CHAPTER 5
SUMMARY

1. INTRODUCTION

The research focused on consumers’ attitude and consumers’ behavior in relation to environmental problems. It started with the assumption that environmental problems were closely related to individual consumer attitude, and that individual consumer behavior was one of the major causes for the existing environmental problems. Several studies argued that current consumption practices and consumer behavior cannot be called “sustainable”. If substantial changes are not made to the same, such consumption pattern will definitely lead to disastrous situation in the long term. In India also, such prevailing consumption practices are posing a serious threat to the environment and to society as a whole.

Consumers in developed countries in general, are more aware of ecological issues and they show greater environmental concern as they are already paying a heavy toll on account of environmental degradation that has occurred during the seventies and eighties due to rapid industrialization and development of their economies. As a reaction to this general societal problem, developed countries started giving importance to corporate social responsibility (CSR). A large number of environmental organizations have mushroomed in these countries to champion the cause of environmentalism.

In case of developing countries the scenario was absolutely different, there people were neither aware nor were willing to know about damage being done to the environment by human beings and the repercussions which their successor will have to bear. There was also a dearth of research and literature in less effluent societies. Such great need of research in the area and urgency of
spreading awareness about the environmental dreadful conditions inspired the researcher to carry out a research in the area.

In India the concept of CSR was progressively picking up and had changed the role of marketing at large: In the social marketing concept, the long-term interests of the consumer and social welfare had taken a mainstream while profit making was expressed as a long-term objective. One of such CSR steps adopted by the corporate to show their green footprint was green marketing. There was a wide contradiction among marketing experts about the gap between attitude and behavior of the consumers regarding green consumption; the other group of experts was of opinion that while consumers were increasingly demanding environmental protection, their behavior did not really reflected this attitude: they were not aware of the damage being done to the environment out of their activities. Moreover people were not knowledgeable of green alternatives (and even if they were knowledgeable, they did not consider these green alternatives available and feasible); Many people thought that environmental protection was not their responsibility rather they fancy action should be taken not by them but by other institutional actors, mainly the state government and corporate.

Therefore, the purpose of the dissertation was set to examine the possibilities for environment friendly marketing within the current economic system through a better understanding of environment friendly consumer behavior. The basic objective was to obtain pragmatic findings which can be utilized by the marketers who have a green motto in their doings. The research, so in addition to taking into account the complexity of environment friendly behavior, also put stress on environmentally aware purchase decisions, and the perceived barriers in the way of adopting green lifestyle.
2. **OBJECTIVES OF THE STUDY WERE:**

1. To assess the awareness of consumers regarding environmental problems
2. To analyze the attitude and behavior of Indian consumers towards green products
3. To identify obstacles that respondents perceive to come in the way of adopting green lifestyle
4. To segment consumers in Pune according to their green lifestyle into five consumer segments:
   a) belonging to highly green group (True Blue Greens)
   b) belonging to moderately high green group (Green Backs)
   c) belonging to medium green group (Sprouts)
   d) belonging to low green group (Grousers)
   e) belonging to non green group (Basic Browns)

For the purpose of the study green consumer was defined as:

‘Who is mindful of environment related issues and obligations, and is supportive of environmental causes to the extent of switching allegiance from one product or supplier to another even if it entails higher cost.’

The wider interpretation ascertains the complexity of the behavior in a more authentic way and calculates with trade-offs between the individual attitude and behavior dimensions, while the narrower approach can identify more efficiently those factors that are hidden in the background of a given activity. The relationship between consumer attitude and behavior for eco friendly product features in a given purchasing situation. Through testing the hypotheses the researcher was able to identify what demographic features had impact on the purchase behavior of the consumers and validity of it’s worth, trying to influence the consumer in order to develop a market for green products. The objectives were to find out the perceived barriers to come in the way of adopting green lifestyle, the relationship of attitude towards environment and behavior, and to segment Pune population according to their
green concerns. The researcher has applied an approach that was not new in research of environment friendly consumer behavior. To find out the existence of relationship between eco friendly attitude and behavior Chi Square test was employed, the research not only considered the issue based on the consumers’ opinion and attitude, but also investigated the behavior in a concrete purchasing situation.

Findings of the study in regard to environmental awareness and knowledge appeared somewhat in contrast to those found in the context of consumers in developed countries. But there exist discrepancies in environmental behavior (recycling), knowledge, and attitudes as well as more general attitudes and personality traits even among the developed counties reported Sammer\textsuperscript{136} (2006), she Matched samples of French (N = 56) and American (N = 112) adults and found that Americans environmental attitudes were more pro-ecological.

3. **HYPOTHESIS TESTING**

**Demographic analysis**

To develop an in-depth idea about the demographic characteristics of the respondents and to find out the relationship of demographic characteristics and their respective eco concerns one way ANOVA test was employed. The results were in confirmation with the hypothesis 1 “Environmental concern varies with age and income of respondents”

Demographics of an individual were found to have an impact on one’s environmental concern. Thus the first hypothesis which says that there is no linkage existing between demographic variables and the environmental concern was checked with the help of one way ANOVA where demographic variables where taken as an independent variable and examined its relationship with the depended variables (Knowledge, Attitude, behavior and lifestyle).
The finding showed that the calculated value of F was higher, which was more than the table value at 5% level with d.f. being $v_1=3$ and $v_2=16$ and hence could have arisen because of difference in the sample mean and not because of chance. This analysis accepted the 1st hypothesis which states that “Environmental concern varies with age and income of respondents”. It is therefore concluded that the difference in opinion about different variables (Attitude, behavior and lifestyle etc.) is significant and is because of difference in demographic variables.

