Chapter VII

CHAPTER VII

SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION

To understand the consumers' perception towards green products in Coimbatore 400 green consumers who have been using green products and 100 retailers who sell eco-friendly products have been chosen as sample for the study by employing Multi stage random sampling for consumers and Purposive sampling technique for retailers. With the help of a structured interview schedule primary data have been collected from the consumers and retailers and the data have been analysed by applying appropriate statistical tools viz., percentage analysis, descriptive statistics, chi-square test, ANOVA, t-Test, mean rank analysis, kendall's co-efficient of concordance, factor analysis, multiple regression analysis and SEM and the results have been interpreted to make it simple and easy to understand. An overview of the results of the research study have been presented.

7.1 FINDINGS

The findings have been arranged according to the objectives of the study and the key results have been reproduced below:

Chapter I of the study has given the introduction and design of the study

Chapter II of the study has reproduced the review of literature which has been undertaken to know the various researches undertaken in the area of study and to identify the research gap. The research studies included in this chapter have been of recent origin that counts to less than 20 years as it has more relevance to the present scenario.

Chapter III has given an overview of green marketing – ISO international standards, green marketing practices in India, role of Indian Government, green marketing mix, green consumers, green certification, green products taken for the study, retailers dealing in green products and challenges in green marketing.

The results of the data analysed using the relevant statistical tools are interpreted in the **Chapters IV, V-A, V-B, VI** and have been recapitulated below based on the objectives of the study:

Objective 1: To understand the socio-economic background, awareness and purchase pattern of the consumers of eco-friendly products

❖ **Personal profile of the Green Consumers**

The results of classification of respondents on the basis of their socio-economic profile have been as follows:

- 34 per cent of green consumers are above 40 years
- 53.3 per cent of the respondents are female
- Majority (72 per cent) of the respondents are married
- Most (48.8 per cent) of the respondents are graduates
- 28.2 per cent of the respondents are employees
- More than three fourth of the respondents live in nuclear family
- Majority of the respondents have 3 to 4 members in their family
- 34.5 per cent of the respondents family monthly income has been Rs.20,001 - Rs.40,000

➢ **Consumers opinion about the features of products signifying 'green'**

- Majority (75.3 per cent) of the respondents opined the features which are predominantly used to signify 'green' in the products are 'reducing pollution' and 'saving energy' (73.3 per cent).

➢ **Consumers awareness about green products**

Consumers' level of awareness about selected green products have been analysed using the descriptive statistical tools, mean and standard deviation.

- Most of the consumers are ***highly aware*** of 'organic products', 'solar products' and 'durables'.

General Hypothesis I (Part I): Awareness about eco-friendly products among the respondents do not vary based on their demographic variables have been studied under objective 1 and the conclusion is as follows:

- ANOVA has been applied to test whether there is significant difference in the level of awareness about green products among the respondents classified based on demographic variables such as age, educational qualification, occupation and family monthly income. The ANOVA result has revealed that level of awareness of the respondents on selected green products has varied significantly when they have been classified based on age and educational qualification. Hence, the general hypothesis I (part I) has been rejected. When the other factors have been considered, awareness of the respondents has not varied significantly. Hence, the general hypothesis I (part I) has been accepted for the above aspects.

- t-Test has been used to test whether the awareness scores obtained for selected green products has varied significantly among the respondents classified based on demographic variables such as gender and nature of family. The overall result of t-test has revealed that most of the respondents' awareness scores have not varied at a significant level classified based on gender, hence, the general hypothesis I (part I) has been accepted, whereas, the respondents awareness scores have varied significantly when they have been classified based on nature of family, hence, the general hypothesis I (part I) has been rejected.

- **Purchase of eco-friendly products**
  - 82.3 per cent of the respondents have purchased ‘non-durables’ and 48.1 per cent of them have purchased ‘stationery products’.
- **Source of information about selected green products**
  - **Solar products –** Out of the respondents who have purchased solar products, majority of them have gathered information about solar products from ‘friends/relatives’ and ‘internet’.
  - **Durables –** Out of the respondents who have purchased durables, 64.4 per cent of the consumers said they obtained information about durables viz., energy saving home appliances from ‘radio/television’.
  - **Non –durables –** 65.5 per cent of the respondents have got information about non-durables from ‘radio/television’, opined by the respondents who have purchased non-durables.
  - **Organic food products –** Out of the consumers who have purchased organic products, 67.2 per cent of the respondents have gathered information about organic food products from ‘dealers’.

- **Stationery products –** Out of the respondents who have purchased stationery products, 64.3 per cent of the respondents have got information from 'friends/relatives' and 'neighbours'.

- **Basis of selection of green products for the first time**

The respondents' level of agreeability about the basis of selection of green products for the first time has been analysed by using the descriptive statistical tools, mean and standard deviation.

- Most of the respondents have ***agreed*** that they have bought green products for the first time 'based on the information mentioned in package' and 'based on information in journals / magazines'.

- **Duration of usage of eco-friendly products**

42.1 per cent of the consumers have been using the selected eco-friendly products for a period of 1-2 years.

- **Place of purchase**

60.5 per cent of the respondents buy green products from 'exclusive shops', followed by 'electronic shops' and 'regular super markets'.

- **Reasons for buying selected green products**

The respondents' level of agreeability towards the reasons for buying selected green products has been analysed using descriptive statistical tools, mean and standard deviation.

- Most of the respondents have ***strongly agreed*** that 'health and safety' is the main reason for purchase of selected green products.

