MARKETING AND CONSUMPTION OF GREEN CONSUMER DURABLES IN KERALA

**Thesis Submitted to the
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DOCTOR OF PHILOSOPHY IN COMMERCE**

By

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Certificate

This is to certify that this thesis entitled '**Marketing And Consumption Of Green Consumer Durables In Kerala'** prepared by **Mrs.Saleena T A**., for the award of the Degree of Doctor of Philosophy in Commerce of the University of Calicut, is a record of bonafide research work carried out by her under my supervision and guidance. No part of the thesis has been submitted for any degree, diploma, fellowship or other similar title or recognition before.

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Declaration

I hereby declare that this thesis entitled **'Marketing and Consumption of Green Consumer Durables in Kerala'** submitted to the University of Calicut for the award of the Degree of Doctor of Philosophy is an original record of research work carried out by me under the guidance and supervision of Dr. P.V. Basheer Ahammed, PG Department of Commerce, P.S.M.O. College Tirurangadi.

I also declare that no part of this thesis has been presented for the award of any degree, diploma, fellowship, or other similar title or recognition of any University/Institution before.

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CHAPTER I
INTRODUCTION

INTRODUCTION

> "Earth provides enough to satisfy every man's need, but not every man's greed."
>
> — Mahatma Gandhi

1.1   Background of the study

Environment concern has become an important issue for human beings in the present world. With the human wants increasing heavily, the resources are decreasing. There is sensitive awareness needed globally of the impact of human over-consumption activity on the earth's natural resources, with issues such as global warming, ozone depletion, water and air pollution, loss of species and farmland deterioration threatening both the environment and human life. Technological advancements have shown remarkable growth in each and every field whether it is astronomy, automobiles, electronic devices, communication devices, building and architectural design techniques, bio-electronic devices, health care or computers. These advancements invigorate economic development, as the effective use of technology reduces the material production cost and the overhead charges which generate savings in the economy thus leading to economic development. They not only provide a stimulus for the betterment of standard of living of the society but also stimulate new ideas and avenues that act as motivating factors for further enhancements. In spite of the fact that technology has done a lot of good to the world, it is still surrounded by certain dismal aspects. One of the most bothering issues is the damage caused to the environment.

Over the centuries, the emergence of environmental concern has been at the top of the agenda at both national and international level. However, the era of modern environmentalism came into the picture in the 1950s and focus on the environmental issues got sharper in 1960s with the exuberant pressure posed by the public. This wave of environmentalism led to the establishment of National Environmental Policy Act, 1969 in the United States. The issue of environmental

protection was highlighted more and became a permanent feature of national and international policy with the first celebration of Earth Day in 1970 and first United Conference on the Human Environment held in Stockholm in 1972 (Kinoti, 2011; The Public and Environment, UNEP, 1988).

The recent years have witnessed the wave of environmentalism in India too. Facing the pressure exerted by environmental lobbies, the government has passed a number of environment-related legislation to battle the pollution nuisance and for the preservation of natural resources (Jain and Kaur, 2004). The 'Environment Education, Awareness and Training' is a flagship scheme which has been initiated by the Ministry of Environment and Forests (MoEF), Government of India in order to enhance the understanding of public about relationship between human beings and environment and also to develop competencies to protect the environment. Under the umbrella of this initiative, MoEF formulated National Green Corps (NGC) in 2001-02 with a view to creating environmental awareness among children. The program has been in operation since then and turned into the mass movement of children for preserving the environment.

For the last few decades, concerns over the different environmental issues are gaining the attention of various groups of the society. Consumers are becoming more aware of the environmental problems and have started realizing that majority of issues are because of increasing population, our consumption habits and the consequences of technological advancements. These awakened consumers are now ready to change their preferences from mainstream products to greener products which have the least impact on the environment. Changing consumption habits and rising preferences of consumers for green products are proving to have a greater influence on the corporate world also. In response to this, big corporate houses have now started addressing environmental issues in various manners. Companies like Nike, Philips, Panasonic, UV&W, and Organic India have started manufacturing ranges of green products which appeal to green consumers and even mainstream consumers with price, design and quality parity. Not only corporate world, but also every section of the society now understand the emerging needs of becoming green

and adopting green behavior. Royal Challengers Bangalore, a Bangalore based franchise of Indian premier league has adopted 'Go Green' initiative for addressing the issue of environmental degradation, and with the intent of reducing their carbon footprint they have adopted various initiatives like, dry waste and wet waste segregation in stadium during home matches and wearing green jerseys to acknowledge the issue of environment conservation (Ms. Pooja Mehta 2013).As resources are limited, its effective utilization with zero waste becomes imperative to achieve the organizational objectives. Therefore, green marketing and consumption gather a great momentum.

Generally, green marketing is the marketing of products that are presumed to be ecological safe. From the social perspective, green marketing is the marketing of products which are designed to minimum negative impact on the natural environment. Thus green marketing consists of modification of products, production process, packaging and advertisements. Green marketing is defined by Peattie (1995) as "the holistic management process responsible for identifying, anticipating and satisfying the requirements of customers and society, in a profitable and sustainable way". According to Ottman (2006), the green marketing satisfies two objectives: improved environmental quality and customer satisfaction.

1.2   Statement of the problem

The technological advancement and rapid industrialization make growth and development in the economy and better of standard of living of the people. But, this advancement has leads to several environmental issues. Due to pressure from political and social factors, several corporates started their business in the way of eco- friendly nature and adopted green marketing strategies. The success of every business depends on the behavior of consumers. Therefore, while designing the marketing policies, the marketers should not forget about consumers because they are central element of marketing decisions. For successful implementation of marketing strategy, the retailers should assess the awareness, attitude, and behavior of consumers. As resources are limited, its effective utilization with zero waste

becomes imperative to achieve the organizational objectives. Therefore, green marketing and consumption gather great momentum.

Various studies in the past have been successfully conducted regarding green products from marketer's point of view and consumer's point of view. Some international and national studies have been conducted related to consumers' awareness and attitude towards general green products and their motives for usage and non-usages of products. Yet, no studies have been conducted relating to factors influencing for marketing and buying behavior towards a particular green product segment in Kerala. In this context, the present study is an attempt to investigate the "Marketing and Consumption of Green Consumer Durables in Kerala".

1.3   Objectives of the study

Following are the specific objectives of the study;

➢   To assess the awareness of consumers relating to green consumer durables across selected demographic, economic and social factors.

➢   To study the factors influencing the purchase decision of consumers towards green consumer durables.

➢   To study the factors influencing the consumer satisfaction of green consumer durables.

➢   To find out the problems faced by the consumers while making purchase decisions.

➢   To identify the reasons for marketing of green consumer durables.

➢   To explore the challenges faced by the retailers of green consumer durables.

1.4   Hypotheses of the study

Following are the important hypotheses of the study. Hypotheses are classified into two-parts ie, hypotheses relating to consumers and hypotheses related to retailers.

Hypotheses – Consumers

- **H0:** There is no significant association between the level of awareness of green consumer durables and selected demographic variables of consumers.

- **H0:** Consumers have an average level of awareness across different dimensions of green consumer durables.

- **H0:** Consumer's awareness about different dimensions of green consumer durables are same.

- **H0:** There is no significant influence the socio-economic demographic factors on awareness of consumers.

- **H0:** Consumers have neutral attitude towards 4 P's of green marketing mix.

- **H0:** Relative perceptions of consumers towards the 4 P's of green marketing mix are same.

- **H0:** Effectiveness across all the pairs of marketing mix is same.

- **H0:** Consumers have neutral attitude towards social factors.

- **H0:** Consumers have neutral attitude towards environmental concern.

- **H0:** Consumers have neutral intention for purchasing green consumer durables.

- **H0:** There is no significant influence of the socio-economic demographic factors on purchase decision of consumers.

- **H0:** Consumers have an average satisfaction regarding green consumer durables.

- **H0:** There is no significant influence of the socio-economic demographic factors on consumer satisfaction.

Hypotheses - Retailers

- **H0:** There is no significant difference between perception of rural and urban retailers across different motivating factors for initiating green marketing practices**.**

- **H0:** There is no significant difference between perception of sole proprietor firms and partnership firms across different motivating factors for initiating green marketing practices.

- There is no significant association between sole proprietor firms and partnership firms facing different problems in selling green consumer durables.

- **H0:** There is no significant association between proportion of urban and rural retailers facing different problems in selling green consumer durables.

1.5 Significance of the study

The study of consumer behaviour is crucial for long term success and survival of the firm. Consumer is the king in the market. The fundamental aim of every company is to earn maximum profit and status by satisfying consumers' needs and wants appropriately. To satisfy the needs of consumers, it is very important to understand their behaviour. Consumer behaviour is very complex because each consumer has different mind and attitude towards purchase, consumption and disposal of products (Solomon, 2009).

This study will be significant and beneficial to the business firm as well as government bodies in terms of knowing the green market capabilities, especially the market targeted to green consumers and providing subsidies and other assistance to both manufactures and consumers. The relevance of the study can be listed as follows:-

i.   To support the business to do better understanding of the potential of the green market.

ii.   To assist the business to assess the attitude of consumers towards green products.

iii. To assist the business in better understanding the buying motives of consumers.

iv.   Help retailers to increase awareness among consumers and promote green products.

v.   Formulating appropriate marketing strategies relating to product, place, price, promotion. etc.

vi.   To give awareness to consumers to improve their health and can adopt green life style.

1.6   Scope of the study

The study has been undertaken to analyze the consumer's buying motives and their attitude towards buying green consumer durables. In addition to this, motives for marketing and challenges faced by retailers for selling green consumer durables are considered. The study is made from the view of consumers as well as retailers in both rural and urban areas. This study focuses on both household consumers who purchase for his own consumption or for household use and retailers who deals with green consumer durables.

The study was limited to three districts drawn as a representation of Kerala. Trivandrum, Ernakulum and Kozhikode were selected by using purposive sampling method. Consumers and retailers were equally selected from each district purposefully.

There are a number of green products or eco-friendly products emerging in the markets. The scope of the study is restricted to green consumer durables and covers only three categories of green consumer durables such as energy saving electronic durables, wooden and bamboos home furniture and electric vehicles because these are the most commonly used items by consumers. Green marketing concept is concerned with various activities but this study is limited to motives of the retailers for marketing green consumer durables and buying intention of consumers towards green consumer durables.

1.7   Methodology

The study is designed as an empirical one that makes use of both primary data and secondary data.

1.7.a   Sources of data

Both primary and secondary data are used in the study. The study is mainly based on primary data, collected directly from the consumers and retailers by using structured questionnaire and Interview schedule respectively. Secondary data are also used to clarify the concepts with regards to the green marketing and consumer behavior. Secondary data are collected from journals, marketing management books, e-books, websites and academic studies conducted in the related areas.

1.7.b   Sampling Design

Purposive sampling method was adopted for selecting the sample units. For the study, Kerala has been divided into three regions as Southern region, Central region and Northern region. From each region, Trivandrum, Ernakulum and Kozhikode districts were selected purposefully. Then, from each district, one Corporation and one Municipality from urban area and two Panchayaths from rural area were selected. Samples are drawn from both retailers and households. Primary data were collected from a total of 600 households, out of which 200 each were selected from the district and a total of 150 samples were selected from the retailers who sell green consumer durables, ie 50 retailers from each district for eliciting information.

1.7.c   Determination of Sample Size of consumers

In order to determine the sample size of the study, the standard deviations of the main variables used in the study were calculated from the data obtained from the pilot study. Among these standard deviations, the highest standard deviation was taken and applied in the formula (Aday& Cornelius, 2006) to calculate the sample size. The following tables show the descriptive statistics of the main variables of the pilot survey and the formula used to calculate the sample size is given thereafter.

Table 1.1

Descriptive Statistics

Variables	No. of respondents	Mean score	Standard Deviation
Awareness of green consumer durables	50	3.08	0.804
Attitude towards green marketing mix	50	4.10	1.19
Attitude towards environmental factors	50	2.62	1.55
Reasons for purchasing green consumer durables	50	3.94	0.867
Buying intention &Satisfaction towards green products	50	4.06	0.793
Problems of purchase decision	50	3.12	1.27

(Source: Primary)

The following formula was used to determine the sample size.

Sample size (n) = $Z^2 * sd^2 / e^2$

n   =   Size of the sample

Z   =   The value of standard normal variable at a given confidence level

                (It is 1.96 for 95% significance level)

SD   =   standard deviation of the population (estimated from Pilot study)

(Here standard deviation of the variable which has the greatest variance has been taken).

e   =   Acceptable error (It is assumed as 0.125)

$$N = \frac{1.96^2 \; x \, 1.55^2}{0.125^2}$$

$$= 590.68$$

Rounded to: 600

1.7.d Determination of Sample Size of Retailers

The following variables are used for finding out the sample size of retailers. Table 1.2 shows the descriptive statistics of pilot study.

Table 1.2

Descriptive Statistics of Pilot Survey

Variables	No. of respondents	Mean score	Standard Deviation
Motivating factors for green marketing	30	3.45	1.19
Challenges of marketing green consumer durables	30	0.577	0.329

(*Source: Primary*)

The following formula was used to determine the sample size.

Sample size (n) =$Z^2 * sd^2 /e^2$

n = Size of the sample

Z = The value of standard normal variable at a given confidence level

(It is 1.96 for 95% significance level)

SD= standard deviation of the population (estimated from Pilot study)

(Here standard deviation of the variable which has the greatest variance has been taken).

e = Acceptable error(It is assumed as 0.191)

$$N = \frac{1.96^2 \times .1.19^2}{0.191^2}$$

$$= 149.121$$

Rounded to: 150

1.7.e   Sample Structure of consumers

The structure of sample used for collecting primary data of the study is given in table 1. 3.

Table 1.3

Sample structure of consumers

SL no	DISTRICT	URBAN		RURAL		Total
		Corporation	Municipality	Panchayath	Panchayath	
1	Trivandrum	Trivandrum (50)	Varkala (50)	Nellanad (50)	Managalapuram (50)	200
2	Ernakulam	Kochi (50)	Kalamassery (50)	Edathala (50)	Kalady (50)	200
3	Kozhikode	Kozhikode (50)	Vadakara (50)	Arikulam (50)	Mukkam (50)	200
	Total	150	150	150	150	600

(Source: Primary)

Six hundred consumers are selected out of which 200 consumers are selected from Trivandrum, Ernakulam and Kozhikode districts. Out of these 200 consumers, 100 consumers are selected from urban areas (Corporation and Municipalities) and the remaining are selected from rural areas (Panchayaths). In Trivandrum district, Trivandrum Corporation and Varkala Municipality are selected from the urban area and the Nellanad and Managalapuram are selected from the rural area.   From Ernakulam district, Kochi corporation and Kalamassery municipality are selected to represent the urban area and Edathala and kalady panchayaths are picked to represent the rural area.   Kozhikode corporation, Vadakara Municipality and two panchayaths (Arikulam and Mukkam) are selected from Kozhikode district.

1.7.f.   Sample Structure of Retailers

Table 1.4 represents the sample distribution of retailers.

Table 1.4

Sample structure of retailers

SL no	DISTRICT	URBAN		RURAL		Total
		Corporation	Municipality	Panjayath	Panjayath	
1	Trivandrum	Trivandrum (13)	Varkala (12)	Nellanad (12)	Managalapuram (13)	50
2	Ernakulam	Kochi (13)	Kalamassery (12)	Edathala (12)	Kalady (13)	50
3	Kozhikode	Kozhikode (13)	Vadakara (12)	Arikulam (12)	Mukkam (13)	50
	Total	39	36	36	39	150

(Source: Primary)

For the purpose of selecting retailers from Trivandrum, Ernakulam and kozhikode districts, 50 retailers are selected from each district out of which 25 retailers have been selected from urban areas (Corporation and Municipalities) and remaining from rural areas (Panchayath).

1.7.g   Tools for Data Collection

In order to ensure accurate data, a structured interview schedule and questionnaire are used to collect data from the consumers and retailers who sell green consumer durables.

1.7.h. Tools for Data Analysis

Primary data collected are analyzed by using statistical tools such as percentages, Chi-square test, Multiple Regression, Mean score, One - sample t-test, Repeated measure of ANOVA, Paired comparison test, One-sample t test, Factor analysis and Friedman test for arriving inferences from the data. Pareto chart and bar diagrams are used for presentation of data. SPSS is used foranalyzing the data.

1.8   Pilot Study

In order to avoid overlooking errors and to finalize the interview schedule and measurement scale, a Pilot survey was conducted among 50 respondents

selected from one district. 25 respondents each were selected from urban and rural areas from the district. After conducting the Pilot survey, the reliability and validity of the scale were tested by appropriate methods. On the basis of the pilot survey and reliability and validity testing, suitable modifications were incorporated into the interview schedule, questionnaire and measurement scales.

1.9   Reliability Testing

Reliability is the degree to which an instrument consistently measures a construct. Reliability testing is important to measure accuracy and consistency of the questionnaire and interview schedule. Cronbach's Alpha, a statistical index of internal consistency is used to test the reliability of the measurement scale. The main variables of the questionnaire and their respective alpha values are presented in the following table.

Table 1.5

Results of Reliability analysis

Sl No	Variables	No of items	Alpha values
1	Awareness of green consumer durables	10	0.790
2	Attitude towards green marketing mix	27	0.786
3	Attitude towards Environmental Factors	22	0.698
4	Buying intention and Satisfaction towards eco-friendly consumer durables	12	0.741
5	Problems faced by the consumers while making purchase decisions.	10	0.677
6	Reasons for marketing of green consumer durables	15	0.752
7	Challenges for marketing eco-friendly consumer durables	10	0.801

(*Source: Primary*)

The above table shows that all alpha values are above or near 0.7 and hence it is proved that the measurement scale has internal consistency.

1.10 Period of Study

The study is conducted during the period of February 2013 to January 2019. The primary data was collected during the period of December 2016 to October 2017.