Demographic information relating to the sample found significant differences between the groups, as can be seen from the analysis. The major differences between attitude and behavior types appeared to focus around a definitive split between non-environmentalists and other groups. With the age, there were notable changes from the ‘committed’ to ‘occasional’ green purchasers, with higher frequencies in the younger groups. Briefly, the demographic profile of the different groupings can be summarized as:

† As far as knowledge was concerned, the age of committed environmentalists was at the lower side, with the age of non-environmentalist the highest; or in other words the aged people possess lesser knowledge about the environment as compared to other groups where as it is highest for the younger most generation. Whereas the youngest of all had highly positive attitude and the middle aged have lowest level of attitude towards the environment. The oldest of all showed very good purchase behavior and the middle aged ie between 39-49 showed a very negative purchase behavior. Same was the case with conservation behavior, the oldest people in the sample were good at conserving environment whereas the middle aged people with 39-49 years of age showed a negative sign in conserving the environment. The barriers towards adaptation of green lifestyle were the highest for the age group of 29-39 years and it was lowest for the oldest population as per percentage analysis.
The lowest income group had great information and the middle income group had least information about the environmental degradation. But they failed to show positive attitude towards the environment. The Higher middle income class had the most positive attitude and showed their attitude in purchase behavior as well. The lowest income group failed to buy green products. As far as conservation behavior was concerned the higher middle class had taken a lead and the lowest income group was the lowest conservator. The barriers were high for the lower middle class whereas the lowest class sees the barrier to be not very high.

Evidently there were more trends that could have been described from the data, but for the purposes of brevity it is kept limited. It is very interesting to note that those most committed to sustainable consumption were young, males belonging to the business class of the society and are not financially very well off.

These assertions were clearly generalizations. However, they were based on discernible statistical patterns. What must be noted was that there were no clear distinctions that can be drawn along a continuum, from ‘committed’ to ‘non-environmentalist’. There were variable demographic characteristics depending on which cluster was examined. Nonetheless, there were clear trends that have significant implications for policy makers.

To check the second hypothesis which states that, “There is no relationship between consumer’s attitude and purchase behavior of green products”? A Chi Square test was performed on the data where questions on green attitude (Column) were tested with all purchase behavior questions (Rows). The table value of $\chi^2$ for nine degrees of freedom at 5% level of significance was 16.9. The calculated value of $\chi^2$ in each case was much higher than the table value which meant that the calculated value cannot be said to have arisen just because of chance. It was significant. Hence, the hypothesis does not hold good. This means that the attitude of consumers does replicate in its purchase behavior. **Hypothesis 2 accepted.**
There were cases when, while purchasing, people hesitate to buy green because of expensive nature of green products, but they try to conserve ecology for various other reasons like, to save money or to take care of their own health. When there existed no significant association between attitude and purchase behavior, it was reasonable to examine whether the attitude had any impact of conservation behavior or not.

To check third hypothesis which states that, “There is no relationship between consumer’s attitude and conservation behavior”, the study found out the association of attitude with conservation behavior. Chi Square test was performed on the data where attitude questions (Column) where tested with all conservation behavior questions (Rows) The table value of $\chi^2$ for nine degrees of freedom at 5% level of significance is 16.9. The calculated value of $\chi^2$ in each case was found to be much higher than the table value which means that the calculated value cannot be said to have arisen just because of chance. It was significant, hence, the hypothesis does not hold good. This means that the attitude portrayed by the respondents does not relate with the conservation behavior. **Hypothesis 3 accepted.**

Both conservation behavior and purchase behavior of the consumers were not related to the attitude hence it can be concluded that behavior was independent of attitude.

Pune consumers have shown inconsistency in their attitude and behaviors many of them were having positive attitude but failed to replicate it by green purchasing, whereas some have the vice versa situation. Many people had good knowledge score but when it came to show it through purchasing or conservation of the ecology they failed.
4. SEGMENTATION OF RESPONDENTS INTO 5 SEGMENTS AS PER ROPER’S MODEL

To identify environmentally conscious behavior, the respondents needed to be segmented on the basis of their behavior, which in turn was based on whether or not they had environmentally conscious views. For these, clusters of environmental aware and environmental non aware respondents were created, with the help of the percentage analysis. For this purpose, Roper’s Green Gauge segmentation model was used, which divided the population of United States into five segments:

a. **TRUE BLUE GREENS** - Willing to gather information and contribute money to environmental groups, make a conscious effort to adopt green lifestyle.

b. **GREENBACKS** - Willing to pay extra for environmentally preferable products.

c. **SPROUTS** - Willing to engage in environmental activities from time to time but only when it takes little effort.

d. **GROUSERS** - Do not believe that individuals play any significant part in protecting the environment.

e. **BASIC BROWNS** - Simply not convinced that environmental problems are all that serious.

