzed on the basis of Socio-demographic factors and VBN. The major findings suggest that VBN factors are good predictors of purchase of Alternative fuel vehicle, where the adopters shown to have higher pro-environmental values, beliefs and personal norms.

An empirical study of Consumer attitudes and perception regarding consumption of Green FMCG products by Vernekar, Wadhwa (2011):

This is an exploratory kind of study to examine the differences in personality traits and attitude of green and non-green consumers. The findings reveal that though the consumers have willingness to purchase green products the marketers are not able to meet the need of the market. The research suggests the marketers green marketing mix, of charging premium, getting the support of distribution channel partners, and strategic locations to differentiate from the competitors. The environmentally conscious consumer will do see performance and not just its greenness while purchasing the green products.

The authors very well remark that the commerce will shift from the “sale of goods” to the “sale of services” (for example, providing illumination rather than selling light bulbs) as has been explained in Natural Capitalism. However the success of this depends upon the credible communication and focus on consumer desired value.

A Case Study on Green Products w.r.t. High and Low Involvement Products by Majumdar:

The author very discretely remarks in the article that the success of Philips CFL though accredited to its eco-friendliness, is actually more attributable to the benefits offered by the product in terms of saving power in the long run, capability of lasting for 5 years and the trust in the brand Phillips. She found that the consumers behaved differently for the products that have different levels of involvement. Authors remark that the benefits sought from the high and low involvement products are different. The
high involvement products may not sell or be purchased at premium price just for the reason of eco-friendliness they also need to provide additional value when compared with competitors on various parameters such as performance, brand, convenience and price. However, it is comparatively easier to shift preferences in case of low involvement products if advertised properly. This is the statement made by the author on the basis of secondary research which the researcher has tried to test in the current thesis.

2.7 Books Reviewed:


*Environmental Marketing – Strategies, Practice, Theory and Research*

The contents of the book are divided into nine sections and 18 chapters which are research papers contributed by various researchers. The Foreword is written by Mr. Ros Kelly, the then Federal Minister of Environment, Australia, term 1989-1994. In the preface of the book authors mention about a survey published in Harvard Business Review carried out in 1991, which showed that environmental issues are among their second highest social priority. Another study by American Marketing Association reports that concern over physical environment has emerged as the most important issue affecting global marketing. A few highlights of the book are:

1. Discussion on new role of Marketing-Sustainable Marketing
2. Implementation of strategic responses to turbulent environments taking into consideration global and domestic concerns.
3. Analysis of Environmentalism and consumption culture.
4. Review of linear economic model and its compares with an ecological model of the world
6. Eco-attitude and behavior study for consumers from Germany.
7. Preferences for ecologically packaged products.
8. Reasons for discrepancies in pro environmental attitude and behavior.
B. Suresh (2006)

*Green Marketing Concepts and Cases*

The book gives the review of Global and National environmental issues. The most important remark by author is that the green agenda is here to stay for businesses, regulators and consumers. The book highlights various critical issues:

1. Green Marketing concepts and issues
2. Green Product design and Supplier environmental Management
3. Green food Claims
4. Green corporate initiatives in Indian perspective.
5. Green spinning, selling, harvesting, Enviroprenuer and Compliance Marketing as failed manifestations of Green marketing
6. Several Cases and applications.

C. Daniel C. Esty & Andrew S. Winston (2009)

*Green to Gold*

The book guides as to how smart companies can use Environmental Strategies to Innovate, Create value, and Build Competitive Advantage. The book is divided into three parts, Part One being titled as Preparing for new World, Part two as What Riders do. The authors remark that at the time of first edition being rolled out in 2006, authors had hoped business leaders would realize the importance of implementing environmental thinking into strategy. But had they anticipated of how big the green wave would be sweeping across society and business world. With thousands of companies going green, approach demands focusing mainly on Environmental costs and risks, also opportunities posed.

The corporate trends have been historically shown to rise and fall but it is not the case with green. A sustained interest is revealed with media focusing on Green, mainstream business publications from Fortune and business Week to Wall Street Journal and the New York Times have day by day increasing coverage about business- environment. The Authors have very rightfully included where the business leaders have made mistakes as precaution for others.
D. Ibrahim Abdul Matin (2010)

*Green Deen - What Islam teaches about Protecting the Planet*

The book has established a very unique linkage between religion and environmentalism. The book is divided into four parts viz, Waste, Watts, Water and Food which according to the author the four major environmental issues. The book discusses how Islamic philosophy is a great guide to green living. It has included as part of discussion practical cases of Mosques going green by reducing usage of disposables especially plastics, etc. He discusses about the mercy coming from god in the form of water, food, energy like electricity, etc. The judicious use of the same will determine the eco-friendliness.