1.11 Variables used in the Study

Table 1.6 represents total variables used in the study for analyzing the objectives of the study.

Table 1.6

List of variables

Sl No	Variables	No. of attributes/ statements	Attributes/statements
1	Demographic/ Socio-Economic variables	6	Gender, Age, Education, Occupation, Monthly income, Residential area.
2	Awareness of different dimensions of green consumer durables	9	Environmental sustainability energy saving quality, Price of product Availability Recyclable quality Point of purchase Eco-label and certifications Green brands Degradable quality Promotional strategies
3	Sources of Information	10	Television News Paper Internet Magazines Friends / Relatives Shop Keeper Shopping Place Outdoor Advertisement Radio Others

Sl No	Variables	No. of attributes/ statements	Attributes/statements
4	Factors influencing awareness	10	Age Income Number of Information Sources Gender Urban/Rural Education Govt. Employee Self-employed Professional House wife
5	Influencing factors for purchase decision	15	**Marketing mix stimuli**-Product, Price, Place, and Promotion **Environmental factors**-Social Influence, Environmental Concern and attitude **Demographic factors**-Age (in Years) Monthly Income (Rs.) Gender Urban/Rural Education Occupation **Other factors**-Satisfaction, Intensity of problems, awareness
6	Factors influencing satisfaction of consumers	16	**Marketing mix stimuli**-Product, Price, Place, and Promotion **Environmental factors**-Social Influence, Environmental Concern, Economic factor **Demographic factors**-Age (in Years) Monthly Income (Rs.) Gender Urban/Rural Education Occupation, **Other factors**-Intensity of problems, awareness, sources of information

Sl No	Variables	No. of attributes/ statements	Attributes/statements
7	Problems of purchase decision.	10	Non availability expensiveness Limited variety Lack of information about products Low quality Lack of information, Not fashionable/trendy Lack of proper promotion Less convenient to use Lack of confidence about eco-friendly nature
8	Business profile of retailers	7	Age (Period of trading) Nature of ownership Type of retail shop Monthly turnover Types of green products Nature of products sold Location of business
9	Motivating factors for marketing green durables	16	Own interest Corporate social responsibility Competitive advantages Environmental concern/awareness of consumers Overcoming competition Financial support from Government Pressure from Government New opportunity in the market Customer satisfaction/retain the customers Profit maximization Increasing sales performance Easy fund availability Increasing market share Demand of custmers Betterment of society

Sl No	Variables	No. of attributes/ statements	Attributes/statements
10	Challenges for marketing of green consumer durables	10	Lack of awareness High capital/investment High cost of Product Lack of financial support from Government Unwilling to pay the extra price Limited variety High promotion cost High tax rate Not easy available Tough competition

1.12   Operational definition of concepts

Consumers: Consumers are the households who possess and consume at least one green consumer durables.

Green consumer: Green consumer is a consumer who wants to buy things that have been consumed in a way that protects the natural environment

Retailers: The firms/institutions which deals green consumer durables and functioning with very minimum negative impact on economy, the community and global environment.

Durable goods: Durable goods are a category of consumer products that do not need to be purchased frequently because they are made to last for a long time (usually lasting for three years or more).

Green consumer durables: Green durables are the category of consumer products that preserve and protect the environment and they are made to last for a long time.

Consumer buying behavior: Consumer buying behavior is the buying behavior of ultimate consumers- those who purchase products for personal or household use.

Consumer Behaviour Model

Stimuli – Responds model is one of the important consumer behavior model. The study is based on this model. Some changes are made for fulfilling the requirements of the study. The model in which the input is the firm's marketing effort (the product, price, promotion and place) and other environmental factors include demographic factors (age, gender, occupation, education and geographical location), social influence, economic factor and environmental concern & attitude which influence the decision-making process. All these factors create the input in the mind of consumers. These inputs are processed in the consumer's mind that is called Black Box, which consists of characteristics of the buyer and decision making process. Second phase is buyer's decisions which may or may not be influenced by the marketing mix elements and other environmental factors. Last part is buyer's response. It is the result of buyer's decision and expresses in the form of awareness, purchase, consumption, perception, attitude and satisfaction.

INPUTS	**PROCESS**	**OUTPUTS**
Marketing mix-product, price, place & promotion		Awareness
Economic factors	BUYERS INTENTION &DECISION	Purchase
Social factors		Perception
Demographic factors		Attitude
Environmental concern & attitude		Satisfaction
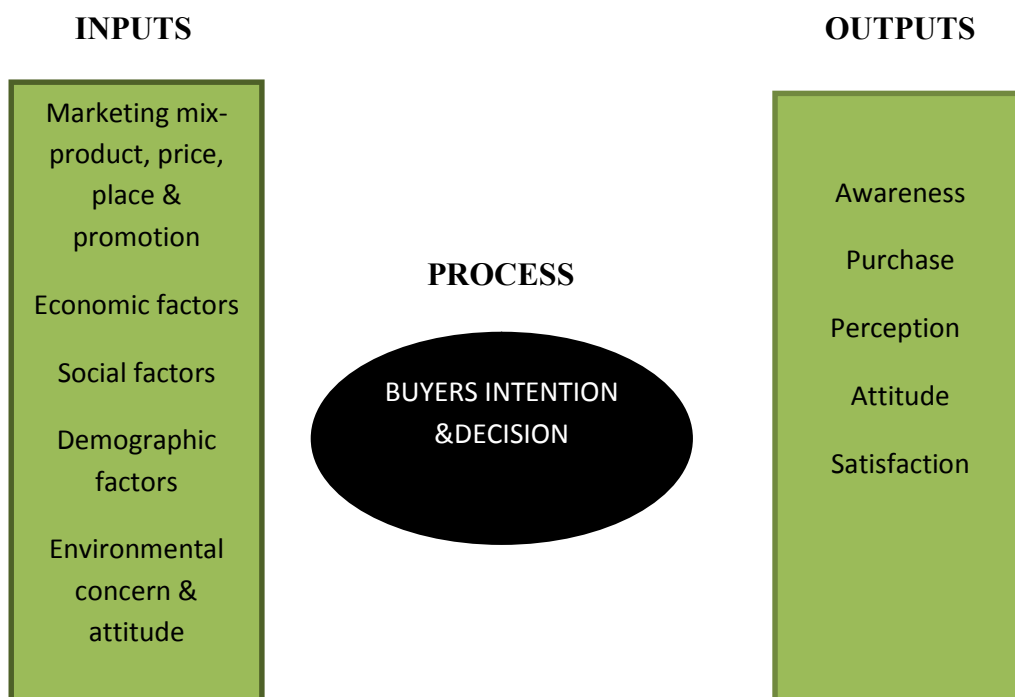
Figure 1.1

Operational Model of Consumer Behaviour

1.13   Limitations of the study

Like most of the studies, the present study also is not free from limitations. Some of which are mentioned below:

- The sample was taken from only three districts in Kerala: Trivandrum, Ernakulam, and Kozhikode. The demographic characteristics, if taken from other districts may vary which in turn may influence the responses.

- As the study is based on sample survey, there may be a chance for sampling errors.

- The study was mainly focused on urban districts.

1.14   Chapter scheme

The study is structured in the following six chapters.

First chapter: Introduction

First chapter deals with background of the study, statement of the problem, objectives, hypotheses, methodology, significance, scope, operational definitions, and limitations of the study.

Second chapter: **Review of literature**

This chapter consists of two sections; Review relating to green marketing and review relating to consumer behavior.

Third chapter: Theoretical Framework– Overview of green marketing and consumer behaviour

Third chapter represents the overview of green marketing and selected green consumer durables and conceptual framework of consumer behavior.

Fourth chapter: Analysis and Interpretation of Consumer's Survey Report

This chapter summarizes the analysis and Interpretation of the awareness, attitude and factors influenced for buying green consumer durables.

Fifth chapter: **Analysis and Interpretation of Retailer's Survey Report**

Fifth chapter deals with analysis of influencing factors for engaging in green marketing practices, challenges of retailers and its interpretations.

Sixth chapter: Summary, Findings, Suggestions and Conclusion

Sixth chapter includes summary, findings, suggestions and conclusion

REFERENCES

Avinash Kapoor, Chinmayakulshrestha, (2010). *Marketing Research*. New Delhi.

Dr. Sarawade W.K. (2012). Conceptual development of green marketing in India, *Excel journal of engineering technology and management science*, vol. I, pp.1-6.

Jain, S. K., & Kaur, G. (2004). Green Marketing: An Attitudinal and Behavioural Analysis of Indian Consumers. *Global Business Review*, 5(2), 187–205.

Kothari.C.R, GauravGarg (2014), *"Research Methodology: Methods and Techniques"*, New Age International Publishers.

Kotler Philip, and Armstrong, G. (2006). *Principles of Marketing*. Eleventh Edition. Prentice-Hall.

Kotler, P. (2000). *Marketing management*. Millennium Edition. US: Prentice-Hall.

Leon G.Schiffman, Leslie lazar Kanuk, (2008). *Consumer behavior*, Ninth edition, New Delhi: Prentice Hall of India private limited.

Manju,(2012). Green Marketing: New hopes and Challenges, spectrum: a *Journal of Multidisciplinary Research* vol.1 issue 9

Ottman, J.A., Stafford, E.R. & Hartman, C.L. (2006).Avoiding Green Marketing Myopia, *Environment*, Vol. 48, No. 5, 22 – 36.

P. C. Jain, Monika Bhatt, (2003). *Consumer Behaviour in Indian Context,* New Delhi: S.Chand& Company LTD.

Peattie, K. and Crane, A. (2005).Green Marketing: Legend, Myth, Farce or Prophesy? Qualitative Market Research: *An International Journal*, 8(4), 357-370

Solomon R Michael, (2009).*Consumer Behaviour; Buying, Having and Being*, Eighth Edition, New Delhi: PHI Learning Private Limited.

https://kerala.gov.in/region.

www.googlescholar.com

CHAPTER II
REVIEW OF LITERATURE

REVIEW OF LITERATURE

2.1 Introduction

An extensive review of literature is an important aspect which guides the researcher in identifying the gap in the related field of study. This chapter discusses the research works done in the past, which includes behaviour of consumers, motives for green marketing initiatives and buying green products and issues of marketing of green products. For clear and easy understanding, the review of literature is presented under the following two headings.

I.   Studies related to green marketing

II.   Studies related to consumer behavior

2.2 Studies on green marketing

William E. Kilboume (1998) argues that sustainable marketing is essential for the reconciliation of human needs and nature. The paper concludes that conflict of interest, power, economic growth and green technology are the main issues pertaining to environmental sustainability.

Johri and Sahasakmontri (1998) analyzed the green marketing strategies of cosmetics and toiletries in Thailand. For the study, international brand 'The Body Shop' and a local brand 'Oriental Princess' were selected. The paper attempted to explore the effect of the marketing strategies on consumers' attitude and brand loyalty. The research concluded that Thai consumers expressed to give more importance to non-green attributes than green attributes in their purchase decisions.

Peattie (2001), the study opined the evolution of green marketing has three stages: (i) 'Ecological Marketing'- which had narrow scope and was focused on reducing the consumption of products which is damaging products. (ii) 'Environmental Marketing'- a somewhat concept with the focus on reducing environmental damage by identifying green consumer demand and (iii) 'Sustainable Marketing'- a radical approach which intend to meet the environmental costs of production and consumption in order to create sustainable economy.

Polonsky and Rosenberger III (2001) discussed the three levels of green marketing .They are strategic greening, quasi-strategic and tactical greening. The study also analyses the implementation of green marketing strategies in each levels of green marketing and need to adopt holistic approach in implementing green marketing strategies. The study was observed that coordination across all functional areas was needed in order to make green marketing more effective.

Peattie and Crane (2005) analysed the revolution of green marketing in order to critically examine the contribution of marketing discipline to the sustainability. This paper also discusses the false marketing practices undertaken by the firms viz. 'thrust marketing', 'department marketing', 'accountant's marketing' and 'formula marketing'. It also reveals the major problems such as green spinning, green selling, green harvesting, enviropreneur marketing and compliance marketing which prompted failure of manifestations of green marketing.

Ottman, J.A., Stafford, E.R. & Hartman, C.L. (2006) opinion that the green marketing should achieve two objectives i.e. Improved Environmental Quality and Customer Satisfaction. The research indicates that many green products have failed due to green marketing myopia—the marketers who focus on their products than the consumer's expectations.

Care D'Souza et al. (2007) tried to identify the influence of price, quality and demographic characteristics in purchase of Eco-friendly products. The study suggests that the companies which produce green products with high quality and premium prices should give more importance to environmental protection than their profitability.

E. Smith (2010) focused on the perceptions of businesses regarding the impact of green practices on the business functions. The result of the study shows the general management/human resources, purchasing/supply chain management and finance/information technology functions have least impacted by green business practices. Whereas, green business practices have great impact on marketing/sales and distribution/logistics functions.

Ravindra Saxena Pradeep K. (2010) made an attempt to find out the attitude of Indian industries to green marketing and how to ensure competitive advantage and sustainable growth. The researchers conducted an exhaustive literature survey to set their hypotheses. The result shows that industries have more concern towards environment and have strong belief about green marketing and definitely it can be used as an important tool for gaining competitive advantage and sustainable development.

Dr.Tareq N. Hashem (2011) makes an attempt to find out influence of 4 P's of green marketing mix (product, pricing, distribution and promotion) of chemical industrial companies on consumer's mental image in three countries in West Asia. The result of statistical analysis concluded that there is a significant association between green marketing mix elements of the chemical companies in three countries and consumer's mental image on the basis of country wise, gender wise and age wise.

Mary WanjiruKinoti (2011) studies the green marketing intervention strategies which will contribute to sustainable development and the result indicates that the individuals and organizations can benefit from green marketing strategies and at the same time protect the environment to achieve sustainable development.

Cronin et al. (2011) focus on the needs of green marketing for the business firms and also explain the important green marketing strategies. The study advocates the green performance, green innovation, and greening of the organization and green alliances as the important green marketing strategies and also suggests the green marketing strategy can meet the demands of stakeholders in the organizations.

Durmaz Yakup and Zenginsevil (2011) find that green marketing helps in creating new markets with competitive advantage and therefore most employees feel proud of working for environmentally responsible company and ensures sustained long-term growth with profitability for the marketers.

Ishaswini. & Datta, S.K. (2011) in their study have attempted to determine the consumers' pro-environmental concerns, knowledge of environmental issues,

and awareness of eco-friendly products and have also investigated if pro-environmental concerns among consumers in India are predictive of their green buying behaviour. Data was collected from 134 respondents through a structured questionnaire. Pearson's correlation was used for testing there is a significant relation between pro-environmental concern and green buying behaviour .The findings of the study revealed that there was a high degree of awareness and knowledge about the ecofriendly products, most of the respondents did not consider the effect on environment while making purchases of day-to-day products. But most of them were ready to pay an extra price for such products and a premium of 5 to 10% was found to be quite acceptable. The test result shows that pro-environmental concern and green buying behaviour are significantly related.

Manju (2012) explores the main reasons in adoption of green marketing practices. In green marketing, consumers are willing to pay more to maintain a cleaner and greener environment. It reveals that both consumers and industrial organisations need to go green marketing so as to minimize the negative effects on the environment.

Prof. K. UdayKiran (2012) strives to find out the concepts of green marketing and examines the motives and problems for adopting green marketing practices in the organization at Pune. The study concluded that majority of the consumers in Pune city are not aware of green marketing initiatives and even not willing to know about it. The study also suggested that proper campaigns are needed to educate them in order to enhance product's performance and strengthen customer's loyalty.

Dr. Shirish Nana Gawali (2012) emphasizes on the concept, SWOT analysis of Green Marketing and present trends of green marketing. It foresees more importance and relevance for green marketing in developing countries like India for enhancing success of Green Mantra. However, it observes that publicity is also essential for creating awareness in this regard.

Dr. Satpal Sin (2012) observes the concept of green marketing, the strategies to be employed by marketers for promoting green products and the

challenges of green marketing in the present scenario. The study concludes that green marketing is relatively a new concept and innovative technology is required for wider green marketing practices in both domestic and international levels. It requires a periodic review of the green product because the products may become ecological viable as well as economically viable to middle and low income groups of consumers.

Dr. Pranam Dhar (2012) elaborated on concepts of green marketing and briefly discussed why the company is going to green and opportunities and challenges with green marketing. The study concludes that lack of credibility or trust by consumers and end-users, confusion regarding sustainable product claims, reputational risk from "misleading claims", "green washing'' were the main challenges before green marketing. Furthermore, it briefly discusses the green initiatives taken by McDonald's, ITC, NTPC, and Philips Light's CFL etc to save environment.

Manjunath .G (2013) concentrates on green marketing initiatives in the Indian corporate sector and also identifies the green marketing initiatives in the information technology (IT) sector in Bangalore. This paper concludes that business firms have realized that the great dearth to change their traditional marketing strategies to green marketing in order to survive in the competitive world.

Rakesh Kumar (2013) identifies the major issues in the implementation of green marketing practices and opportunities and challenges faced by business in Indian market. It concludes that the green marketing is something that continuously growing in terms of practice and demand.

Sara and Madhumitha (2013) have done a conceptual study that aims to know an idea of understanding various Indian companies moving towards green marketing strategies. The researchers noticed that only large companies were indulging in green management due to less awareness among the consumers. According to the study, business of green marketing is relatively a new concept.

Dr.Juleebanerji (2014) highlights the present trends in green marketing, different green marketing initiatives in the corporate sector and further the problems faced by green marketing in India. It concluded that an effort from every human being is required to strive for a better and safer earth. Therefore, consumers today are more concerned about climate changes and environmental issues.

Dr.K.Manian (2014) studied the concept, need and importance, present trends, challenges of green marketing and also find out how can a business firm to gain competitive advantage by using green marketing strategies. The study concludes that the green marketing is something that will continuously grow in practice.

