CHAPTER – 2
REVIEW OF LITERATURE

In order to get complete conceptual understanding of green products, green consumers and diverse issues related to consumer behaviour towards green products, different studies directly or indirectly related to the main theme of the present study were explored. Various journals, statistical reports, books and websites were visited to collect the relevant material. Accordingly, a literature scanning was undertaken and the review of literature was divided into four sections:

1. Studies related to green consumers and green consumer behaviour.
2. Studies related to consumers’ attitude, intentions and behaviour towards green products.
3. Studies related to green products’ choice criteria.
4. Studies related to green marketing strategies.

2.1 STUDIES RELATED TO GREEN CONSUMERS AND GREEN CONSUMER BEHAVIOUR

The literature surveyed on the subject cited above indicated the dynamic pattern of research done in the past. Several studies attempted to segment green consumers based on their socio-demographical characteristics (Jain and Kaur, 2004), environmental and demographical characteristics (do Paco et al., 2009), demographical and psychographical variables (Straughan and Roberts, 1999 and Banyte et al., 2010), eco friendliness and perception towards environmental aspects (Chitra, 2007), purchasing behaviour (Tilikidou, 2007), attitude (McEachern and McClean, 2002; Mostafa, 2009) and willingness to pay premium price (Vlosky et al., 1999). Apart from this, various studies successfully explored the demographic profile (Straughan and Roberts, 1999; Laroche et al., 2001; Rowlands et al., 2003; Tilikidou, 2007; Roitner-Schobesberger et al., 2008; do Paco et al., 2009; Abeliotis, 2010; and Banyte et al., 2010b), psychographical and attitudinal profile (Straughan and Roberts, 1999; Laroche et al., 2001; Rowlands et al., 2003) of green consumers.
Also, a wide range of studies investigated consumers’ willingness to pay premium price for green products (Vlosky et al., 1999; Laroche et al., 2001; Rowlands et al., 2003; Gossling et al., 2005; Batte et al., 2007; Abeliotis et al., 2010; Lin, 2010; Oliver et al., 2011), whereas very few studies examined the awareness level of consumers regarding green products (Gossling et al., 2005; Chitra, 2007; Roitner-Schobesberger et al., 2008; Joshi and Mishra, 2011). This section of the review presents an overview of various studies related to the aspects of green consumers and green consumer behaviour.

Roberts (1995) attempted to segment US consumers on the basis of their socially responsible consumer behaviour and also determined the profile of socially responsible consumers. The study used the five demographical variables viz. age, gender, education, income and occupation and four attitudinal variables viz. environmental concern, perceived consumer effectiveness (PCE), liberalism and alienation as predictor variables of socially responsible consumer behaviour. Using cluster analysis the sample was categorized into 4 clusters viz. ‘Socially Responsible’ (32%), ‘Middle-Americans’ (45%), ‘Greens’ (6%) and ‘Browns’ (17%). ‘Socially Responsible’ cluster was more environmentally conscious than all clusters except greens, and was the most socially responsible consumer cluster. Consumers belonged to this cluster were more liberal, more environmentally concerned and showed higher levels of PCE. Apart from this, they were more likely to be married, be the owner of their homes and graduated from college. Third cluster ‘Greens’ included the consumers who were highly ecologically conscious and displayed highest levels of PCE. This group represented more females than males, who were more likely to be married, graduated from college and hold their homes.

Shrum et al. (1995) attempted to construct the psychographic profile of green consumers on the basis of their attitude, beliefs and interest in buying green products. Factor analysis identified the five factors of consumers’ attitudes and beliefs viz. impulse buying, opinion leadership, interest in products, brand loyalty and care in shopping. Further regression analysis was performed to determine the relationship of attitude and belief variables with intentions to buy green products (making special efforts to buy green product and switching the brands to buy green products) separately for male and female samples. The results reported that opinion leader, interest in products and taking
more care in shopping were significantly related to making special efforts for buying green products, where as impulse buying and brand loyalty were not related to the same. As far as switching the brands to buy green products was concerned, only interest in products was significantly associated with switching behaviour. Hence, it was indicated that people holding intentions to make special efforts for buying green products tended to be opinion leaders, interested in new products, careful in shopping habits and were price sensitive. It was also observed that people who were likely to make special efforts for buying green products were found to be skeptical of advertising.

Roberts (1996) in his study attempted to investigate the demographical and attitudinal characteristics of ecologically conscious consumers of USA in 1990s. The study used the five demographic variables viz. age, sex, income, education and occupation as well as the three attitudinal variables viz. perceived consumer effectiveness (PCE), liberalism, and environmental concern to explain ecologically conscious behaviour of consumers. Multiple regression analysis was performed on the data, where ecologically conscious consumer behaviour (ECCB) was taken as dependent variable and demographic as well as attitudinal variables were taken as independent variables. In the initial regression analysis only demographic variables were introduced, whereas full model included both demographic and attitudinal variables as independent variables. Results of the analysis reported that attitudinal variables were more significant than demographic variables in predicting ECCB. Amongst the tested attitudinal variables PCE was found to be the most effective variable in explaining the variation in ECCB, followed by environmental concern and liberalism. The study also found that out of five demographical variables under study age, sex, income and education were significantly related to the ECCB, whereas occupation was insignificant in predicting the ECCB. Also, the relationship of age and education with ECCB was found to be positive, whereas income was negatively related to ECCB and in the case of gender, females were more ecologically conscious consumers than males.

Straughan and Roberts (1999) attempted to segment as well as identifying the profile of college students on the basis of their ecologically conscious consumer behaviour in USA. The study tested usefulness of the four demographical variables (age, family income,
gender and academic classification) and the four psychographical variables (perceived consumer effectiveness, liberalism, environmental concern and altruism) in predicting the profile of ecologically conscious consumers. Multiple regression analysis was performed to test the usefulness of demographical and psychographical variables, whereas stepwise regression was performed to analyze the best profile. Results of the multiple regression analysis reported that the three demographical variables viz. age, gender and academic classification were significant, whereas income turned out to be insignificant in predicting ecologically conscious consumer behaviour. Furthermore, the three psychographical variables viz. altruism, environmental concern and perceived consumer effectiveness (PCE) were significant whereas liberalism turned out to be insignificant in predicting the same. The study also reported that psychographical variables were more useful than demographical variables in profiling the ecologically conscious consumers and that perceived consumer effectiveness was the best predictor of ecologically conscious consumer behaviour.

Vlosky et al. (1999) examined the relationship between intrinsic motivations of consumers and their willingness to pay premium price for environmentally certified wood products. The study proposed a conceptual model explaining the effect of environmental consciousness, importance of certification and involvement in certification on willingness to pay for environmentally certified wood products. Results of factor analysis reduced the scale into the five factors viz. environmental consciousness, importance of certification, involvement in certification, price premium and willingness to pay. Further correlation analysis was performed to test the hypothesized relationships between the factors. Results of the analysis reported that all hypothesized relationships were significant and positive. Subsequently, by using cluster analysis, the study identified a segment of green consumers who would be willing to pay the highest premium for certified wood products.

Aoyagi-Usui (2001) attempted to analyze the effect of consumers’ values and beliefs on their green consumer behaviour. For this purpose, 1530 Japanese consumers were surveyed. The study used Schwartz’s 12 value items scale to measure the general values of Japanese consumers, and afterwards categorized the values into the three categories viz. biospheric-traditional, altruistic and egoistic. Environmental values of consumers
were also measured and categorized into two categories viz. preference for environment and preference for progress. After that, the study examined the effect of altruistic, egoistic, environment and progress values on green consumer behaviour practices (considering environmental labeling, recycled products, choosing energy efficient appliances, buying organic food, environmentally friendly packaging, choosing energy efficient car, bring own bag). Findings of the results confirmed the significant role of general as well as environmental values in determining the green consumer behaviour. Amongst all values, altruistic values turned out to be the most significant. It was also revealed that green consumer behaviour sometimes differ by gender, where females were found to be more environment oriented and also tended to take progress oriented actions.

**Laroche et al. (2001)** studied the demographic, psychographical and behavioural profile of consumers who were willing to pay more for environmentally friendly products. The study found that gender, marital status and number of children living at home were significant in differentiating between the consumers who were willing to pay more and those who were not willing to pay more, whereas age, level of education, household income, home ownership and work status did not influence consumers’ willingness to pay more for environmentally friendly products. It was also revealed that females, who were married and with one child living at home were found to be more willing to pay more for environmentally friendly products. Results of discriminant analysis reported that attitudes were the best predictors of consumers’ willingness to pay. T-tests also confirmed that all of the four attitudes (severity of environmental problems, importance of being environmentally friendly, level of responsibility of corporations, inconvenience of being environmentally friendly), two values (collectivism and security) and one behaviour (considering environmental issues when purchasing) were significant in determining consumers’ willingness to pay more for environmentally friendly products.

**McEachern and McClean (2002)** in their study on organic dairy products investigated consumers’ perception, attitudes, motives and purchasing behaviour. 200 respondents were selected for the survey and factor analysis was performed to identify the attitudinal factors. Based on the attitude and purchasing behaviour towards dairy products, respondents were categorized into 3 groups: ‘Complacents’ (31%), ‘Conceivables’
(50.5%) and ‘Committed’ (18.5%). ‘Complacents’ were those who never purchased organic dairy products, ‘Conceivables’ were those who bought organic dairy products occasionally and ‘Committed’ were those who always purchased organic dairy products. Study reported that consumers’ motives for purchasing organic dairy products were taste, food safety, health benefits, environmental motives and ethical motives. Committed consumers ranked health as their prime motive, whereas conceivables ranked taste as their prime motive for purchasing organic dairy products. However, for complacents reasons for not purchasing organic dairy products were: high price, taste of conventional products being better than organic products, unwillingness to change, not considering organic dairy products as an option and being unaware of benefits. Furthermore, results of the factor analysis identified three factors related to respondents’ attitude towards organic dairy products viz. food safety, organic standards and food ethics. The study also unveiled the influence of age, gender and socio-economic status on organic dairy products purchasing behaviour and stated that females purchased organic dairy products more than men, also, they were more likely to be 51-60 years old and belonging to A, B and C1 socio-economic groups.

*Rowlands et al. (2003)* conducted a study in Canada and investigated the profile of potential purchasers of green electricity as well as examined the influence of consumers’ demographical variables (income, age, education, gender and knowledge), attitudinal variables (perceived consumer effectiveness, liberalism, altruism and ecological concern) and socialization variables (participation, communication) on consumers’ willingness to pay higher premiums for green electricity. The analysis of the study reported that attitudinal variables specifically ecological concern, liberalism and altruism were best in determining the potential purchasers of green electricity. Though, the study advocated that demographical variables were less useful in identifying potential purchasers, education, age and income were still significant in identifying the same.

