CHAPTER - II
REVIEW OF LITERATURE

Environment is a much noted word in the modern world by the people, press, marketers, corporates, students and researchers. Environmental research is not new. It is intensified in India after the Bhopal tragedy in 1986. Much of the researches speak about the reasons for climatic change, global warming, industrial effluents, air pollution, noise pollution, water pollution and ozone damage etc. Consumption and it’s effect has become a part either directly or indirectly in the above mentioned aspects of pollution. Hardly, researches are made on consumer attitude and how consumption and consumerist behaviour and pattern can address the ever increasing environmental problems.

Green Marketing or Environmental marketing or Ecological marketing research reached an advanced stage in America where the concept was originated in early 1970’s. No major research activity is undertaken in India focusing the consumer behaviour except few articles appearing in professional journals.

Success of any marketing programme or plan to address any environment problem depends upon the extent of consumer’s participation. It is possible through changing the attitude and behaviour of the consumer toward the programme. Therefore, studying the consumer behaviour is essential. Researches where conducted by various scholars at different times to identify ecologically concerned consumers. The following are some of the research synopsis in the area of consumer behaviour.

Kassarsain (1971) used demographic and socio economic measures like age, sex, education, social class, home value, occupation, marital status and political party.

Anderson & Wanningham (1972) used 8 items of social responsibility scale (SRS) as a surrogate measures for environmental concern. The researchers used personality measures viz., alienation, dogmatism, personal competence, status consciousness, cosmopolitanism and conservation to know the Ecological concern of the society. They also used demographic and socio economic measures viz., Occupation, Income, Education, Age, Stage in family life cycle, Socio economic status, etc., for their study.

Kinnear & Taylor (1973) used 8 items index of ecological concern as a measure. They did not use package related questions, but used personality, demographic and socio economic, cultural & geographic measure to know the attitude and behaviour of the consumers.

Anderson & Henion Cox (1974) compared recycles with non recycles across different dimensions. Also asked questions about packaged related measures particularly whether they participated in the recycling or not. This has been considered the first study which used packaged related question at research level. They used personality, demographic, socio-economic, cultural and geographic measures.

Kinnear Anxiety, Taylor & Ahmed (1974) 8 items index of ecological concern. 1 item perceived consumer effectiveness, to know the ecological concern of the respondents. Aggression, anxiety, self-esteem, play, desirability, dominance, sentience, understanding, harm-avoidance and tolerance as personality measures. Age, Education, Income and Occupation were used as demographic and socio economic measures.

Webster (1975) related measures using 8 items measures of socially conscious consumer. 2 items perceived consumer effectiveness were used. He also studied about concern for use of returnable and use of recycling series of packages.
Dominance, Tolerance, Socialization and responsibility were used as personality measures. Age, Education, Gender, Income, Marital Statuses and Occupation were used as demographic and socio economic measures and in the case of cultural and geographic measures, 8 items social responsibility scale were used.

Henian & Wilson (1976)⁸ used a research considering 8 items index of ecological concern. 1 item perceived consumer effectiveness and 128 item ecology scale were used to know the environmental concern and related measures of the respondents. It studied about use of recyclables. First time, 24 items locus of control has been used to know how personality measures play a role in deciding the purchase behaviour of environmentally safe packages. They did not use Demographic, Socio Economic, Cultural and Geographic measures in their study to know it’s influence in the purchase behaviour of the consumers in purchasing environmentally safe packages.

Murphy, Kangun & Locander (1978)⁹ for the first time, the concern for solid waste was used at research level. Interest in recyclable and attitude of returning the packages were also studied. Race and social class had been used as Demographic and Socio economic measures to know how these variables determine or influence in the behavioural patterns of the respondents.

Murphy (1978)¹⁰ had studied using simulated brand choice of environmentally correct product to know the ecological concern. To know the attitude regarding packages, he studied the interest of the consumers in choosing returnable soft drink container. The study was a replica of the previous study regarding personality, cultural and geographic variables. Age, Education, Income, Occupation, Marital Status and Family Size were used as demographic and socio economic variables.

Tremblay and Dunlap (1978)¹¹ studied using 8 item pollution concern measures and population density as cultural and geographic measures. Package, Personality and Demographic and Socio Economic variables had not been used by the researchers.

⁸, ⁹, ¹⁰ & ¹¹ ibid..
Beleh (1979)\(^\text{12}\) studied using ecological concern, package, and personality as the variables in determining the purchase behaviour of the respondents. 20 items measure of concern with social and ecological dimension were used to study the ecological concern. This study focused on concern over littering and how litter creates pollution.

Crosby, Gill and Taylor (1981)\(^\text{13}\) used all the five variables for the study. Voter preference with regard to container law had been used, for the first time, to know the ecological concern. A 7 items revised index of ecological concern had been used for the purpose. 2 items litter index had been used to know the concern over littering. Alienation, used as personality measures, age, education, gender and income are used as demographic and socio economic measures and population density had been used as cultural and geographic measures.

Crosby & Taylor (1983)\(^\text{14}\) used 7 items revised ecological concern index to study the environmental concerns. They also studied litter and pollution, packages, returnable packages. For this purpose they used 2 item litter index. They have not taken other variables viz., Demographic, Socio Economic, Personality Cultural and Geographic for the study to know the impact of these variables in purchase decisions of the consumer.

Gill, Crosby and Taylor (1986)\(^\text{15}\) used only two measures viz., ecological concern related measures, package related measures, to know the attitude and behaviour of the environmentally friendly actions in their purchases. 21 item measures combining items from previous research had been used to know the environmental concerns. The study focused on concern with beverage container and draws suggestion for improved version of container as environmentally friendly container. This study did not use other variables like personality, demographic, socio economic, cultural and geographic measures.