E. Jacquelyn A Ottman (2011)


It’s a recently launched book and has received lot of attention since then. The book gives 20 rules for Green marketing. The first chapter is titled as Green is now mainstream

Author says back in the 1960s, eco-conscious lifestyle and green shopping was a very rare phenomenon. But Green Marketing is forcefully mainstream now and has changed the rules of market in a big manner. Authors recollect the greatest momentum trigger to this as Rachel Carson’s seminal book Silent Spring (1962). The author powerfully summarizes about the early innovators amongst green consumers who lived off the nation’s electric grid, installed solar-powered hot-water heaters on their roofs, crunched granola they baked themselves, and would be spotted wearing hemp clothing, Birkenstocks, and driving a Volkswagen bus. Earlier greener products were available from few businesses, and sometimes manufactured in even in basements and garages. Sometimes these green products ended up gathering dust on the bottom shelves of health food stores for following reasons: they didn’t work, they were pricey, and they owned brand names no one had ever heard of.

The times have changed a lot, and with changing times 83% of today’s American adults can be revealed to show some “shade” of green. Due to advances in materials and technology, today’s “greener” products (defined as having a lighter impact on the
planet than alternatives) and today’s more “sustainable” products (those that add a social dimension, e.g., fair trade) work well and better efficient than the competitor brown counterparts. More so, the channels of distribution have witnessed extended support from channel partners. Today, sustainable products are equally easily available as others in conventional supermarket as well as online.

Talking about the future of Green Marketing author remarks by saying green market is not just here to stay, but will further grow and mature. Leaders unleashing this potential of Green market by understanding how best to cater to the needs of green consumers will improve upon the top-line sales thus increasing market share along with the opportunity to save money, with improved employee morale, and satisfaction for all stakeholders. Author calls in for leaders to embrace sustainability so that future generations can rightfully meet their needs. As a positive side effect Corporate shall enjoy long-term markets for products, taking precaution to safeguard the sources of raw materials on which the business depends.

The Chapters have been titled as: Everyone is worried, Every Generation is Green, Green behavior: A daily phenomenon, Shopping goes green, Media turns green, Governments take action, Far-reaching business opportunities, Higher profits, New source of innovation, The time for marketers to act is now, Personal rewards, too for CEO’s and employees.

2.8 Theses Reviewed:


Green Policies and Sustainable development in Kerala since 1980.

Ph.D. in Social sciences, thesis submitted to the Mahatma Gandhi University

The study correlates the importance of sustainable development and the development policies of the government. Author very well summarizes by saying Production processes, Consumption processes and Population growth have heavily drawn upon the environmental health. Author emphasizes the fact about the Indian philosophy, where Man and Nature are seen as inseparable entities belonging to the same truth.
The researcher remarks that the green trend started in Kerala with the mass awareness created by the many voluntary agencies in connection with the Silent Valley agitation.

**B. Elangovan A. (2006)**

*Environmental Marketing: Ecologically concerned consumers and their consumerist behavior of environmentally friendly packaging*

Ph.D. in Commerce thesis submitted to University of Pondicherry.

The thesis then discusses Environment in relationship with development, health, and consumerism. The author also discusses the issues related to Private life and pleasure as failure of conventional marketing. Traditional marketing according to the author is the root cause of environmental crises we are facing today. The cause for the critique of Conventional Marketing today are those firms whose products, engines, fertilizers, detergents, fuels, nuclear reactors, plastic packages which have polluted environment threatening human survival. Environmental research though not new, has intensified in India after the Bhopal tragedy in 1986. Consumption has either directly or indirectly contributed to pollution. Still very few researches have in Indian perspective reported about consumer attitude and behavior study and it can address the solutions for ever increasing environmental problems.