- The ***Factor Analysis*** technique has been applied to find out the underlying dimensions in the set of statements relating to the reasons for buying selected green products. All the variables have correlated with other variables to a moderate level. This has been confirmed with Bartletts's test of Sphericity. The Kaiser-Meyer-Olkin test (the value 0.818) has inferred that the factor analysis has been found to be very appropriate. Three factors have been identified for reasons for buying green products and named as '***Modernistic'***, ***'Concern for environment'*** and ***'Health concern'*** and these factors have been further analysed separately with ANOVA and also SEM has been proceeded.

General Hypothesis I (Part II): Reasons for buying green products among the respondents do not vary based on their demographic variables have been studied under objective 1 and the results are presented below:

- ANOVA has been used to test whether the scores obtained for ***modernistic*** attitude of the consumers in buying green products have differed significantly among the respondents classified based on demographic variables such as age, educational qualification, occupation and family monthly income. The ANOVA results have shown that modernistic score of the respondents in buying green products has varied significantly at 5 per cent level when they have been classified based on age. Hence, the general hypothesis I (part II) has been rejected. Whereas, the modernistic scores of the respondents' have not varied significantly when they are classified based on educational qualification, occupation and family monthly income. Hence, the general hypothesis I (part II) has been accepted in the above aspects.
- t-Test has been used to test whether the ***modernistic*** scores obtained for the reasons for buying green products has varied significantly among the respondents classified based on the demographic variables such as gender and nature of family. The overall result of t-Test has revealed that modernistic score of the respondents have not varied significantly when they are classified based on gender. Hence, the general hypothesis I (part II) has been accepted. Whereas, modernistic score of the respondents have varied significantly when they are classified based on nature of family. Hence, the general hypothesis I (part II) has been rejected.
- ANOVA has been used to test whether the scores obtained for ***concern for environment*** of the respondents in buying green products have differed significantly among the respondents classified based on demographic variables such as age, educational qualification, occupation and family monthly income. The ANOVA results have revealed that concern for environment scores have varied significant at 5 per cent level when the respondents classified based on family monthly income. Hence, the general hypothesis I (part II) has been rejected. Whereas, in all other cases the concern for environment of the respondents have not varied, hence, general hypothesis I (part II) has been accepted.

- To study the variations in the ***concern for environment*** of the respondents classified based on gender and nature of family, t-Test has been used. The overall result of t-Test has evidenced that the respondents' concern for environment has varied significantly, when they are classified based on gender and nature of family. Hence, general hypothesis I (part II) has been rejected.
- ANOVA has been used to test whether the scores obtained for ***health concern*** of the respondents in buying green products have differed significantly among the respondents classified based on demographic variables such as age, educational qualification, occupation and family monthly income. The result has concluded that health concern scores of the respondents have not varied significantly when they are classified based on age, educational qualification, occupation and family monthly income. Hence, general hypothesis I (part II) has been accepted.
- t-Test has been used to study whether the ***health concern*** scores obtained for the reasons for buying green products has varied significantly among the respondents classified based upon their gender and nature of family. The overall result of t-Test has revealed that the respondents' health concern has not varied significantly. Hence, general hypothesis I (part II) has been accepted.

❖ Factors considered before buying green products

Majority (90 per cent) of the respondents consider 'green labels / logos' before buying green products and 66 per cent of them consider 'green products certifications'.

❖ Influence of environmental issues

The extent to which of the environmental issues have made the consumers to move towards green products has been analysed using the descriptive statistical tools, mean and standard deviation.

- Most of the consumers have opined that they have been influenced by the factors 'pollution', 'global warming' and 'deforestation' to a very ***high extent***.

General Hypothesis I (Part III): Impact of environmental issues towards consumers' intention to purchase green products does not vary based on their personal profile has been studied under objective 1 and the conclusions are as follows:

- ANOVA has been used to test whether the scores obtained for the influence of environmental issues towards consumers' intention to purchase selected green products have differed significantly among the respondents classified based on demographic variables such as age, educational qualification, occupation and family monthly income. The ANOVA results have shown the influence of environmental issues in purchase of green products by the respondents has varied significantly at 5 per cent level when they have been classified based on their age. Hence, the general hypothesis I (part III) has been rejected. When other demographic variables have been considered the influence of environmental issues in purchase of green products have not varied at a significant level. Hence, the general hypothesis I (part III) has been accepted in these aspects.

- t-Test has been used to test whether the influence of environmental issues scores have varied significantly among the respondents classified based on the demographic variables such as gender and nature of family. The overall result of t-Test has revealed that the influence of environmental issues in purchase of green products by the respondents have not varied significantly when they have been classified based on gender and nature of family. Hence, the general hypothesis I (part III) has been accepted for the above factors.

- **Role of institutions in bringing positive changes to protect environment**
  - ✓ The consumers have been asked to rank the order of role played by the various institutions in the order of their responsibility towards bringing positive changes in protecting environment. It is inferred that 'media' has played a major role in bringing a positive change in protecting environment as it has been given rank one, second rank is given to 'educational institutions' as they create awareness among the students to preserve environment, followed by 'government', 'social organizations', 'individuals', 'nature clubs', 'business/industry' and 'politicians'.

  - ✓ Kendall's co-efficient of concordance (W) has been used to find the extent of similarity among the respondents in the order of assigning ranks to the institutions that bring positive changes in protecting the environment. It has been noted that there exists low level of similarity among the respondents in assigning ranks to the role of institutions in bringing positive changes to protect environment.