*Gossling et al. (2005)* investigated German students’ level of awareness related to environmental issues, their willingness to change to green power products and hindrances in changing to green power by applying the target-specific approach. Findings of the data analysis revealed that 99.7% students expressed their positive attitude towards green
power and 76.4% were willing to pay more for green power. Analysis related to the most preferred source of information showed that information through mails was the most preferred source of information, followed by info-stands in campus or in student restaurants, ads in news and journals, posters, internet, flyer distribution, TV ads and credit notes, event sponsoring, advertisement sent with electricity bills, e-mails, radio and others. Regarding what type of information students seek with respect to green electricity, it was revealed that students preferred concise information on three aspects: cost of green electricity, the way electricity was produced and effectiveness of green power in solving environmental problems. Study also found that the major obstacles of changing to green power were high cost, credibility and reliability of green electricity and efforts involved in changing the supplier.

Fraj and Martinez (2006) examined the influence of personality variables on ecological consumer behaviour of Spanish consumers. Five dimensions of personality viz. extroversion, agreeableness, conscientiousness, emotional stability and openness to experience were taken to understand the personality characteristics and subsequently, exploratory factor analysis was performed to validate the Big five factor structure of personality. Environmental behaviour was categorized into two factors viz. actual commitment about buying and actual commitment about participation in environmental friendly activities. Results of structure equation modeling confirmed the positive influence of personality variables on ecological behaviour regarding buying organic products and participating in environmental friendly activities. The study stated that aware and conscientious consumers were more inclined to buy ecological products and hence, they were named as ‘rational consumers’, whereas extrovert and altruistic consumers were more inclined to participate in environmental friendly activities and environmental groups and hence, they were named as ‘emotional consumers’. In light of this, the study suggested that in order to approach rational group, marketers should use publicity and advertising as marketing tool for communicating environmental friendly activities of the company, whereas social and charitable events should be sponsored for attracting emotional group.
**Jain and Kaur (2006)** conducted an exploratory study in India to explore the usefulness of the socio-demographical variables in segmenting green consumers. The study found the significant relationships between socio-demographical variables and environmental consciousness of consumers. Hence, the study advocated the potential usefulness of socio-demographical variables in differentiating the segments of green consumers, and in developing marketing strategies to reach those segments.

**Batte et al. (2007)** investigated US consumers’ willingness to pay premium price for multi-ingredient processed organic food products. Sample was taken from US grocery stores, and included shoppers of traditional grocery and specialty grocery. Findings of the study suggested that consumers were willing to pay more for even less than 100% organic food, where as magnitude to pay premium price varied across different categories of consumers. Specialty grocery shoppers were not willing to pay more for organic food items with less than 70% organic content. However, their willingness to pay more was greater than traditional grocery shoppers. It was further found that health concern was the most important determinant of willingness to pay more.

**Chitra (2007)** studied consumers’ perception towards eco-friendly products. On the basis of consumers’ level of eco-friendliness and perception towards eco-friendly aspects, respondents were categorized in the four categories viz. ‘aspirants’ (58.3%), ‘addicts’ (20%), ‘adjusters’ (15.7%) and ‘avoiders’ (6.7%). Author also studied consumers’ extent of awareness regarding green products, sources of awareness, preference for green products and level of satisfaction for green products. A sample of 60 respondents was drawn from Coimbatore and four product categories viz. food products, cosmetics, medicines and furniture were selected for the study. Findings of the study reported that majority of the respondents were fully aware of eco-friendly food and furniture products, whereas they were partially aware in case of cosmetics and medicines. Television was found to be the major source of information for eco friendly food products and cosmetics; existing users were the major source of information for medicines, whereas friends/relatives/neighbors were found to be the major source of information for furniture products. Additionally, it was revealed that majority of the respondents would always prefer to buy eco friendly food and cosmetic products, but in case of medicines and
furniture, respondents reported that they would rarely buy eco friendly products. As far as the satisfaction level was concerned, majority of the consumers were found to be satisfied with all categories of products and were also willing to recommend green products to others.

Results of ANOVA confirmed that aspirants, addicts, adjusters and avoiders were different from each other in terms of their perceptions towards eco friendly products. The study also revealed that demographic variables viz. family size, income, occupation, age and gender were significant in discriminating between the four categories of respondents.

Tilikidou (2007) examined the pro-environmental purchasing behaviour of Greeks, and also analyzed the influence of demographical variables, environmental unconcern and consumers’ environmental knowledge on their pro-environmental purchasing behaviour. A sample consisted of 400 respondents was selected to achieve the objectives of the study. ANOVA was performed to identify the relationship of pro-environmental purchase behaviour with demographic characteristics and the results found that education, income and age were significantly related to the pro-environmental purchase behaviour. Study also postulated that consumers who were more inclined towards pro-environmental purchase behaviour were more likely to be professionals holding graduate or post graduate degree, belonging to the age group of 35-55 years and earning 25-30 thousand Euros. Further, pearson’s correlation explained that relationship of pro-environmental purchase behaviour was positive with environmental knowledge and negative with environmental unconcern. Subsequently, the study categorized the sample into 3 clusters viz. ‘conventional purchasers’, ‘occasional pro-environmental purchasers’ and ‘frequent pro-environmental purchasers’. ‘Conventional purchasers’ (33.75%) obtained low scores on pro-environmental behaviour, ‘occasional pro-environmental purchasers’ (45.5%) obtained moderate scores on pro-environmental purchase behaviour and ‘frequent pro-environmental purchasers’ (18.75%) obtained highest scores on pro-environmental purchase behaviour. Amongst the three groups, frequent pro-environmental purchasers displayed higher environmental knowledge and lower environmental unconcern than the other groups.
Goswami (2008) investigated whether the Indian consumers were interested in clothing with eco-labels. A sample of 400 consumers was taken from the two metro cities viz. Kolkata and Mumbai and two non metro cities viz. Guwahati and Bhubneshwar. Cluster analysis was applied on the data to identify various segments of the consumers on the basis of their environmental consciousness, involvement in the environmental certification and perception about the importance of the eco-label. Results of the analysis reported three segments of the consumers viz. ‘Light Green segment’ (64.2%), ‘Dark Green segment’ (19.8%) and ‘Non Green Apparel consumers’ (16%). The study also highlighted that segment of consumers which was motivated for eco-labeled clothes included both males and females, post graduate and self employed professionals.

Roitner-Schobesberger et al. (2008) attempted to understand consumer perceptions of organic foods in Bangkok. 848 consumers of Bangkok were surveyed for this purpose. Consumers’ knowledge about safe food labels, whether they heard about organic food or not and reasons for purchase/non purchase of organic food were measured. Respondents were categorized into the three groups: those who have never heard of organic (33%), those who have heard of organic but never purchased organic food (27%) and those who have heard of organic and have purchased organic food in past (39%). It was found that major reasons of for purchasing organic food were: being healthier and safe for environment, followed by freshness and better taste. Regarding purchasing habits, respondents reported that they purchased organic food weekly. Apart from this, the study confirmed the significant differences of age, gender, income and education across the three consumer groups, whereas number of children was insignificant in differentiating between the three groups. Further, it was also revealed that organic buyers were more likely to be older than other groups, had higher education, higher family income and majority of them were males. As far as the knowledge of food labels was concerned, though, majority of organic buyers were aware of only one food label ‘Hygienic food’, even they did not have detailed information about what the label was actually representing. The main barriers in purchasing organic food were: respondents did not know meaning of organic, unavailability, being expensive, and lack of trust on labels. Hence, it was suggested that providing appropriate information about organic food and
third party certifications might prove as appropriate strategies for enhancing the market share of organic food.

**do Paco et al. (2009)** identified distinct segments of green consumer in Portuguese market as well as determined the profile of green consumers based on their demographical characteristics (gender, age, income, educational level and occupation) and environmental characteristics (Concern, affect, knowledge, environmentally friendly behaviours, information search, activism, green product buying behaviour, sensitivity to price, green buying behaviour, recycling, perceived efficiency and skepticism). The data was analyzed with factor analysis, cluster analysis and discriminant analysis. Results of the cluster analysis divided the respondents into three categories viz. ‘the uncommitted’ (36%), ‘the green activists’ (35%) and ‘the undefined’ (29%). The study revealed that age, education, income and occupation were significant, whereas gender was insignificant in differentiating between the consumer groups. As far as the profile of green consumers was concerned, consumers of ‘the green activists’ group were more likely to be of age 25-34 years and 45-54 years, highly educated, working on qualified jobs, earning higher incomes and expressed positive attitude for all of the environmental aspects, but at the same time they were found to be skeptical of promotional and advertising claims of the firms. Though, the study demonstrated that all environmental variables except skepticism towards environmental claims were significant in differentiating between the three groups of consumers, environmental knowledge contributed the most in differentiating between the groups, followed by perceived consumer effectiveness, environmentally friendly buying behaviour, recycling and activism.

**Gupta and Ogden (2009)** attempted to explain the role of reference groups in purchasing green products using social dilemma theory and reference group theory. Study also made an effort to discriminate between green and non green buyers using discriminant analysis. It was revealed that several characteristics of individual viz. trust, in group identity, expectation of others’ cooperation and perceived efficacy were significant in differentiating between green and non green buyers. Considering the importance of green buyers’ characteristics, the study suggested that in order to address the strong influence of
reference groups, marketers should use the related spokesperson in the marketing communication and also the marketing communication should focus on relative importance of individual actions.

**Kaman (2009)** in a study conducted in Hong Kong attempted to examine the gender differences in adolescent consumers’ green behaviour viz. environmental attitude, environmental concern, perceived seriousness of environmental problems, perceived environmental responsibility, peer influence, self identity in environmental protection and green purchasing behaviour. Results of the study revealed that female respondents as compared to male respondents displayed significantly higher involvement in all green behaviour variables except self identity in environmental protection.

**Mostafa (2009)** examined the effect of psychographic and cognitive factors on the green consumption behaviour in Kuwait. The paper studied consumers’ altruistic values, environmental concern, environmental knowledge, skepticism towards environmental claims, attitudes towards green purchase, and intention to buy green products in relation to the green consumption behaviour. Responses of 418 respondents from Kuwait were analyzed by applying self organizing maps (SOM) model. SOM is basically a clustering technique which is used to explore and visualize the patterns in large and complex datasets without the consideration of linearity or non-linearity. Results of the SOM confirmed that all of the psychographic and cognitive factors were significantly correlated with green consumption behaviour. SOM model further categorized the respondents into the four clusters: ‘true green’ (45.22%), ‘reluctant green’ (20.57%), ‘basic browns’ (21.77%) and ‘potential green’ (12.44%). ‘True green’ was blue colored cluster which scored high in almost all variables. ‘Reluctant green’ was red colored cluster which scored high on some aspects of green consumption, but their scores of attitudes and intention to buy green products were lower than true greens. ‘Basic brown’ was yellow colored cluster which obtained low scores on every variable except skepticism towards environmental claims. Last ‘potential green’ was dark green colored cluster which scored highest in both attitudes and intentions to buy green products, but their score on skepticism towards environmental claims was also high. Further, results of
ANOVA reported that all variables were significant in identifying the differences among potential green and other clusters.