Rouf and Rajendran (2014) studied the role and importance of green marketing for ecological development. The study says that marketers must realize that the green marketing is profitable endeavor for sustainable growth.

M.S. Khan (2014), the researcher tries to find out the importance of green marketing, its impact on purchasing behavior of consumers and society. The result of the study will help in reducing the wastages and making environment neat, clean and safe.

Mr. Prashandkumar and Bhimrao M Ghodeswar (2014) focus on green marketing practices and identify factors of green marketing initiatives for a company. For the study, questionnaire is used as a tool for collecting data from 220 companies in India. It urges green marketers to understand the ways of developing environmental orientation of their marketing activities.

Rajender Kumar, P.J. Philip and Chetna Sharma (2014) make an empirical study which examines contents of the green advertisements that attract consumer's attention. The results of the study reveal the acceptance of only negative green content by the consumers. Therefore, it suggests that the companies must invest in their brand positioning and market communication strategies to convert this negativity into an opportunity.

Prof. Govind Teju Rathod (2014) examines current trends and future of green marketing, environmental concern and reasons for adopting green marketing by companies. The study concludes that green marketing is something that will continuously grow in both practice and demand and competitive advantages is the main reasons for adopting green marketing by the companies.

Dr. Ofunya Francis Afande (2015) makes efforts to identify the influence of green marketing strategies on performance of the Kenya tea firms. For the study, primary data were collected from 63 tea factories by employing self-administered questionnaire. Correlation and regression analysis were undertaken to determine the relationship between adoption of green marketing strategies and performance of the Kenya tea firms. The findings of the study indicate that the adoption of green marketing had positive impacts on performance of the Kenya tea firms and contributed several practical tools for the tea sector in order to ensure environmental sustainability.

Ms. Deepika Kathuria, Ms. Monika Bansal (2016) make an attempt to explain the concept of green marketing and to identify the reasons for adopting it as well as the problems faced by the marketer in implementing green strategy. The study suggests how green efforts can contribute to the uplift of environment and also put forward many measures for going green such as use of solar and wind energy, promotion of save water campaign and introducing E-rickshaw, ozone safe technology and recyclable and biodegradable products.

2.3   Studies on consumer behavior

Al Witt, L.F. & Berger, I.E. (1993) examined influence of attitude towards purchase intentions. Data were collected by distribution of structured questionnaire among 134 undergraduate students. Regression was used for analysis of data. Result of analysis shows that attitude towards the product is positively related to purchase intention whereas general attitude towards environment is not significantly related with purchase intention.

Wong et al. (1996) elaborated a firm's various marketing strategies and their influence on consumers' demand for environmentally friendly products. The study considered the marketing strategies being used for household detergents, recycled papers, and automobile technology. It was exposed that the environmental benefits of green products, promotional activities, performance of the product and functional attributes of product influence consumers' choice regarding green products.

Mainieri, Barnett, Valdero, Unipan and Oskamp (1997) focused on the variables that forecast the buying decision of green products. Awareness about sustainability of products, environmental beliefs, general environmental attitude, demographic variables, and pro-environment behaviours were taken as Predictor variables. A structured questionnaire was administered for collecting primary data. The result of multiple regression analyses supported the specific consumer beliefs and general environmental attitudes predicted green- buying behaviour than other variables.

Balderjahn(1988) concentrates on ecologically responsible consumption. Demographic, socio-economic, cultural, personality, and attitudinal variables were used for undertaking this study. Structural equation model like LISREL (_linear structural relations) was used by the researcher for analyzing ecologically concerned consumers. The results indicated that each behavioural pattern has its own cluster of predictors and ecologically concerned consumer belongs to the upper social classes. The study also suggested a foundation for market segmentation strategies and for educational programs of policy makers.

Johri and Sahasakmontri (1998), in their study tried to explore the effect of companies marketing strategies on consumers' attitude and brand loyalty. The research reveals that non green attributes of products is the key factor considered by Thai consumers in their purchase decisions.

Straughan, R.D. & Roberts, J.A. (1999) examined correlation of demographic variables and psychographic variables with ecologically conscious consumer behaviour (ECCB) and segmenting college students based on ecologically

conscious consumer behaviour. The data was collected from 235 university students by using questionnaire. The results indicate that demographic variable such as age, family income, gender and education and the psychographic variables like perceived consumer effectiveness, environmental concern, altruism and liberalism had significantly correlated with ecologically conscious consumer behavior.

Laroche, M., Bergeron, J. & Barbaro-Forleo, G. (2001) examined the demographic, psychological and behavioural factors of consumers towards green products and their willingness to pay more for products. The study was based on exploratory research and the information was taken from a North American city. The findings reveal the positive relationships between attitudes and consumer's willingness to pay more for green products.

Chan, R.Y.K. (2001), in the study attempts to find out the influence of various cultural and psychological factors on purchase behavior of Chinese consumers towards green products. The findings from the structural-equation modeling show certain cultural and psychological variables (degree of collectivism, ecological affect, and marginally, ecological knowledge) have significant influences on the behaviour of Chinese consumers.

Gatersleben, B., Steg, L. &Vlek, C. (2002) present household consumer behavior towards energy usage and compares it with pro-environmental behaviour. The sample was collected from Dutch households. The results indicate that pro-environmental behaviour is more strongly related to respondent,s attitudinal variables and also household energy use primarily depends upon the variables such as household income and household size.

Haomom Ramananda Singh (2002), in the study tries to analyse consumer buying behaviour towards durable and non-durable goods. Product benefits and advertisement are the important factors which influence consumers to buy durables and non-durables. Public sources and personal sources are the two important sources of information for creating brand awareness.

Mette Lise Jenser and Stig Yding Sorensen (2003) have tried to identify efforts from both consumers and retailers to promote less polluting electronic products. Primary data was collected from 17 consumers and 10 suppliers through interview. Findings of the study shows that consumers do not demand less hazardous electronic products and retailers did not take any initiative in promoting the sale of less environmentally hazardous products. The study suggested that marketers should create awareness and educate the consumers through green advertisements for the purpose of promoting the products

Elangovan, A. (2006) the study focuses on the environmentally conscious consumers and their attitude, behaviour and perception towards green packages. The study also tries to find out the difference between attitude and behaviour of the ecologically concerned consumers. The study concludes that there is a strong sense of environmental awareness and concern among consumers towards environment friendly carry packages and cultural and market conditions are the main reason of an attitude behaviour discrepancy.

Sardianou (2007), the study attempts to find out the main influencing factors of household energy conservation pattern among grease employees. The result of the study showed that the socio-economic variables like consumer's income and family size were significantly associated with energy conservation preferences whereas electricity expenditures and age of the respondent were not significantly associated with willingness to adopt energy conserving actions. Moreover it presents an effective energy conservation framework for Greece which helps to achieve sustainable development and maintain quality of consumer's life.

Kilbourne and Pickett (2007) the study investigates the relationship between materialism, environmental beliefs, environmental concern taken as dependent factors and environmental behaviours as independent factor. The study was conducted among 337 US adults by using telephone survey. The study shows that materialism had a negative effect on environmental beliefs, and these beliefs had positively affected environmental concern and environmentally responsible behaviours.

Gan, C.et.al. (2008) examine the factors influencing buying behaviour of consumers towards green products in New Zealand. The research has also tried to identify the factors that motivate to usage and reasons for non-usage of such products. The research paper concludes that price, quality and brand are the most important factors considered by the consumers while purchasing green products. The study convinces the marketers the need to make changes in product quality and to be priced competitively for their products. In addition to this, to change consumer's negative perception towards green products, marketers should adopt a sound marketing mix for their products.

Horne (2009) tries to identify the role of eco-labels in the assessment of sustainable products and information on eco-labels increased the likelihood of purchasing green products. The findings of the study revealed that consumers prefer simple eco-labels, recognized and supported mandatory eco-labels over others. The study concluded eco-labels were effective in motivating the consumers, sometimes, eco-labels turned out to be insufficient to communicate the desired information to the consumers

Ronnie Irawan et al. (2010) studied the influencing factors of green purchasing behaviour and particularly the gender difference in the green purchasing behaviour of students in Jakarta. For this purpose, 200 university students were selected as sample by using convenient sampling technique. The structured questionnaire was employed as data collection tool and multiple regression and independent test were used for analysis of data. The result indicates that mainly three variables like Environmental Concern, Perceived Seriousness of Environmental Problems, and Perceived Environmental Responsibility were significantly affecting purchasing behaviour of consumers. However, the test reveals that there is no gender difference of students on these three significant variables.

Lindsey Clarissa Patrick (2010) makes an exploratory study in nature and it aims to determine consumer purchasing habits of eco-friendly apparel in a retail resort outlet. The questionnaire was distributed to all consumers who purchase two tee shirts - eco-friendly tee shirts and regular cotton tee shirts- in order to determine

specific demographic information and their personal opinions on eco-friendliness, and willingness to pay a premium for eco-friendly products. The result of analysis indicates that positive attitudes regarding eco-friendliness and the willingness to pay a premium for eco-friendly products were indicators of eco-friendly apparel purchases. The customers were willing to pay extra price for eco-friendly products.

Katherine T. Smith (2010) investigates the influence of green marketing techniques on perception of young generation consumer. The result shows that product advertising and product packaging are more influenced by female customers than male customers and product attributes like recycling and label is highly preferred by young generation consumers. These consumers will help for the promotion of green products.

Sudhirsachdev (2011) explores why people do not buy green products and finds out the main reasons obstructing them to translate their green intentions into actual purchase behaviour. The paper concludes that consumer's perception is the main constraint for non-usage of green products. The study also suggests that there is a need to make changes in consumer's perception towards green behaviour.

Rahbar and Wahid (2011) examined the impact of green marketing tools on consumers' purchase behaviour in Malaysia. Multiple regression analysis was used for analyzing the factor influencing the consumer's purchase behavior. Results 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 decision.

Phuah Kit Teng et al. (2011), their study emphasis on awareness and intention towards green food consumption among Malaysian consumers. Under this study, the Theory of Plan Behaviour (TPB) is applied and structured questionnaire is used as an instrument to gather information from respondents. The results of descriptive statistic and chi-square analyses indicate that most respondents are aware about the green concept but also show that there is a significant difference towards awareness of green food and age, geographical area, education level and income of consumers.

Rahbar and Wahid (2011) examined the impact of green marketing tools on purchase behaviour of consumers in Malaysia. The results of analysis reported that consumer's perception about eco-brands and eco-label were the major factors significantly influenced actual purchase behaviour of consumers in Malaysia.

Ishaswini et al.(2011) examine the pro-environmental concerns which are predictive of buying behaviour of consumers in India. For this study, data was collected from 200 respondents by using a structured questionnaire. The results disclose that proenvironmental concerns significantly affect their green buying behaviour of consumers but most of the consumers are not willing to pay a higher price for such products.

Sourabh Bhattacharya (2011) focuses on attitude of Indian consumers towards green marketing .Willingness to pay, perceived quality, suspicion regarding the real greenness and intention to seek information about greenness are the variables used for the study. The study concluded that Indian consumers are hesitant about premium price for green products, quality of green products and highly suspicious about real greenness. This paper suggests that heavy promotional campaigns should be undertaken by green marketers in India for attracting consumers.

Sharma, Y. (2011), the study has focused on the changing consumer behaviour towards the usage of green products. It explained lifecycle of green products – development, production, consumption and disposal. The study has suggested that companies reframe their strategies in connecting sustainability. This enables opportunities for innovation. Green marketing has to be pursued with much great strength in both environmental and social dimensions.

Nisreen Bahnan et al. (2011) focused on difference in beliefs of both undergraduate student and non-students. The study concludes that attitude of students depends on their commitment and efforts towards green products. Whereas in the case of non-students, convenience is very important, even if the green products are more readily available purchasing of such product is less demanding.

Mehta, D., Jain, S. & Mehta, N.K. (2011), in their study have attempted to analyses the impact of gender on adolescent consumers' towards green products in the city of Indore in the state of Madhya Pradesh in India. Primary data was collected from 212 adolescents in the age group of 15 to 19 years and the gender differences in their attitude were studied. It concluded peer influence, environmental concern and perceived environmental responsibility were the top three predictors of green purchasing behaviour among female respondents and peer influence, environmental concern and self-identity were the predictors of green purchasing behavior of male respondent.

Kim, H.Y. & Chung, J., (2011), the study have attempted to provide insights into US consumer behaviour towards organic personal care products and also examining the factors that influence consumers' attitudes toward buying them and consumers' purchase intentions for the products. Multiple regression analysis was used to test the relationship among the variables and data collected from 207 online panel members by using an online survey. The study revealed that health consciousness, environmental consciousness and appearance consciousness had a positive influence on consumers' attitude towards organic personal care products. The findings also revealed that an individual's past experience with other organic products have a significant impact on purchase intention for organic personal care products.

Rohit H Trivedi, et al. (2011) studied Green segmentation of consumers. Consumers can be segmented into energy economist, energy conservist and environmental activist. Energy Economist – This type of consumers are ready to buy more for green products and ready to change their attitude for conserving environment. Energy Conservist – Such consumers gives more attention towards energy conservation. Environmental Activist - These consumers are taking proactive action to protect the environment. These consumers always check whether the products are eco-friendly and check its packages. This consumer segmentation will help the marketers to take decisions related to green products in order to enhance the product position.

Joshi N. & Mishra, D.P. (2011) in their article have attempted to understand the behaviour of customer awareness on environmentally friendly car in the state of Maharashtra in India.. The study was based on exploratory in nature and data was collected from the car owners and also prospective car buyers in both metro and non-metro cities by using structured questionnaire. The study revealed that there is no significant difference in the awareness levels of the customers in the various age groups regarding the eco-friendly car. It was also found that the awareness level of the respondents is higher in the metros as compared to the non-metros in India about environment friendly cars.

Syed Ali RazaHamid et al. (2012), this study tries to measure the level of ecological awareness and attitude towards green products. The data was collected from 280 educated respondents from semi-governmental and multinational organizations across Rawalpindi and Islamabad. Correlation Coefficient, Regression, Independent Sample test and ANOVA were employed for analysis of the study. The result has shown that ecological awareness did not affect the attitude towards the purchase decision of green products and there was no significant difference between awareness level of male and female. One – way ANOVA proved that there were no significant differences in attitude of consumers on the basis of age and education .The study establishes that ecological awareness level of consumers was lower than expected thus bearing no significant effect on their attitude towards green purchase decision.

Nitin Joshi et al. (2012), the study aims to find out the level of awareness towards environment friendly car. The questionnaire was used for collecting data from 500 respondents in Maharashtra. The analysis of the study shows that there is no significant role for gender and qualification in terms of awareness level towards EFC.

Jesmin (2012) study is descriptive in nature and aims to determine the belief and attitude of customers toward environmental marketing and identify the factors related to inspiration to purchase green product among consumers of Bangladesh. The analysis of the study reveals that the majority of the customers are not aware of

it. Male are more aware and positive minded than female towards eco-friendly products and its usages. Students are not much aware about the green practice and its impact in the future. Furthermore, the study shows that ―50 years above people show more favorable attitude than any other age group. Consumer's loyalty is the most important factor for taking purchase decision of green product by the consumers.

Ahamed and Ravi (2012) conducted an empirical study conducted to analyze consumer perception and awareness on Fast Moving Consumer Goods (FMCG) in Krishnagiri district, Tamilnadu. The study concluded that customers in Krishnagiri have substantial awareness about the green products therefore they are willing to pay additional value to green products. Most of the customers considered package as the most important element of FMCG products.

Hoang Van Hai et al. (2012) study to find out the environmental awareness, understanding of eco-products and attitude towards eco- purchasing among Vietnamese consumers. Findings from the study disclose that educated consumers are more concerned about environmental issues and have more sufficient knowledge about eco-products and eco- purchasing. It further indicates that the highly environmental conscious consumers exhibits positive attitude towards green

Surajit Dey, Sameena Rafat and Alam Sageer (2012) have undertaken a study on Retailers and Customers: Problems and Perspectives. The objectives were to evaluate the problems to the retailers and to identify the problems faced by the customers in retail marketing. Interview schedule was used to collect data from 100 sample respondents. For the purpose of analyzing the data, Percentage analysis, weighted ranking analysis, Garrett's ranking analysis, Likert's scaling technique and chi-square analysis are the important statistical tools was employed. The findings of the study disclosed that majority of the retailers faced the problems of bad debts, heavy competition, limited financial resources and poor market condition. Lack of variety and less promotion efforts are the problems, they are faced.

Hessam Z and Hessami1 (2013) made an attempt to find out and prioritize the factors which influence consumer's buying behaviour of green products. The

study identifies the components like consumer's environmental ideas, environmental factors, awareness of green products and consumer's values influence purchasing behaviour of green consumers. The result of mean score indicates environmental factors, consumer's environmental beliefs, consumer's values and consumer awareness of eco-friendly products respectively.

Rashid Saeed et al. (2013) examine the impact of environmental concern and knowledge of customers towards the green purchase intentions. The environmental concern, organizational green image and environmental knowledge, green purchase intention, perceived product price and quality were taken as variables in this study. The probability sampling technique was employed for the selection of 130 Sahiwal University students. The study helps managers to formulate effective green marketing strategies.

Armin Shamsollahi et al. (2013) intend to identify the factors that influence the intention to purchase organic products among consumers in Malaysia. The factors include knowledge and education, health consciousness, government support and policy, environment concerns, perceived values, attitudes and habits. The outcomes of the study reveal that all factors like knowledge and education, environment concerns, government support and policy have a significant positive association with purchase intention of organic food products.

Zia-ur-Rehman, Muhammad Khyzer Bin Dost (2013), their study tries to scrutinize factors that influence green purchase intentions of consumers in Pakistan. The research focuses on influences of four major independent variables such as self-image, environmental concern, man nature orientation and social influence on the dependent variable green purchase intention of consumers in Pakistan. The analysis of the study reveals that environmental concern does not affect green purchasing intention whereas social influence, self-image, man-nature orientation do influence green purchase intention of consumers in Pakistan.