❖ **Consumers' willingness and reasons to pay more for green products**

The reasons for respondents' willingness to pay more for the selected green products have been analysed using percentage analysis and chi-square test.

✓ **Willingness and reasons**

- 82 per cent of the respondents are willing to pay more for selected green products.
- Out of 328 respondents who are willing to pay more for green products, majority (83.2 per cent) of the respondents prefer spending more for green products due to 'health and safety consciousness' reason, followed by, 'energy efficient' and 'environment protection' (78 per cent).

✓ **Unwillingness and reasons**

- 18 per cent of the respondents are not willing to pay more for selected green products.
- Out of the 72 respondents who are not willing to pay more for green products, 59.7 per cent of them are not interested to pay more for green products, since 'similar products are available at low cost', followed by product cost is too high (55.6 per cent).

General Hypothesis I (Part IV): There is no significant association between the respondents willingness to pay more for green products when they are classified based on personal profile have been examined under objective 1 and the inference is presented below:

- Chi-square analysis has been used to find whether there is a significant association between the respondents' willingness to pay more for green products when the respondents are classified based on various demographic variables such as age, gender, educational qualification, occupation and family monthly income. The chi-square result has shown that educational qualification and occupation have a significant association with respondents' willingness to pay more for green products. Hence, general hypothesis I (part IV) has been rejected for the above aspects. Whereas, age, gender and family monthly income have no significant association with respondents' willingness to pay more for green products. Therefore, general hypothesis I (part IV) has been accepted for the above aspects.

- ❖ **Continual buying of green products**

The respondents' intention towards repeated purchase of selected green products has been analysed by using descriptive statistical tools namely, mean and standard deviation.

- ➢ Most of the respondents ***mostly buy*** ***'***organic products', and green 'non durables'.

General Hypothesis I (Part V): Continual buying of green products among the respondents classified based on demographic variables have been tested under objective 1 and the inference is presented below:

- ➢ ANOVA has been used to examine whether there has been significant variation in sustained buying score of the respondents classified based on demographic profile. Overall, the results of ANOVA has shown that the continual buying scores have not varied significantly among the respondents classified based on their age, educational qualification, occupation and family monthly income. Therefore, general hypothesis I (part V) has been accepted for the above factors.
- ➢ t-Test has been used to study whether there has been significant variations in the sustained buying attitude on selected green products of the respondents classified based on gender and nature of family. The sustained buying scores have not varied significantly for the respondents classified based on their gender, hence, general hypothesis I (part V) has been accepted. Whereas, the sustained buying scores of the respondents have varied significantly when they are classified based on nature of their family. Therefore, general hypothesis I (part V) has been rejected.

Objective 2: To analyse the consumers' perception and level of satisfaction towards eco-friendly products

- ❖ **Consumers' perception towards green products**

The respondents' level of agreeability towards the consumers' perception towards green products has been analysed using the descriptive statistical tools, mean and standard deviation.

- ➢ Most of the respondents have ***strongly agreed*** that they 'care about environment' and they 'want to preserve the earth'.

- Factor Analysis technique has been applied to find out the underlying dimensions in the set of statements relating to the perception of the respondents about green products. It has been evident from the correlation matrix that most of the variables have correlated with other variables. This has been confirmed with Bartletts's test of Sphericity. The Kaiser-Meyer-Olkin test (the value 0.844) has inferred that the factor analysis has been found to be more appropriate. Three factors have been identified for analyzing consumer perception towards green products and named as ***'support for eco friendliness', 'care for environment' and 'support for green products'*** and these factors separately have been further analyzed with ANOVA and also SEM has been proceeded.

General Hypothesis II (Part I): Consumers' perception about eco-friendly products do not vary significantly when they are classified based on their socio-economic profile has been examined under objective 2 and the inference is as follows:

- ANOVA has been used to test whether the scores obtained for ***support for eco-friendliness*** of the respondents perception towards green products have differed significantly among the respondents classified based on 'demographic variables'. The overall ANOVA results have shown that the support for eco-friendliness attitude of the respondents have not varied significantly, when they have been classified based on age, educational qualification, occupation and family monthly income. Therefore, in all the above aspects the general hypothesis II (part I) has been accepted.
- t-Test has been used to study whether there has been significant variations in the ***support for eco-friendliness*** attitude of the respondents when they are classified based on their gender and nature of family. The overall t-Test result indicates that support for eco-friendliness attitude of the respondents have varied significantly, when they are classified based on gender and nature of family. Thus, in the above aspects the general hypothesis II (part I) has been rejected.
- ANOVA has been used to test whether the scores obtained for ***care for environment*** attitude have differed significantly among the respondents classified based on demographic variables. The ANOVA result has shown that the care for environment attitude among the respondents have not varied significantly when they have been classified based on age, educational qualification, occupation and family monthly income. Hence, in all the above factors the general hypothesis II (part I) has been accepted.

- t-Test has been used to test whether there has been significant variations in the ***care for environment*** scores given by the respondents classified based on their gender and nature of family. The overall result of t-Test has revealed that most of the respondents' care for environment score has varied significantly, when they have been classified based on gender and nature of family. Thus, in the above aspects the general hypothesis II (part I) has been rejected.

- ANOVA has been used to examine whether there has been significant variation in the ***support for green products*** scores of the respondents classified based on demographic profile. The ANOVA result has shown that support for green products among the respondents have varied significantly classified based on age, educational qualification and occupation. Thus, in the above aspects the general hypothesis II (part I) has been rejected. Whereas, support for green products score of the respondents have varied significantly, when they have been classified based on family monthly income. Hence, the general hypothesis II (part I) has been accepted.