Balderjohn (1988)\(^\text{16}\) used all the important variables to know the environmental concerns and it's influence in the purchase decisions of the consumers.

\(^{12}\) ibid., pp. 130
Two items attitude toward ecologically conscious living, three item ecologically responsible buying and one item environmental concern, attitude toward pollution were used to study the environmental concerns. He inferred how purchase of less packaged products reduces the effect of pollution and strengthens the environment. Further the study explained the use of returnable.

Alienation and ideology control have been used to study the influence of personality measures for environmentally friendly decisions. There was a positive correlation between alienation and attitude toward ecologically conscious living. Age, Education and Income have been used to explain how demographic, socioeconomic measures play a role in environmentally sound purchasing decision. The demographic and socio economic variables are limited in explaining variation in environmental concern. He strongly argued that size of dwelling is also a cause for pollution. He used this as cultural and demographical measure.

Further it was found that the ecologically concerned consumer believes that his or her actions will make a difference. Similarly, the more consumers believe in the power of the individual, the more they buy and use non-polluting products.

Samdahl and Robertson (1989)\textsuperscript{17} studied on environmental concern. 5 item perception of environmental problems, 4 item ecological behaviour, 5 item support for environmental regulations were used. They used demographic, socio economic, cultural and geographic measures and suggested that residence is largely inadequate in explaining the variance in perceptions of environmental problems or ecological behaviour.

The world’s supply of natural resources is finite and the ecological balance of the environment can be easily disrupted if we fail to exhibit our conservation behaviour. Conservation behaviour strengthens the environment and its limited resources. To strengthen this argument a study was conducted by Gregory M. Pickett, Norman Kangun, Stephen J. Grove to identify conservation activity among the general populace to increase our understanding of those who do and don’t engage in environmentally friendly behaviour, in the year 1995, titled as

\textsuperscript{17} ibid., pp. 131.
Environmental concern has been designated as potentially "the biggest business issue of the 1990's affecting the supply of natural resources to markets. Public policy makers have begun to comprehend the significant impact of consumer decisions upon environmental preservation." The purpose of the study was to identify the conserving consumer, particularly as it pertains to consumer's disposition and conservation activity. The hope is that such understanding will allow public officials and corporate managers to take appropriate actions to encourage conserving behaviour.

Another objective of that study was to explore the incidence and type of conserving behaviour attitude towards Pollution, Packaging and recycling among a broad population. Further, it examined the viability of segmenting a population in terms of that behaviour.

The research sample was 520 households and each of the sample unit was personally contacted. The dependent variable in this study was pro-environmental conservation behaviour which was designed to assess important resource conservation behaviours that are unrelated to the direct purchase activities. The independent variables are psychological, social, cognitive and attitude. Discriminate analysis, Chi-square, 'T' test, Correlations are used for analysis purpose.

The study found that there are significant numbers of consumers recognize that their consumption activities contribute to the environmental degradation that surrounds them. Also found, environmentally conscious citizens appear to be willing to change their buying behaviour to improve the environment.

Also found individuals classified as low environment conservation activities were less variably committed to action to correct ecological problems, less disturbed by pollution in general, more aliened toward society and less active in community affairs.

This study provided meaningful insights regarding the conservation behaviours of consumers. It also investigated the environmentally conscious behaviour. All of our environmental problems—the garbage, glut, pollution, waste of energy and materials etc. are the result of conscious human choices. The studies suggest this can be solved or significantly mitigated by making others, more environmentally sound choices. Consequently, citizen needs to make their consumptive behaviours more compatible with environmental imperatives. The private and public sector must work together in this endeavor.

The study also suggest that through tax policy, bans, market incentives or disincentives and the provision of information to enhance the knowledge base of people, the Government can move the citizens in the right direction of appropriate conserving behaviour. The public is not averse to either government or business involvement in environmental matters.

The empirical research described Eco – attitudes and Eco – behaviours of consumers in the new German states. The study was conducted by Scott D. Johnson, Denise M. Johnson (1992). The environment has become a critical issue that is influencing how products are developed, promoted and disposed off. A new breed of eco-entrepreneurs is attempting to the needs of new class of eco-consumers by using eco-speak.

A survey instruments was developed to tap consumer attitudes and behaviours toward the environment. Three German cities were selected and 400 questionnaires were distributed to each district. Out of the 1200 questionnaires distributed, 184 questionnaires were received with response.

The focus of this research was to delineate empirically Eco-attitudes and Eco-behaviours of consumers. As such, the research sheds light on a general topic of growing concern on environment. The findings of the research was that the consumers would prefer to recycle the product and the environment should take precedence over economic development.

The research presented the existence of numerous identifiable consumer groupings that represent particular eco-attitude and eco-behavioural dimensions. Another important finding of the study was that certain number of consumers expressed that they themselves do not recycle but they think the environment protection is important. Sizeable population answered that they do not think an environmental problem exists and priority should be given for economic development.

Cluster analysis suggests relatively homogenous groupings on segments of consumers in the context of their Environmental attitudes. The results pointed out to the need for approaches to environmental marketing which recognize distinct consumer groups which transcend a ‘green’ or ‘non green’ dichotomy.

Another suggestion was that the economic development should take place but with certain ecological parameters that would serve to protect the environment. It suggested for achieving sustainable economic growth. Profitability would be maintained but the environment would not be exploited. Natural gas and solar energy, for example, are energy sources that provide numerous environmental advantages if used effectively. Hence, it may be beneficial for policymakers to shift attitudes to a more sustainable approach to consumption and economic development before environmentally dangerous behaviour pattern has been formed.