**Abeliotis et al. (2010)** explored the profile of Greek green consumers based on their engagement in reduce-reuse-recycle activities to lessen the environmental harm. Study observed respondents’ perception regarding environmentally friendly products and found that 51% consumers perceived the environmentally friendly products to be expensive, whereas 82.6% consumers were willing to pay higher price for environmentally friendly products. It was further revealed that men in comparison to women were less likely to rate environmentally friendly products as expensive and were more willing to pay higher price for green products.

**Banyte et al. (2010b)** determined the demographic and psychographic behavioral characteristics of Lithuanian female consumers of eco-friendly food products. The study categorized green consumers on the basis of their disposition to contribute in environmental conservation, needs, motives and level of environmental awareness. In order to determine the profile of green consumers, 105 Lithuanian females who were purchasing eco food products were surveyed by the study. According to consumers’ disposition towards environmental conservation, 40% consumers were categorized as less devoted green consumers who expressed their concern with the environmental issues, but were too busy to change their lifestyle. According to the need based classification, majority of respondents were falling in the category of need to change. In terms of environmental awareness, 36% consumers were attributed as ‘greyish green’ consumers, whereas 24% were attributed as ‘green’ consumers. Further, on the basis of motives, 50% consumers attributed themselves as health fanatic types. Findings established that female consumers of age 30-44 years and who were highly educated expressed their preferences for eco food products. It was also observed that female consumers who were more sensitive towards environmental issues were also willing to pay more for eco friendly products.

**Lin (2010)** in his research on organic cotton products in Hawaii examined attitudes, behaviour, motivations and consumption patterns of consumers of organic cotton. 262 resident consumers of Hawaii were contacted through face to face interview to
investigate the effect of environmental shopping attitudes, environmental shopping behaviours and prior knowledge of organic cotton on willingness to pay more for organic cotton. T-tests and chi-square tests were applied to identify the significance of association between the tested variables and willingness to pay more. Results of t-tests confirmed the significant differences in environmental shopping attitudes and environmental shopping behaviours between the consumers who were willing to pay more and those who were not willing to pay more. Apart from this, prior knowledge of organic cotton and demographic variables did not significantly affect willingness to pay more.

Karipidis et al. (2010) studied consumers’ purchasing behaviour and their willingness to pay for eco-certified food products. Results of the study reported that the level of awareness about the production conditions, eco-mark experience, credence attribute associations, household income and occupation were the major factors determining consumers’ intention to purchase eco-certified product. Further the study also advocated that the most preferred retailer could add value to the purchasing decision of consumers regarding eco-certified products.

Smith and Paladino (2010) attempted to investigate consumers’ motivation for purchasing the organic food. The effect of seven variables viz. organic knowledge, environmental concern, price consciousness, health consciousness, quality, subjective norms and familiarity on consumers’ attitude, purchase intentions and behaviour was tested using Ajzen and Fishbein’s theory of reasoned action in the study. The results reported strong relationship between organic knowledge, subjective norms and environmental concern with attitude towards organic food. Apart from this, health consciousness, quality, subjective norms and familiarity strongly influenced purchase intentions, whereas familiarity was found to have significant relationship with the organic purchase behaviour.

Goldsmith and Goldsmith (2011) discussed the role of social influence in sustainable household behaviour. Supporting the social influence theory, the author postulated the dominant role of family members, neighbors and other social groups in shaping individual behaviour. Study also discussed that individual behaviour depends to a large extent on approval or disapproval of the behaviour by social groups.
Joshi and Mishra (2011) conducted a study in India (Maharashtra) to study consumers’ level of awareness about environment friendly car (EFC). With the sample of 500 consumers, the study tested the effect of age and geographical region on the awareness level. Results of the study showed that age was insignificant, whereas geographical area was significant in determining the differences in awareness level of consumers regarding EFC. It was also concluded that awareness level of consumers was very generic and therefore, the government and the marketers should put in more efforts to increase the level of awareness. Moreover, effective use of media should be made to publicize the benefits of EFC.

Oliver et al. (2011) surveyed 405 household residents of Cape Peninsula, South Africa to investigate their willingness to pay premium price for green electricity. The study proposed a model including 12 individual and structural factors to test their influence on willingness to pay more for green electricity. Firstly, spearman rank correlation was used to test the relationship of each factor with willingness to pay more for green electricity. Results of the correlation confirmed significant relationship of each variable with willingness to pay more. Subsequently, multiple logistic regression model was performed in the step wise fashion in order to examine the joint effect of all variables on willingness to pay more. Findings of the analysis revealed that four factors viz. household income, green electricity is reliable, being involved in the recycling of waste and belief that everybody should contribute to the cost of green electricity generation turned out to be highly significant in explaining the willingness to pay more for green electricity. It was also pointed out that household income was highly significant in determining willingness to pay more and also that willingness to pay premium price as well as the magnitude of premium increased with the increase in income of households.

Akehurst et al. (2012) attempted to examine the determinants of ecologically conscious consumer behaviour (ECCB), profile of the green consumers, and the relationship of ECCB with green purchase intention (GPI) and green purchase behaviour (GPB). A sample of 186 respondents was taken from Portugal. The data was analyzed using multiple linear regression analysis. The study used both socio demographic and psychographic variables in determining the ECCB. Results of the analysis revealed that
psychographic variables were more appropriate than socio demographic variables in explaining the ECCB. It was further found that respondents with higher ecologically conscious behaviour exhibited higher GPI. Also, ECCB influenced GPB positively with the mediator effect of GPI. Therefore, the study suggested using environmental and social benefits in addition to regular benefits to motivate the consumers to buy green products.

**Sirangi (2012)** investigated green consumer behaviour of post graduate teachers of arts, commerce, science and technology and pharmaceutical sciences of Andhra Pradesh University, Andhra Pradesh, India. The study found that university teachers preferred Magazines and TV as most important sources of environmental information of products. Also, 82.5% respondents were found to be aware of all of the green products. Quality was the primary factor which contributed the most in purchase decision, followed by price. 67.5% respondents reported that they buy green products, whereas 34% respondents were found to buy lowest priced products without taking into consideration their impact on the environment. Besides this, the study explored eight factors influencing green consumer behaviour viz. energy saving, eco-label, need for environmental information, shopping behaviour, purchase criteria, purchasing behaviour, preference of green outlet and awareness of green outlets.

**Zhu (2013)** explored the effect of green advertising on consumer purchase intention of green products. A sample of 313 students was selected from Shanghai, China and the data was analyzed using regression analysis. The study proposed a conceptual framework to establish the relationship between green advertising and consumer purchase intention to buy green products. Findings revealed that credibility of the claims made by the green ads and consumer attitude towards the green ads significantly affected consumer intention to purchase green products.

### 2.2 STUDIES RELATED TO CONSUMERS’ ATTITUDE, INTENTIONS AND BEHAVIOUR TOWARDS GREEN PRODUCTS

This section of review includes the studies dealing with consumers’ attitude and pro environmental purchase behaviour. Some studies were confined to determine the process of attitude formation towards green products (Honkanen et al., 2006; Hansla et al., 2008;
Tarkiainen and Sundqvist, 2009 and Chen and Chai, 2010). Apart from this, several studies examined the relationship between consumer attitude and purchase intention towards green products (Minton and Rose, 1997; Han et al., 2009; Hartmann and Ibanez, 2012 and Michaelidou and Hassan, 2008), whereas some researchers examined the relationship between attitudinal variables and pro-environmental/green purchase behaviour (Roberts, 1996; Schlegelmilch et al., 1996; Chan and Lau, 2000; Follows and Jobber, 2000; Fraj and Martinez, 2007 and Mostafa, 2007a). An overview of empirical research work done by renowned researchers on the topic cited above is discussed as follows:

**Arbuthnot and Lingg (1975)** in their study attempted to compare environmental behaviour, environmental knowledge, environmental attitudes, general attitudes and personality traits of Americans and French. The study revealed minimal differences in the environmental behaviour of both the samples. Apart from this, it was also found that environmental attitudes of Americans were more pro-environmental, internally consistent and more likely to be related to environmental knowledge, environmental behaviour, other attitudinal variables and personality traits.

**Martin and Simintiras (1995)** in their study investigated the impact of product line specific environmental knowledge on consumers’ attitude towards green products. The results of the study reported that there was no significant relationship between product line specific environmental knowledge and consumers’ attitude towards green products. Further, it was also advocated that without knowing the impact of green products on the environment, consumers would not believe that green products are good for the environment.

**Schlegelmilch et al. (1996)** conducted a study in UK with an aim of ascertaining the usefulness of variables specific to environmental consciousness in determining consumers’ green purchasing decisions. The study used environmental knowledge, environmental attitude, recycling behaviour and political action as independent variables, whereas pro-environmental purchasing behaviour specific to purchasing habits regarding the five green product categories viz. recycled paper products, not tested on animals, environmentally friendly detergent, organically grown fruits and vegetables and ozone
friendly aerosols was taken as dependent variable. Results of the regression analysis confirmed that environment specific variables were more useful than socio-demographical variables in explaining the pro-environmental purchase behaviour of consumers. It was also stated that environmental attitude turned out to be the most consistent in determining the pro-environmental purchase, where as recycling and political behaviour did not substantially explained the pro-environmental purchasing.

**Minton and Rose (1997)** investigated the effect of attitude and norms pertaining to the environment on consumers’ pro-social behaviours (search for information about environmentally friendly products, product choice based on environmentally friendly attributes and recycling the solid waste) and pro social behavioural intentions (Signing a petition for environmental cause, joining an environmental group, paying more taxes to support the government for pollution control, paying higher utility bills, not buying from companies which cause pollution, and making personal sacrifices to slow down the pollution). The study used environmentally friendly attitude, injunctive norms and personal norms as independent variables, whereas environmentally concerned behaviour and behavioural intentions were taken as dependent variables. Results of MANOVA confirmed the significant effect of attitude, injunctive norms and personal norms on environmentally friendly behaviours as well as behavioural intentions, whereas results of ANOVA reported the primary influence of personal norms on the environmentally friendly behaviours and of attitude on the behavioural intentions. In addition to this, the study suggested to use the corporate activities in various strategic domains such as product development, packaging, manufacturing and public service through informative advertising in order to persuade consumers that their choices could help in solving environmental issues. Also, it was suggested that various public forums, like schools, church, public service messages and other environmental education programs could be used to encourage the environmentally friendly behaviour of consumers.

**Roberts and Bacon (1997)** made an effort to explore the relationship between environmental concern (EC) and environmentally conscious consumer behaviour (ECCB). In the study, cluster analysis instead of factor analysis was used to identify the factors. Results of cluster analysis identified the four factors from EC scale and six
factors from ECCB scale. After cluster analysis, confirmatory factor analysis was performed to evaluate the models. Also, the study measured the relationship between EC variables and ECCB variables by using correlation. Results of the correlation analysis showed that two factors of EC viz. balance of nature and limit of growth were strongly correlated to all of the six dimensions of ECCB.