- t-Test has been used to study whether there has been significant variations in the ***support for green products*** scores given by the respondents classified based on gender and nature of family. The overall result of t-Test has revealed that support for green products scores of the respondents has not varied significantly in spite of their gender classification. Hence, the general hypothesis II (part I) has been accepted. Whereas, support for green products score of the respondents have varied significantly, when they have been classified based on nature of family. Therefore, the general hypothesis II (part I) has been rejected.

- **Consumers' expectation in production strategy**

  - Using mean ranking, the order of expectations of the respondents in the production strategy to be followed by the manufacturers of green products. It has been inferred from the mean rank table that majority of the consumers expect that the 'products should be harmless and of good quality' and hence they have ranked it number one, second rank has been given to 'price of the products should be affordable', 'products should be degradable / reusable and lead to minimum pollution' has been ranked as three.

- Kendall’s co-efficient of concordance (W) has been used to find the extent of similarity among the respondents in the order of assigning ranks according to their expectations in manufacturers’ production strategies. It has been noted that there exists low level of similarity among the respondents in assigning ranks in their expectations about production strategies to be adopted by the manufacturers.

❖ **Adequacy of information given by the seller**

An analysis has been made to know the consumers’ opinion about the adequacy of information about green features of the products given by the seller at the time of purchase has been analysed using percentage analysis and chi-square test.

- Majority of the respondents have opined that ‘sometimes’ sellers provide sufficient information about green features of the products.

General Hypothesis II (Part II): There is no significant association with the respondents opinion on sufficiency of information given by the seller at the time of purchasing green products has been tested under objective 2 and the results are presented below:

- Chi-square analysis has been used to test whether there is a significant association between “demographic variables and the respondents opinion on sufficiency of information given by the seller” about the green features of the products. Overall result of chi-square has explained that the respondents’ opinion on sufficiency of information about green features of products given by the sellers at the time of purchase has no significant association with gender, educational qualification, occupation and family monthly income of the respondents. Hence, the general hypothesis II (part II) has been accepted for the above factors.

❖ **Level of Satisfaction towards selected green products**

Descriptive statistics namely mean and standard deviation have been applied to study the level of satisfaction of the respondents towards selected green products.

- Most of the respondents have been ***highly satisfied*** with the green features of green products like ‘good for their health’, ‘quality’ and ‘preserve nature’. Most of the respondents have been ***satisfied*** with the green features like ‘safety’, ‘energy conservation’, ‘packing’, and variety ’, ‘easy availability and design.

- Multiple Regression analysis has been applied to find the effect of personal factors and green products related factors on the overall satisfaction of customers who have been purchasing these products. The results have identified that the factor ‘Modernistic attitude in buying green products’ is more influential on the satisfaction score compared to other variables. The next most contributing variable is ‘Continual buying of green products’. Influence score of environment issues is the least contributing variable to satisfaction score.

- **Problems faced in purchasing of green products**

Consumers’ have face several problems in purchasing green products viz., non-availability, lack of reliability, less variety, high cost, lack of awareness, less advertisement, inconvenience, few benefits and obsolete technology. Descriptive statistical tools namely mean and standard deviation has been employed to understand the level of agreeability about problems faced by green consumers in purchasing selected green products.

- Most of the consumers have ***agreed*** that the major problems they faced in buying green products are ‘not easily available’, ‘very expensive’, ‘lack of awareness’, ‘less advertisements’ and ‘less number of varieties’.

General Hypothesis II (Part III): Problems faced by the respondents in buying eco-friendly products does not vary significantly when they are classified based on their demographic variables have been tested under objective 2 and the inference is as follows:

- ANOVA has been used to examine whether there has been significant variation in the problems faced by the respondents in purchasing green products when they are classified based on the demographic variables. It has been concluded with ANOVA test that the problems faced in purchasing green products have not varied significantly among the respondents when they classified based on age and educational qualification. Hence, general hypothesis II (part III) has been accepted for the above factors. Whereas, the problems faced by the respondents in purchasing green products have varied significantly when they are classified based on occupation and family monthly income. Thus, general hypothesis II (part III) has been rejected for the above aspects.

- t-Test has been used to test whether the problem scores has varied significantly among the respondents classified based on demographic variables such as gender and nature of family. The overall t-Test result has shown that the problem score of the respondents has varied significantly when they are classified based on their gender and nature of family. Hence, general hypothesis II (part III) has been rejected for these aspects.

Objective 3: To examine the feasibility of developing a model relating to relationship among perception, purchase behaviour and satisfaction of green consumers

A research model has been identified in the current study which theoretically explains the relationship of impact of environmental issues, consumers' perception about eco-friendly products, purchase behaviour and problems faced in process of buying green products and how it influence the satisfaction of customers and how it leads to sustainable buying of eco-friendly products.