Further, the study represents one of the first efforts to systematically developed measure of eco-attitudes and eco-behaviours. As such, further development of the scales used in the study would contribute to a more accruable representation of the consumer eco-attitude and eco-behaviour delineations.
Bettina T. Cornwell and Charless H. Schwepker conducted a study on ecologically concerned consumers and their product purchases (1995). Given the increasing concern over packaging contribution to the solid waste stream, a study was undertaken to develop a fuller understanding of consumer consumption pattern of ecologically packaged products that make efficient use of materials and lead to less solid waste.

The study attempted to isolate useful variable for identifying the ecologically concerned consumers and measures intentions to purchase ecologically packaged products. The study examined how packaging affects the solid waste stream and cause for Pollution. It also covers the roles played by policymakers, marketers and consumers in consumer goods packaging control, production and disposal.

Further the study explained about the role of the Government firms and consumer in reducing the Solid Waste by avoiding excess packages. Identification of environmentally concerned consumers is must to market environmentally friendly products to this segment. To profile the environmentally concerned consumers, the researchers have used demographic, socioeconomic, cultural and personality variables as well as attitudes.

The objective of the study was to determine variables that can be used to discriminate between groups who are and are not willing to purchase ecologically packaged products. To obtain information from individuals living in diverse areas with different population densities, questionnaires were administered at a shopping mall and the remainder at an airport. The final sample resulted in 146 after rejecting four questionnaires which were deemed unusable.

The result indicates that the consumers who are willing to purchase Ecologically Packaged Products and that certain Socio-Psychological variable are significant for discriminating between consumers having low and high purchase intentions concerning these products.

Those people become aware of the solid waste problem, their attitudes and purchase intentions may, in turn, change. Hence, even, those who are not currently favoring environmentally conscious purchasing, are for ecologically packaged products if they could be convinced that there is a problem.

The result also indicates that demographic variables are not as important as socio-psychological variables in understanding the ecologically concerned consumers. Also, it appears that locus of control, attitude toward pollution and attitude toward ecologically conscious living used by Balderjohn in Germany (1988) are also useful indications of the Ecologically concerned consumers in the U.S.

The results further indicate that those living in large cities are actually more likely to purchase ecologically packaged products. They are more inclined to believe there is a pollution problem and are more concerned about it than those living in smaller communities. Therefore, they suggested that marketers may need to educate those consumers living in less densely populated areas in order to influence them to purchase ecologically packaged products.

The results further suggest that increased awareness of the problem may enhance attitude changes, which, in turn, may result in behavioural changes such as the purchase of ecologically packaged products.

Also the results suggested that consumers would be willing to make changes in their consumption behaviour related to package changes. For instance, they are willing to purchase products in larger packages with less frequency, products in less attractive packages that eliminate unnecessary packaging and products in redesigned packages that less solid waste.

Further the results suggested for policy makers rather than placing more stipulations in the form of laws for consumer and marketers, informing the public
about the solid waste disposal problem and attempting to influence attitudes toward pollution would be useful.

Stephen M. Smith and Curtis P. Haugtvedt (1995) studied on "Implication of understanding Basic attitude change processes and Attitude structure for enhancing pro-environmental behaviours." 21

They studied the attitude – behaviour and discrepancy that have been observed in the realm of pro-environmentalism.

They discussed five factors that may help to reduce the attitude – behaviour inconsistency. The study did not adopt any well – known measurement to study the attitude – behaviour inconsistency but discussed how greater understanding of theoretical ideas regarding the nature of pro environmental attitude formation and change may be used to guide the development of promotional campaigns designed to engender behaviours more in line with expressed attitudes.

The study found that,

(a) Attitudes formed via central route therefore may be characterized as ‘stronger’ than attitudes formed via the peripheral route and more likely to guide behavioural choices. In other words, greater attitude – behaviour consistency would be expected for individuals whose attitude are based on greater message – relevant elaboration.

(b) The strength on which the pro-environmental attitudes are held guide the individual to convert the attitude into actual behaviour. Further, lack of importance, and accessibility of other attitude also play a role in more A – B consistency.

Persons with low self-monitors have been shown to demonstrate greater A – B consistency than high self-monitors.

Attitude tied with an ‘ought’ system gives more A – B consistency because failure to act consistently with an attitude induces the individual feelings of guilt. Attitudes that are connected to ‘ideal’ systems may be less influential in guiding behaviour.

Direct experience with the environment has been demonstrated to enhance A-B consistency.

An attitude that is uniform and simple may be a more reliable guide to actual than an attitude whose basis includes a mixture of supportive components.

Changing the structure underlying the attitudes may be useful in A-B Consistency than changing attitudes from anti to pro-environmental attitudes.

Jagadish N. Sheth and Atul Parvathiyar (1995) studied Environment and the Role of Marketing. They highlighted the new role of marketing in improving the environmental condition. They stressed that sustainable development can be achieved only by proactive corporate marketing and active government intervention. While governments engage in mandatory interventions, corporate markets can undertake proactive interventions at the market place and within their own corporations.

Further, they discussed about the mechanisms of Govt. intervention (Regulations, Reformation, Promotion and Participation) and four R’s as corporate marketing strategy i.e., re-direction of customer needs, re-consumption, re-orientation of marketing mix and reorganization; for promoting sustainable development. They suggest there should be a shift in the approach of marketing from the present consumption marketing to sustainable marketing and from a visible hand to a more visible hand of the Government.

Jagdish N. Sheth and Atul Parvathiyar. loc. cit., pp. 3 to 17.
And at the same time marketing practice must both shape customer expectations and deliver them in a manner which creates a win-win situation between cost, efficiency and ecological protection. In other words, it must innovate to overcome the apparent trade off between economic value and environmental value of marketing practices.