Vinod Sharma, J. Sonwalkar, MaoharKapse (2013) focused on determinants of purchase behaviour of consumers towards green products. For this study, convenient sampling method was used to collect data from five major cities of

Madhya Pradesh. For analysis purposes, factor analysis was used. The findings of the research show that six major factors, Awareness & Concern, Price & Quality, PCE, Information, Attitude and Promotional activity, influence the buying behaviour of consumers in Madhya Pradesh.

N. Mahesh (2013) tries to find out whether there is any relationship between perceived value, attitude of consumers and purchase intention of eco-friendly products and also analyses the influencing factors of perceived value and attitude of consumers with purchase intention of such products. The result of the study concluded that higher education level, monthly income, price, value for money and acceptable quality are positively influencing consumer's intention to purchase green products.

Anupama S Chavan and Madhav N Welling (2013) have made a study to assess the awareness of government subsidy for solar water heaters among the people of Mumbai (India). Questionnaire was used for collecting data from 120 consumers. The results reveals that majority of the consumers are not aware about subsidies/incentives for solar products. It also identifying that main factors influenced for purchasing solar water heater are product availability, after sale service and credit facility. It has been suggested that marketers should spread awareness about the availability of government subsidy/incentives and arrange credit facilities for the buyers to promote sales and after sales services.

C. Senthil Nathan (2013) explores green marketing adaptation for natural personal care and home care products in Chennai and Trichy. The study assesses the awareness level of natural product among customers and motives behind their purchase decision. It concludes that customers have good awareness regarding natural products and they are willing to increase consumption of products due to social benefits, health benefits along with eco-benefits. Composition of product is crucial for success of natural products in both Chennai and Trichy markets.

P. Kishore Kumar & Dr. Byram Anand (2013) attempt to understand the variables affecting the consumer behaviour while purchasing eco-friendly paper. Here purchase intention was taken as dependent factor and environmental behaviour,

attitude, knowledge and norms are taken as the independent factors. The structured questionnaire was employed for collecting primary data. It is found that attitude and personal norms are positively influencing consumer purchase intention towards eco-friendly paper. This study was useful to the marketers to design appropriate strategies for sustaining in the competitive paper industry.

Hassan and Mohd Nor (2013) the study tries to attempted to identify the influence of 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 environmental knowledge and purchase intention of green products were significantly correlated with consumer decision making towards green electronic products.

Dr. D. Geetha et al. (2014) aim to examine the consumer behaviour towards green products, to find out the motivational factors influencing the purchase decision of green products and to sort out the problems faced by the green consumers in Coimbatore. It is found that most of the consumers are aware of environmental problems and green products and consumer's attitude and behaviour towards eco-friendly products is positive.

Dr. B. Nagaraju et al. (2014) focus on awareness and perception of consumers towards eco-friendly products and also find out how many consumers are ready to pay more for eco-friendly products. A questionnaire was designed and distributed to consumers in Mysore district of Karnataka. The result of analysis proves that the price and quality of product affects their buying decision of eco-friendly products.

Waseem Akbar et al. (2014) mainly attempt to identify the factors which influence consumer's purchase intentions of green products in Pakistan. Primary data was collected from 160 respondents by employing self-administered questionnaires. The study concludes that there is significant relationship of green purchase attitude, green perceived value, green trust and ecological knowledge on purchase intention of green products. This study is very helpful to marketers to understand how

different factors affect consumer's purchase intention at national and international level.

Faizan Zafar Sheikh et al. (2014) investigated the way they make decision and their behaviour towards eco-friendly products. Approach: Questionnaire was used for collecting primary data from 200 respondents. Findings of the study show that there is strong positive relationship between consumer behaviour and price, quality of green products. Whereas brand and gender difference has very weak relationship with consumer behaviour. These results are also helpful to industries for understanding the customer intention to buy green products and formulate appropriate strategies.

Narges Delafrooz (2014) analyzes the influence of eco-label, eco-brand and environmental advertisement on consumer behaviour. Cluster sampling method was used for selecting sample from Tehran city. Questionnaire was distributed among 384 people. The results of Spearman correlation test and multiple regression analysis shows that consumer purchasing behaviour was mostly affected by environmental advertisement than eco-brand.

Dr. Shruti P Maheshwari (2014) studies beliefs and attitude of consumers on environment safety and their buying behaviour of green products. Additionally, it also emphases on the success of the efforts made by marketing firm in bringing consumer's awareness on green brands. The paper suggests that the Indian market could be exploited more for greener products in consumer goods than industrial ones.

Muntaha Anvar (2014) focuses the determinants of attitudes and purchase behaviour of green products among Generation Y consumers in South Africa. The variables like Social influence, environmental awareness and price were taken into account. Self-administered questionnaires were used as data collection tool among 200 students between the ages of 18 to 23. Simple and multiple linear regressions were used for analysis of the data. The results show that the social influence, environmental awareness and price have positive influence on consumer's attitudes towards eco-friendly products.

Collins MarfoAgyeman (2014) investigates the relationship between factors that effect on consumer's purchasing behaviour for eco-friendly products and identifies consumer's preference to pay extra price for green products in Kancheepuram district. Convenience sampling method was used to select 200 respondents who make purchases of the green products. The primary data was collected with the help of pre-tested structured questionnaires. The study reveals that there is significant relationship between the variables which affects green consumer behaviour.

Nagaraju & Thejaswini (2014), the study tries to identify the consumer's awareness and perception towards eco-friendly Fast Moving Consumer Goods (FMCG). Convenient sampling methods have been used as sampling tool and data was collected from 60 respondents. The findings of the study reveals that majority of the respondents are aware and satisfied of eco-friendly FMCG. Further, it has also been identified that eco-labels and green logos are the important tools for identifying eco-friendly fast moving consumer goods. The study suggested that the government, environmental communities and social groups have to join together to create public awareness about environmental issues and the benefits of green products.

Sudhir Sachdev (2015) highlights the attitude and perception towards eco-friendly fast moving household and personal care products among Indian consumers in terms of 4 Ps of marketing mix. The findings of the study reveal that senior citizens are more environmentally conscious than the younger generation. Further, level of education, income, price and quality of products are important factors in determining the purchase decision of eco-friendly products.

2.4 Research gap

After review of literature, the researcher found the gap of the study as mentioned below;

• There is no study conducted relating to consumer behavior towards green products in Kerala context.

- Most of the international & national studies are based on urban /town/cities of nations.

- Most of the study covers only two or three environmental factors which influence the purchase decision on green products.

- Most of the Indian studies are conducted which are generic in nature and only a few studies focus on a specific sector.

- Till date no study has been carried out relating to influencing factors for consumer behavior and green initiatives towards green consumer durables in the context of Kerala.

2.5 Chapter summary

From the above mentioned literature it can be concluded that there have been several studies at national and international level in the field of green marketing and green consumer behavior. The mentioned research works have been selected as they are in line with the research topic and gives an idea about the research gap. It is noted that very few research in this area has been conducted in Indian context and most of the studies are conducted which are generic in nature and only a few study focus on a specific sector. Therefore, the present study concentrates on factors influencing marketing and consumption of green consumer durables from both retailers's and consumer's perspectives.

REFERENCES

Ahamed S Syed and Ravi A. (2012).Consumer Perception And Green Marketing Impression On FMCG Sector- An Empirical Study In Krishnagiri District, Tamilnadu, *Indian Journal Of Applied Research*, 1(12).

Alwitt, L.F. & Berger, I.E. (1993), "Understanding the Link between Environmental Attitudes and Consumer Product Usage: Measuring the Moderating Role of Attitude Strength", *Advances in Consumer Research,* Vol. 20, 189 – 194.

Armin Shamsollahi, Chin Wei Chong & NedaNahid, (2013).Factors influencing on purchasing behaviour of organic foods*, Human and Social Science Research,* 1(2) 93-104.

Balderjahn I.(1988). "Personality variables and environmental attitudes as predictors of ecologically responsible consumption patterns"*, Journal of Business Research*,17(1) 51-56

Chan, R.Y.K. (2001),.Determinants of Chinese Consumers' Green Purchase Behaviour, *Psychology and Marketing*, 18(4), 389–413

Christopher Gan, Han Yen Wee, Lucie Ozanne and Tzu- Hui Kao, (2008). "Consumers' purchasing behavior towards green products in New Zealand," Innovative Marketing, Volume 4, Issue 1,

Collins Marfo Agyeman,(2014). consumers' buying behaviour towards green products: an exploratory study,*International journal of managent and business strategy*, 3(1), 244-260

Cronin, J. J., Smith, J. S., Gleim, M. R., Ramirez, E. and Martinez, J. D., (2011). Green Marketing Strategies: An Examination of Stakeholders and the Opportunities they Present. *Journal of the Academic Marketing Science*, 39: 158-174.

Dr. B. Nagaraju, Thejaswini H,(2014).Consumers\' perception analysis-Market awareness towards ecofriendly FMCG products-A case study of Mysore

district, *IOSR Journal of Business and Management (IOSR-JBM),*16(4), 64-71.

Dr. D. Geetha1& D. Annie Jenifer,(2014). A study on consumer behaviour towards purchase of eco friendly products in Coimbatore, *Abhinav International Monthly Refereed Journal of Research in Management & Technology,*3(3).

Dr. Juleebanerji & Amit Kumar Dubey,(2014). Green Marketing: - Necessity as well as Opportunity for industries in current era, *International journal of commerce, business and management (ijcbm),*03(05),

Dr. Ofunya Francis Afande, (2015). Influence of Green Marketing Strategies on Performance of the Kenyan Tea Sector, *Journal of Marketing and Consumer Research*, *An International Peer-reviewed Journal*, 4(10).

Dr. Shruti P Maheshwari,(2014). Awareness of Green Marketing and its Influence on buying behaviour of Consumers: special reference to Madhya Pradesh, India, *AIMA Journal of Management & Research*, 8 (1/4),

Dr.K.Manian &, AshwinNithish.J,(2014). Present Green Marketing - Brief Reference to Indian Scenario, *International Journal of scientific research and management(IJSRM),*Special Issue On National Level Conference Business Growth and Social Development, 51-57,

Dr.Pranam Dhar & Soumyajit Das,(2012).Green Marketing : Challenges & Opportunities for Innovation and Sustainable Development. *International Journal of Marketing, Financial Services & Management research,*1(5),

Dr.Satpal Sin,(2012). Green marketing: challenges and strategy in the changing scenario. *International Journal of Advanced Research in Management and Social Sciences,* 1(6)

Dr.Shirish Nana Gawali,(2011).Emerging Opportunities and Challenges of Green Marketing in India. *ASM's International E-Journal on Ongoing Research in Management and IT*,

Dr.Tareq N. Hashem&Dr.Nahla A. Al-Rifai,(2011).The influence of applying green marketing mix by chemical industries companies in three Arab States in

West Asia on consumer's mental image, *International Journal of Business and Social Science,* 2(3).

DuckittJohn   and Linda D. Cameron,(2006). A Cross-Cultural Study of Environmental Motive Concerns and Their Implications for Proenvironmental Behaviour, *Environment and Behaviour*, 38(6) ,745-767.

DurmazYakup and Zenginsevil (2011).A Theoretical Approach To Concept of Green Marketing. *Interdisciplinary Journal of Contemporary Research In Business*, 3(2), 1808-1814

E. smith & S. Perks,(2010).A Perceptual Study of the impact of Green practice implementation on the business functions*, Southern African Business Review,* 14 (3).

Ekta Rastogi Singh and M.S. Khan, (2014). Green Marketing& its Impact on Society: Emerging Challenges & Opportunities, *International Journal of Management and International Business Studies,* 4(3) ,263-270

Faizan Zafar Sheikh1, Ashfaq Ahmed Mirza1, Anam Aftab and Bilal Asghar,(2014). Consumer Green Behaviour Toward Green Products and Green Purchase Decision, *International journal of multidisciplinary sciences and engineering,* 5(9)

Gan, C., Wee, H.Y., Ozanne, L. & Kao, T.H. (2008), Consumers' purchasing behaviour towards green products in New Zealand, *Innovative Marketing*,4(1), 93 – 102.

Gatersleben, B., Steg, L. &Vlek, C. (2002).Measurement and Determinants of Environmentally Significant Consumer Behaviour, *Environment and Behaviour*, 34(3), 335 – 362.

Hassan, Y. and Mohd Nor, M. A. (2013). Understanding Consumer Decision Making towards Green Electronic Products. South East Asia Journal of Contemporary Business, Economics and Law, 2(1): 27-33.

HessamZand Hessami, ParisaYousefi,(2013). Investigation of major factors influencing green purchasing behaviour: Interactive approach, *European Online Journal of Natural and Social Sciences,*2(4),584-59.

Horne, R. E. (2009). Limits to Labels: The Role of Eco-Labels in the Assesssment of Product Sustainability and Routes to Sustainable Consumption. *International Journal of Consumer Studies*, 33(2): 175-182.

Ishaswini & Saroj Kumar Datta,(2011). Pro-environmental Concern Influencing Green Buying:A Study on Indian Consumers, *International Journal of Business and Management,* 6(6).

Ishaswini. & Datta, S.K. (2011), "Pro-environmental Concern Influencing Green Buying : A Study on Indian Consumers", *International Journal of Business and Management*, Vol. 6, No. 6, 124 – 133.

JesminAkter (2012).Consumer Attitude towards Green Marketing in Bangladesh," *ASA University Review*, 6(1)

Johri, L. M. and Sahasakmontri, K. (1998). Green Marketing of Cosmetics and Toiletries in Thailand. *Journal of Consumer Marketing*, 15(3): 265-281.

Johri, L. M. and Sahasakmontri, K. (1998). Green Marketing of Cosmetics and Toiletries in Thailand*. Journal of Consumer Marketing*, 15(3): 265-281.

Joshi, N. & Mishra, D.P. (2011), "Environment Friendly Car: A Study of Consumer Awareness with Special Reference to Maharashtra State", *Information Management and Business Review*, Vol. 2, No. 2, 92 – 98.

Kaman Lee (2008). Opportunities for green marketing: young consumers, *Marketing Intelligence & Planning*, 26(6), 573-586.

Katherine T. Smith,(2010). An examination of marketing techniques that influence Millennials' perceptions of whether a product is environmentally friendly*, Journal of Strategic Marketing,*18(6), 437–450.

Kilbourne William and Pickett Gregory,(2008). How materialism affects environmental beliefs, concern, and environmentally responsible behavior, *Journal of Business Research* 61(9), 885-893.

Kim, H.Y. & Chung, J. (2011), "Consumer Purchase Intention for Organic Personal Care Products", *Journal of Consumer Marketing,* Vol. 28, No. 1, 40 – 47.

Laroche, M., Bergeron, J. &Barbaro-Forleo, G. (2001). Targeting Consumers who are willing to pay more for Environmentally Friendly Products, *Journal of Consumer Marketing,* 18(6), 503 – 520.

Mainieri Tina, Barnett Elaine G., Valdero Trisha R., Unipan John B., and Oskamp Stuart,(1997). "Green Buying: The Influence of Environmental Concern on Consumer Behaviour", *The Journal of Social Psychology*, 137(2), 1997, 189 – 204.

Manju, (2013). Green Marketing: New hopes and Challenges, spectrum: *a Journal of Multidisciplinary Research* vol.1 issue 9, , issn 2278-0637

Manjunath .G. Gundupagi Manjunath, (2013).green marketing and its implementation in indian business organizations. *Asia Pacific Journal of Marketing & Management Review* 2 (7), 34-39

Mary Wanjiru Kinoti,(2011). Green marketing Intervention Strategies and Sustainable Development: A Conceptual Paper, *International Journal of Business and Social Science* 2(23).

Mary WanjiruKinoti,(2011).Green marketing Intervention Strategies and Sustainable Development: A Conceptual Paper, *International Journal of Business and Social Science,* 2 (23).

Mehta, D., Jain, S. & Mehta, N.K. (2011), "Impact on Gender on Adoloscent Consumers towards Green Products - A Study Conducted in Indore City", *The Annals of the "Stefan cel Mare" University of Suceava. Fascicile of the Faculty of Economics and Public Administration*, Vol. 11, No. 1 (13), 98 – 102.

MrPrashand kumar and Bhimrao M Ghodeswar,(2014). A Study of Green Marketing Practices in Indian Companies, *International Journal of Applied Management Sciences and Engineering,* 1(2), 51-69.

Ms. Deepika Kathuria, Ms. Monika Bansal,(2016). Green Marketing: A new Initiative, *International Journal in Commerce, IT & Social Sciences,*03(01),

MuntahaAnvar, Miss Marike Venter, Ms,(2014). Attitudes and Purchase Behaviour of Green Products among Generation Y Consumers in South Africa, *Mediterranean Journal of Social Sciences* , 5 (21)

N. Mahesh,(2013).Concumer's Perceived Value,Attitude And Purchase Intention of Green Products, *Management Insight,*1(1).

NargesDelafrooz, Mohammad Taleghani, BaharehNouri,(2014). Effect of green marketing on consumer purchase behaviour, *A Qatar Foundation Academic Journal of Science Connect ,*6(12)

Nisreen Bahnan; Mayuresh Kelkar; Nicole Curry, Linda Jane Coleman, (2011). Walking The Walk: How The Theory Of Reasoned Action Explains Adult And Student Intentions to go Green, *Journal of Applied Business Research*, 27(3); 107.

Nitin Joshi & D. P. Mishra,(2012). Environment Friendly Car: A study of Customer Awareness in Maharashtra, *Ninth AIMS International Conference on Management ,*1-4,

Ottman, J.A., Stafford, E.R. & Hartman, C.L. (2006).Avoiding Green Marketing Myopia, *Environment*, Vol. 48, No. 5, 22 – 36.

P. Kishore Kumar & Dr. ByramAnand,(2013). A Study on Consumer Behaviour towards Eco-Friendly Paper, *Global Journal of Management and Business Research Administration and Management*, 13(11).