- A full structural equation model has been developed, to examine the effect of Environmental Issues, Perception and Problems faced as dependent variables and Purchase Behavior, Satisfaction and Sustainability as independent variables and also Perception, Purchase Behavior and Satisfaction acting as mediating variables. It has been found that Environmental Issues has a positive direct effect on Perception and Perception having direct positive effect on Purchase Behavior. These effects have been found to be significant. The effect of Perception on Satisfaction and the effect of Purchase Behavior on Satisfaction have been found to have significant positive effects with their respective endogenous variables. The hypothesized negative effect of Problems faced on Sustainability has been also found to be significant and accepted. The hypothesized negative and direct effects of Problems Faced on Perception and Satisfaction have been found to be not significant and hence not accepted. It was also found that the mediation effect of Purchase Behavior between Perception and Satisfaction has been significant. Perception has been also found to have mediation effect between Problems faced and Satisfaction. However, the mediation effect between Problems faced and Sustainability played by Satisfaction could not be established as the effect of Problems Faced on Sustainability has given no significant result.

- The results further showed that the direct effect of Problems faced on Sustainability when standardized has been comparatively higher than the direct effects it has on either Perception or Satisfaction. Similarly, the standardized direct effect of Perception on Purchase behaviour has been higher when compared to the effect on Satisfaction.
- The indirect effects of Problems faced when standardized have been higher for Purchase Behaviour and Satisfaction when compared to the effect it has on Sustainability. Similarly, the effect of Perception on Satisfaction has been higher when compared to Sustainability.
- The total effect of Problems faced on Sustainability has been higher when compared to Perception, Purchase Behaviour or Satisfaction. Similarly, the total effects of Perception on Purchase Behaviour and Satisfaction have been higher when compared to the total effect it has on Sustainability.

Objective 4: To study the retailers' perception of eco-friendly products and green consumers' buying pattern

- **Business Profile of Retailers**

The results for the classification of the respondents' on the basis of their business profile have been as follows:

- Most (41 per cent) of the retailers are in the age group of 31 – 40 years.
- Majority of the respondents have simple retail shops.
- Majority of the retailers sell both green and other products in their retail shop.
- 49 per cent of the retailers have been carrying on their business from 1 – 3 years.
- Majority of the retailers' monthly turnover has been above Rs. 1, 50,000.

- **Type of Green products sold in their retail shop**

49 per cent of the retailers sell non-durables.

- **Source of information about green products**

Most of the respondents gather information about green products from existing distributors or dealers.

- **Factors that influenced the retailers to sell eco-friendly products**

Descriptive statistics namely mean and standard deviation have been applied to find out the factors that influenced the retailers to choose select eco-friendly products for sale in their shop.

- Most of the retailers have ***strongly agreed*** that they sell green products out of their 'own interest', the next factor which influenced them is 'protecting the environment', 'reduce health issues', retain / satisfy the customers' and 'good product quality'.

General Hypothesis III (Part I): Factors influenced the retailers to include eco-friendly products in their business does not vary based on their business profile has been tested under objective 4 and the result has been presented below:

- ANOVA has been applied and tested. The agreeability score has been identified by adding the ratings given by the retailers for the factors influenced them to sell green products. The overall results of ANOVA has shown that the agreeability scores on factors that influenced the retailers to sell green products have not varied significantly, when the respondents have been classified based on their age, type of retail shop, period of trading in green products and monthly turnover. Therefore, the general hypothesis III (part I) has been accepted for the above aspects.
- t-Test has been used to study the variations in the agreeability scores on factors that influenced the retailers to sell green products, when the respondents have been categorised based on nature of products sold. The t-Test value confirms that there has been no significant difference in the agreeability scores on factors that influenced the retailers. Thus, the general hypothesis III (part I) has been accepted.

- **Source for purchase of green products**

Majority (75 per cent) of the respondents purchase green products directly from 'manufacturers'.

- **Frequency of placing order**

73 per cent of the respondents have been placing order for green products once in a week.

- **Basis for stocking of eco-friendly products**

  Majority of the retailers stock the eco-friendly products based on 'demand'.

- **Retailers' opinion about customers buying pattern**

  - ✓ **Identification of green products by the customers**

    Majority (88 per cent) of the retailers have mentioned that their customers identify green products at the time of purchase.

  - ✓ **Factors which help the customers to identify eco-friendly products**

    65 per cent of the retailers have stated that their customers identify green products by their specific 'labels and logos'.

- **Agreeability about the basis of selection of green products for the first time**

The respondents opinion about consumers' level of agreeability about basis of selection of eco-friendly products for the first time have been analysed by using the descriptive statistical tools, mean and standard deviation.

  - Most of the respondents have ***agreed*** that the customers have bought green products for the first time based on 'information in journals / magazines'.

- **Comparison of green products with similar products by consumers**

  - Majority (92 per cent) of the retailers have opined that consumers compare the green products with similar products at the time of purchase.

  - Out of 92 retailers who have said consumers compare the green products with other similar products, majority (90.2 per cent) of the retailers have opined that consumers compare mainly the 'quality' of the green products with other products.

- **Reasons for consumers buying eco-friendly products**

The retailers' level of agreeability on the reasons for buying selected eco-friendly products by the consumers has been analysed using the descriptive statistical tools, mean and standard deviation.

  - Most of the retailers have ***strongly agreed*** that 'health and safety' is the main reason for the consumers to purchase selected eco-friendly products.

- Since, same set of questions have been used to know the retailers opinion about consumers' reasons for buying eco-friendly products and the same factors '***Modernistic'***, ***'Concern for the environment'*** and ***'Health concern'*** have been taken for further analysis without doing factor analysis and these factors have been further analyzed separately with ANOVA.