The thesis has 35 research papers reviewed in the chapter of literature review, all were organized chronologically. These research studies have commonly centered upon descriptive information such as demographic background, personality variables and a host of psycho social constructs such as alienation, attitudes toward pollution and commitment to environmental issues. This study was conducted in Pondicherry town. The generation of waste is very high not only due to the existing population but also due to an estimated floating population of 1, 50,000 per day. For the study a sample of 500 was drawn adopting convenience sample method among the consumers who visited the 10 super markets. The then sophisticated statistical tools such as T. test, F. Test, Factor analysis, Cluster analysis, Reliability test, multiple regression analysis, discriminant analysis and Structure-matrix were employed for the purpose of analysis.
The results in a nutshell can be put as follows:

Rural consumers differ significantly on the level of awareness regarding recycling, climate change, and effect of pollution, also attitude, conservation activities, opinion about status of living, intention to spend more for green products. But have similarities in terms of socially responsible consumption, alienation, locus of control. There is not seen any significant difference in environment attitude in various groups on the basis of education. The respondents are not ready to change their habits to bring down the waste. However, there is significant difference in the opinions of males and females with reference to effect of pollution but show agreeableness in terms of eco-attitude. During study males were found to be more socially responsible than females. A significant relationship can be seen in high income group and environmental awareness, no difference in attitude towards environment, attitude towards conservation differs, differs in terms of improving status, differs on the concept of social responsibility, as well as change of habit, no difference in opinion about residential area cleanliness, but a significant level of difference in purchase intention. Groups agree that non availability of eco-friendly packages forces them to buy other packages.

Discriminant analysis carried out revealed that environmentally conscious consumers are not actually engaging in green behavior according to their pro-environmental attitude. The cluster analysis was used to segment the respondents into three groups’ viz. low, moderate and high in eco-consciousness on the basis of their opinion about various environmental aspects.

2.9 Secondary Data Section:

A. Greendex Survey:

National Geographic partnered with Globe Scan to develop an international research approach to measure and monitor consumer progress towards environmentally sustainable consumption. The key objectives of this unprecedented consumer tracking survey

The research project very differently than other environmental surveys goes beyond attitudes and concerns and attempts to measure actual behavior and material lifestyles across 14 countries. Thus it leads to the development of composite index of
environmentally sustainable consumption called the Consumer Greendex™. With 2008 results as baseline the Greendex has been monitored to report changes in consumer behavior at the global level and within specific countries by repeating of the research annually.

In this report, “sustainable consumption” is defined as consumption that demands less of ecosystem services that the Earth provides and is less likely to impair the ability of future generations to meet their own needs as a result. Selected 14 countries represent 55 % of world’s population and 75 % of the energy consumed in the world. Globe Scan uses a quantitative Internet methodology for this study, though Internet panels cannot be thoroughly representative of a country’s population, as poor and geographically distant people cannot access.

Greendex as a comprehensive measure covers four areas of green behavior, housing, transportation, food and consumer goods.

**Figure 2.31 Greendex and four sub-indices**

![Greendex Diagram](Source Greendex Survey 2012)

The green behavior measures for the current study were based upon the Greendex measures.
A study of Customers’ Eco-conscious attitude and behavior in response to Green Marketing with special reference to Nashik City

**Figure 2.32 Greendex Overall Rankings**

(Source: Greendex Survey 2012)

Indians top green behavior for the consecutive fourth year’s survey carried out in last five years, followed by China and Brazil which are all developing economies (Greendex 2012). The consumers from all developed nations i.e. America, Canada, Japan score the least.

**B. Survey by Datamonitor: Green Consumers in India**

The study attempts to understand the factors which are driving the growth of green consumerism in India. Also it throws light upon sectors which present the best opportunities for green products and services.

Key findings and highlights:

- Indian consumers are highly aware of environmental problems and consider environmental damage as key threat to the world, with air and water pollution being the two key areas of concern for them.
• The vast majority of Indian consumers follows energy saving practices in their homes but is less aware of the concept of green energy. If energy is provided in an ethical and environmentally friendly way, Indians are willing to shell out extra money for the same.

• People in the age group of 18-34 years, females and urban dwellers display the most sustainable behavior, and are therefore likely to be more receptive to green marketing campaigns.

2.10 Concept Map for Research Issues and Gaps emerged after Meta Analysis:

The thorough analysis of previous researches helped identify four major Research issues and gaps. The theories and models discussed earlier do talk about various other factors and issues but the one’s selected are most commonly considered and gaps identified are very important issues which have not been studied in earlier researches. The novelty of the current research is to bridge this gap in the field of knowledge.