Pavan Mishra & Payal Sharma, Green Marketing in India: Emerging Opportunities and Challenges, *Journal of Engineering, Science and Management Education*, 3,9-14.

Pavan Mishra &Payal Sharma,(2010).Green Marketing in India: Emerging Opportunities and Challenges,*Journal of Engineering, Science and Management Education*, 3,9-14.

Peattie, K. (2001, Summer). Towards Sustainability: Third Age of Green marketing. *The Marketing Review*, 2(2), 129-146.

Peattie, K. and Crane, A. (2005).Green Marketing: Legend, Myth, Farce or Prophesy? Qualitative Market Research: *An International Journal*, 8(4), 357-370

Phuah Kit Teng1, Golnaz Rezai , Zainalabidin Mohamed and Mad NasirShamsudin,(2011). consumers' awareness and consumption intention towards green foods, *International Conference On Management Proceeding*.

Polonsky M. J. (1994), "An introduction to Green marketing" *Electronic Green Journal,* vol.1, Issue 2.

Polonsky, M. J. and Rosenberger III, P. J. (2001). Reevaluating Green Marketing: A Strategic Approach. *Business Horizons*, 44(5): 21-30.

Prof. K. Uday Kiran,(2012). Opportunity and Challenges of Green Marketing with special references to Pune. *International Journal of Management and Social Sciences Research (IJMSSR)*,1 (1)

Prof. Govind Teju Rathod, (2014).Green Marketing in India : Emerging Opportunities and Challenge ,*Asian Journal of Management Sciences* 02 (03 (Special Issue)); 111-115.

Rahbar, E. and Wahid, N. A. (2011). Investigation of Green Marketing Tools' Effect on Consumers' Purchase Behaviour. *Business Strategy Series*, 12(2), 73-83.

Rajender Kumar, P.J. Philip and Chetna Sharma,(2014).Marketing Sustainable Innovations: A Study on Energy Efficient Durables, *International Journal of Management and International Business Studies*,4(1),33-38.

Rakesh Kumar,(2013). Green Marketing - A Brief Reference to India, *Asian Journal of Multidisciplinary Studies,* 4(1),44-49

Rashid Saeed, Rab Nawaz Lodhi, AniqaKomal Khan, NaimaKhurshid, FarehaDustgeer, Amna Sami, ZahidMahmood and Moeed Ahmad,(2013).

Measuring Impact of Factors Influencing Purchase Intention Towards Green Products: Sahiwal Clothing Industry Perspective, *World Applied Sciences Journal* 26 (10): 1371-1379.

Ravindra Saxena Pradeep K,(2010). Sustainable Development through Green Marketing: TheIndustry Perspective, *The International Journal of Environmental, Cultural, Economic and Social Sustainability*,6(6),237-246

Robert D. Straughan and James A. Roberts, (1999)."Environmental Segmentation Alternatives: A Look at Green Consumer Behavior in the New Millennium," *Journal of Consumer Marketing*, Vol. 16 No. 6 1999, Pp. 558-575.

Rohit HTrivedi, Jayesh D Patel and Jignasa R savalia,(2011). PRO-Environmental behaviour of consumers: A taxonomy and it's implication for the green marketer, *South Asian Journal of Management,* 18(4),121-132.

Rouf Ahmad Rather and R Rajendran, (2014). "Green marketing: an emerging strategy for sustainable development" *Indian streams research journal*, volume 3 issue 12, Jan 2014

Sachin S. Vernekar, Preeti Wadhwa (2011) "Green Consumption: An Empirical Study of Consumers Attitudes and Perception regarding Eco-Friendly FMCG Products, with special reference to Delhi and NCR Region," *Opinion-* Volume 1, No. 1, December 2

Sara and Madhumitha,(2013).Green Marketing – Case studies of companies implementing towards Green Revolution',*'AMET International Journal of Management'* 1-6.

SardianouEleni, (2007).Estimating energy conservation patterns of Greek households *Energy Policy*, 35(7), 3778- 3791.

Sharma, Y. (2011), "Changing Consumer Behaviour with respect to Green Marketing – A   Case Study of Consumer Durables and Retailing", *International Journal of Multidisciplinary Research*, Vol. 1, No. 4, 152 – 162

Sourabh Bhattacharya (2011).Consumer Attitude Towards Green Marketing in India,*Journal of Marketing Management*, 10(4), 63-71.

Souza, C.D., Taghian, M., & Khosla, R. (2007).Examination of Environmental belief and its impact on the influence of price, quality and demographic characteristics with respect to Green Purchase Intention. *Journal of Targeting, Measurement and Analysis of Marketing*, 15 (2), 69-78.

Straughan, R.D. & Roberts, J.A. (1999), Environmental Segmentation Alternatives: A Look at Green Consumer Behaviour in the New Millennium, *Journal of Consumer Marketing,* 16(6), 558 – 575.

sudhirsachdev,(2011). Eco-friendly products and consumer perception, *International Journal of Multidisciplinary Research,*1(5), 348-357

Syed Ali Raza Hamid, Hateem Adnan Ghafoor & TamkeenZehra Shah,(2012) .Analysis of attitude towards green purchase: Pakistan in context*, International Journal of Business and Social Science* , 3(6)

Vinod Sharma, J. Sonwalkar, MaoharKapse,(2013). Consumer Purchase Behaviour for Green Products, *International Journal of Economics & Business Administration,*1(4),

Waseem Akbar, Saud Hassan, ShahrozKhurshid & Muhammad Niaz,(2014). Antecedents Affecting Customer's Purchase Intentions towards Green Products, *Journal of Sociological Research* , 5(1)

William E. Kilboume (1998).Green Marketing: A Theoretical Perspective. *Journal of Marketing Management*, vol-14(2), 641-655

CHAPTER III

THEORETICAL FRAMEWORK-

Green Marketing & Consumer Behaviour

GREEN MARKETING: AN OVERVIEW

3.1   Introduction

How to achieve sustainable development is a serious concern across the world and therefore too many strategies are being introduced to materialize it. Green marketing is an important concept put forward by marketers as a key strategy for sustainable development. In this context the present study looks at sustainability from a marketing perspective and also to the environment friendly behavior from consumer perspective. The researcher presents a theoretical framework of sustainability in terms of marketing, meaning and definition of green marketing, its evolution, reasons for its adoption by firms, green marketing mix strategies and prospects & challenges of green marketing. Moreover, consumer durable industry in India and selected green consumer durables are also explained along with it.

3.2   Sustainability in terms of Marketing

Sustainability is one of the major concepts widely discussed among modern business thinkers. Sustainable development is a concept of utilizing the present without spoiling the future. In other words it is a way of using resources which insists to fulfill present needs without spoiling the environment so that these needs can be met for future generations as well. According to the Brundtland commission sustainable development means a development that "meets the needs of the present without compromising the ability of future generations to meet their own needs."

The way of marketing which incorporates needs of the customer, the organization and the society in general over a long term is meant by sustainable marketing. In other words, the sole focus of marketing on economic aspect is expanded by including the environmental and societal dimensions. All these three dimensions should be considered while planning marketing strategy to realize sustainable development.
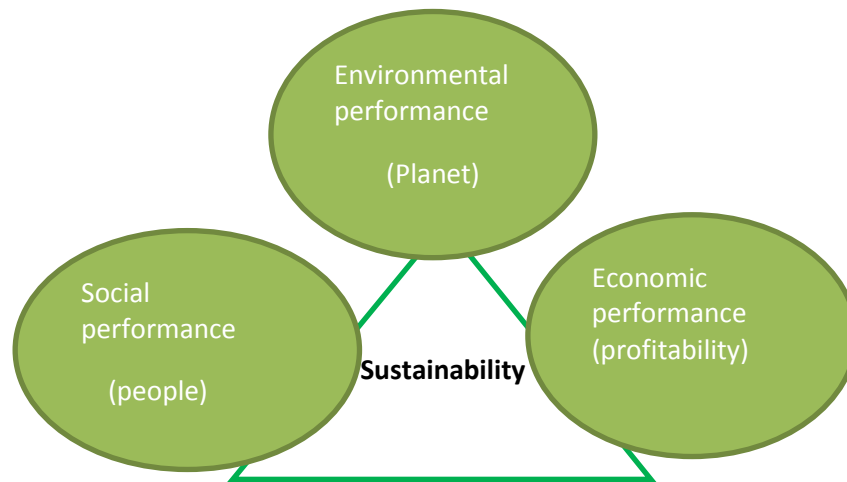
Figure 3.1

Three Dimensions of Sustainability –The Triple Bottom Line

(Carter & Rogers)

3.3   Concept of Green Marketing

Generally green marketing refers to the marketing of products that are supposed to be harmless to the environment. Green marketing is a marketing strategy which emphases on preserving the natural environment and promote healthy, reusable and eco-friendly products. It is also known as Environmental Marketing and Ecological Marketing. In other words, "Green marketing refers to the practice of business that focuses on consumers' needs and concerns with respect to saving and conserving natural resources and the environment as a whole" (Coddington, 1993). Green marketing mainly focuses on ecological sustainability and saving natural resources and reducing pollution levels. Now, the focus has been shifted to creating value for all the stakeholders, including consumer and firms, by keeping environmental safeguards in mind.

American Marketing Association, (AMA) divided the definition of green marketing into three perspectives: (1) *Retailing perspective* -- green marketing is the marketing of products that are presumed to be less harmful to the environmentally". (2) *Social perspective* -- green marketing is the marketing of products which are designed and developed with zero effects on the natural environment or to improve its quality". (3) *Environment perspective* – It is the efforts of marketers to produce, promote, package, and reclaim products in a manner that is sensitive or responsive to

environmental concerns". Therefore, green marketing consists of wide range of activities such as modification of product, changes in the production process, modifying package and modifying advertisement.

According to Peattie (2001), the evolution of green marketing has three stages; 'Ecological' marketing, 'Environmental" marketing and "Sustainable" marketing.

"Ecological" marketing -- During this stage, all marketing activities were concerned environment problems and provide solution to such problems.

"Environmental" marketing – In this phase, the marketer should design and develop innovative products which helps to reduces pollution and waste issues.

"Sustainable" marketing -- It came into prominence in the late 1990s and early 2000.

The ultimate objective of green marketing is to promote integrated exchange processes that strike a balance between business, society and the natural environment. Green marketing is also considered as a tool for observing, seeking and fulfilling consumer needs and desires in the context of environmental responsibility.

3.4 Differences between Traditional marketing & Green marketing

Green marketing expands on the fundamental functions of traditional marketing. Differences between green marketing and traditional marketing can be seen from various aspects. The following table represents the differences between traditional marking and green marketing.

Table 3.1

Traditional marketing	Green marketing
Goals • Customer satisfaction • Organizational goals	**Goals** • Customer satisfaction • Organizational goals • Ecosystem compatibility
Decision making Frame of Reference • Fragmented thinking • Non-boundary spanning • Short term orientation	**Decision making Frame of Reference** • Integrated thinking • Boundary spanning • Long term orientation
Philosophical basis • Anthropocentric • Ecosystem an open sink	**Philosophical basis** • Bio centric • Ecosystem a physical limiting factor, eco cost must be paid
Ecological Accountability/Responsibility • Limited product risk • Local/Regional/National • No/underpaid ecological costs	**Ecological Accountability/Responsibility** • Product risk • Global/International • Full accounting of ecological costs
General tools/approaches • Use planning to minimize cost of local waste disposal • Reactive approach to waste management • Focus on industrial functions • Total quality management	**General tools/approaches** • Use life cycle assessment and environmental audits to minimize and redirect waste management • Proactive approach to waste management • Focus on industrial processes • Total quality environmental management

Source: Donald A. Fuller, Sustainable Marketing: Managerial-Ecological

3.5   Green initiatives of Indian corporate sector

As increasing demand for eco-friendly products, the number of companies going green has also seen substantial increase. Many of these green businesses have devoted their business efforts around developing and promoting the use of green products, in the process actively contributing towards a cleaner, safer, and ecologically more balanced environment. Table 3.1 shows the companies which are engaged in green marketing practices in Indian corporate sector.

Table 3.2

Company Name	Products
HCL	First PVC free and eco-friendly notebook
LG	LG LED E60 and E90 series monitors and its used 40 per cent less energy consumption than the traditional LCD monitors
Samsung	Environment friendly monitors with its range of 50 and 30 series LED monitors. Split ACs, which claim to save up to 60 per cent energy. eco friendly mobile handsets (made of renewable materials)
Philips	Compact Fluorescent Light (CFL) bulb
Wipro Info tech	Environment friendly computer peripherals
Reva	Electric car
Honda	Hybrid car
ITC	Eco-friendly business paper
Indusland Bank	Solar-powered ATM
Kansai Nerolac	Lead free paint
Panasonic	Refrigerators, air conditioners, washing machines. TV, LCD, Quick iron, batteries and bulbs.

3.6   Need for green marketing

Human wants are unlimited and resources on earth are limited. Therefore, while companies struggle to achieve organizational goals they should use resources efficiently without spoiling it. Without green marketing it will remain as a dream.

Regardless of the nature of the diverse countries, people are aware of environmental protection to a great extent. Therefore, consumers all over the globe are concerned about environment and their concern is growing day by day. Many studies indicate that they are slowly shifting their non-green behavior to green behavior. These highly growing concerns gave birth to green marketing which stands for socially responsible and sustainable products and services.

Being members of the wider community, Indian companies started to realize that they have to behave in an environmentally responsible manner. This transfers a notion that they must achieve environmental objectives together with economic objectives. This integrates firm's corporate culture with environmental issues. However, there are basically five reasons for which a company should adopt green marketing.

- **Customer pressure:** While customers change company should change if it really intends to survive. Customers is the king of the business. Customers are very conscious, especially in developed countries, about environmental issues and they have been educated by different types of media of such issues. Therefore, they purchase products that are less detrimental to the environment and less harmful to the human being. If companies did not change their policies according to the expectation of the customers they cannot survive at all.

- **Government pressure:** Indian government formed numerous Acts and regulations to safeguard the society and consumers from the environment deprivation such as pollution. These actions reduce the number of polluted industries and customer consumption of harmful goods for example, ban of plastic bags, smoking in the public places etc.

- **Competitor pressure:** While companies which really understand the importance of green marketing are changing their marketing strategy they automatically create a competitor pressure on others especially in such a situation wherein many customers are being attracted by the new strategy. Therefore, nowadays companies follow green marketing to maintain the core competency

strategy in the competitive position of the market. Companies follow green marketing as a corporate social responsibility to save the environment.

- **Community pressure:** People living in the surroundings of the company may react against the company if it pollutes the environment and sometimes this may lead to closure of the company. Due to this force companies are very much concerned about their process to make it less damage to the environment.

- **Cost reduction:** Reduction of harmful waste may lead to cost savings to the company. Sometimes waste generated by one company is used as raw material by other companies for their production process.

3.7   Green marketing mix

Every company has its own green marketing mix. Green marketing mix differs from traditional marketing. The following are the important green marketing mix;

Green Products:-

 Green products are those products which can be manufactured from recycled materials or from used goods. It helps to save water, energy and money. Additionally, it also helps to reduce resource consumption and to increase conservation of scarce resources (Kellerman, 1978).

Green Price:-

Price is one of the most important element of green marketing mix. Most consumers will only ready to pay extra value if there is a self-perception of extra product value. This value may be improved performance, function, design, visual appeal, or taste. Therefore, while fixing the price, marketers should take all these facts into consideration and at the same time, charge price which is affordable for the customers.

Green Place:-

The choice from where and when to buy a product will have significant impact on the customers. Green place means managing logistics to cut down on transportation emissions, thereby reducing the carbon footprint.

Green Promotion:-

Green promotion is the process of stimulating the demand and persuades the customers to buy green products by using different promotional tools. It helps to promote the relationship between a product/service and the environment, promote green lifestyle and corporate social responsibility.

As the 4 p's of green marketing mix, Belz and Peattie (2009) suggested an alternative 4 Cs of sustainability marketing mix. The elements of the sustainability marketing are depicted in Table

Table. 3.3

Sustainability Marketing Mix

4P's of marketing elements	4 Cs of marketing elements	Scope
Product	Customer Solutions	Involves satisfying customer needs and understanding consumer buyer behavior
Price	Customer Cost	Includes the cost price of the product. It also considers the psychological, social and environmental cost of obtaining, using and disposing of the product
Promotion	Communication	Generating awareness and trust of green products
Distribution	Convenience	Making the green products readily available to the consumer

Source: Belz and Peattie (2009).

Green marketing promotes the products and services by offering superior environmental benefits in the form of reduced waste, toxic emissions and increased energy efficiency. Green marketer can attract customers on the basis of performance, money savings, health and convenience.

The effective implementation of green marketing mix should stimulate actual purchase behavior, enhance the credibility of green products and foster loyalty among consumers towards green products. Davari & Strutton (2014).

3.8   Challenges of Green Marketing

While adopting the green marketing policies, firms may encounter many challenges. These challenges are as follows:

➢   **Need for standardization**:-

According to reliable reports only 5% of the marketing messages from "Green" campaigns are completely true. There is a great lack of standardization to authenticate the claims of firms regarding their adherence to green marketing concepts. Establishment of a standard quality control board is very much needed for labeling and licensing.

➢   **Avoiding Green Myopia**:-

The first preference of the Green Marketing should be customer benefits. If a firm develops a product which is green in its all aspects but does not pass customer satisfaction criteria then it will not work, rather it will lead to Green myopia.

➢   **New Concept:**-

Even though the Indian literature and urban consumer is getting more aware about the merits of Green products it is still a new concept for the masses. By India's Ayurveda heritage, Indian consumers do appreciate the importance of using natural and herbal beauty products. Considering these aspects it could be assumed that consumer is already aware and will be inclined to accept the green products.

> **Consumer Attitude vs. Behavior:-**

Worldwide consumers have become conscious about environment. Some scholars believe that consumers are ready to pay premium for green products because they often prefer attributes like price and quality over traditional product attributes.