General Hypothesis III (Part II): Retailers perception about green consumers buying pattern do not vary based on their business profile has been examined under objective 4 and the inference is presented as follows:

- ANOVA has been used to test whether there has been significant difference in the ***modernistic*** scores of the retailers for the reasons for buying selected eco-friendly products by the consumers'. The overall results of ANOVA has shown that the modernistic scores of the retailers' opinion about consumers' buying of eco-friendly products have not varied significantly, when the respondents have been classified based upon the age, period of trading in green products and monthly turnover. Hence, the general hypothesis III (part II) has been accepted for the above factors. Whereas, the modernistic scores of the retailers' opinion about consumers reasons for buying of eco-friendly products have varied significantly when they have been classified based on 'type of retail shop'. Thus, the general hypothesis III (part II) has been rejected.
- t-Test has been used to test whether there has been significant difference in the ***modernistic*** scores of the retailers when they have been classified based upon 'nature of products sold'. It is concluded with the t value that there is no significant difference in the modernistic scores of the retailers classified based on nature of products sold. Thus, the general hypothesis III (part II) has been accepted.
- ANOVA has been used to test whether the scores obtained from the retailers' opinion about consumers' ***concern for environment*** in buying green products have differed significantly among the respondents classified based on business related variables. The overall results of ANOVA has shown that the respondents opinion about consumers' concern for environment in buying eco-friendly products have not varied significantly, when they have been classified based on their age, type of retail shop, period of trading in

green products and monthly turnover. Thus, the general hypothesis III (part II) has been accepted for the above aspects.

- t-Test has been used to test whether there has been significant difference in the ***concern for environment*** scores of the retailers' opinion about consumers' when they have been classified based on 'nature of products sold'. It is noted from the t value that there is significant difference in the scores of the retailers' opinion about consumers' concern for environment. Thus, the general hypothesis III (part II) has been rejected.
- ANOVA has been used to test whether the scores obtained from the retailers' opinion about consumers' ***health concern*** in buying green products have differed significantly among the respondents classified based on business related variables. The overall results of ANOVA has shown that the respondents opinion about consumers' health concern in buying eco-friendly products have not varied significantly, when they have been classified based on their age, type of retail shop, period of trading in green products and monthly turnover. Therefore, for the above aspects the general hypothesis III (part II) has been accepted.
- t-Test has been used to test whether there has been significant difference in the ***health concern*** scores of the retailers when they have been classified based upon 'nature of products sold'. The t value indicates that there is no significant difference in the respondents' opinion about consumers' health concern in buying of eco-friendly products when they have been classified based on nature of products sold. Thus, the general hypothesis III (part II) has been accepted.

- **Retailers' opinion about consumers' willingness to pay more for eco-friendly products**
  - Majority (89 per cent) of the retailers have agreed that consumers are willing to pay more for eco-friendly products.
  - Out of the 89 retailers who have said that consumers are willing to pay more for eco-friendly products, majority of the retailers have stated that 'sustainability' of the eco-friendly products is the significant reason for which they pay more.
  - Out of the 11 retailers who opined about the consumers' unwillingness to pay more for eco-friendly products, 72.2 per cent of the retailers said consumers are not willing to pay more for eco-friendly products because they feel 'cost is high'.

- **Promotional Strategies followed by the retailers to sell green products**
  - Majority (87 per cent) of the retailers have mentioned that they give ‘advertisements’ for promoting the green products.
- **Customer care facilities provided by the retailers**
  - Majority of the retailers opined that they provide detailed ‘information about green products’ and ‘offer related messages’ to their customers.
- **Retailers’ perception towards eco-friendly products**

Retailers’ perception or opinion about green products is significant to promote the green products and also to conserve the natural resources. Hence, it has been further analysed to know the retailers perception about green products.

- ✓ **Features of products signifying ‘green’**
  - Majority of the retailers have opined that the feature which is predominantly used to signify ‘green’ in the products are ‘non-toxic’ and hence they have ranked it number one (mean rank 2.96), followed by organic nature, energy efficient, bio-degradability, reusable nature, gas emissions, waste reduction and water conservation.
  - Kendall’s coefficient of concordance (W) has been used to find the extent of similarity among the respondents in the order of assigning the ranks to the features of green products which are predominantly used to signify ‘green’. There exists low level of similarity among the respondents in assigning ranks to the features of green products which are predominantly used to signify ‘green’.

- **Retailers’ expectation in the companies’ production strategy**

Retailers have been asked to assign ranks according to their expectation from the companies’ production strategies in manufacturing products, thereby, they have assigned the rank 1 to the most expected factor and 5 to the least expected factor.

- Majority of the retailers expect that ‘products should be harmless and of good quality’ from the company and hence the retailers have ranked it number one, followed by ‘price of the products should be affordable’.

- Kendall's coefficient of concordance (W) has been used to find the extent of similarity among the respondents in the order of assigning ranks according to their expectations from the companies' production strategy in manufacturing products. There exists low level of similarity among the respondents in assigning ranks to their expectations from the companies' production strategy in manufacturing products.

- **Response given by the company for queries**

  - 93 per cent of the respondents have been receiving 'proper response' from the companies / dealers whenever they enquire about the product.

- **Retailers agreeability about green products**

The retailers' degree of agreeability about the green products and green consumers has been analysed using the descriptive statistical tools,

- Most of the respondents have ***strongly agreed*** that 'quality of the green products is good' and 'green products are superior' when compared to other products.