1. Antecedents to Eco-consciousness:

The Eco-consciousness is measure which essentially helps differentiate the green from non-green behavior. The eco-consciousness has been synonymously used for environmental concern in many researches (Kim & Choi 2005, Mostafa 2007, Fraj et.al. 2006). The Eco-consciousness has been consistently measured with Dunlap & Van Lerie’s New Environmental Paradigm Scale with a few changes as required in the earlier versions (Dunlap et.al 2000). The strong positive relationship with green behavior has been documented in earlier researches (Kim & Choi 2005, Mostafa 2007, Fraj et.al. 2006, Dunlap et.al 2000). The antecedents have been studied for Eco-consciousness in earlier researches which have been categorized as:

a. Demographic factors: the demographic factors have been extensively studied as an antecedent to Eco-consciousness and Green behavior. They have been extensively used for the purpose of segmentation of Green consumers. Age is found to be positively related with Eco-consciousness (Davies et.al. 2002, Kim & Choi 2005, Balderjahn, 1988; Scott and Willits, 1994; Roberts, 1996). Education again is shown to be positively related (Buttel and Flinn, 1976; Balderjahn, 1988; Arcury, 1990; Scott and Willits, 1994; Roberts, 1996, Tilikidou, 2001). Income is again shown to be
positively related (Webster, 1975; Balderjahn, 1988; Arcury, 1990; Scott and Willits, 1994; Tilikidou, 2001). Females have been documented to be greener than counterpart in some studies (Webster, 1975; Roberts, 1996), whereas, males are greener in some studies (Arcury, 1990; Scott and Willits, 1994).

Figure 2.33 Concept Map – Research Issues & Gaps: A result of Meta Analysis

In various environmental studies, Pro environmental Consumers have been consistently found to be young, well-educated, and politically liberal adults than their
counterparts (Dunlap, Van Lerie, Mertig, Jones 2000; Jansson, Marell and Nordlund 2011; Tilikidou 2007; Hofmeister-Tóth, Kelemen, & Piskoti 2010; Autio, Heiskanen, & Heinonen, 2009). Many studies have reported gender differences in environmentally related attitudes and behavior (Zelezny et al., 2000; Brun, 2001; Rickinson, 2001; Autio and Heinonen, 2004). Gronhøj & Olander (2007) remark that there seems to be substantial research evidence giving prominence to females when assessing green consumerism.

Psychographic factors have been studied in very few researches may be due to its complexity in handling. Collectivism however has been studied by many researchers (Chan 2001; McCarty and Shrum 1994; Kim & Choi 2005). Personality variable due to its complexity is rarity in the studies but due to its importance and with purpose to explore it as meaningful antecedent to eco-consciousness has been included in the current thesis (Fraj et.al. 2006)

2. Measures of Greenness: Various measures or factors determining green behavior and green purchase behavior have been identified. The various measures of pro-environmentalism such as Eco-consciousness, Environmental Attitude, Perceived Customer Effectiveness, Green Purchase Attitude, Green Purchase Intention have been found to be strongly co-related, except few studies which differ in matter for Green Purchase Intention. Eco-consciousness is seen to translate well into behavior and positively related with attitude, PCE (Allen and Ferrand 1999; Arbuthnot 1977; Arbuthnot and Lingg 1975; Bratt 1999; Ellen 1994; Ellen et al., 1991; Gamba and Oskamp 1994; Gray 1985; Shrum et al. 1995, Jain & Kaur 2004). Perceived Customer Effectiveness is again seen to be positively related with attitude and behavior (Antil 1978; Ellen et al., 1991; Berger & Corbin 1992; Roberts 1996; Minton & Rose, 1997; Majláth 2010).

Attitude, Intention, and Behavior studies related to environment range from energy conservation, (Heslop et al., 1981; Paladino & Baggiere, 2008), to recycling (McCarty & Shrum, 2001), to environmental activism (Kilbourne & Pickett, 2008). In recent studies the focus is on understanding Green purchase attitude and Green Purchase behavior relationship (Davies et.al. 2002, Chan 2001; Kim & Choi 2005; Leonidou, Leonidou & Kvasova 2010; Tilikidou 2007; Mostafa 2007; Tan & Lau 2011). Though exhaustively researched all these measures have been criticized as being complex and
difficult to measure and implement (Balderjahn, 1988; Chan, 1999; Kilbourne & Pickett, 2008).

3. **Green Behavior:** The researches have over a period of time separately measured Generalized green behavior (Lee et al. 1995; Oskamp et al. 1991; Pickett et al. 1993; Tracy and Oskamp 1984), and Green Purchase behavior (Balderjahn 1988; Bratt 1999; Brooker 1976; Coddington 1993; Davis 1993; Ottman 1993; Reizenstein et al. 1974; Roper Organization 1990, 1992).