Thomas J. Maronick and J. Craig Andrews (1999) stated in their study “The Role of Qualifying Language on Consumer Perceptions of Environmental claims” that an increasing number of products claims ‘environmentally friendly’, ‘bio-degradable’, ‘ozone friendly’ and ‘compostable’ in the market place. When it comes to a decision on using environmental claims in advertising and packaging, marketers are faced with conflicting perspectives regarding the role of these claims. Three - fourths of all consumers see themselves as environmentalists who are willing to purchase ecologically sound products or goods and services and make ecologically conscious decisions and have shown a willingness to pay a little more for environmentally safe packaging. On the other hand, consumers do not understand many of the environmental claims they encounter in the market place, lack an in depth understanding of environmental claims and tend to over generalize the level of safety from environmental claims.

The purpose of the study was to determine exactly how consumers interpret environmental claims made on packages. Based on prior theory and cases, the study examined the effectiveness of types of claims (i.e. general and specific) and the effect of types of qualifiers for such claims. Unqualified environmental claims such as environmentally friendly or ecologically safe are inherently misleading and deceptive.

The study examined the extent to which consumers generalize to implied, non featured claims (i.e. contributes to air pollution or contributes to smog) and exposed to unqualified general and specific environmental claims (i.e. Environmentally Friendly, NO CFC’S ) and claims with specific and general qualifiers.

The study also examined seven different environmental claims ranging from unqualified general claims such as environment friendly and ozone friendly to unqualified specific claims.

Further the study revealed that some misunderstanding by consumers as to what environmental claims mean. Two-thirds of consumers who saw the general, unqualified ozone friendly claim and half of all respondents exposed to the general, unqualified environmentally friendly claim interpret it to mean that the product is safe for the environment.

Another findings show that consumers exposed to general unqualified claims, such as environmentally friendly or ozone friendly, give the terms a broad interpretation and extrapolate to a broader belief that the products are safe for the environment and safer for the environment than other brands that do not make such claims.

It also suggested that adding specific qualifiers (i.e. NO CFCs) to general claims, such as environmentally friendly or ozone friendly, increases the perception of safety of the product for the environment. This is consistent with prior research that has shown that adding concrete information to terms. This also suggested that environmental claims be specific, not general.

Finally the consumers in almost all cases, do not draw greater inferences from general environmental claims than from general claims that are specifically qualified for at least some specific environmental benefits not included on the package i.e., that the product contributes to air pollution or smog.

Pete Moore & BrainHeap (2001) conducted a study entitled “Towards sustainable consumption - Visionary or illusory”. They gave definition for consumption from different angles. Consumption means not only consuming or using the product and service but to see the resources become less available for future use and threatens human health, welfare are other things people value.

24 Pete Moore and Brain heap (2001) “Towards sustainable consumption-visionary or illusory.”
They compared the consumption pattern of developing countries. Many people have access to an excess of consumer products including food, energy and manufactured goods. While expressing apprehension over the availability of resources to future generations, if the standard of living of the people in developing countries levels similar to that of more developed countries, the impact on global consumption patterns and resources will be immense. Therefore, moving towards more sustainable consumption is inevitable.

Sustainable consumption receives little support because of poor understanding. Most of us are under the impression that it threatens competitiveness and profitability. Contrary to the belief, through reduced consumption it increases the efficiency. One of the great challenges of this century is to make the people to understand what drives consumption and how we can mitigate the problem of environment through consumption.

They have taken three major products for their study viz. food, energy, and timber. They provided an account of demand, supply and consumption pattern followed in developed and developing countries. Therefore a change in the consumption pattern is advocated. In the case of energy, fossil fuels causing acid rain, urban smog and global warming. Therefore, use of renewable energy sources (fuel wood, dung, crop residues and large hydro electric schemes) and new sources (solar, wind, biomass, ocean and small hydro electric schemes) are suggested.

They have proposed that a new measure be introduced in calculation of Net National Product which should include the net value of changes in externalities - such as the environment - resource base.

Apart from politically inspired intervention, another approach “introduction of sustainability” is suggested to achieve environmental objectives. Shift in lifestyle is adjusted that leads to more equitable sharing of the environment and social systems and changes that are prompted by a range of policy initiatives.
Ellen Matthies, Silke Kuhn and Christian A. Klochner (2002), examined a model of travel mode choice that is able to explain gender differences in the willingness to reduce car use. Global environmental change is one of the most critical problems of contemporary society. Emission of greenhouse gases is the central problem of Global environmental change. The Principal source of these emissions is energy use, especially the combustion of Fossil Fuels.

In this context, transportations is an important issue. Green house gas emission could be considerably reduced if more people reduce car use for example by carpooling or by using public transport. Accordingly, travel mode choice has become a relevant topic in the research of an environmentally relevant behaviour. This research was conducted in a German city.

The researches which are being undertaken in different countries of the world increasingly applying social-psychological model to identify as starting points for behavioural change. This study was designed to investigate in detail the two psychological explanations, i.e., the mediating influences of environmental concern and habit on the travel mode choice behaviour.

The study tested four hypothesis, viz., (a) Women are more willing than men to use Public Transport, independent of their actual car access. (b) Women feel a stronger obligation (ecological norm) to reduce car use in favour of public transport. (c) Women have weaker car habits. (d) The correlation of gender and willingness to use public transport can be explained by the mediating effects of ecological norm and car habit.

The study adopted ecological norm, habit strength and willingness to use public transport as measures to study the choice of travel mode. Each measure is tested by group of statements.