The Green Gauge segmentation sought to segment US consumers based on the following:

- Environmental **attitudes** (e.g., concern for global warming)
- Environmental **behaviors** (e.g., recycling)
- Environmental **knowledge** (e.g., reported knowledge levels)
- Barriers to a green lifestyle (e.g., time, money, information)

Taking into consideration the above mentioned criteria, the present study also divided Pune’s population into following 5 categories with the help of percentage analysis.
TRUE BLUE GREENS - 20 (4%) - Willing to gather information and contribute money to environmental groups, make a conscious effort to adopt green lifestyle.

Characteristics:
- Environmental Attitudes: High
- Environmental Behaviors: High
- Barriers to Green Living: Low
- Environmental Knowledge: High

GREENBACKS - 36 (7.2%) Willing to pay extra for environmentally preferable products

Characteristics:
- Environmental Attitudes: High
- Environmental Behaviors: Moderate
- Barriers to Green Living: Moderately Low
- Environmental Knowledge: Moderate

SPROUTS - 163 (32.6%) Willing to engage in environmental activities from time to time but only when it takes little effort.

Characteristics:
- Environmental Attitudes: Moderately Low
- Environmental Behaviors: Moderate
- Barriers to Green Living: Moderate
- Environmental Knowledge: Moderately Low

GROUSERS - 4 (0.8%) Do not believe that individuals play any significant part in protecting the environment.

Characteristics:
- Environmental Attitudes: Low
Environmental Behaviors: **Moderately Low**
Barriers to Green Living: **High**
Environmental Knowledge: **Low**

**BASIC BROWNS-** 277 (55.4%) These are people who are simply not convinced that environmental problems are all that serious. The percentage analysis shows that major population of Pune lies in basic brown group which have low environmental attitude and behavior but portray high barriers in adaptation of green lifestyle.

**Characteristics:**
- Environmental Attitudes: **Low**
- Environmental Behaviors: **Low**
- Barriers to Green Living: **High**
- Environmental Knowledge: **Low**

The 4th hypothesis which states that “Consumers of Pune city are well aware of environmental problems” is hereby proved incorrect as the majority (277 or 55.4%) of the sample population did not possess proper knowledge about environmental degradation and the ways to uplift the state. Or in other words the 4th hypothesis which states that Pune people were well aware of the environmental degradation does not hold good here as more than half sample population did not have proper knowledge about the environment.

In order to find out the kind of differences within the criteria which differentiated the most consistent groups from the groups of inconsistent principles of their own ideology of saving the ecology, the total sample population was further sub divided into 3 groups and presented below.
5. FURTHER SUB DIVISION OF THE RESPONDENTS INTO 3 SEGMENTS AS PER ROPER’S CRITERIA

Further, Roper sub divided US consumers into 3 major categories based on their interest area of saving the ecology. These groups were:

1. Health Fanatics
2. Animal Lovers
3. Planet Passionate

1. Health Fanatics:

Health fanatics can be defined as those consumers who:

- Are proactive and responsible for their own health and the health of their family,
- See organic as a method of “control” over what their family eats,
- Accept that they may have to pay more for specific organic foods and are willing to do so because of the high value they equate with certain item,
- Have an increased reliance on food as preventative medicine and
- Have faith that organic food is beneficial to health over the long-term.

The study found that majority of respondents (41%) were health fanatics i.e., interested in their own health.

2. Animal Lovers:

Those people who have concern for animal welfare, they feel that animals have sentiments and that consideration should be given to their well-being, especially when they are used by humans. These concerns can include how animals are killed for food, how they are used for scientific research, how they are kept as pets, and how human activities affect the survival of endangered species. The study found that only 27.8% people were animal lovers.
3. **Planet Passionate:**

Those people who have concern for the planetary welfare, they feel that there is only one planet to live in and it is the moral responsibility of each individual to take care of the mother earth. They are concerned about how human activities affect the health of the planet. They work in the way of conserving the scarce natural resources. From the study conducted, the percentage analysis revealed that 30.4% people showed their inclination towards saving the planet.

The study found that attitudinal orientations do not influence sustainable consumer behavior. Environmental awareness are significant in the study, however, it is not a reliable predictor for more eco friendly consumer behavior. Non environmental orientations can either deter a person from practicing more sustainable consumer behavior but some of them can also result in more sustainable consumer behavior. The latter is the case when a behavior is practiced by a consumer in order to satisfy non-environmental orientations such as for example personal health or quality of products. Such behavior can be called eco friendly as it although is not done with the intention of protecting environment but indirectly lead to a decrease in negative impacts on the environment. The study therefore suggests to address motive alliances, i.e. addressing both environmental orientations as well as others with a change of behavior. Such orientations addressed are for example fun seeking, career orientation, interest in modern technology, health or traditional values.

Apart from the sustainable consumer behavior independency on attitudinal factor, the study also found demographic variables to be significant influences. The most important demographic variables were found to be a low income, gender, as well as young generation.