For the purpose of this study both these types of behavior were studied for the areas on similar lines as Greendex Survey.

4. **Green Issues unanswered:** The research gaps identified after Meta analysis have attempted to be answered in the current study. The studies have not attempted to link the Green marketing efforts with green behavior. The beliefs about green products have been reasoned by researchers but not been actually tested empirically. The reasons for use or non use of green products similarly have been discussed in conclusions but not tested empirically to reveal the fact. The consumers thinking about the green consumers personality traits shall go long way in green advertising and other aspects of green marketing.

2.11 **Relationships Studied between Eco-conscious attitude and behavior in response to Green Marketing**

The Eco-conscious attitude and behavior have been positively related as has been empirically evident in many earlier researches. But these studies focus more on the developed nations; one in developing nations will be valuable contribution. Also the study about influence of Green marketing efforts on the green behavior has not been explored yet. The various relationships studied have been logically put into 3 models which shall be tested with the empirical data.
2.11.1 Hypothetical Research Model A- The Antecedents of Eco-consciousness

Various Antecedents have been tested for relationship with Eco-consciousness empirically in almost all parts of the world. A study in Indian context shall be a value addition in this field of knowledge. A structural Research Model for this is shown in fig. 2.34. The antecedents have been divided into two parts as demographic and psychographic factors. The demographic factors studied are Age, Gender, Occupation and Education selected on the basis of earlier researches. The Psychographic factors studied are Personality and Collectivism

**Figure 2.34 Hypothetical Research Model A - Antecedents of Eco-consciousness**

(Source: Own creation)
2.11.2 Hypothetical Research Model B-Direct Influences

The inter-item relationships have been the subject of interest for majority of researchers in the field of Green Consumer behavior. The majorly studied factors were selected on the basis of meta analysis. Fig. 2.35 shows the total 12 hypotheses studied for the purpose.

(Source: Own Creation)
2.11.3 Hypothetical Research Model C –Moderating Influences
This hypothetical model attempts to study the moderating influence of the dependent variables in turn influencing the Green behavior. Fig. 2.36 shows the hypotheses studied in relation to moderating influences of dependent variables which act as moderators.
Figure 2.37 Hypothetical Research Model D- Studying Green Marketing Influence

The fig. 2.37 shows the hypothetical Research Model designed to test the Green Marketing Influence on Green Behavior in select Green tasks. This aspect of current research is novelty and a valuable contribution in turn from the author to the field of knowledge.
2.12 Hypotheses Formulation

The model tests basically four types of hypotheses:
1. The Antecedents and Eco-consciousness
2. The Green Attitudinal and Psychological measures and Green behaviour & Green Purchase behavior.
3. The Moderating influences of Attitudinal and Psychological measures and Green & Green Purchase behavior.
4. The Influence of Green Marketing efforts on Green behavior.

2.12.1 Hypotheses: Model A
The details of each hypotheses tested in above four areas are as follows:
HA1\(_0\): Age is not related with Eco-consciousness
HA1\(_A\): Age is significantly related with Eco-consciousness
HA2\(_0\): Gender is not related with Eco-consciousness
HA2\(_A\): Gender is significantly related with Eco-consciousness
HA3\(_0\): Occupation is not related with Eco-consciousness
HA3\(_A\): Occupation is significantly related with Eco-consciousness
HA4\(_0\): Education is not related with Eco-consciousness.
HA4\(_A\): Education is significantly related with Eco-consciousness
HA5\(_0\): Personality is related with Eco-consciousness
HA5\(_A\): Personality is significantly related with Eco-consciousness
HA6\(_0\): Collectivism is not related with Eco-consciousness
HA6\(_A\): Collectivism is significantly related with Eco-consciousness