> **Patience and Perseverance:**

The environment should be viewed as a major long term investment opportunity by the corporate and investors. Marketers need a look at the long term benefits from this new green movement.

> **Information Disclosures**:-

There are two potential challenges in front of the firms/products. Firstly, all information regarding greenness must be adequate and reliable and secondly these should not be false unsubstantiated claims. To see what claims are permissible have become the duty of central and state governments.

3.9   ENVIRONMENTAL REGULATIONS IN INDIA

In India various act that are to be enforced to save the environment. This act indirectly pressure to the company to change their business into environmental friendly.

Environmental (Protection) Act 1986

This act was passed with the objective of every state has the responsibility to protect and improve the environment and to safeguard the forest and wild life of the country. It imposes a duty on every citizen to protect and improve the natural environment including forests, lakes, rivers, wildlife.

Air (Prevention and Control of Pollution) Act 1981

The objective of this act is to provide for the prevention and control of air pollution from the environment degradation. Decision were taken in the united

nation conference on the human environment held in Stockholm in June 1972, in which India also participated, to take appropriate steps to preservation of the natural resources of the earth includes preservation of the quality of the air and control of air pollution.

Water (Prevention & Control) Act 1974

The main objectives of this act are to provide for the prevention and control of water pollution and take action against the company who are violate the act.

Wildlife Protection Act 1972

According to this Act wildlife includes any animal, bees, butterflies, fish and moths and aquatic and land vegetation which forms part of any habitat. In accordance with wildlife (protection) Amendment Act 2002 no alteration of boundaries/ national park/ sanctuary shall be made by the state govt. except on recommendation of the National board for wildlife.

Hazardous waste (Management and Handling) Amendment rules2003

This act insists that every organization should seek authorization from the state pollution control boards (SPCB) for disposal of hazardous waste whenever required.

Ozone Depleting Substances (Regulation and control) Rules 2000

Environment Protection Act 1986 has notified rules for regulations and control of Ozone Depleting Substances under Montreal Protocol. As per the notification, certain control and regulations have been imposed on manufacturing, import, export and use of these compounds. Organization as per provision of notification shall phase out all equipments, which use these substances.

3.10 GREEN MARKETING: SWOT ANALYSIS

The following table presents the various strength, weakness, opportunity and threat of green marketing in India

Table 3.4

SWOT Analysis

STRENGTH	OPPORTUNITIES
• Builds brand equity and brand loyalty among customers • Access to new markets and opportunity • More eco-responsible products • Promotes corporate social responsibility • Saves money in the long run	• Competitive advantages • Sustainable growth and profitability. • Government legislation and provision of subsidies from govt. • Reduction in cost. • Corporate Social Responsibility • Increase in consumers' socially conscious behavior
WEAKNESS	**THREATS**
• Over emphasizing greenness rather than customer needs. • Choose to satisfy personal needs of customers rather than caring for environment • Lack of awareness of eco-label and certifications • A lot of time and effort are needed for reaching green movement	• Uncertainty as to which green marketing activities • Convince them about the long term benefits of green marketing • Marketing myopia e.g. Competitors gain market shares with green products and increased environmental regulations.

3.11   Consumer durable industry in India

Consumer durables is one of the fastest growing industry segments in India. Consumer durables refer to those consumer goods that do not have to be purchased frequently because they are manufactured for long-term use (typically more than three years). It can be classified into two segments; (a) Consumer electronics (brown goods) and (b) Consumer appliances (white goods). Brown goods consist of Televisions, Audio and video systems, CD and DVD players, Personal computers, Laptops, Digital cameras & Electronic accessories. Consumer appliances or (white goods) include Air conditioners, Refrigerators, Washing machines, Sewing machines, Electric fans ,Cleaning equipments, Microwave ovens and other domestic appliances.

Table 3.5

Evolution of Consumer Durable Industry

Periods	Radical changes
1980s and early 1990s Pre- liberalization	▪ Closed market ▪ Increased product availability ▪ Increased media penetration and advertising
Mid and late 1990s Liberalisation	▪ Liberalisation of markets ▪ Entry of global players such as LG and Samsung ▪ Focus from promotion to product innovation
Early 2000s Growth	▪ Increasing availability and affordability of consumer finance ▪ Low penetration of high-end products such as air conditioners (<1 per cent)
Late 2000s Consolidation	• Companies look to consolidate market share • Indian companies such as Videocon gaining global identity • Increasing penetration of high-end products such as air conditioners (>3 per cent) • Introduction of new aspirational products such as High Definition TVs (HDTVs) • Companies targeting high growth in rural market
2017 onwards	▪ Goods and Services Tax introduced from July 2017, with most electronics goods taxed at 18 per cent

Source: Aranca Research

3.11.a Consumer Electronic Home Appliances

Consumer electronics industry is part of the large sector of consumer goods. The consumer electronics market is characterized by high fragmentation. For consumers and authorities' sustainability is becoming more vital, the demand for manufacturers to develop and deliver sustainable products is growing. This trend has been present for several years but the development is now accelerating at variable paces in different regions. Companies are now focusing on constant productivity improvements in several product costs as well as structural costs owing to the competitive cost structures. Manufacturers are also relying on collaborations and

acquisitions to gain larger consumer electronics market share. The following are the key players in consumer electronic home appliance in the market.

Table 3.6

Key Players in Consumer Electronic Appliances Industry

Company	Product category
BLUE STAR	ACs, Refrigerators, Specialty cooling products including mortuary chambers and cold storage
DAIKIN	ACs and Cooling equipment
GODREJ	Refrigerators, ACs, Washing machines, Microwave ovens, DVD players, Digital-imaging products and Audio-visual products
HITACHI	ACs and Refrigerators
LG	TV, Audio-Visual Solutions, Computers, Mobile Phones, Refrigerators, Washing Machines, Microwave Ovens, Vacuum Cleaners and Acs
ONIDA	LCDs, Washing Machines, DVD Players, AC, Microwave Ovens, Mobile Phones, Projectors and Display Products
PHILIPS	TVs, Home Theatre Systems, DVD Players, Audio Products, Personal Care Products, Household Products, Computers And Phones
SAMSUNG	TVs, Home Theatre Systems, DVD Players, Mobile Phones, Digital Cameras, Camcorders, Refrigerators, Acs, Washing Machines, Microwave Ovens And Computers
SONY	TVs, Projectors, DVD Players, Audio Systems, Home Theatre Systems, Digital Cameras, Camcorders, Computers, Video-Gaming Products And Recording Media
VIDEOCON	TVs, DVD Players, Microwave Ovens, Refrigerators, Washing Machines, Acs And Power Backup Solutions
WHIRLPOOL	Refrigerators, Washing Machines, Microwave Ovens, Water Purifiers And Power Backup Solutions

Source: Edelweiss – Consumer Durables Honing the home stretch September 2018

The following table shows the recent trends in consumer durable industry in India.

Table 3.7

Trends in Consumer Electronic Home Appliances Market

Expansion into new segments	▪ Kodak has started selling HD LED televisions in retail markets. ▪ Entry of Voltas into the country's consumer durables market. ▪ Hindustan Unilever launched of skincare brand Citra for targeting women consumers. ▪ Micromax plans to invest USD 89.25 million
Focus on energy efficient and environment-friendly products	▪ To control emissions from climate damaging refrigerants. ▪ In 2016, LG electronics focused on energy efficient premium inverter split air-conditioners
Increased affordability of products	▪ consumer goods are likely to be cheaper after the implementation of GST ▪ Advancement in technology & higher competition lead to reduce the price of consumer durables
Increasing presence of organized retail	▪ Online retail marketing to grow at a CAGR of 40-45 per cent during 2014-2018 . ▪ Emerging modern durable retail chains & e-retailers like Tata Croma, Reliance Digital, E zone ▪ India retail industry is expected to reach USD17.5 billion in 2018

Source: CEAMA, India Retail Report, Aranca Research, Business Line, IMAP India, Economic Times

The following are the important strategies adopted by the marketers for the promotion of consumer electronic home appliances.

Table 3. 8

Strategies for the Promotion of Consumer Electronic Home Appliances

Powerful competitive strategy **Source**	• Inexpensive social media campaigns which helped the company in producing mobile phones at competitive prices in the market. • Samsung has acquired other brands to come under Samsung are Mark Levinson, AKG, Lexicon, Infinity and Revel, Bowers and Wilkins and Bang and Olufsen brands.
Overhauling of distribution framework	• More brands are having a uniform pricing strategy in order to expand retail sales. • Companies like Bajaj Electricals and Crompton Consumer are working on real time demand feedback to reduce turn around time (TAT).
Occasion based marketing	• India is the land of occasions and festivals, therefore, customers are offered great deals • For instance the prices of products during Diwali, New Year, etc go down and customers are offered with great deals. Such strategies are adopted so as to enhance revenues plus to maintain the goodwill amongst buyers.
Sales strategies	• The strategy of flash sales helped Xiaomito emerge as India's largest-selling smartphone brand between September- December 2017. It accounted for 31 per cent of the total sales between January – March 2018
Focus on energy efficiency	• Companies also plan to increase the use of environment-friendly components and reduce e-waste by promoting product recycling • India has made it mandatory for manufacturing companies to control emissions from climate-damaging refrigerants. • In March 2018, Blue Star launched 40 new models of highly energy efficient air conditioners

The below table represent the important drivers for growt and development of Consumer Electronic Home Appliances in India.

Table 3.9

Key Growth Drivers of Consumer Electronic Home Appliances

Growing demand	Policy support	Increasing investments
Higher real disposable incomes Easy consumer credit Growing working population	Setting up of EHTPs Increasing liberalisation, favourable FDI climate Policies like National Electronics Mission and Digitisation of television Reforms like simplified labour laws and Technology upgradation Fund Scheme	Expanding production and distribution facilities in India Increased R&D activity Providing support to global projects from India

3.11.b Automobile Industry In India

India is the 4th largest automobile market in 2018 with sales increasing 9.5 per cent year-on-year to 4.02 million units. It is a Strong market in terms of both, the domestic demand and exports. Automobile sector split into four segments such as Two –wheelers, passenger vehicles, commercial vehicles and three wheelers and each having few market leaders. Two-wheelers and passenger vehicles dominate the domestic demand which is accounted for 81 per cent of domestic demand in 2017-18. Automobile exports grew 24.34 per cent year-on-year during April-September 2018. It is expected to grow at a CAGR of 3.05 per cent during 2016-2026.

Table 3.10

Evolution of Automobile Industry

Periods	Radical changes
Before 1982	- Closed market 5 players - Long waiting periods & outdated models - Seller's market
1983 -1992	- Indian government & Suzuki formed Maruti Udyog and commenced production in 1983 - Component manufacturers entered the market via JV - Buyer's market
1992-2007	- Sector de-licensed in 1993 - Major Original Equipment Manufacturers (OEMs) started assembly operations in India - Imports permitted from April 2001 - Introduction of value- added tax in 2005
2015 Onwards	- Automotive Mission Plan 2016-26 launched in 2015 Bharat Stage IV emission norms since April 2017. 29.1 million vehicles produced in 2017-18 - More than 40 companies operating in the country in 2018

Sources: Tata Motors, Society of Indian Automobile Manufacturers (SIAM), Aranca Research

Each segment in the Indian automobiles sector has few established key players which hold major portion of the market. They are as follows;

Table 3.11

Key Players in Automobile Industry

Company	Product category
MARUTHI SUZUKI	• Market leader in the passenger vehicles segment and held around 50 per cent market share in the segment in FY18. The company recorded its highest ever sales of 1,779,574 units during 2017-18, a year-on-year increase of 13.4 per cent. • The company's domestic passenger vehicle sales stood at 147,700 units in August 2018.
TATA MOTORS	• Market leader in the commercial vehicles segment held 44 per cent market share in FY18. Company's commercial vehicles sales increased 26 per cent year-on-year to 39,859 units in August 2018. • Overall sales of the company in terms of volume increased 27 per cent year-on-year to 58,262 units in August 2018
HERO HONDA	• Hero MotoCorp and Honda are the top two players in the two-wheelers segment, with market share of 37.67 per cent and 30.9 per cent, respectively in Q1 FY19.
BAJAJ-PIAGGIO	• Bajaj Auto is a leader in three wheelers with 58.15 per cent market share in FY18. • Piaggio Vehicles is the second leader in three wheelers with 24.05 per cent market share in FY18.

Source: Aranca Research, Autocar India, Financial express

Table 3.12 represents the recent trends in automobile sector in order to gain the competitive advantages.

Table 3.12

Recent Trends in Automobile Sector

Luxury Vehicles	• India became the 27th most attractive luxury market in the world. The luxury car market in India is expected to grow at 25 per cent CAGR till 2020. • BMW Group recorded its highest ever annual sales in 2017 at 9,800 units. During January-September 2018, BMW registered a growth of 11 per cent year-on-year in its sales in India at 7,915 units. • Mercedes-Benz crossed 16,000 annual sales for the first time in India and sold 16,236 units in 2017-18, recording a 22.5 per growth during the year. • Two leading luxury car manufacturers, BMW and Mercedes-Benz, recorded their best-ever half yearly sales in India during January-June 2018. Sales of BMW grew 13 per cent year-on-year to 5,171 units and sales of Mercedes-Benz grew 12.4 per cent year-on-year to 7,171 units. • Premium motorbike sales in India crossed one million units in FY18.
Electric Vehicles	• Mahindra has launched its new electric car and Tesla motors is also set to enter the Indian market. Suzuki Motors is setting up a battery plant in Gujarat. Electric buses from Tata Motors are in testing phase. • India's electric vehicle (EV) sales increased to 25,000 units during FY 2016-17 and are poised to rise further on the back of cheaper energy storage costs and the Government of India's vision to see 6 million electric and hybrid vehicles in India by 2020. • Sales of electric two-wheelers are estimated to have crossed 55,000 vehicles in 2017-18. • In June 2018, Tata Motors created a separate vertical for electrical vehicles to tap into the market potential.

Sources: Society of Manufacturers of Electric Vehicles, Aranca Research, Money control, News Articles

The following are the important strategies adopted by the marketers for the promotion of automobile industry in India.

Table 3.13

Capacity Addition	▪ Hero Moto Corp will invest Rs 2,500 crores (US$ 387.9 million) by FY21 to increase its production capacity. ▪ With the total investment of around US$ 163.7 million, Honda Motorcycle & Scooter India expanded its production of Activa in three variants at Ahmedabad plant. ▪ Volvo has started local assembly of its cars in India from October 2017. ▪ A new engine assembly line is being set up by the Volkswagen group in Aurangabad. ▪ As of October 2018, Honda Motors Company is planning to set up its third factory in India for launching hybrid and electric vehicles with the cost of Rs 9,200 crore (US$ 1.31 billion), its largest investment in India so far.
Catering Indian needs	▪ Ford & Volkswagen have adapted themselves to cater to the large Indian middle class by dropping their traditional structure and designs. ▪ This allows them to compete directly with domestic firms making the sector highly competitive.
New Financing Options	▪ To provide customized finance through NBFCs. Auto finance business of NBFCs in India is expected to grow at a CAGR of 15 per cent by FY20 ▪ Major MNC & Indian corporate houses are moving towards taking cars on operating lease instead of buying them
Launch of new models	▪ Honda is planning to launch three new car models in India by 2020 and to keep the prices low. ▪ Ashok Leyland has planned a capital expenditure of Rs 1,000 crore (US$ 155.20 million) to launch 20-25 new models across various commercial vehicle categories in 2018-19. ▪ Hero MotoCorp will launch five new two-wheelers in FY19. ▪ Hyundai will launch its first electric vehicle in India in 2019. ▪ In January 2018, Ola announced plans to develop electric vehicles, including cars and auto-rickshaws for the Indian market. ▪ Maruti Suzuki is planning to start testing prototypes of its electric vehicles in India in October 2018. ▪ Superbike seller Motoroyale Kinetic Pvt Ltd is planning to develop 300cc-500cc bikes in India by 2021.

The following table shows the important drivers for growth and development of automobile market in India

Table 3.14

Key Growth Drivers of Automobile Industry

Growing demand	Policy support	Support infrastructure and high investments
• Rising income and a large young population. • Greater availability of credit and financing options. • Demand for commercial vehicles increasing due to high level of activity in infrastructure sector.	• Clear vision of Indian government to make India an auto manufacturing hub. • Initiatives like 'Make in India', 'Automotive Mission Plan 2026', and NEMMP 2020 to give a huge boost to the sector.	• Improving road infrastructure. • Established auto ancillary industry giving the required support to boost growth. • 5 per cent of total FDI inflows to India went into the automobiles sector.

3.11.c   Furniture Industry in India

Furniture market in India has historically witnessed boom in the country. Furniture refers to the movable things that support various activities of human being such as seating, eating and sleeping, for work or to store things. Furniture is a product of design and form of decorative art. Furniture can be made from various materials such as metal, plastic and wood. Home Furnishings Industry consists of businesses that manufacture and sell furniture, textiles and related goods to residences, offices, hotels and others in the commercial space.

Furniture Industry- An Overview

In the last few decades, demand for furniture have been increased among Indian households due to growing economy, growing phase of infrastructure and real estate market, entry of new retail market, entry of international brands and increasing brand awareness, development in housing sector, rapid growth of metro cities and rising trend of home décor. In these reasons have led to the emergence of

furniture retailing in India. The Indian furniture market, which has grown at a CAGR of 17.2% for the period FY'2008-FY'2013, will incline at a compounded annual rate of 13.0% from FY2013-FY'2018. The following are the major players in Indian furniture markets.

- Nilkamal Limited
- Godrej & Boyce Manufacturing Co. Ltd.
- Zuari Global Ltd.
- Wipro Enterprises (P) Ltd.
- Furniturewalla
- Featherlite
- Millennium lifestyles
- Urban ladder
- Damro
- IKEA
- Geeken India
- Evok
- Durian Furniture

Key Growth Drivers of Indian Furniture Industry

The following are the important drivers for growth and development of furniture industry in India.