**Chan and Lau (2000)** proposed a hypothetical model explaining the green purchasing behaviour of Chinese Consumers. The model included five variables viz. man nature orientation (MNO), ecological affect (EA), ecological knowledge (EK), intention to involve in green purchase and actual involvement in green purchase. The data was collected from 274 Chinese Consumers. Results of confirmatory factor analysis confirmed the validity of all constructs, whereas results of structure equation modeling reported the accepted model fit. Further, results of structure equation modeling also reported that all the hypothesized relationships except the relationship between MNO and EK were significant and positive. Therefore, it was postulated that MNO influenced EA positively, but it was found to be insignificant in influencing EK. Also, both EA and EK were found to be significant antecedents of intention to involve in green purchase which in turn significantly influenced actual involvement in the green purchase.

**Follows and Jobber (2000)** in his study on environmentally responsible purchase behaviour tested a model explaining the environmentally responsible purchase behaviour of consumers. The model turned out to be successful in predicting the relationship between individual values (self-transcendence, conservation and self enhancement), product specific attitudes (environmental consequences and individual consequences), purchase intention and purchase behaviour. It was revealed that while taking product specific decisions, consumers were more likely to evaluate environmental as well as individual consequences associated with the consumption of product. Hence, the study suggested to the marketers of the environmentally responsible products that while promoting such products focus of the firms should be on product specific benefits as well, not only on generalized environmental benefits.

**Chan (2001)** examined the influence of cultural and psychological factors on green purchase behaviour. Taking the responses of 549 Chinese consumers, the researcher
studied the effect of two cultural factors viz. man nature orientation (MNO) and collectivism (COLLECT), and two psychological factors viz. ecological affect (EA) and ecological knowledge (EK) on the green purchase behaviour via the mediator role of attitude towards green purchase and green purchase intention. Structural equation modeling was performed to identify the relationship. The results of structural equation modeling reported that both of the cultural values viz. MNO and COLLECT significantly affected the green purchase behaviour via the mediator role of attitude towards green purchase and green purchase intention. Also, both psychological factors viz. EA and EK significantly affected attitude towards green purchase which in turn affected green purchase behaviour via the mediator role of green purchase intention. The study also observed that all consumers who exhibited positive attitude towards green purchase and positive green purchase intentions did not effectively translate their intentions into green purchase behaviour. Hence, an attitude-behaviour gap was indicated by the study.

Jain and Kaur (2004) made an attempt to assess the level of environmental awareness, attitude and behaviour among the Indian consumers. The study selected the sample of 250 consumers of Delhi city. By employing factor analysis, the study identified the five dimensions of consumers’ general environmental concern viz. perceived relationship between economic growth and environment, people’s concern for environment, genuineness of environmental concern, perceived role of various contributors to environmental problems and perceived effectiveness of environmental actions. Consumers were found to believe in genuineness of environmental concern and were ready to take environmental friendly steps, but at the same time they also felt that government agencies as well as strict enforcement of laws could better help in protecting the environment. Similarly, the study identified the three dimensions of personal environmental concern viz. perceived personal environmental awareness, perceived influence of green promotion and willingness to buy green products and perceived effectiveness of personal environmental actions. It was reported that consumers were influenced by the advertisements related to environmental issues and they were not only ready to buy, but were also ready to pay more for the certified eco products.
As far as the level of environmental awareness was concerned, the study found very uneven knowledge pertaining to various environmental issues among the consumers. Furthermore, regarding the environmental behaviour of consumers, the study reported that consumers were more likely to be engaged in self oriented activities specific to information seeking, environment conservation and pollution prevention dimensions, but at the same time they were very low on environmental activism dimension. The findings indicated that consumers were ignorant about persuading others to go green or taking the matters to the concerned authorities. Apart from this, it was revealed that non availability of environmentally friendly products, lack of willingness to protect the environment, lack of enforcement of laws, indifference of people and government towards the environment, and low level of education were the major hindrances in the way to solve environmental problems.

Honaknen et al. (2006) examined the role of ethical motives in consumers’ choice making for organic food in Norway. A sample of 1283 consumers was selected for the study. The role of three types of ethical motives viz. ecological motives, political motives and religious motives in forming consumers’ attitude and intention to buy organic food was studied. Results of the structure equation modeling showed that all of the three types of ethical motives were significant in forming consumers’ attitude towards organic food which in turn had significant relationship with intention to buy organic food. It was also confirmed that ecological motives had strongest impact, whereas religious motives had minor impact on consumer attitudes and intention towards organic food purchase.

Fraj and Martinez (2007) conducted a study in Spain to explore the role of psychographic variables as well as attitude in predicting ecological behaviour of consumers. The relationship between the environmental attitude, ecological affect and ecological behaviour was tested by performing structure equation modeling. Results of the study showed that ecological behaviour was significantly determined by the ecological affect than by the environmental attitude. Hence, it was concluded that people with strong environmental attitude were not much involved in the environmental behaviour in terms of their daily habits because they did not assume their responsibility towards the environment and also believed that government and economic institutions
should bear the responsibility of saving the environment. The study also suggested to the marketers that they should take into consideration the relevance of publicity campaigns in educating the consumers to behave in environmental friendly manner.

**Manaktola and Jauhari (2007)** attempted to explore the factors influencing consumer attitude and behaviour towards green practices in the lodging industry of India. The study selected the sample of 66 consumers of National Capital Region (NCR) in order to study their attitude, behaviour and willingness to pay towards green practices in Indian lodging industry. Results of the correlation analysis found significant relationship between consumer attitude and behaviour towards green practices in the hotel industry. The study revealed that consumers preferred those hotels which had adopted green practices, but at the same time they were found to be very much conscious about the service quality. Also, it was found that despite of the positive attitude and behaviour towards green practices, consumers were not willing to pay extra for green practices in hotels.

**Mostafa (2007a)** investigated the influence of psychological and cultural values on the green purchase behaviour of Egyptian consumers. The study proposed a model to examine the relationship between psychological value viz. natural environmental orientation (NEO), cultural values viz. environmental knowledge (EK) and environmental concern (EC), attitude towards green purchase, green purchase intention and green purchase acceptance. Structure equation modeling was performed to evaluate the proposed relationships. The analysis reported that NEO was significantly related to EK and EC. Also, both EK and EC were significant in forming attitude towards green products which in turn had strong relationship with green purchase intention, but the relationship between green purchase intention and green purchase acceptance was found to be weak. Therefore, the study reported attitude-behaviour gap. Considering the positive relationship between EK and attitude towards green purchase, the study suggested to educate the consumers on the issue of convenience of buying eco safe products. Study also suggested that by using promotional material and green advertising which appeal to consumers’ rationality as well as emotions, marketers may build consumers’ confidence in green products which in turn may help to bridge up the attitude-behaviour gap.
Mostafa (2007b) attempted to analyze the effect of cognitive factors (environmental knowledge and environmental concern) and attitude towards green purchase on gender differences in green purchase behaviour of Egyptian consumers by taking the sample of 1093 respondents. Results of MANOVA indicated that men displayed higher level of environmental knowledge, environmental concern and highly positive attitude towards green purchase than that of females.

Hansla et al. (2008) determined the relationship between psychological determinants of attitude towards green electricity and willingness to pay for green electricity of Swedish consumers taking the sample of 855 respondents. The study proposed a model including the three psychological variables viz. value orientation (VO), awareness of consequences (AC) and environmental concern (EC), attitude towards green electricity and willingness to pay. To test the proposed relationships multiple linear regression analysis was performed. Results of the analysis reported that EC, AC and self transcendences (ST) values were significantly related to attitude towards green electricity as well as willingness to pay. The study also examined the effect of income as well as electricity cost on willingness to pay and found that willingness to pay for green electricity increased with increase in positive attitude towards green electricity, but it decreased with increase in electricity cost, where as income had no significant effect on willingness to pay.

Michaelidou and Hassan (2008) examined the role of health consciousness, ethical self-identity and concern for food safety in determining the attitude and purchase intention towards organic food. A model to test the relationship within the said variables was proposed by the study. The data was collected from 222 residents of the Island of Arran and structure equation modeling was employed on the data to test the relationship of food safety, health consciousness and ethical self-identity with intention via the mediator role of attitudes. Results of structure equation modeling confirmed that the model overall hold well in explaining the relationships among the variables. It was also elaborated that food safety, health consciousness and ethical self-identity were significantly related to the intention via the mediator role of attitude, where as the model did not provide support for the direct relationship of food safety and health consciousness with the intention. Overall
it was found that health consciousness was least important, whereas food safety was the most important predictor of consumer attitude towards organic food.

Forbes et al. (2009) made an attempt to assess consumers’ attitude towards the sustainable wine in New Zealand. The study investigated the impact of green production practices of sustainable wine on consumers’ preference for sustainable wine, intention to purchase, perception about quality of wine, perception about price of wine and willingness to pay. It was found that consumers preferred to drink sustainable wine and also displayed positive intentions to purchase it. Also, majority of consumers wished to see labels on the wine in order to be informed about the green practices. Apart from this, consumers were found to believe that quality of sustainable wine would be equal to or better than the conventional wine and they were also willing to pay premium price for the same.

Han et al. (2009) conducted a study in USA to analyze the role of attitude towards green behaviour, overall image, gender and age in the formation of behavioural intentions viz. visit intention (VI), word of mouth intention (WOMI) and willingness to pay more (WPM) with respect to green hotel customers. The study proposed a model to test the relationship amongst the variables under study. The results of structure equation modeling revealed that attitude towards green behaviour influenced overall image which in turn affected VI, WOMI and WPM significantly, indicating that overall image mediated the effect of attitude on all of the three behavioural intentions. Also, gender significantly influenced the relationship of overall image with all of the three behavioural intentions and this relationship was found to be stronger in case of females. It was also found by the study that age significantly influenced the relationship between overall image and WPM only and the influence was stronger in case of high age group consumers. Further, the study suggested that marketers of green hotels should develop the strategies to build hotel’s image by advertising their ecological practices.

Loncaric et al. (2009) attempted to analyze consumers’ perceptions and attitude regarding organic food in Eastern Croatia. The study was focused on investigating purchase behaviour of consumers towards organic food (frequency and structure of purchase), consumers’ attitude regarding price (price adequacy, willingness to pay extra),
purchase motives (health motives, taste, environmental motives, habit), supply satisfaction and consumers’ future intentions, place of purchase, importance of declaration elements, attitude for producer and reasons for negative reactions. Analysis of the data showed that:

- 86% respondents were purchasing organic food, whereas 64% respondents considered the price of organic food as high and 15% were willing to pay more.
- Health motive was the most preferred motive for buying organic food, followed by taste, environmental aspects and habit.
- As far as the preference for place of purchase was concerned, specialized shops were the most preferred place of purchase, followed by directly from farms and green markets.
- Study also showed that consumers preferred local and regional producers of organic food over foreign producers.
- Negative reactions for not purchasing organic food were high price and non availability of food.

The paper suggested that future promotional activities of organic food should focus on health benefits of organic food. Also, certain attention should be given on price and availability of green products.