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The study found that men and women differ in their willingness to reduce car use in favour of public transport. As expected, women have stronger intentions to reduce car use. They more strongly prefer public transport and more often actually use public transport for a given trip. This is mainly due to women's stronger ecological norms and weaker car habits.

They suggest that development of intervention with the aim of breaking and preventing people from developing strong car habits with regard to the people those who have strong influence of habits on travel mode behaviour is the need of the hour.

Group for whom travel mode habits are not well established, interventions based on the activation of the ecological norm have to be implemented at an early stage.

It is suggested that improving the attractiveness of public transport certainly is a method of retaining current users of public transport.

Tanya Domina & Kathryn Koch conducted a study on Convenience and Frequency of Recycling: Implications for including Textiles in curbside Recycling Programs (2002). Post consumer waste is a source of pollution. It is becoming a pressing issue. Approximately 70% of solid waste is diverted to land fills, which damages the environment by posing health hazards to the community. This promoted the Environmental Protection Agency to recommend the municipalities to reduce the solid waste by passing legislation. This is positively responded by the municipality to reduce the amount of solid waste thrown in land fills.

Consumers became aware of the importance of recycling traditional items like paper, plastic, aluminum and glass. However, discard of less traditional materials are continuing. Therefore, the recycling programme should look beyond traditionally recyclable materials. This study examined the non-tradition item i.e., Textiles.

The results indicate that the demographic variables of age, family size and income as significant predictors of recycling activity. Composting, reducing gasoline consumption and lowering the thermostat are other significant predictors of cycling. The study also revealed variables like Donating Textiles, gender, education could not be used to profile households with differing frequencies of recycling activity.

Environmentally friendly behaviour, access to curbside collection programme, individuals reside in single family homes, old people live in larger families with higher income levels were frequent recyclers.

The study suggests that for successful textile collection in the solid waste recycling stream consumer education must be encouraged to stimulate an appreciation of the value of textile recycling for reducing solid waste ending in land fills.

Also suggests that finding new means of recycling waste, including textiles, as well as expanding current recycling efforts remain important solutions to managing limited environmental resources.

Attitude and behaviour toward the environment (2002) by M. Aytul Kasapoglu & Mehmet C. Ecevit's study aims to identify the variables that appear to be most influential in motivating individual to participate in environmentally responsible behaviour in a western city of Turkey. There are few variables available to identify and motivate to behave environmentally friendly. All variables are not equally motivating the people. The study's findings also compared with meta-analysis findings.

The meta-analysis of responsible environmental behaviour research was undertaken by Jody Hines et al (1987) to identify which variables appear to be the most influential in motivating individuals to take responsible environmental action. Meta analysis found cognitive, psychosocial and demographic variables to be associated with responsible environmental behaviour.

The major objective of this study is to identify those variables that are most strongly associated with environmentally responsible behaviour in the select area and to compare the results with the study conducted by Hines et al.

The study adopted stratified random-sampling for selecting 140 respondents from the total population of 1,29,112. The average response rate was about 90%. The respondents were directly interviewed by an interview schedule with open ended questions and statements. Questions and statements were prepared covering responsible environmental behaviour, cognitive variable, psychosocial variables, economic orientation and demographic variables.

The major findings of the study were that the level of education as a demographic variable is the most important factor for developing responsible environmental behaviour. Those who are more informed about their environmental issues develop more responsible behaviour toward environmental issues and become members of environmentalist organizations in higher numbers.

The findings also indicate that more wealthy people are more engaged in responsible environmental behaviour than unemployed individuals and students, who rarely have regular income.

In contrast to the Meta-analysis, the study’s results show that older people are more sensitive to the environment than are young people, there is no significant relation between responsible environmental behaviour and verbal commitment.

With fast spread of environmentalism, business firms have started increasing embarking upon green marketing practices. Emphasizing this view Sanjay K. Jain and Gurmeet Kaur (2003) conducted a study titled as “strategic green marketing: How should business firms go about adopting it?”

They said that green marketing is also known as ecological marketing and environmental marketing. Also defined the term green marketing as “a philosophy practiced by foreign firms but many firms have turned green due to constant pressure on them to deliver products and services that are environmentally compliant”. A large number of such firms have made little charges in the product, but they make tall green claims to exploit consumer’s green concern marketing as a business growth opportunity and opportunity to exhibit their social responsibility. If it wanted to happen, integration of green issues into their business strategy is essential.

The study elucidates adopting green marketing management in their management plan. They suggested that firms should proactively adopt than philanthropically. Also suggested that firm should adopt a system of scanning the market and identifying green opportunities and pressures, setting green mission and marketing strategies, segmenting green consumers and developing green positioning postures evolving green marketing mix programme and practicing green marketing control as total marketing programme. The experience, however, suggests that the firms which use green marketing as a strategic tool in a proactive manner gains most in terms of increased sales, higher market share and better corporate image.

By Mugal Gupta (2004) studied the ecological consequences of marketing. He elucidated how marketing emerged as the root cause of environmental crises and suggest a new agenda for marketing. The present economic growth derived out of efficient marketing practices. Marketing is instrumental for not only the economic growth but also the environmental crises and solution may be found in the concept itself or in its right usage.

The researcher examined the future growth of population and it’s requirement. They also highlighted the industrial output and energy use in the light of the increasing population. This will also bring with it the risk of appalling environmental damage.

The researcher also explained how environmental problems affect the improvement in welfare that development goals attempts to bring and future productivity. The Corporate Business houses, in the name of raising income, today, can jeopardize the prospects of earning income tomorrow. The entities over utilized or misused the resources. As a results of this the habitat and environment are polluted. Eventually, the life-supporting nature of the system converted into life-eradicating nature or at least a sterile nature. The short-term economic gains are offset by the costs imposed on health and the quality of life.