- Rapid urbanization in India is expected to positively impact the growth of furniture market in near future.
- Supporting the culture of housing societies
- Growth of real estate sector is anticipated to boost the demand for furniture in urban areas.
- Rising investment in retail sector by various national and international entities is anticipated to foster the growth of furniture market.
- Technological advancements such as availability of high speed internet networks is boosting the e-retail sector.

- Rising number of smartphone users and online shopping is encouraging the furniture industry.
- 100 percent FDI policy for townships and settlements development project is attracting more foreign investors in the real estate sector which increase the quality of residential apartments.
- Rising demand for high-end and western style furniture is boost to the growth of furniture market.

3.12 Green Products

Green products are those products which are harmless to the environment whether in their production, consumption or disposal and it is manufactured through green technology and causes no environmental hazards. Green products helps to preserve energy, minimize carbon footprint and discharge of greenhouse gases. It never leads to substantial toxicity or pollution to the nature.

Gurau and Ranchhod (2005) defined green products as products manufactured using toxic free ingredients and environment friendly procedures, and which is certified as such by a recognized organization. According to Pickett-Baker and Ozaki (2008), ″Environmentally sustainable products is complex. In a strict sense, there is no such thing as truly sustainable or green product, as all products we buy, own, use and discards in our daily lives will have negative environmental impacts at some stage in their life cycle''.

Characteristics of Green Products

- **Recyclable:-**

A characteristic of goods, packaging or associated component that can be diverted from the waste stream through available process and program and can be collected, processed, returned to use in the form of raw materials or goods. Different type of this recycle symbol explained that different meaning according to the recycled content involved in the product. Nokia Company started a recycle center in their showroom to recycle their electrical waste.

- **Reusable:-**

    A characteristic of goods or packaging that can be conceived and designed to accomplish within its life cycle a certain number of trips, rotations or uses for the same purpose for which it was conceived.

- **Reduce:-**

    Green products are always reducing the waste involved in package; reduce water consumption, energy consumption, and carbon footprint.

- **Refillable:-**

    A characteristic of goods or packaging that can be filled with the same or similar goods more than once, in its original form and without additional processing except for specific requirements such as cleaning or washing. Comfort fabric conditioner offers their package with refillable nature.

- **Ozone layer process:-**

    Green products are offered with elemental chlorine free and avoid green gas house emissions to save the nature.

- **Degradable:-**

    A product or package with respect to specific condition it can be break down into various parts into in a given time.

- **Nontoxic:-**

    Toxic refers to chemical items in the product. In agriculture people are preferred more for organic goods, it avoid chemicals, pesticide in the product.

- **Ingredients:-**

    Ingredients refer to contents involved in manufacturing the product. These contents should not be harmful to the health of the human being.

- **Water conservation:-**

Reduction in the consumption of water associated with goods or services performing the function for which was used low usage of water when compared with other goods or services performing an equivalent function. This conservation of water consumption of the goods can be identified through the star systems printed in the products. In green building, materials that are used for water usage they take low quantum of water while compare with other goods.

- **Energy conservation:-**

In order to save the green sources of energy electrical goods are offered with the energy star symbol. This symbol products take the low quantum of energy while compare with non-energy star appliances.

3.13   Selected Green Consumer Durables:-

Durable goods are a category of consumer products that do not need to be purchased frequently because they are made to last for a long time (usually lasting for three years or more)**.**Green durables are the category of consumer products that preserve and protect the environment and they are made to last for a long time**.** Among green consumer durables, three categories of durables are selected for the study. They are as follows;

3.13.a Energy efficient home appliances

Energy efficient appliances are essential in controlling pollution. It enhances conservation of energy and improves cutting down of the resources used in generating energy and use them further in other development needs. Energy efficient appliances are designed to utilize minimum energy to accomplish the required task. These products also enhance conservation of the sources such as natural gas, oil, coal, and water as a way to achieve sustainable development.

It is reported that in the US, a household spends 56% less energy as a result of the introduction of energy efficient appliances. This has enhanced the nation to

maintain a clean environment as well as conserve a lot of energy. Although the initial installation of energy efficient appliances may be expensive, the overall benefits for a household, enterprise, industry, and the nation at large are incomparable in the long run. The following are the important Energy efficient home appliances which are selected for the study.

- Refrigerator
- Air conditioner
- Laptop and computer
- Water heater
- Mobile phone
- Audio and video players
- Light bulb
- Ceiling fan
- Washing machine

3.13.b. Home furnitures

Going eco-friendly with house décor is an amazing way to boost environment-friendly lifestyle. Eco friendly furniture is essentially made of recycled content. The use of wood in making furniture does immense harm to our environment. However the use of old plastic, glass, metal, wood and recycled fabric for making the same furniture is an effective way to combat environment related concerns. It ensures that there is ample use of existing resources. The liberal use of new natural resources is restricted; hence there is less pressure on the ecosystem. The use of old wood particularly ensures lesser deforestation. Furniture which involves less processing time, lower carbon emissions, consumes lesser natural resources like water, and facilitates use of alternative energy resources like solar power can be deemed eco-friendly. Bamboo furniture is highly sustainable product, requiring less chemicals, fertilizers and pesticides. Handmade furniture etched out by local artisans comfortably fulfills the requisites of eco-friendly furniture. Most of these are made of recycled fabrics, organic wool, and retrieved wood and metal.

These are considered most energy efficient as there is no energy consumed by machines.

A certification from the Forest Stewardship Council (FSC) on wooden furniture means that the council is convinced that the manufacturer has re planted trees after cutting some of them down for his supply. Following are the important eco-friendly home furniture considered for the study.

- Bed cot
- Dining Table
- Chairs
- Stools
- Sofa set

3.13.c. Electric vehicles

The automobile industry in India is expected to be the world's third largest by 2026. The automotive manufacturing industry comprises the production of commercial vehicles, passenger cars, three & two-wheelers. Green vehicle or electric vehicle is considered to be environmentally friendly because it uses renewable energy sources as fuel and less consumption of petrol. It helps to decrease petroleum powered vehicles, consequently to reduce global warming. It consists of electric vehicles, hybrid vehicles and solar vehicles. Scooter, bike, autorickshaw and car are selected for the study.

3.14 Eco-mark

The government of India launched an eco-mark scheme in 1991 to increase the awareness of customers towards green products. The aim of the scheme is to stimulate the customer to purchase those products which have less environmental impact. Some of these programs use eco labels such as the "Energy Star" and the "Green Seal" that you can see below to certify and endorse the green products.

Energy Star (trademarked ENERGY STAR) is a voluntary program launched by the U.S. Environmental Protection Agency (EPA) and now managed by the EPA

and U.S. Department of Energy (DOE). This program helps individuals and businesses to save money and protect the environment through superior energy efficiency. Consumers and businesses rely on Energy Star which provides simple, credible, and unbiased information to make well-informed decisions to save money and minimize emissions. Energy Star specifications differ with different items. But in general, devices carrying the "Energy Star" logo save 20% to 30% energy on an average. The Energy Star program was established by EPA in 1992 and operates under the authority of the Clean Air Act, section 103(g), and the 2005 Energy Policy Act, section 131 (which amended the Energy Policy and Conservation Act, section 324)

Table 3.15

Eco-logo & its products

Eco- logo	launched Year	Product specification
	1987	Coffee, tea, chocolate, fruit juice, wood and paper products, personal care products..etc.
	1989	Paints, cleaning products, paper products,
	1992	Home appliances and electronics, computers, lighting, HVAC systems, building products etc.
	1994	Wood and forestry products
	1996	Cosmetics, personal care products, household cleaning products

	1997	Wine, beer, dairy products
	1997	Seafood
	1998	Coffee, tea, chocolate, honey, clothing, nuts and grains, personal care products, wine ..etc.
	2001	Paints, finishes, adhesives, window treatments, textiles, insulation, furniture, flooring.etc
	2005	Cut flowers, potted plants
	2006	Showerheads, toilets, urinals, bathroom faucets, landscaping irrigation controllers
	2006	Clothing, home textiles, fabrics, hygiene products
	2006	Consumer electronics
	2009	Cleaning products, personal care products, appliances and electronics, food, paints.. etc.

The above table 3.15 shows various eco-logo and its product categories to certify and endorse the green products.

Conceptual framework of consumer behavior

3.15 Introduction

Marketing of a company's products and services is mainly done by consumers and they play a key role in the marketing process. Therefore, while developing a marketing plan, consumers and their interests should be kept in mind for maximization of the effectiveness of any marketing plan. The purpose of the study of consumer behaviour enables the marketers to understand and predict human actions in the marketplace. It is concerned not only with what consumers buy but also why, when, where, how and how often they buy it. This study enables the marketer to understand behavior of consumers by discussing a number of different models of consumer behaviour, detailing different theories, how purchase decisions are formed and influenced by environmental factors.

Nowadays consumers across the world are environmentally aware and conscious and therefore they stand for a green revolution to prevent further damage to the environment. Thus, it is very much important to understand green consumers purchasing behavior and trends in order to predict why customers purchase green products.

3.16 Customer & Consumer

The word 'customer' is derived from the term "custom" which means "practice", in that sense; customer means a person or entity who buys the goods or services from a seller at regular intervals. Customer is the one who buys the product intended for giving it to someone else or for selling it.

The word 'consumer' is derived from the word "consume" which means "to use". In this way, the word consumer means a person who purchases the goods or services for his own use or consumption. Hence, consumer is ultimate user or end user of goods and services.

3.17 Green consumer

Green consumer is a person who is concern and care about the natural environment and only purchases products that are green. In other words, green consumer is a person who avoids products that are likely harmful to the health of people and destruction to the environment during manufacture stage, consumption stage and disposal stage.

Soonthonsmai, 2007 shows Green consumers can be defined as "people who are caring and paying attention in environmental issues''. Euromonitor, 2008, defined that "green consumers are those who always purchase the product which bring less impact to environment consistently". The green consumer is typically known as one who supports eco-friendly attitudes and/or who purchases green products over the standard alternatives. (Boztepe, 2012).Ottman (1993) defines green consumer as "Those actively seek and support those products satisfy their needs that are having less impact on environment

3.18 Consumer Attitude

Consumer attitude is the combination of beliefs, feelings, and intentions of consumers towards some object, a person, thing or situation. In other words attitude consists of three elements: cognitive information, affective information, and conative Information.

According to Leon G. Schiffman "Attitudes are expressions of inner feelings that reflect whether a person is favorably or unfavorably predisposed to some object (e.g., a brand, a service, or a retail establishment)". Schiffman adds that it is "a learned predisposition to behave in a consistently favorable or unfavorable way based on feelings and opinions that result from an evaluation of knowledge about the object"

3.19 Environmental attitude

Environmental attitude is identified as the judgment an individual has towards the protection and promotion of the environment. Davis (1995), says green

marketing depends on the consumer's attitude towards the natural environment. Environmental attitudes (EA) are a psychological evaluation of the natural environment with some degree of favour or disfavour.

3.20   Consumer behaviour

An understanding of consumer behavior has become integral part of strategic marketing planning. Consumer behavior refers to the behaviour of consumers in deciding to buy or not to buy or use or not to use or dispose of or not to dispose of the products which satisfy their needs. The term 'consumer behaviour' refers to the behaviour of both the personal consumer and the organizational consumer. The failure or success in any business is determined by the behavior of the end-user or consumer who finally uses the product or service .The present study has made an attempt to study the behaviour of personal consumers. The personal consumer buys goods and services for his or her own use, for the use of the household or as a gift for a friend. The study of consumer behavior enables marketers to understand and predict consumer behaviour in market place.

Philip Kotler and Garry Armstrong defined "Consumer buying behavior as the buying behavior of final consumers - individuals and households who buy goods and services for personal consumption". All of these final consumers combined make up the consumer market".

Consumer behavior "as the behavior that consumers display in searching for, purchasing, using, evaluating and disposing of products, services and ideas which they expect will satisfy their needs" (Leon G.Schiffman and Leslie lazar Kanuk)

According to Louden and Bitta, 'consumer behaviour is the decision process and physical activity, which individuals engage in when evaluating, acquiring, using or disposing of goods and services'. Engel, Blackwell, and Mansard defined , 'consumer behaviour is the actions and decision processes of people who purchase goods and services for personal consumption'.

3.21 Green consumer behavior

Understanding the behavior of green consumers is necessary for effective marketing of green products. Peattie (2001) states that "consumer behavior can be developed by highlighting the relative advantage of greener products as compared to other products that create environmental problems". Mintel (2006) as cited in Gupta, S. & Ogden, T. D,.(2009) studied that "consumer willingness to pay more for environment friendly products and his concern for pollution and recycling forms his attitude as a green buying behavior.

Green purchasing behaviour refers to buying those products which can be recycled and being responsive to environmental concerns (Mostafa, 2007).Consumers' green behavior can be classified into two categories. The first category is truncation behaviors. It means the behaviors related to reduction of energy resource such as less use of private cars, temperature reduction of heating devices or reducing water and electricity consumption…etc. Normally there is no need to spend extra money for changing personal habits. Whereas green purchase behaviors in short-term and requires additional costs. Purchasing green products, insulating home with new equipment, buying CFLs or purchasing eco-friendly and energy-efficient cars are examples of green purchase behaviors.

3.22 Green Purchase Intention

Intentions are assumed to capture the motivational factors that influence a behavior; they indicate that how much of an effort people are planning to exercise or how hard people are willing to trying to perform the behavior. (Ajzen 1991) In general, when people have the stronger intention to engage in a behavior, the more likely should be its performance. Thus, when customer has show the strong intention toward the green product, they more likely transcend to performance which leads the actual purchase.

Besides, Beckford et al., (2010) and Chan (2001) research studies that green purchase intention is a significant predictor of green purchase behavior, which means that purchase intention is positively affecting the probability of a customer

decision that he will buy green products. Not only that, Chan (2001) also defines green purchase as a specific kind of eco-friendly behavior that consumers perform to express their concern to environment.

3.23   Buying behaviour theories

Various theories of consumer behaviour exist in business studies. It is very painstaking job to discuss each one of them. However, certain major theories, namely Behavioural Learning Theories, Cognitive Learning Theory, Involvement Theory, Social Judgment Theory..etc given by experts are discussed here. This would enable the researcher to give an insight into the present study.

Stimulus response theory :-

According to S R theory, there is a connection between responses and stimuli. Here our response to particular stimulus indicates our learning. Thus what we learn are habits. In the SR theory, the process is not so important but the inputs and outputs are more important. It is also known as Behavioural Learning Theory.

Congnitive learning theory:-

By our capacity to think with mental faculties a great deal of learning happens. Some solutions may flash before us on the spot whereas some problems need cautious collection and evaluation of information to take decisions. Learning is thus a function of excerpting the mind and that is called cognitive learning theory.

Involvement theory:-

It is difficult to define and measure involvement. It has the components of person, product, and situation. There can be ego - involvement. Commitment also shows involvement. If they search more for information their involvement would be higher and vice versa. However, product involvement and brand involvement should be differentiated. Involvement is not a dichotomous construct, say high and low envelopment, rather it is a continuum. Though there are semantic problems, involvement theory goes a long way in formulating communication strategy.

Social judgment theory:-

A person's processing of information about an issue is determined by his or her involvement with the issue and this is the central premise of social judgment theory. People who are highly involved with an issue and have a strong or definite opinion about an issue will accept very few alternative opinions.

3.24   Buyer Decision Process

The buying decision process of consumer acts as intermediate between the organizations's marketing strategy and the outcomes. That is, the outcomes of the marketing strategy are determined by its interaction with the consumer decision process. Fuller (1999) has suggested that consumer purchase decision help the marketers to design the marketing mix to achieve the target of sustainability and provide the criteria that the product system must be "compatible with ecosystems". Fuller (1999) further stated that "Customers must learn to base their purchase decision not only on how well products satisfy individual needs but also on how these products affect the natural environment".
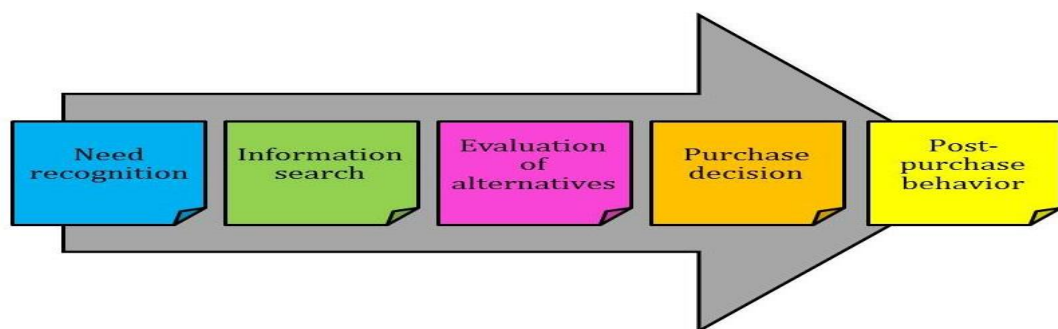
Figure 3.2

Stages of Buying Decision Process

The above figure shows the different stages of buying decision process. They are explaining in detail in below;

Need recognition:-

Consumer buying decision process starts with need recognition. A need may arise from internal stimuli or external stimuli. With the influence of other environmental factors sometimes people will have different needs. The marketer must recognize what are the needs and what is the process to satisfy them.

Information search:-

In this stage consumer searches the information about features of the products. Different sources are available for getting information. Personal sources like family, friends, and commercial sources like advertising, shop displays and public sources like press, internet etc. Hence, marketers should identify all these sources and provide maximum information to consumers.

Evaluation of alternatives:-

After getting the required information about the product the consumer has to evaluate the various alternatives on the basis of its want satisfying power, quality and it's features. From the alternatives, consumer selects the product according to its preference.