**Tarkiainen and Sundqvist (2009)** in their study on organic food products examined consumers’ involvement in purchasing organic food as well as role of the felt involvement in the formation of consumers’ attitude and purchase behaviour towards the four categories of organic food viz. coffee, bread, flour and fruit. An empirical analysis of responses of 200 consumers from Finland was done to analyze the purchasing behaviour. A model was proposed to explain the purchasing behaviour. Results of confirmatory factor analysis proved that model hold very well in explaining the purchasing behaviour, whereas result of multiple regression analysis showed that two proposed variables viz. health consciousness and consumers’ self identification as a green consumer influenced consumers’ attitude towards buying organic food in general which in turn appeared to be significantly correlated with attitude towards buying organic food products in each
category viz. coffee, bread, flour and fruit. Results of the analysis also supported the influence of attitude towards buying organic food in each category on frequency of buying the food belonging to the respective category. Further, it was also found that frequency of buying behaviour was negatively related to brand loyalty in case of coffee, but in case of bread, flour and fruits brand loyalty did not affect frequency of buying.

Chen and Chai (2010) conducted a study in Malaysia to explore the relationship between consumers’ attitude towards the environment and attitude towards green products. Results of the factor analysis identified three dimensions of attitude towards the environment viz. environment protection, government’s role and personal norms. The relationship between attitude towards the environment and attitude towards green products was tested by performing multiple linear regression analysis. Results of the analysis revealed that consumers’ attitude towards government’s role and attitude towards personal norms were significant in forming their attitude towards green products, whereas environment protection was insignificant in forming the same.

Hartmann and Ibanez (2012) attempted to analyze consumer attitude and purchase intention towards green energy brands in Northern Spain. The study investigated the influence of environmental concern, utilitarian benefits and psychological benefits (warm glow, self expressive benefits and nature experiences) on brand attitude as well as purchase intention of green energy. Structure equation modeling was performed to examine the relationship between the variables. The results confirmed that environmental concern and utilitarian benefits had significant positive influence on purchase intention which was partially mediated by the effect of brand attitude. Also, warm glow significantly affected purchase intention directly which was not mediated by the effect of attitude, whereas the effect of nature experiences on purchase intention was mediated by the role of brand attitude. Apart from this, self expressive benefits did not exert positive influence on both attitude as well as intention. The study suggested that marketers of green products should use the information related to psychological benefits in addition to environmental concern and utilitarian benefits in the marketing communication. In order to enhance the warm glow association of consumers, messages should communicate that while purchasing green energy, consumers can feel good by doing good. Study also
recommended the use of lush green landscapes and clear water pictures in ads which would further help in enhancing purchase intention and brand attitude of consumers.

**Hassan and Mohd Nor (2013)** attempted to determine the level of consumers’ decision making towards green electronic products and to identify the influence of four factors viz. attitude towards environmental protection, knowledge of the environment, green purchase intention and safety and health concerns on consumers’ decision making towards green electronic products. The study revealed that consumers’ level of decision making towards green electronic products was weak which also reflected their less awareness about the existence of variety of green electronic products in the market. It was also found that environmental knowledge and purchase intention of green products were significantly correlated with consumer decision making towards green electronic products.

### 2.3 STUDIES RELATED TO GREEN PRODUCTS’ CHOICE CRITERIA

The studies concerning the determination of various factors influencing consumers’ choice as well as purchase decisions related to green products have been discussed as follows:

**Bhate (2001)** in his cross cultural study selected the sample of 132 respondents from India, Greece and UK with an aim to determine the differences in public awareness and consumers’ environmental behaviour in terms of their individual factors (cognitive style and involvement) and broad factors (economic and development stages of the countries). The study intended to identify how the awareness of public was reflected into the purchase behaviour towards eco-friendly products in the three countries under study. The findings revealed that Indian respondents were most involved in the environmental behaviour, followed by respondents of Greece, and UK. Findings of the study further stated that the behaviour of UK respondents was non committal, as they considered the prices of eco-friendly products to be high and placed great importance to the availability of products. Also, consumers of UK were found to be reluctant to change the supermarket if eco friendly products were not available. In contrary to this, respondents of India also focused on the price of eco-friendly products, but at the same time they were ready to
switch the supermarket if eco-friendly products were not available. Hence, the study concluded that ‘price’ and ‘availability’ were the two major issues of concern in all of the three countries while taking decisions related to eco-friendly products.

Lockie et al. (2002) conducted an exploratory study to examine the motivational factors behind the choice of organic food and the role of attitude towards various food related issues in organic food consumption. It was revealed by the study that supermarkets were most popular place of purchasing organic food, followed by green grocers and direct from farmers. Results of the study also postulated that health, the natural content of food, animal welfare, environment protection, weight control, fitness, political values and mood were various factors influencing the choice of organic food. For organic consumers, health, the natural content and price of food were the most important factors influencing their willingness to consume organic food, whereas for non organic consumers, price was found to be the most important factor followed by health, convenience and sensory appeal. It was further established by the study that the four factors viz. the natural content of food, environment protection, animal welfare and mood were strongly correlated with the increasing consumption of organic food. As far as the beliefs and attitudes towards food related issues (such as industrialized methods of food production, healthiness and quality, buying organic food on availability) were concerned, organic consumers displayed stronger beliefs and attitudes than non organic consumers. Also, attitudes and beliefs were correlated with the increasing consumption of organic food.

D’souza et al. (2004) studied the factors influencing green customers’ perception and their purchase intention towards environmentally safe products. A questionnaire survey of 155 respondents in Victoria was conducted. The model proposed by the study tested the influence of five factors viz. product perception, regulatory protection, corporate perception, product labels and past experience on overall perception about environmentally safe products. Further the effect of overall perception about environmentally safe products was tested on customers’ intention to purchase with respect to somewhat higher priced product and somewhat lower quality product. Results of the study confirmed that corporate perception negatively affected customers’ overall
perception, indicating that customers did not believe in corporate strategy of giving high priority to environmentally safe products over profit maximization, whereas product perception, product label and regulatory perception turned out to be insignificant in forming customers’ perception about environmentally safe products, indicating that though, customers read labels, but they either did not trust the information given on the product labels or they did not understand the information. Only past experience with the product contributed positively to the overall perception of customers. Apart from this, the study reported the negative influence of overall perception on purchase intention in both cases when price of product was high and when quality was low, but the negative influence was stronger in case of expensive product than the low quality product. These findings inferred that customers were not ready to tolerate high prices as well as low quality of green products. The study suggested to the marketers that type and format of the information which would be given on the label should be understandable. Also, graphic icons which would be identified as sign of environmentally safe product should be used in addition to the mandatory information, whereas chemical code names and technical terms should be avoided on the labels.

D’ souza et al. (2006) investigated Australian consumers’ response to environmental labels and its impact on their purchase intention and consumer behaviour. 67.7% respondents indicated that they always read labels, but only 55.45% respondents expressed their satisfaction with the information given on the product labels. Further, correlation analysis showed that always reading the labels did not exert significant influence on the purchase intention to purchase lower quality product, but at the same time always reading the label had significant effect on purchase intention for expensive products. It was also revealed that consumers’ satisfaction towards information on the labels did not overcome their price sensitivity. The study suggested the eco-label as an important way of communicating environmental aspects of products as majority of the consumers always read labels. However, readability, layout and size of the labels must be appropriately taken care of while designing the labels. Additionally sufficient, useful and accurate information with respect to product features should be placed on labels to enhance their effectiveness.
Noblet et al. (2006) attempted to explore the factors affecting consumers’ vehicle choice decisions under eco-labeled conditions. Also, the effect of personal characteristics, consumers’ perception of eco-labeled vehicle on vehicle purchase decisions was examined and found that individual’s use of vehicle was the most important factor affecting the choice of class of the vehicle (CAR, SUV, VAN, TRUCK), whereas vehicle choice within the class was driven by monetary factors (income, price and driving cost). Apart from this, perceived consumer effectiveness of the purchase decision and concern about air quality positively affected eco-labeled vehicle choice decision, whereas consumers’ perception about eco-labeled vehicles (green vehicles are poor substitutes and all vehicles pollute the same) and faith in others negatively affected eco-labeled vehicle choice decision. Hence, it was concluded that environmental attributes of the information provided on the labels were more significant in making purchase decisions.

D’Souza et al. (2007) examined the influence of price and quality attributes of product on the green purchase intention of consumers. The study proposed a model which predicted that consumers’ purchase intention was influenced by the price and quality attributes of the product which in turn were influenced by consumers’ environmental beliefs. The analysis of the data suggested that consumers were more focused on the higher quality of green products than on the higher prices of the same.

Haanpaa (2007) conducted a study in Finland and analyzed the effect of postmodern consumer lifestyles and social background variables on green commitments of consumers. Factor analysis identified the six factors of lifestyles viz. reluctant, trendy, quality, price, convenience and green consciousness. Reluctant, trendy and convenience lifestyles significantly affected green commitment, whereas the effect of price was slightly reduced and quality had no effect on green commitment. Results of ANOVA further explained that consumption lifestyles specific factors strongly affected the level of consumers’ green commitment, whereas the effect of socio-economic background variables was quite low, however, three socio-economic variables viz. age, education and type of household were still significant.

Kaman (2008) with an aim of identifying the factors influencing adolescent consumers’ green purchasing behaviour conducted a study in Hong Kong. The results of multiple
Regression analysis reported that the most important factors determining the Hong Kong consumers’ green purchasing behaviour were social influence, followed by environmental concern, concern for self-image in environmental protection and perceived environmental responsibility.

Rokka and Uusitalo (2008) investigated consumers’ relative preference for green packaging as compared to other important product attributes such as brand, price and convenience of use taking the case of functional drinks. 330 consumers of Finland were surveyed and the relative importance of the product attributes was investigated by performing choice based conjoint analysis. Results indicated that packaging was an important attribute in consumers’ choice of the product which contributed 34% to the overall utility of all tested attributes. Consumers expressed their preference for green packaging over plastic packages. Apart from this, other equally important attribute was price, contributing 35% to the overall utility. Respondents preferred least expensive products. Package resealability was the third important attribute, contributing 17% and brand was the least important attribute, contributing 15% to the utility. Based on the findings, the study categorized respondents into 5 segments by applying cluster analysis: ‘green packaging segment’ (31%), ‘price sensitive segment’ (23%), ‘prefer actimel’ (11%), ‘convenience’ (22%) and ‘gefilus loyal’ (13%). ‘Green packaging segment’ included those respondents who gave preference to environmentally friendly packaging. For this cluster, packaging was the most important attribute with relative importance of 63%, followed by price, package resealability and brand. Study also proved that demographic variables had no significant differences across the identified segments. However, members of green packaging segment were slightly more likely to be females and older than others. Hence, the study pointed out the relative importance of product specific features than the environmental attributes and demographics in determining behaviour of consumers.

Brecard et al. (2009) conducted a study in the five countries viz. Belgium, Italy, Denmark, The Netherlands and France, with an objective to explore consumers’ demand for eco-labels on sea food and also to reveal the socio-economic profile of pro-labeled consumers. The effect of sea food features, information, localization and socio-economic
factors was investigated on the demand for eco-labels using probit model. The results revealed that freshness of fish, geographic origin and wild vs. framed fish were various factors which were significant in determining the demand for eco-labels on seafood. Also, a significant relationship between price of fish and demand for eco-labels was confirmed by the study.