2.12.2 Hypotheses: Model B
HB1\(_0\): Eco-consciousness of customers has no significant influence on green purchase attitude.
HB1\(_A\): Eco-consciousness of customers has significant influence on green purchase attitude.
HB2\(_0\): Eco-consciousness of customers has no significant influence on perceived customer effectiveness.
HB2\(_A\): Eco-consciousness of customers has significant influence on perceived customer effectiveness.
HB3o: Eco-consciousness of customers has no significant influence on green purchase intention.
HB3a: Eco-consciousness of customers has significant influence on green purchase intention.
HB4o: Green purchase attitude of customers has no significant influence on perceived customer effectiveness.
HB4a: Green purchase attitude of customers has significant influence on perceived customer effectiveness.
HB5o: Green purchase intention of customers has no significant influence on perceived customer effectiveness.
HB5a: Green purchase intention of customers has significant influence on perceived customer effectiveness.
HB6o: Green purchase attitude of customers has no significant influence on green behaviour.
HB6a: Green purchase attitude of customers has significant influence on green behaviour.
HB7o: Green purchase attitude of customers has no significant influence on green purchase behaviour.
HB7a: Green purchase attitude of customers has significant influence on green purchase behaviour.
HB8o: Perceived customer effectiveness of customers has no significant influence on green behaviour.
HB8a: Perceived customer effectiveness of customers has significant influence on green behaviour.
HB9o: Perceived customer effectiveness of customers has no significant influence on green purchase behaviour.
HB9a: Perceived customer effectiveness of customers has significant influence on green purchase behaviour.
HB10o: Green purchase intention of customers has no significant influence on green behavior.
HB10a: Green purchase intention of customers has significant influence on green behavior.
HB11o: Green purchase intention of customers has no significant influence on green purchase behavior.
HB11a: Green purchase intention of customers has significant influence on green purchase behavior.
HB_{11a}: Green purchase intention of customers has significant influence on green purchase behavior.
HB_{12o}: Green behavior of customers has no significant influence on green purchase behavior.
HB_{12a}: Green behavior of customers has significant influence on green purchase behavior.

2.12.3 Hypotheses: Model C

HC_{10}: Green purchase attitude of customers has no significant influence on green purchase behavior when green behavior acts as a moderator.
HC_{1a}: Green purchase attitude of customers has a significant influence on green purchase behavior when green behavior acts as a moderator.
HC_{20}: Perceived customer effectiveness has no significant influence on green purchase behavior when green behavior acts as a moderator.
HC_{2a}: Perceived customer effectiveness has a significant influence on green purchase behavior when green behavior acts as a moderator.
HC_{30}: Green purchase intention has no significant influence on green purchase behavior when green behavior acts as a moderator.
HC_{3a}: Green purchase intention has a significant influence on green purchase behavior when green behavior acts as a moderator.

2.12.4 Hypotheses: Model D

HD_{10}: Green Marketing Influence of Waste paper recycling does not affect Waste Paper recycling behavior
HD_{1a}: Green Marketing Influence of Waste paper recycling significantly affects Waste Paper recycling
HD_{20}: Green Marketing Influence of Water Conservation does not affect Water Conservation behavior
HD_{2a}: Green Marketing Influence of Water Conservation significantly affects Water Conservation behavior
HD_{30}: Green Marketing Influence of Electricity Conservation does not affect Electricity Conservation behavior
HD_{3a}: Green Marketing Influence of Electricity Conservation significantly affects Electricity Conservation behavior
HD4₀: Green Marketing Influence of Petrol Conservation does not affect Petrol Conservation behavior.
HD4₁: Green Marketing Influence of Petrol Conservation significantly affects Petrol Conservation behavior.
HD5₀: Green Marketing Influence of Forest Conservation does not affect Forest Conservation behavior
HD5₁: Green Marketing Influence of Forest Conservation significantly affects Forest Conservation behavior
HD6₀: Green Marketing Influence of Eco-certified Products does not affect behavior related with Eco-certified products
HD6₁: Green Marketing Influence of Eco-certified Products significantly affects behavior related with Eco-certified products
HD7₀: Green Marketing Influence of Green Laws does not affect behavior related with Green Laws
HD7₁: Green Marketing Influence of Green Laws significantly affects behavior related with Green Laws

2.13 Summary:

In this chapter the important models and contributions of earlier researchers related to Green Consumer behavior have been discussed in detail. The conceptual background of the models and indicators of all the measures related to green attitude and behavior have been highlighted and depicted in the form of structural model. Rationale behind this model, arriving at a blend of various parent theories, considering the Indian context and latest studies in the area of Green Consumer behavior has led to the development of 4 hypothetical models to be tested during analysis. Hypothetical research model A studies the antecedents of eco-consciousness, followed by Model B which tests direct influence of attitudinal and psychological factors on green behavior and green purchase behavior, Model C which tests moderating influences, lastly Model D which tests the green marketing influence of Green behavior.
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