The study elucidated how marketing turned out to be the primary money generator. It is the prowess of marketing that seems to have given the economic results to enterprises than they were anticipated. In the processes of churning in more and more money. enterprises became short-sighted and accepted the means of their survival i.e., economic gains to be the only objective. Thus, economic growth derived out of efficient marketing becomes a highly imperfect proxy for progress.

While setting a new agenda for marketing, it appeals to business, corporate sectors to the consumers to adopt responsible consumption. Because it is amoral in it's present form. the marketing concept has outlived it's usefulness, especially for those firms whose products-engines, fertilizers, detergent, fuels, nuclear reactors etc., contribute pollution that threatens men's very survival. A new concept of business responsibility to public and to future generations must replace the current criterion of the highest level of individual consumption.

He suggested that marketing should be used in changing the values and attitudes of the corporations, households, firms and how achieving environmental sustainability is very important for continuing the marketing exercise. This will require a reduction in the environmental burden. The burden can be reduced by decreasing the human population and lowering the level of consumption.
Decreasing the population and lowering the level of affluence do not appear feasible but would make the problem worse. Therefore it suggests changing the technology as another option. Marketing should play a role from this, provisioning technology that canalizes the transformation of technology into wealth through an ecologically responsible route.

It suggests giving attention to the product stewardship will not only minimize the pollution but also bring efficiency in use of materials and energy etc., It also suggests substitution, specialization and synergy as ecological imperatives for marketing. These imperatives may be to the criteria for measuring performance of marketing through their linkage with the four P's of marketing mix.

Anne Marie Todd (2004) stated that the green consumerism is on the rise in America, but it's environmental effects are contested. Therefore, the most question is does the green marketing contribute to the greening of the consumer consciousness or it encourage corporate green washing? The corporate world really concerned about the environment and their products, they must have environmental ethics, but it hardly exists.

The research on the marketing strategies for eco-friendly personal care products reveals the intersection of aesthetics and green consumer ethics. For this purpose, the research had taken the promotional materials of three companies that advertise their environmental consciousness: viz. Burt's Bee's Inc, Tom's of Maine and the Body shop. The study explored the ways companies showcase details about their production methods, business philosophy and other facets of their ecological values.

The study emphasized a set of values and beliefs that guide their business practices. This is the hallmark of environmental business and eco-marketing. It offered a brief introduction to the environmental ethics and the ethical dynamics of environmental marketing.

As part of selling products to consumers based on a set of ideological values, the three companies employed two specific discursive strategies to sell their product viz., aesthetic and environmental beauty.

Further it articulated how these companies create enhanced notions of beauty by emphasizing the performance of their natural products and thus infuse green consumerism with a unique environmental aesthetic.

Instead of trying to reduce consumption, these companies celebrate responsible consumption. This static promotes an environmental ethic that does not rely on consumer guilt, but empowers consumers to feel good about their consumption choices. The Body shop's slogan is 'feel good, naturally'. This mantra establishes a connection between natural ingredients and performance that makes a connection between ethics and aesthetics, linking human beauty with natural integrity. Consumers are urged to be inspired by nature's beauty to make themselves beautiful i.e., our personal aesthetic reflects the appearance of the earth. This strategy combines a natural aesthetic with an environmental ethic, that is a powerful message for green consumers.

The study examined how these companies communicate ideas of health through community values, which, in turn, expand notions of personal health to ecological well-being. They believe in working with the pure, simple ingredients nature provides to create natural care products that work for the consumers, the environment and the communities.

Social responsibility does not end with the purchase of the product; rather green consumerism incorporates self-identity that is associated with well being of the community. This sense of the greater community instills a connection between individual actions and their larger environmental implications. Consumption does not occur in a vacuum. Our consumption choices have significant ecological implications. Green marketing links ethics and aesthetics to offer consumer choices that promote ecological health and beauty.
The aesthetic is not marked by image but by a sense of beauty that reflects
the eco costs of a product and thus it’s impact on greater ecological integrity.
These connections between self and community, ethics and aesthetics links allow
eco-marketers to appeal to a dual audience. The eco-marketing’s strategy of
merging ethics and aesthetics provides scope to understand and believe the
environmental ethics behind the products.

It includes that, environmental marketing emphasizes the inter
connectedness of the ecological community and an ethical aesthetic that relies on
the well being of the global communities supported by a healthy environment that
promotes an ethic which makes the consumer to consider the product on the basis
of Performance of the Brand.

The environmental aesthetic promotes an ethic that is guided by holistic
beauty. Individuals can cause change through individual purchases. This provides
an environmental message that green is not just cool but the need for action to
protect the environment. Thus, the need to consider the eco-cost of their actions.

Sanjay K. Gupta (2004), gave an account of solid waste in India, how
the present system creates health and environmental hazards. He insisted a
paradigm shift from the present system of solid waste management to an improved
system which reduces pollution.

Consumption linked to per capita income has a strong relationship with
waste generation. Urbanization not only accumulates waste, but also raises
generation rates of waste. India will have more than 400 million people clustered
in cities over the next thirty years. Modern urban living brings on the problem of
waste which increases in quantity and changes in composition with each passing
day. India will probably see a rise in waste generation from less than 40,000 metric
tonnes per year to over 1,25,000 metric tonnes by the year 2030.

Waste can be wealth, which has tremendous potential not only for generating livelihoods for the urban poor but can enrich the earth through composting and recycling rather than spreading pollution. The waste provides livelihood for more than 3,00,000 people in four metropolitan cities. But there is an inadequate understanding of the problem, both of infrastructure requirements as well as its social dimensions.