**Kim and Seock (2009)** conducted a study in USA with the intent of evaluating young female consumers’ attitude and purchase intention towards natural beauty products. Taking the sample of 210 consumers, the author studied the effect of consumers’ health consciousness and environmental consciousness on consumer attitude, purchase intention and purchase process of natural beauty products. The data was analyzed with ANOVA and correlation analysis. Results of the study reported that consumers with high health consciousness perceived natural beauty products positively, whereas the impact of environmental consciousness on frequency of purchase was stronger than the impact of health consciousness. It was further revealed that consumers with low health consciousness as well as low environmental consciousness were not willing to pay extra for natural beauty products.

**Shen and Saijo (2009)** explored the effect of China energy efficiency label on consumers’ preferences in China. The study investigated the effect of environmental awareness, awareness of China energy efficiency labels, energy efficiency ranks listed on energy labels and other product attributes related to price and energy consumption on the choice of air conditioners and refrigerators, and consumer’ willingness to pay using latent class model approach. Results of data analysis revealed that:

- Environmental awareness was high among the people of Shanghai.
- Consumers were aware of China energy efficiency label.
- Energy efficiency ranks listed on energy labels significantly affected consumers’ choice of both air conditioners as well as refrigerators.
- Consumers in Shanghai were willing to pay extra for energy efficiency in case of frequently used products.
- It was also indicated that appropriate information provided on the label was also preferred by Chinese consumers.
**Welsch and Kuhling (2009)** investigated the factors explaining the three types of pro-environmental behaviours viz. installing solar energy equipment, subscription to green electricity programs and intensity of buying organic food of residents of Germany. Apart from this, the study identified the effect of demographic variables, environmental attitudes, economic and cognitive factors (income, estimated price, premium, level of information on environmentally friendly goods), consumption patterns of reference groups and own consumption patterns in the past on pro-environmental behaviours. The analysis of the study found that economic and cognitive factors were significant in influencing all of the three types of pro-environmental behaviour, but the influence was greatest in case of green electricity and least in case of organic food. Consumption pattern of reference groups significantly influenced all of the three types of behaviour, but the influence was greatest in case of organic food and least in case of green electricity, whereas own past consumption pattern or routine behaviour were more significant in influencing intensity of buying organic food. However, the influence of demographic variables and environmental attitudes was varied, but in general both were weak in explaining pro-environmental behaviour.

**Connell (2010)** identified internal and external barriers which constrain the consumers from buying eco-conscious apparel. 26 eco-conscious consumers were interviewed to explore their viewpoints through semi-structured interviews. Findings of the study revealed that internal barriers of eco-conscious apparel acquisition (ECAA) were:

- **Knowledge about ECAA**: lack of knowledge about environmental effects of apparel production, misunderstanding of the environmental impact of manufactured fibers compared with natural fibers, limited knowledge of environmental preferable apparel (EPA) and sources of its acquisition.

- **Attitudes about EPA**: negative attitude towards attributes and characteristics (style, comfort and fit) of EPA.

External barriers to ECAA were limited availability of sources for acquiring EPA, limited availability of EPA with desired attributes, economic resources, retail outlet’s merchandising and societal norms.
Gam et al. (2010) conducted a study on mothers of pre-schoolers to explore the relationship between their environmental characteristics (environmental concern, environmental purchasing behaviour and recycling behaviour), involvement with organic cotton clothing and children’s clothing in general, purchasing behaviour of children’s clothing (shopping frequency and amount spending), willingness to purchase organic cotton clothing and willingness to pay more for organic cotton clothes. Amongst those who were purchasing organic cotton clothing, 29.5% mothers reported that they shop once every two weeks and 33.3% mothers shopped once every two months. However, for non purchasers of organic cotton clothes, being expensive and non availability were the two major reasons for non purchase of organic cotton clothing. Subsequently, multiple linear regression analysis confirmed the significant positive influence of the three environmental variables on involvement with children’s organic cotton clothing which in turn influenced mothers’ willingness to purchase organic cotton clothing significantly, whereas other variables turned out to be insignificant in affecting willingness to purchase. It was also found that mothers were not willing to pay premium price for organic cotton clothes. Also, softness of cloth was the major reason of purchasing organic cotton clothing.

Gerpott and Mahmudova (2010a) analyzed the effect of attitudinal and perceptual characteristics of consumers on their propensity to adopt green electricity supplier. The study was conducted in Germany. The effect of various attitudinal and perceptual characteristics viz. social endorsement of green electricity, attitude towards environment protection, perceived difficulty of switching electricity supplier, knowledge ability concerning electric power companies, switching procedures, past switching experiences, price emphasis, difference between electric power companies offerings, perceived social responsibility of one’s electric power company was investigated on consumers’ willingness to adopt green electricity using partial least square analysis. Following conclusions were drawn from the data analysis:

- Regardless of actual consumption of electricity, willingness to adopt green electricity was affected by consumers’ attitude towards the environmental issues and social endorsement of green electricity by close contacts.
• Willingness to adopt green electricity of consumers with low consumption of electricity was significantly affected by electricity price and person’s belief that his current electricity supplier took over the responsibility towards the environment.

• Willingness to adopt green electricity of consumers with high consumption was significantly affected by the degree of perceived dissimilarity among power company offerings.

**Gerpott and Mahmudova (2010b)** analyzed the effect of attitudinal and perceptual variables viz. attitude towards environmental protection issues, attitude towards one’s current electricity supplier, perceived difficulty of switching electricity supplier, household ecological conservation behaviour, evaluation of green energy by social reference groups, knowledge of renewable energy sources as well as socio-demographical characteristics on willingness to pay mark up for green electricity. The data was analyzed with binary logistic and ordinal regression analysis. The results revealed that attitude towards environment protection issues, one’s current electricity supplier, household ecological conservation behaviour and evaluation of green energy by social reference groups were various factors which were significant in determining price mark up tolerance. It was further revealed that though, household size significantly affected the willingness to pay mark up for green electricity, the effect was negative, whereas monthly electricity bill and age had significant positive impact on the willingness to pay mark up for green electricity. It was also found that 53.4% of customers were willing to pay mark up, whereas 26.1% customers accepted to pay 5-10% increase in the electricity bill.

**Griskevicius et al. (2010)** in their study examined the effect of status motive on the desire for green products. The study was divided into the three experiments. In the first experiment, effect of status motives was examined on luxurious non green products and less luxurious green products. The second experiment investigated the influence of status motives on purchase decisions while buying green products in public or privately, whereas in the third experiment, it was examined that how status motives influenced the purchasing decisions when the price of green products was somewhat higher or lower
than their non green counterparts. Data was analyzed by ANOVA technique. Results revealed that activating the status motives led to the choice of luxurious green products. Moreover, it increased the likelihood of shopping green products in public than in private and also when green products were costlier than non green products. It was suggested by the study that activating status motive could be the effective marketing strategy for promoting green behaviour or green products. Therefore, while designing marketing strategies, marketers of green products should associate their products with status, like celebrity endorsement, arranging prestigious events etc.

Guido et al. (2010) conducted a study in France and Italy to examine the role of ethical dimensions and product personality in forming consumers’ purchase intention towards organic food. The study employed five factor model of personality and theory of planned behaviour model with an extension of ethical dimension. Findings of the analysis showed that moral norms turned out to be the most significant predictor of the purchase intention. Subjective norms influenced purchase intention directly and also indirectly by affecting individual’s moral norms i.e. the perception of what was right and what was wrong. Results also showed that product personality dimensions viz. authenticity and naturalness influenced consumers’ attitude and perceived behavioural control respectively which further influenced the purchase intention of consumers to purchase organic food products.

Han and Kim (2010) conducted a study in USA with an aim of predicting green hotel customers’ revisit intention with the mediating role of customer satisfaction, attitude, subjective norms, and perceived behaviour control by applying the theory of planned behaviour. A model explaining the influence of service quality, customer satisfaction, overall image and frequency of past behaviour on the revisit intention of hotel customers was proposed. Structure equation modeling was applied to validate the model and the results revealed that service quality, customer satisfaction and overall image were found to be more significant in forming the revisit intention. Results also revealed that only service quality significantly affected revisit intention via. the mediating role of customer satisfaction and customer attitude. These findings also indicated that customer satisfaction and attitude significantly mediated between service quality and revisit intention.
Niinimaki (2010) conducted a study in Finland with an aim of exploring the factors driving consumers’ decisions for purchasing eco-clothing. The study investigated the impact of attitude and ethical interest on ethical purchase decisions. The data was analyzed by percentage analysis. Results of the study reported that ethical commitment and ethical values strongly influenced the purchase of eco-clothing, eco material, recycled clothing and ethically made garments. Quality and aesthetics were also found as important factors affecting the purchase decisions related to eco-clothing. Also, 94.6% respondents were ready to pay more for eco-clothing.

Perrini et al. (2010) investigated the determinants of consumer attitude towards organic products marketed by retailers under their private labels in Italy. The author proposed a model to explore the effect of retailers’ consumer corporate social responsibility (CSR) profile and retailers’ environmental CSR profile on consumers’ trust in organic products marketed by retailer, brand loyalty and willingness to pay premium price. Data was analyzed with structure equation modeling and the results reported that perceived consumer CSR profile of retailer significantly affected consumers’ trust in retailer’s private labels, whereas perceived environmental CSR profile of retailer significantly affected consumers’ trust in organic products. Further consumers’ trust in retailer’s private labels as well as consumers’ trust in organic products significantly affected consumers’ trust in retailer’s private labeled organic products which in turn significantly affected brand loyalty and willingness to pay premium price.

Thompson et al. (2010) tested the relationship between environmental marketing and green consumer segments. The study examined consumers’ preference for forest certification for both value-added products (furniture) and non-value-added product (plywood). Conjoint analysis was used to determine the relative importance of forest certification while purchasing plywood and furniture. Data was collected in two US surveys. In study A, survey data was collected from consumers of building materials and in study B, survey data was collected from consumers of furniture. On the basis of relative importance of forest certification, respondents were categorized into two groups: (i) for whom forest certification was most important attribute and (ii) for whom other product attributes, like wood type, price, adjustability and custom made were more
important. Chi square and t-test were performed to test whether there were any differences between the two groups in terms of demographical and psychographical variables. It was revealed that some demographical variables had significant differences in the two groups. Younger respondents gave more importance to environmental certification, where as income and education were insignificant in determining the differences among two groups. In study B there were no significant differences in two groups in terms of age and income, whereas education was significant in determining the differences in two groups. More educated people were more likely to give importance to environmental certification. It was also revealed that in both the studies willingness to pay more was characteristic of those people who gave greater importance to environmental certification. Hence, it was concluded that demographic variables alone did not hold very well in segmenting green consumers, but demographics in combination with psychographic variables were better in segmenting the same.