General Hypothesis III (Part III): Retailers opinion about green products sold in their shop does not vary based on their business profile has been tested under objective 4 and the conclusion has been given below:

- ANOVA has been used to examine whether there has been significant variation between respondents 'business profile' and their 'opinion towards green products' in their shops. The opinion scores of the retailers have been found by adding the ratings given by the respondents' for the agreeability statements on opinion scores. The overall results of ANOVA have revealed that the opinion scores about green products dealt by them have not varied significantly when retailers have been classified based on the age, type of retail shop, period of trading green products and monthly turnover. Hence, the general hypothesis III (part III) has been accepted.

- t-Test has been used to analyse whether there has been significant difference in the respondents 'opinion about green products' sold in their shop when they have been classified based upon 'nature of products sold'. The overall result of t-test has revealed that most of the retailers' opinion scores have not varied at a significant level. Thus, the general hypothesis III (part III) has been accepted.

- **Impact of selling green products**

Retailers were asked to rank the impact factors because of selling green products.

- Majority of the consumers have stated that ‘increase in customers satisfaction and repeat purchase’ has been the most significant impact factor and hence they have ranked it as number one, followed by ‘attracting more customers’, ‘increase in sales turnover’, ‘increase in shop image’, and ‘increase in premium pricing strategy’.
- Kendall’s coefficient of concordance (W) has been used to find the extent of similarity among the respondents in the order of assigning the ranks to the impact factors due to selling of green products. There exists low level of similarity among the respondents in assigning ranks to the impact factors.

- **Retailers expectation from the company / dealers**

The retailers have ranked their expectations from the company / dealer relating to their services. Hence, they have been asked to assign the rank 1 to the most expecting factor and 5 to the least expecting factor.

- Majority of the consumers mostly expect the ‘timely availability of products’ from the company, hence, the retailers have ranked it number one, followed by ‘improved credit facilities’, ‘regular contact’, ‘improve promotional activity’ and ‘increase in percentage of trade commission’.
- Kendall’s coefficient of concordance (W) has been used to find the extent of similarity among the respondents in the order of assigning the ranks to the expectations from the company. There exists low level of similarity among the respondents in assigning ranks to their expectations from the company/ dealers.

- **Problems faced by the retailers in selling green products**

Retailers have been requested to rank their problems in selling green products, assigning rank 1 to the major problem they have faced and 6 to the least problem they have faced.

- Majority of the respondents have opined that ‘lack of awareness among consumers’ about green products is the major problem and hence it has been ranked by the retailers as number one, followed by ‘requires high promotional cost / high capital investment’.

- Kendall's coefficient of concordance (W) has been used to find the extent of similarity among the respondents in the order of assigning the ranks to the problems faced by them in selling green products. There exists low level of similarity among the respondents in assigning ranks to the problems faced by them in selling green products.

❖ **Relationship between consumers' and retailers' perception**

To examine the relationship between the opinion of consumers' and retailers' towards eco-friendly products the following aspects have been analysed

- **Consumers' willingness to pay more Vs. Retailers' opinion about consumers' willingness to pay more for eco-friendly products**

  - Out of 400 consumers 82 per cent of them have said they are willing to pay more for eco-friendly products, whereas, 18 per cent of them are not willing to pay more for eco-friendly products.

  - Out of 100 retailers 89 per cent of them have opined that their customers are willing to pay more for eco-friendly products, whereas, 11 per cent of them stated that their customers are not willing to pay more for eco-friendly products.

  - Chi-square test has been employed to find the relationship between the willingness to pay more for eco-friendly products by the consumers and retailers' opinion about consumers' willingness to pay more. The chi-square results have revealed that there is no association between the consumers' willingness to pay more and retailers' opinion about the customers' willingness to pay more for eco-friendly products.

- **Reasons for willingness to pay more for eco-friendly products**

  - Out of the 328 consumers who are willing to pay more for green products, 83.2 per cent of the consumers have stated that 'health consciousness' is the significant reason to pay more for selected eco-friendly products. Whereas, out of the 89 retailers who have stated that their customers are willing to pay more, 84.3 per cent of the retailers opined that 'sustainability' of the eco-friendly products is the main reason for the consumers to pay more for eco-friendly products.

  - Out of the 72 consumers who are unwilling to pay more for eco-friendly products, 59.7 per cent of them are not interested to pay more for green products, since 'similar products are available at low cost'. Whereas, Out of 11 retailers who have said that their customers are unwilling to pay more for eco-friendly products, 72.7 per cent of the retailers have stated that their customers feel 'product cost is high'.

- **Reasons for buying eco-friendly products**

Average rating scores have been used to understand the relationship of consumers and retailers' relating to reasons for buying eco-friendly products using mean score and standard deviation.

- From the mean ratings of the giving statements relating to reasons for buying eco-friendly products, the ratings for, 'good in quality and reliability', 'prestige', 'satisfaction', 'energy saving, 'brand loyalty', 'sustainability', 'soil and water management', 'current trend and fashionable' and 'try anything new in the market' have been comparatively more for consumers than the average ratings of retailers. Whereas, the mean scores for retailers with respect to 'health and safety' is higher than the average ratings of consumers.

- **Comparison of opinion about reasons for buying eco-friendly products**

Factor wise analysis has been done for reasons for buying eco-friendly products by consumers and three factors have been identified as 'Modernistic', 'Concern for environment' and 'Health concern'. Since, same set of questions have been used for retailers also, t-Test has been used to identify the difference between consumers and retailers.

- **Modernistic**
  - t-Test has been applied to find the significant difference, if any, between the consumers' modernistic attitude and retailers' opinion about the consumers' modernistic attitude in buying eco-friendly products. The t value indicates that there is significant difference in the modernistic attitude in buying eco-friendly products between consumers and retailers' opinion about consumers.