He further examined the variety of policy response to the problems of urban solid waste in India, especially over the last few years yet sustainable solutions either of organic or inorganic waste remain untapped and unattended. All policy document and legislation acknowledge recycling as one of the ways of framing work needed to enable this to happen.

Post consumption behaviour plays a pivotal role in generating of waste. The research further reveals that many types of new materials mainly used for packaging are not recycled. The researchers suggest instead of blindly importing from developed countries, business houses are advised to use materials which are environmentally friendly.

At the national level there are many policy viz., the Municipal Waste Management and Handling Rules 2000, Burman Committees Report, 1999. The New Municipal Solid Waste Management Rules 2000 and report of the National Plastic Waste Management Task Force 1997. As per the researcher’s observation, these policies did not address mechanisms which will be needed for promoting recycling and waste minimization. Also there is no provision for any public participation.

Though the community projects are working well and fulfilling the greater objectives of environmental safety and natural resources conservation, they are doing so under great economic and social stress. Hence, he suggested that there is a need to bring the work into rules and regulations both for enhancing and providing incentive to such community waste management systems.
Indian soil ruined by unbalanced and excessive use of synthetic fertilizers and lack of organic manure. City compost can fill and solve this problem. India's 35 largest cities alone can provide 5.7 million tones a year of organic manure in their bio-degradable waste which is composed and returned to the soil. Therefore, it is suggested that the Ministry of Urban Development and Poverty Alleviation as well as Agriculture should develop the market for compost and if required, provide subsides for compost manure.

It is suggested that 50% of the solid waste is due to packing. Therefore making the producers responsible for packing waste should be made as mandatory.

Gonzalo Diaz., Menses and Asuncion Beelipalacio (2005) conducted a study on recycling behaviour. The objective of the study was to examine the socio demographic and psychographic profile of the distribution of recycling tasks and roles within the household. Although progress toward solving environmental problems depends more on the consolidation of desirable behaviour, such as that of recycling, than on the development of specific attitudes or motivations, few works focuses on the analysis of environmental conduct.

The results suggested that recycling behaviour is multidimensional and comprises the undertaking of different roles with different socio demographic and psychographic casual characteristics. The practical implications of these results can be applied in the implementation of segmentation policies that consider recycling behaviour as the product on offer in a discriminate fashion depending on the role to be promoted among the population.

Muzaffer Bodur and Emine Sarigollu (2005) conducted a study titled as "environmental sensitivity in a developing country consumer classification and implication". Past research on consumers attitudes toward the environment has been conducted mostly in the context of developed countries.

There is a need to investigate the topic in less affluent societies like India. The study investigated the relationship between Turkish consumers' attitudes and their behaviour toward the environment. A multistage area sampling procedure was used to select 1000 resident at home and personal interviews were conducted using standard surveys.

A consumer cluster analysis based on behaviours toward the environment was conducted. The analysis identified three distinct segments viz., active concerned, passive concerned and unconcerned. For each cluster, attitudinal, demographic, socio economic and leisure activity profiles were delineated. Attitude toward specific behaviours were found to be the fast predictors of behaviour followed by general attitudes, education and locus of control. Policy implications are provided for each cluster.

Azhagaiah.R and Elangovan.A (2006) in their study titled as Green Marketing and Environmental protection, explained about the new challenges of environmental degradation. This article records that the earth's vital resources are shrinking to an abnormal level due to unsustainable development activities. The need for further economic activities is likely to impose colossal burden on the ecosphere. They also observed that the economic development cannot be postponed and the problems of poverty and unemployment have to be addressed immediately not at the cost of polluting and degrading the environment but through improving the status of the environment.

Further, it also explained the ecological imperatives and marketing. The edifice of the production and consumption fully depends on earth's resources only. It is true that much of the economic growth draws raw materials from forests, soils, seas and waterways. In other words, earth is the source of supplier's supply. The gain in human welfare over the past few decades was remarkable and this facilitated by marketing.

Marketing over utilized or misused nature's resources that effected a pressure on earthly resources. Therefore, this needs a shift in the fundamental approach of marketing. It elucidated what is green marketing and why green marketing is imperative. In essence, green marketing places emphasis on sustainable marketing and sustainable consumption activities to lesson the negative impact on the environment. Environment problem cannot be addressed by a single individual. This study also sheds lights multidimensional approach to environment problem. It suggested a trio i.e., redefining corporate strates, appropriate government intervention and making the public to participate, will mitigate the negative impact created on environment.

Paul g. Harris (2006) studied the underlying forces of environment-related behaviours at all levels in china. Various surveys conducted in Chinese-language to measure environmental awareness, attitudes, and behaviour are the bases for the research. People in different parts of China have differences in perceptions and behaviours. That work gave a macroscopic snapshot of how the Chinese view their environment. The snapshot depicts environmental destruction and rampant resource exploitation that is likely to continue for decades to come. However, by understanding the trend it may be possible to find ways of eventually slowing it and thereby mitigating long term environmental damages.

The researcher also described how human behaviour adversely affected the ecological environment. A huge population and rapid economic growth have conspired to create an expanding environmental catastrophe. The list of pervasive and widespread environmental problems caused by human behaviour in China is depressing.

The pollution and environmental degradation are not only harming the Chinese but also acid rain falls on China neighbors industrial and urban air pollution now spreads across the pacific to lower air quality and pollute water in North America. China is already the second largest emitter of greenhouse gases causing global warming and resulting into climate change, likely to overtake the USA to become the largest emitter within the next two decades.

Recognizing the alarming trend, the study was conducted to know the underlying forces and find ways of mitigating the environmental damage. For this purpose, the researcher studied knowledge and environmental awareness of the Chinese people, the attributes of their awareness, the extent to which they believe that environmental changes require urgent attention and their associated behaviours and their willingness to behave in ways that are less harmful to the environment.