Yin et al. (2010) analyzed the major factors affecting Chinese consumers’ choice for organic food. 432 Chinese consumers were surveyed to understand their purchase behaviour regarding organic food. Results of the study revealed the eleven factors affecting Chinese consumers’ purchase intention viz. concern for health, concern for environmental protection, concern for current food safety, knowledge of organic food, degree of trust in organic food, degree of acceptance of current price, convenience of purchasing, age, education level, income and kids in the family. Logit Model was applied to investigate the relationship of eleven above mentioned factors and consumers’ willingness to buy organic food. Results of logit regression analysis demonstrated that consumers’ concern for own health, degree of trust in organic food, degree of acceptance of current price and income affected purchase intention more significantly, whereas the effect of consumers’ concern for environment protection, food safety, knowledge of organic food and convenience of purchasing was very weak. Also, age, education level and kids in the family turned out to be insignificant in affecting purchase intention. Apart from this, it was found that on an average awareness level of Chinese consumers towards organic food was 53%. Only 36% consumers were aware of one or two labels of organic food, whereas just 15.7% consumers were able to differentiate between organic and conventional food in terms of their quality and safety.
Young et al. (2010) investigated factors influencing consumers’ purchase decision process with respect to green technology products viz. cars, white goods (washing machine and refrigerators), brown goods (TV, CD), green electricity and small household appliances. The study found that product’s environmental performance, product’s manufacturing and second hand availability, consumers’ green values, purchase experience, availability of time for research and decision making, availability, affordability and knowledge of relevant environmental issues were the major factors influencing consumers’ purchase decisions. The paper suggested to educate the consumers regarding various environmental issues in order to increase their knowledge of relevant environmental issues which was mentioned as key factor in the decision process. The paper also recommended using single issue labels to help customers.

Goto et al. (2011) examined the factors influencing consumers’ choice of ecologically efficient water heaters and impact of marketing strategy in Japan. The study examined the effect of energy price, financial support from government, information by sales representatives, housing attributes (floor space, age of building) and regional and family attributes on consumers’ choice of ecologically efficient water heaters using mixed logit models and nested logit models. The results showed that energy price, large and new house, financial support from government and recommendations by sales representatives significantly influenced consumers’ choice of ecologically efficient water heaters.

Jansson (2011) conducted a study in Sweden with an objective of exploring the factors driving and hindering the adoption of alternative fuel vehicle. The effect of innovativeness, attitudinal factors, perceived innovation characteristics, perceived importance of car characteristics and socio-demographical variables was studied using chi-square and t-test. Results of the study found that there was no significant difference in the socio-demographical characteristics between adopters and non adopters of eco-innovation in alternative fuel vehicle; whereas attitudinal factors, novelty seeking and perceived innovativeness characteristics were significantly higher among adopters. It was also found that fuel efficiency, environmental friendliness and possibility for alternative fuels were significant product attributes which were ranked higher by the adopters.
Ozaki (2011) studied the factors encouraging the consumers to adopt green electricity tariffs and barriers to it. The study examined the effect of perceived benefit, perceived compatibility, reflexivity, social influence and norms, controllability and perceived risks on adoption decision. The data was analyzed with correlation coefficient. Findings of the study reported that social influence, normative beliefs, controllability and access to information affected adoption decision positively. Also, all consumers who expressed positive attitude for environmental issues did not adopt green electricity, may be due to lack of social norms, personal relevance, inconvenience of switching, uncertainty about the quality and lack of information.

Sonnenberg et al. (2011) investigated the priority given by consumers to product choice criteria while making the purchase decisions regarding major household appliances. The survey was conducted in Tshwane on the selected sample of 446 consumers. It was found that majority of consumers’ prioritized desirable functions of household appliances rather than aesthetic attributes and price. Among the desirable functions, consumers gave more importance to product guarantee, after sales service, advanced technology features of the product as the criteria of product choice. Further, results of exploratory factor analysis analyzed that consumers sought two types of product related information viz. greenness and functionality of the product. In terms of consumers’ need for the information regarding greenness of products, females above the age of 50 years expressed more need to gain the information in this context, whereas the increase in income and higher level of education did not significantly affect the need to gain information in this context. The same trend of demographical characteristics was found in case of need for the information regarding the functional aspects of products. It was revealed that consumers were willing to consider the service life of appliances as well as their running costs in terms of electricity and water consumption. As far as the source of information was concerned, the study confirmed the influence of family and friends in the pre-purchase evaluation of the product. Apart from this, many of the consumers perceived printed information, such as promotional material and brochures more convincing and effective in evoking the interest of consumers as well as in enhancing their pro-environmental behaviour.
2.4 STUDIES RELATED TO GREEN MARKETING STRATEGIES

This section of the study includes an overview of the conceptual studies related to the evolution of green marketing and empirical studies related to the green marketing strategies used by the companies to promote green products. Various eminent researchers, like Lampe and Gazda, (1995); Peattie, (2001); Peattie and Crane (2005) have discussed the evolution of green marketing. Besides this, some researchers have studied the marketing strategies adopted by various firms to promote their green products (Wong et al., 1996; Porthero, Peattie and McDonagh, 1997; Meyer, 2001). Apart from this, Belz and Schmidt-Riediger (2010) have categorized green marketing strategies on the basis of their attributes, whereas Polonsky and Rosenberger III (2001) have discussed implementation of marketing strategies according to the levels of green marketing. Additionally, the research work of various researchers on different types of green marketing strategies, like eco-labeling/environmental labels (Hussain, 2000; de Boer, 2003; Bjorner et al., 2004; Liere and Thidell, 2005; Chamorro and Banegil, 2006; Rex and Baumann, 2007; Teisl et al., 2008; Rahbar and Wahid, 2011), green alliances (Crane, 1998), public relations (Banyte et al., 2010) and advertising (Hartmann and Ibanez, 2010) have been discussed in the following paragraphs of the study.

Lampe and Gazda (1995) in their article discussed the role of various social catalysts, like media, public opinion and social concern for the environment, green political power, environmental laws, consumer attitudes and green purchasing in giving rise to green marketing. Key issues of green marketing specific to product variety, labeling, packaging, pricing, promotion and distribution in the context of Europe and the United States were also discussed. It was found that all consumers were not very much influenced by green marketing. However, the segment of young people was still found to be more environmentally concerned. Also, in Europe as well as in the United States, consumers were willing to pay only slightly more for green products. Hence, it was concluded that green products would generate more sales if their prices would be close to their alternative conventional products. It was also suggested by the study that marketers should focus on non-commercial sources of information such as universities and TV,
radio, newspapers and news reports for building consumer confidence in the benefits of green products.

**Polonsky (1995)** in his study discussed the relevance of stakeholder theory in designing environmental marketing strategy. The study advocated that by following the four steps of stakeholder theory viz. identifying the relevant stakeholder groups, determining the stake of each group, determining how effectively expectations of each group are met and developing corporate objectives considering stakeholders’ interests, the environmental marketing strategy could be made more effective.

**Wong et al. (1996)** in their study discussed various marketing strategies and market prospects for environmentally friendly products on the basis of empirical analysis of firm’s marketing strategies and their influence on consumers’ demand for green products. The study analyzed the marketing strategies being used for household detergents, recycled papers, unleaded petrol and automobile technology. It was revealed that in the absence of clarity about environmental benefits of green products, performance of the product and other functional attributes of product influence consumers’ choice regarding green products. It was also observed that focus of promotional activities related to green products was majorly on consumers than on the supply channel.

**Prothero, Peattie and McDonagh (1997)** attempted to explore various options of on-pack communication and management’s response to it taking the case of anti-perspiring deodorants. The study revealed various communication strategies adopted by anti-perspiring deodorant companies in order to provide on-pack information viz. ignore, claim, fudge, denial, disclosure, explain, educate and embrace. It was concluded that companies while choosing their communicating strategy consider their philosophy regarding what type of the information they want to put on the pack.

**Crane (1998)** examined the process of establishing green alliances between businesses and their suppliers, competitors and other stakeholders. The study contended the green alliance as a form of green marketing strategy and also discussed various forms of green alliances. Apart from this, the study highlighted that the success or failure of such alliance depends upon how various actors perceive their roles in the process of
establishing green alliance. It was stated that in green alliance, both the partner organizations experience differences in environmental commitment and orientations and hence, such cultural differences are more likely to influence the success or failure of the green alliances.

**Johri and Sahasakmontri (1998)** analyzed the green marketing strategies of cosmetics and toiletries in Thailand, taking the case of an international brand ‘The Body Shop’ and a local brand ‘Oriental Princess’. The paper attempted to explore the effect of the marketing strategies adopted by these companies on consumers’ attitude and brand loyalty. The research revealed that Thai consumers appeared to give more importance to non green attributes of products in their purchase decisions. Further, it was noticed that both the companies were successful in building consumers’ attitude and brand loyalty.

**Hussain (2000)** suggested the use of eco labeling schemes as means of disseminating the information to consumers and also advocated that it could be proved as a mean to curb inefficiency of information transfer.

**Meyer (2001)** discussed the importance of cost-benefit analysis in adding value to green products. In this paper, by analyzing the case of two organic clothing brands, the author showed that environmental superiority of a green product should not be treated as core value of the product, as in the marketing communication ‘green only’ positioning strategy could prove to be unsuccessful. Study enlightened that both organic clothing brands adopted conventional marketing strategies for green products rather than adopting green marketing strategies i.e. products were positioned in the market on the basis of their price competitiveness and other functional attributes complementing with the environmental superiority of product. It was also revealed that both companies identified their target groups based on the consumer needs not on the basis of environmental awareness. Hence, the study suggested that marketers of green products should meet consumers’ need first and customers’ environmental expectations in the second stage.

**Peattie (2001)** has reviewed the evolution of green marketing in the three stages: (i) ‘Ecological Marketing’, which had narrow scope and was focused on reducing the dependence on environmentally damaging products. (ii) ‘Environmental Marketing’, a
somewhat broad based approach with the focus on reducing environmental damage by identifying green consumer demand and (iii) ‘Sustainable Marketing’, a radical approach which intend to meet the full environmental costs of production and consumption in order to create sustainable economy.

Polonsky and Rosenberger III (2001) discussed the three levels of green marketing viz. strategic greening, quasi-strategic and tactical greening. The study also discussed the implementation of green marketing strategies viz. targeting, green design, green positioning, green pricing, green logistics, marketing waste, green promotion and green alliances at the three levels of green marketing. The study also highlighted the need to adopt holistic approach in implementing green marketing strategies, as it was observed that in order to make green marketing more effective coordination across all functional areas was desired.

de Boer (2003) reviewed various types of sustainability labels prevailing in the market and also attempted to understand what labeling meant for various stakeholders of the organization. It was revealed that producer, sellers, consumers, policymakers and other groups of society perceived labels from different perspective. The study concluded that role of environmental labels as a marketing strategy in communicating between companies and consumers will vary from providing shopping aids to providing the quality assurance.

Bjorner et al. (2004) in their study analyzed the effect of certified environmental label (the Nordic Swan label) on the actual purchase of Danish consumers. The data was analyzed using multinominal logit model to quantify the effect of Nordic Swan Labels on consumers’ choice for different brands of toilet papers, paper towels and detergents. The results revealed that Nordic Swan Labels affected consumers’ brand choice for toilet papers and detergents significantly, whereas the influence of environmental labels on consumers’ choice for paper towels was found to be comparatively less.