- **Concern for environment**
  - t-Test has been used to study the variations in the consumers' concern for environment attitude between the consumers and retailers' opinion about the consumers in buying eco-friendly products. The calculated t value indicates that there is significant difference between consumers' concern for environment attitude in buying eco-friendly products and retailers' opinion about consumers' point of view.

- **Health concern**
  - t-Test has been used to test the significant difference between consumers' health concern attitude and retailers' opinion about consumers' health concern attitude in buying eco-friendly products. It has been noted from the t value that there is no significant difference in the health concern attitude between consumers and retailers' opinion about consumers in buying eco-friendly products.
  - The overall results of t-Test has evidenced that the attitude of the consumers and retailers' opinion about consumers have differed significantly for 'modernistic' and 'concern for environment'. Whereas, the attitude of the consumers and retailers' opinion about consumers has not differed significantly for 'health concern'.
- **Basis of selection of eco-friendly products**
  - Average rating scores for basis of selection of eco-friendly products have been used to understand the difference between consumers' basis of selection and retailers' opinion about consumers by using mean score and standard deviation.
  - It has been noted that the mean scores for 'based on information mentioned in the package', 'shopkeeper in stores', 'based on word of mouth', 'based on articles/ magazines/books/newspapers', 'based on advertisement in media', 'based on influence of environmental groups' and 'based on display in the shop' have been comparatively more for consumers than the average ratings of retailers.
- **Comparison of opinion about basis of selection of eco-friendly products**
  - t-Test has been used to find out the difference between consumers' basis of selection of eco-friendly products and retailers' opinion about consumers.
  - The calculated t value indicates that there is significant difference in the basis of selection of eco-friendly products between consumers and retailers' opinion about consumers.

7.2 SUGGESTIONS

Based on the findings of the study the following suggestions have been given to protect the environment and support for green products:

- The study has found that consumers are interested to purchase eco-friendly products. Manufacturers should reduce the price of the green products. Hence, it will reach people of all income levels.
- Initiatives have to be taken to create awareness about the existence of green products available in market. Marketers should highlight the eco friendliness of the products viz., green features, eco labels and certification of the products for easy identification by consumers.
- Tax concessions / incentives, easy loan / subsidies, simplified EXIM policies etc., have to be implemented by the government to encourage green manufacturers.
- Retailers should use technology (i.e. internet platforms) in an effective manner for selling green products and facilitate stronger relationship with consumers.
- Government, NGO's and various other voluntary organisations may conduct campaigns to educate public to preserve nature by creating environmental awareness and green consciousness.
- To the wellbeing of the society and environment government should make the corporate social responsibility (CSR) activities of the entities mandatory.
- The common problems faced by the consumers in buying green products are lack of availability and less number of varieties. Hence, manufacturers should produce more and provide additional varieties of green products to satisfy and retain the consumers.

7.3 SCOPE FOR FURTHER REASEARCH

The current research on **"PERCEPTION OF CONSUMERS AND RETAILERS OF SELECT ECO-FRIENDLY PRODUCTS – AN ANALYTICAL STUDY",** has provided the basis for carrying out research in the following areas listed, which may lead to better understanding of eco-friendly products scenario:

- An extensive research study may be undertaken to elucidate the awareness and usage of green products among different segments like women, college students etc., individually.
- An unmitigated research study on green practices may be conducted in service sector like hospitals, educational institutions, banks etc.,
- Government regulations and their impact on eco-friendly product manufacturers may be examined.
- Promotional strategies followed by the retailers' in selling eco-friendly products may be studied.
- Perception and satisfaction of consumers relating to each of the green products can be studied separately.
- Companies engaged in manufacturing of green products can be studied exclusively.
- A comparative study between the sellers of green products and non-green products may be undertaken.

CONCLUSION

Green helps to maintain and improve the natural environment by saving resources and reducing the use of toxic substances, thereby controlling pollution. Green marketing incorporates a broad range of activities, including production, marketing, consumption and disposal of products in a manner that is less harmful to the environment. With the increasing awareness about the impact of global warming, non-biodegradable solid waste, harmful pollutants etc., both marketers and consumers have become conscious to protect the environment by gradually shifting to green products. It is the social responsibility of the business, society, government and individuals to preserve natural resources for present and future generations. Owing to initiatives taken by the government and producers of green products, Indian green market has witnessed tremendous growth in the recent past. Manufacturers have to adopt green marketing strategies, followed by corporate social responsibility. They should have to utilise the resources properly by minimization of waste and also follow environmental standards and ethics. Companies have accepted their accountability and responsibility that not to harm the environment by developing new improved green technologies for manufacturing products and services with environmental inputs in mind. Manufacturers and marketers are responsible to educate consumers with marketing messages that connect environmental attributes with desired consumer value.

Even though producers produce green products the retailers have a major role to play in bringing the green products closer to the consumers. Understanding their social responsibility many retailers have emerged as sellers of green products. They have been taking all possible efforts to induce consumers to purchase green products despite few hindrance viz., high price, limited varieties, etc., Consumers on the other hand have been showing keen interest towards buying green products for its health benefits and eco-friendly nature. Hence, producers of the green products should try to bring down the price of such products and make it more commercial i.e., availability, variety, colour, usage, etc., to facilitate the retailers to earn profit and remain as sellers of green products in the near future and also to attract more consumers and thereby, leading to protection of the environment, which is the need of the hour.