The study found that the Chinese people are not unusual much as in most of the developed countries, they tend to care about the environment primarily when it affects them directly. Even when they express pro environmental sentiments, their behaviour is more likely to cause greater harm to the environment than they would admit or realize.

The survey suggested that the pro-environmental attitudes, values and behaviour in China must be encouraged. Many things can be done, notably increased local education efforts is necessary, scope for environmental marketing and making environmental protection should be enlightened especially among corporates, urban youth and the new middle class. Also suggested other potentially important strategies for shifting perspectives and attitudes towards less environmental harm could be helpful. Instrumental capitalization should be especially focused i.e., Selfish view of the environment. People need to be made to realize that their wealth and health depend on environmental vitality.

Jinyang Deng, Gordon J. Walker and Guy Swinnerton (2006) examined a comparison of environmental values and attitudes between Chinese in Canada and Anglo Canadians. They examined similarities and differences in environmental values and attitudes between two cultural groups viz., Chinese in Canada and Anglo-Canadians. Different population with specific social practices and cultural traits are likely to hold different values on and attitudes toward nature or the environment. Therefore, cross-cultural comparison of environmental attitudes is of particular importance.

The results indicated that Chinese are more supportive of social altruistic values than are Anglo-Canadians. However, the two groups are not significantly different in biospheric values, i.e., concern with non-human species. The study adopted four new environmental paradigm to analyse the values and attitudes between the groups. They are viz., balance of nature, eco crisis, limits to growth and anti-anthropocentrism. Both the groups are significantly different in two of four new environmental paradigm subscales-limits to growth and anti-anthropocentrism, whereas their attitudes toward the other two new environmental paradigms subscale viz., eco-crisis and balance of nature are similar.

The study also suggested that biospheric values are closely related to the new environmental paradigm, whereas social altruistic values are not. In addition, acculturation does not consistently affect all the four scales, suggesting that Chinese in Canada may have adopted a selective acculturation pattern. Finally, the study's findings also endorsed some previous researches that proposed that value orientation may be more helpful in understanding environmental concern than socio demographic variables such as age, education, and income.

Summary of review of literature

Humanity has faced ecological problems at other times, but these have taken on a new urgency today due to their scope and gravity. Damage to the environment often has an irreversible impact on humanity and nature and the environmental crisis on the horizon at the dawn of the 21st century is endangering the lives of millions.

For consumers all over the world it is becoming almost impossible not to be affected by the overexploitation of natural resources which is so characteristic of the current way of production, distribution and consumption. The current consumption pattern generates large volume of waste which degrades the environment.
The nature has definite resources to supply. The impact of production, consumption activities on the world's collective ecosystem has become a provocative global issue. Increasing consumption increases pollution, which reduces habitability and threatens the human existence.

Public concern over environmental deterioration is raising and marketers have begun to recognize both the need and the value of environmental marketing. Though much of the environmental degradation is produced by the business practices, yet a great measure of responsibility lies with the consumer as well.

Efforts to identify the ecologically oriented consumers can be found in the marketing literature as far back as the early 1970's. The research activity was designed to profile those among the populace who exhibit a degree of environmental concern.

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.

Overall, the results of these many investigations have been somewhat equivocal. For example, demographic variables such as income, education and age have been found to be related to ecological concern in some studies and not related in others. Further, in some instances, contradictory findings emerge with respect to the direction of the relationship uncovered.

All of this leads to the conclusion that "the relationship between socio demographic characteristics and environmental concern is still poorly understood. Therefore, the present study is to make an attempt to find out weather the socio-demographic variables have the capacity to predict and identify information concerning ecologically conscious consumer."
Other constructs such as personality measures and psycho/social indicators like tolerance, alienation, social responsibilities, and attitude towards pollution etc., show some promise as predictors of ecological concern, yet vary in their strength across studies. Instead, personality variables seem to be better predictors of environmental concern than demographics.

The personality scale measures what an individual feels, knows, thinks and actually does in reducing solid waste and pollution. This determines his pro-environmental behaviour. The researchers found a positive correlation between perceived consumer effectiveness and pollution. The present study attempts to verify the statement and find out the further consideration of the personality variables. Also an attempt has been made to find whether the current scales are relevant and efficient to assess ecological knowledge and pro-environmental behaviour or any other measures to be included.

Ecologically concerned consumers are increasing. The present marketing strategies are not having anything to segment and fulfill the needs of the environmentally conscious consumer. The present study makes an attempt to suggest how socio, demographic and personality variables can be useful in segmenting the populace and providing a separate showcase to satisfy them and also suggesting the marketers to exploit a potential marketing opportunity.

In addition, much of the existing research has operationalised ecological concern in terms of attitudinal responses about environmentally sound activity. For example, conservation, recycling or concern about pollution.

However, since progress toward solving environmental problem is likely to be dependent upon pro-environmental behaviours more so than ecological consciousness. This motivates the present attempt to focus upon consumer's buying actions with respect to the environment rather than on their attitudes.
Environmental awareness is increasing but its effects are contested. Most of the research studies reveal that majority of the consumers strongly expressed their concern about the degrading environment. The environmental sensitivity is not reflected in their action. So there is a gap between ecologically conscious attitude and actual behaviour. Therefore, the present study attempts to find out the discrepancy between the attitude and actual behaviour, if any, if so, the causes for it.

Therefore, the research orientation encompasses conservation behaviour across a broad spectrum of concerns, including consumption and dispositional activity associated with packaging recycling, avoidance of extensively packaged products and preservation of natural resources.