Liere and Thidell (2005) reviewed the effectiveness of product related information and labeling schemes in terms of consumer awareness, consumer acceptance and change in consumer behaviour by focusing on Nordic Swan Scheme. The purpose of the paper was
to elaborate how consumers in the Nordic markets perceived, understood and used the environmental information on products. With respect to consumer awareness, effectiveness of the product related environmental information lied in consumers’ motivation to choose environmentally sound product. The study analyzed that great number of consumers were still not interested in product related environmental information, but at the same time consumers were found to be aware of main eco-labels in the Nordic markets. Study also revealed that consumers were not very well able to understand the labels and information provided on it, but on the other hand they were found to trust main eco-labels. Author also argued that consumers did not use the product related information to the extent of change in their behaviour they claim.

Peattie and Crane (2005) reviewed the history of green marketing since the period of 1990 in order to critically examine the contribution of marketing discipline towards the sustainability. The paper discussed the false marketing practices undertaken by the firms viz. ‘thrust marketing’, ‘marketing department marketing’, ‘accountant’s marketing’ and ‘formula marketing’. Besides this, the study also revealed the problems which had hampered the development of green marketing and which contributed to the failure of five manifestations of green marketing viz. green spinning, green selling, green harvesting, enviropreneur marketing and compliance marketing. Study also outlined some radical changes required to be adopted by marketers in order to make substantive contributions in green marketing discipline.

Chamorro and Banegil (2006) studied environmental indicators of Spanish firms with at least one eco-labeled product. Firms were surveyed to evaluate whether the firms used eco-labels just as a tool to increase their sales or really there was a company with true environmental culture behind those eco-labels. Spanish consumers were found to be skeptical of truthfulness of green messages communicated by the firms. It was also observed that eco-labeling was just used as a promotional tool to increase sales of the firm as it guaranteed environmental friendliness of the product, but behind those labels products were not truly green. The study reported a dubious situation where eco-labels were adopted by the firms as a proactive environmental strategy, but the same environmental concern was not reflected in the general behaviour of the firm. The study
also advocated that use of true eco-labeling programs provide credibility to green products.

**Phau and Ong (2007)** examined consumers’ response to the three types of environmental claims contained in promotional messages for one green clothing brand and one non green mainstream clothing brand in Australia. The analysis of the study found that consumers responded more positively to environmental claims which were made for green brands than to the same claims made for non green brands. For a green brand, significant positive relationship was found between attitude towards the advertisement and the perceived credibility of the message, whereas for non green brand, there was no significant relationship between the two variables. It was further revealed that consumers considered messages related to environmental correctness of the product more credible than the messages related to company’s environmental behaviour.

**Rex and Baumann (2007)** revealed that though, eco-labels had emerged as the main tool of green marketing, sale of eco-labeled products was still found to be low. An effort was made to identify whether eco-labeling was insufficient marketing strategy to promote green products or was it being handled inadequately. Authors reviewed the literature to look at beyond eco-labels i.e. what other marketing means could be adopted to promote green products. It was observed that market share of eco-labeled products was quiet low because eco-labels were addressed mainly to ‘green consumers’ and they contained very technical information. Therefore, it was recommended that in order to increase greener production and change the consumption pattern of consumers, in addition to green consumers wider range of consumers need to be addressed. Moreover, it was also suggested that marketers of green products should adopt a broad range of marketing strategies to promote green products.

**Pickett-Baker and Ozaki (2008)** in their study examined the role of marketing and branding techniques in addition to consumers’ beliefs and attitudes in influencing consumers’ perception and behaviour towards green products. For this purpose, a sample of 52 mothers of London was surveyed by the study. Results of the linear regression reported that environmental beliefs did not significantly affect environmental behaviour of consumers, indicating an attitude-behaviour gap, whereas products’ performance
beliefs were found to be significantly affected by environmental beliefs. The study revealed that respondents preferred to choose those brands of green products which were manufactured by the companies displaying environmentally friendly practices. Also, respondents expressed their positive feeling about purchasing the brands which were less damaging to the environment. Analysis of the study proved that respondents generally trusted well-known brands and judged green products on the basis of previous experience and word-of-mouth. Further, it was also found that the only obstacle in purchasing green products was perceived risk of the product’s performance. However, respondents also reported the difficulty in identifying the green products. Apart from this, though, most environmentally concerned quartile of respondents expressed their awareness regarding green product marketing; they found marketing strategies very irrelevant and unappealing, whereas the other three quartiles reported their unawareness about green product marketing. Further, respondents expressed their interest in the inclusion of information related to improved product attributes, benefits and environmental friendliness of green products in the marketing communication, which in turn indicated the ability of appropriate information to influence the consumers to purchase green products. Hence, the author suggested that effective branding and marketing strategies are crucial for selling green products and they may also help in reducing the value-action gap.

Teisl et al. (2008) investigated the impact of consumers’ personal characteristics as well as product label’s characteristics on consumers’ likelihood to buy eco friendly vehicles in Maine, US. The study proposed a conceptual model to test the influence of label information attributes, demographic attributes, products’ perceived eco-rating, perceived credibility of eco-information, perceived importance of the eco-information, psychological factors (perceived consumer effectiveness, faith in others, personal and interpersonal norms, level of eco-concern, perception of eco-problem, perceived credibility of information source, perceived compromise) and prior eco-perceptions of the product on eco behaviour of consumers. Findings of the study confirmed the positive influence of consumer’s perception of eco friendliness of the vehicle, perceived credibility of eco-information and perceived importance of eco-information on consumers’ likelihood to buy eco friendly vehicles. In addition to this, results found that
eco-information attributes of eco-labels affected only consumer’s perception about eco-friendliness of the vehicle and did not affect perceived credibility of eco-information and perceived importance of eco-information, which further indicated that information about the eco-friendliness of the vehicle was preferred by the respondents. It was further found that importance of information was positively influenced by perceived consumer effectiveness and level of eco concern, whereas perceived credibility of information was positively influenced by credibility of information source and was negatively related to the individual’s prior perception of the product. Education was the most significant socio-economic variable in all relationships, which indicated that better educated people gave more importance to information and also trusted eco-labels. Apart from this, importance of eco-information on the labels was found to be lower in male respondents, whereas credibility of the information was found to be highest in older group of respondents. Hence, the study pointed out the need of well designed eco-labels and their relative importance in influencing consumers’ perception about eco-friendliness of the product.

Horne (2009) discussed the role of eco-labels in the assessment of sustainable products and stated that providing the desired information on eco-labels increased the likelihood of purchasing green products. The findings of the study suggested that though, consumers prefer simple eco-labels, more simplicity could undermine the efficacy of environmental claims made by the product. Also, the purpose of eco-labels of making functional comparisons between products goes against the notion of simplicity. It was also revealed that consumers recognized and supported mandatory eco-labels over others. The study concluded that though, eco-labels were effective in persuading the consumers, sometimes, eco-labels turned out to be insufficient to communicate the desired information to the consumers.

Banyte et al. (2010a) conducted a study in Lithuania to reveal the expression of green marketing based on the Lithunian female consumers of green products. The study revealed that Lithuanian females were price sensitive and believed in the high quality of eco-friendly products. Decision making was emotions oriented, and positive word of mouth was significant in building trust over eco-friendly products. Study also concluded that public relations had strongest influence on making decision to buy eco products. Following recommendations were given by the study:
• Major focus of promotional activities should be on the high quality, benefits and environmental friendliness of the product.

• To arouse positive emotions of consumers’, benefits of the products and positive results of their consumption should be focused in the marketing communication.

• To build up more trust in the food products, focus should be on creating brand image of the product, special internet blogs should be created to make products more popular.

• It was suggested to perform all of the above mentioned activities through public relations, like publishing relevant articles on the internet and creating websites etc.

Belz and Schmidt-Riediger (2010) investigated the major drivers of sustainability marketing strategies by conducting an empirical survey in the German food market. The data was collected from 384 food processing companies. On the basis of five dimensions of sustainability marketing strategies (social product quality, ecological product quality, market segmentation, targeting and positioning) results of hierarchical cluster analysis identified 4 types of sustainability marketing strategies viz. ‘Performers’ (27%), ‘Followers’ (40%), ‘Indecisives’ (23%) and ‘Passives’ (10%). Characteristics of these sustainability marketing strategies are discussed as below:

• Performers were those companies which had very high socio-ecological product quality. They were charging high prices, operating in the niche markets and were targeting at socio-ecological active consumer groups. Products were positioned on the basis of socio-ecological product attributes. Small companies belonged to this group.

• Followers also focused on the high socio-ecological quality of the product, but it was lower than performers. They offered their products in the selected segments of potential socio-ecologically active consumers. Products were positioned on the basis of price and socio-ecological product quality. Medium sized companies belonged to this group.
• Indecisive had products with low social and medium ecological product quality. They positioned their products on the basis of price and performance of the product. This segment was not following any distinct targeting strategies.

• Passives included companies with medium to low socio-ecological product quality. Products were positioned primarily on the basis of price and performance with a subsidiary role of socio-ecological quality of product. They were targeting consumer groups with no particular ecological consciousness in the mass market. Larger companies belonged to this group.

Performers and followers were described as quality segment, indecisive as mid-tier segment and passives as price segment. Study also examined the influence of internal and external drivers viz. consumers, retailers, competitors, legislators, top management / company owners, public exposure and industry membership on the type of sustainability marketing strategy adopted. To explain the influence of each factor, bivariate correlation was performed, whereas to explain their joint effect, binary logistic regression was performed. Binary logistic regression analysis reported that the four drivers viz. consumers, legislators, sales volume per annum and sub industry (diary/baby food) were significant in determining the type of sustainability marketing strategies.

**Hartmann and Ibanez (2010)** conducted a study in the villages of Northern Spain to analyze the behavioural effects of landscapes and natural scenery in the advertising. The study tested the influence of environmental concern and green advertisements using nature sceneries on the consumers’ emotional response towards the ad, attitude towards the ad and attitude towards the brand. The study indicated that nature scenery, familiar biomes and biospheric content had significant positive effect on all of the dependent variables.

**Cronin et al. (2011)** deduced from the literature that the main types of green marketing strategies were: green performance, green innovation, greening of the organization and green alliances. Apart from this, the paper shed a light on the need of understanding wants of consumers by the firms which intend to compete on the basis of green. Study also advocated the use of relative green marketing strategy to meet the demands of stakeholders.
Rahbar and Wahid (2011) investigated the effect of green marketing tools on consumers’ purchase behaviour in Malaysia. The results of multiple regression reported that consumers’ trust in eco-label and eco-brands, and their perception about eco-brands were the major factors which were significant in influencing consumers’ actual purchase behaviour.

The review of literature discussed above has helped the researcher in many ways.

- Firstly, it helped in understanding the ongoing trend of research in the area of Green marketing and Green consumerism since it came into existence as a separate field of study.
- Secondly, it provided valuable information in identifying the research gap existing in this field of study, which provided the baseline to frame need, significance, scope and objectives of the present study.
- Thirdly, it helped in identifying the methodological trend in this area of study and selecting the techniques to unravel the data.