Purchase decision:-

After evaluating all the alternatives the buyer purchases the suitable product. Sometimes there is chance to postpone the purchase intention due to some reasons like unexpected situational changes, non-availability etc. In that case the marketer must try to identify what are the reasons and try to remove them either by providing sufficient information or by giving guarantee regarding the product to the consumers.

Post purchase behavior:-

It means consumer's reaction after using the product or service and it depends on whether the consumer is satisfied or dissatisfied. If the consumer is satisfied he will continue to buy the products and become a loyal customer. If he is

dissatisfied he will not purchase the same in future. Therefore it is the duty of the marketer to satisfy the consumer for the purpose of retaining them in the market.

Wood, & Neal (2009) suggested that consumer will repeat purchase if the outcome of purchase and consumption would be rewarding. On the other side Ottman, (1993 P.8) emphasized, when consumers make decision to buy the product/service, evaluate products not only on "performance and price", but also on the "social responsibility of manufacturers".

3.25 Factors influencing consumers purchase behavior

Consumer behavior is a subset of human behavior. To plan a marketing system understanding of consumer behavior is very much essential. It refers to the behaviour of consumers in deciding to buy or not to buy or use or not to use or dispose of or not to dispose of the products which satisfy their needs. Even though the term includes behaviour of both the personal and the organizational consumers the present study focuses exclusively on behavior of personal consumers. However, to identify consumer behaviour is not an easy task due to many complexities involved. To fully understand customers' needs is often a costly and inexact process. The marketers try to understand the actions of the consumers in the marketplace and the underlying motives for such actions and they are the factors that influence the consumer behavior.

3.25. a.   Psychological Factors

Psychological factors are the factors that talk about the psychology of an individual that drives his actions to seek satisfaction. Some of the important psychological factors are:

Motivation: The level of motivation has great influence on buying behavior of the consumers. Maslow has explained it well through his Need Hierarchy Theory comprising of basic needs, social needs, security needs, esteem needs and self-actualization needs. Usually, basic needs and security needs are more pressing needs than the other and hence, these needs become a motive that directs the consumer behavior to seek satisfaction.
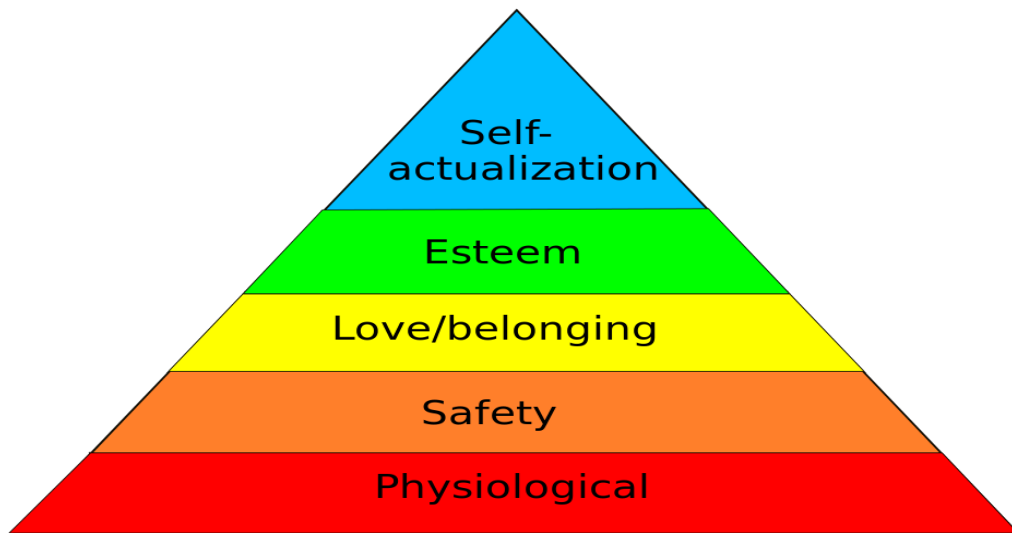
Figure.3.3

Maslow's Need Hierarchy Model

Perception: The consumer perception of a certain product and the brand also influences his buying decision. The process through which the individual selects, organize and interpret the information to draw a meaningful conclusion is called the perception such as, Apple iPhone is perceived as a premium brand and consumers are motivated to buy it to be part of the elite class of the society.

Marketers lay emphasis on managing the perceptual processes called Selective Attention, Selective Distortion, and Selective Retention. In selective attention, marketers try to win the attention of customer towards his offerings. However, it varies from one person to another. It depends upon their individual beliefs and attitudes which give rise to selective distortion. Therefore, in terms of marketers, to understand attitudes and beliefs of consumers is very much important.

Learning: The individual's learning depends on the skills, knowledge and intention. He develops his skill through practices where as his knowledge has been acquired with experience. There could be a conditional learning or a cognitive learning.

In the conditional learning, the consumer derives learning from being conditioned to particular stimuli, i.e. when he is exposed to similar situation, again

and again; he develops a certain response towards it. While in the cognitive learning the individual applies all his knowledge, skill, attitudes, values and beliefs for solution of a problem and derive satisfaction out of it.

Attitudes and Beliefs: The individuals are of certain beliefs and attitudes towards products on which their purchase decisions. These attitudes and beliefs are the tendency to respond to particular product in a specific way, and these develop the brand image that influences the consumer's buying behavior. Thus, marketers strive to recognize the attitudes and beliefs of people and modify these through various marketing campaigns.

3.25. b. Economic Factors

It refers to the level of sales in the market and the financial position of the consumer, i.e. how much an individual spends on the purchase of goods and services that contribute to the overall sales of the company. The following are the main economic factors that greatly influence the consumer buying behavior:

Personal Income: A person's buying behavior is very much influenced by his personal income as it determines the level to which the amount is spent on the purchase of goods and services. Personal income of a consumer is generally divided into two: the disposable income and discretionary income. The former is the income left in hand after paying all kinds of taxes, and other necessary payments. The more the disposable personal income in hand the more is the expenditure on various items and vice-versa. The income left after meeting all the basic necessities of life is the second one and it is called discretionary personal income and it is used for purchase of luxuries, shopping goods, durable goods etc. The more discretionary income in hand the more is the expenditure on shopping goods by which the standard of living of a person gets improved.

Family Income: The aggregate income of all members of the family is called family income. It also influences the buying behavior of the members. The balance after meeting all the basic necessities of life can be used for the purchase of shopping goods, luxury items, durable goods, etc.

Income Expectations: Not only the present available income but also future expectations influence buying behavior today. The consumer purchases luxury goods, durables and shopping goods if he expects that his income will increase in the future. On the contrary, if it is expected to fall his expenditure on such goods will be reduced.

Consumer Credit: Another factor that influences the buying behavior of the consumer is credit facilities. The customers are likely to spend more on the luxury items, durable goods, and shopping goods if EMI scheme is available and the credit terms are liberal. This credit is offered by the seller either directly or indirectly through banks and other financial institutions.

Liquid Assets: The liquid assets with the consumer also influence buying behavior of the consumer. Liquid assets mean the assets that could be easily converted into cash. The more liquid assets he owns the more is his expenditure on luxury items and shopping goods. On the other hand, if the liquid assets are few then the expenditure on luxury items also reduces.

Savings: Another factor that influences the consumer behavior is the amount of savings out of the personal income. Such as, if the customer decides to save more for a particular period, then his expenditure on the other items will be less otherwise the expenditure on other items increases.

3.25.c. Cultural Factors

The cultural factors are the factors that an individual learns from a very early stage of life due to socialization within the family and other key institutions, such as the set of values, preferences, behavior patterns, and perceptions. Some of the important cultural factors are:

Culture: Beliefs, customs, rituals and practice that a certain group of people follows are called culture. It plays a significant role in making him think of what to buy and what not. Culture varies from region to region and even from country to country. Such as the sale of "sarees" and "Lunkies" is more in Southern part of India in

comparison to its Northern part. Therefore, it seems important for marketers to study cultural differences from one place to another to form accurate marketing strategies.

Subculture: Further division of a culture is known as subculture wherein the people are classified more specifically on the basis of their shared customs and beliefs, including religions, geographic regions, nationalities, etc. These subculture elements also influence a person's buying decision and the consumer behavior in general and therefore, this should be carefully analyzed and determined by the marketers for taking strategic marketing decisions accordingly. There is no doubt that the needs of the people living in metro cities will be different from that of those who live in B-grade cities and such differences must be identified before the launch of the marketing campaign.

Social Class: Social class is another factor that influences a consumer's buying decision. Usually, people belonging to the same class are said to be sharing similar interests, values and the behavior. Our society is classified into three social classes: upper class, middle class and lower class. The needs and interests of the low class people are different from that of high class people and vice versa, consequently their buying culture also will be different. The focus of the lower class people will be to fulfill their basic needs unlike the upper class people who look for luxuries and highly expensive goods.

3.25.d. Personal Factors

Personal Factors refers the individual factors of the consumers that strongly influence their buying behaviors. These factors vary from person to person which results in a different set of perceptions, attitudes and behavior towards certain goods and services. Some of the important personal factors are:

Age: Buying interest of each age group is different and therefore it could be considered as an important factor influencing consumer behavior. People buy different products in different stages of the life cycle. Children buy more chocolates and confectionaries, however when they grow their preferences also change.

Occupation: The occupation of the individual also influences his buying behavior. People tend to buy those products and services that advocate their profession and role in the society. For example, the buying arrangements of a doctor will be different from the other groups of people such as lawyers, teachers, businessmen etc.

Income: Buying patterns are also influenced by income. It decides the purchasing power of an individual and thus, the more the personal income, the more will be the expenditure on other items and vice-versa.

Lifestyle: lifestyle also influences buying pattern. Individual's interest, values, opinions and activities that reflect the manner in which he lives in the society is meant by lifestyle. Those who have a healthy lifestyle will certainly avoid junk food and consume more of organic products.

3.25.e. Social Factors

Social Factors are the factors that are prevalent in the society where a consumer lives in. Several individuals with different preferences and behaviors create the society. These varied behaviors influence the personal preferences of the other set of individuals. That is because members of the society tend to behave in such a way that is acceptable to the society. Following are the important social factors that influence behavior of an individual in one or the other way:

Family: A child in a family is very much influenced by his parents and siblings and they knowingly or unknowingly influence the buying pattern of the child. What this indicates is that the family members play a crucial role in forming a consumer's preferences and behavior. Most of the time people tend to buy the same products or services that his father used to buy even when he grows old. This influence could be in two ways:

- Influences the personality, attitudes, beliefs, and characteristics of the individual.

- Influences the decision making of an individual with respect to purchase of certain goods and services.

It is believed that an individual passes through two families: Family of Orientation and Family of Procreation. The family wherein an individual has taken birth is known as family of orientation and therein parents have a strong influence on his behavior. Family of procreation is the family that he creates with his spouse and children. In this case spouse also influences his buying culture.

Reference Group: A reference group is a group with which an individual likes to get associated, i.e. want to be called as a member of that group. It is observed, that all members of the reference group share common buying behavior and have a strong influence over each other.

Marketers should try to identify the roles within the reference group that influence the behavior of others such as Initiator (who initiates the buying decision), Decision-Maker (who has the authority to take purchase decision), Influencer (whose opinion influences the buying decision), and Buyer (who ultimately buys the product).

Roles and Status: Another factor that influences buying behavior is an individual's position and role in the society. Such as, a person holding a supreme position in the organization is expected to purchase those items that advocate his status. During the endorsement of the products marketers should understand the individual's position and the role very well

3.26   Consumer buying Behaviour Models

It is already stated that there are many factors which influence the decision of consumers for purchasing products and services. Consumer behaviour models explain how a consumer search and get information about the product and goes to make a decision for him, family and organization. These are listed below.

3.26.a. Economic Model

In this model, consumer or buyer is rational thinker and follows the law of diminishing marginal utility principle. The consumer wants to spend minimum amount with an intention of maximizing benefits. Economic model is based on price

effect, substitution effect and Income effect. If an individual has a lot of needs to be satisfied with a limited amount of purchasing power, he will select the products or items which will give maximum benefits from the available alternatives.

3.26.b. Psychological Model

This model is based on Maslow's theory. According to this model the purchasing process and individual behavior is determined by motivational forces. This motive is a driving force which stimulates the people into action. Motivation starts with the need. The behaviour of an individual at a particular time is determined by his strongest need at that time. Once a need is satisfied, a new need arises and the process continues.

3.26.c. Sociological Model

This model states that consumer is a part of the society and he may be a member of groups in a society. His buying decision is influenced by the groups to which he belongs. In other words buyer behaviour is influenced by society rather than utility.

3.26.d. Psychoanalytic Model

As per this model, every individual consumer has a complex set of motives in their mind and this drive towards specific buying decisions. It means buying behaviour is influenced by both conscious and subconscious mind of consumer. Sigmund Freud discussed three levels of consciousness (id, ego, super ego) which are influencing individual's buying decisions.

3.26.e. The Learning Model

All the buyer behaviour theories are based on a learning model or Stimulation-Response model. Learning means changes in behavior as a result of practice or previous experience. This model states that behavior of consumers is affected by their learning experiences. It consists of three elements- drive, cues and response.
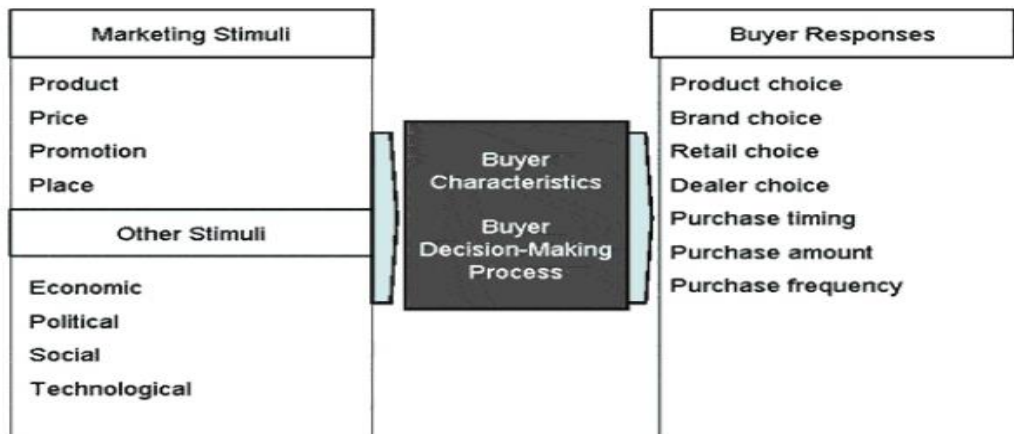
Figure: 3.4

Stimulus-Responds model

3.26.f. Howard-Sheth Model

This model is an integrated and complex model of consumer buying behaviour. It is constructed by John Howard and Jagdish Sheth in 1969. This model of decision-making consist of four set of elements-Input variables, Output variables, Hypothetical constructs (Perceptual constructs and Learning constructs) and Exogenous variables.. Input variables are necessary for decision making and occur from some stimulies from the environment. Output variables start from attention and ends with actual purchase. Between these variables there exist some variables called hypothetical which are affecting perception and learning of consumers. This model also includes some exogenous variables which are not clearly defined but significantly affect buyer decisions.
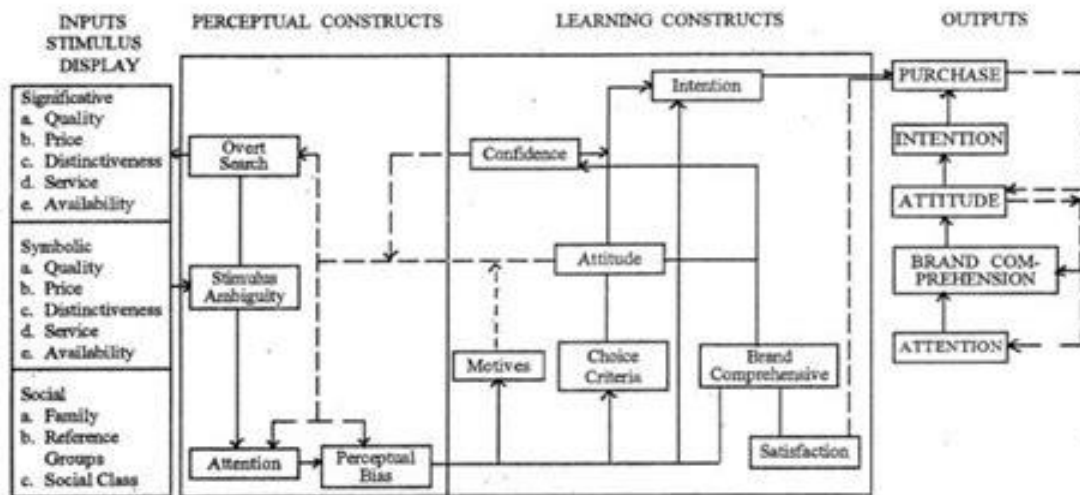
(Source: John A Howard, Jagdish Sheth. The Theory of Buyer Behaviour, John Wiley, 1969)

Figure: 3.5

Howard-Sheth Model

3.26.g. Engel-Kollat-Blackwell Model

It is a comprehensive model of consumer decision making which consists of five components: (i) Information Input (ii) Information processing (iii) Central control unit (iv) Decision process (v) Environmental influences.

Information Input:- In this stage consumer collects information from all marketing and non-marketing stimuli.

Information Processing:- Consumer processes the collected information. It involves exposure, attention, perception, acceptance and retention of collected information.

Central Control Unit:- In this stage, the stimuli processes and interprets the information received by an individual. This is done with the help of attitude, personality and past experience.

Decision Process:- It deals with decision making process which involves five stages. They are (1) Problem recognition, (2) Information search, (3) Evaluation of alternatives, (4) Purchase and (5) Post purchase behaviour.

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Environmental influences:- The model proposes certain environmental and situational forces that affect the consumer decision making. The environmental influences consist of income, social class, family influences, physical influences and other considerations.

Source: Blackwell, Miniard and Engel, 2001; Rau and Samiee, 1981; Foxall, 1980.
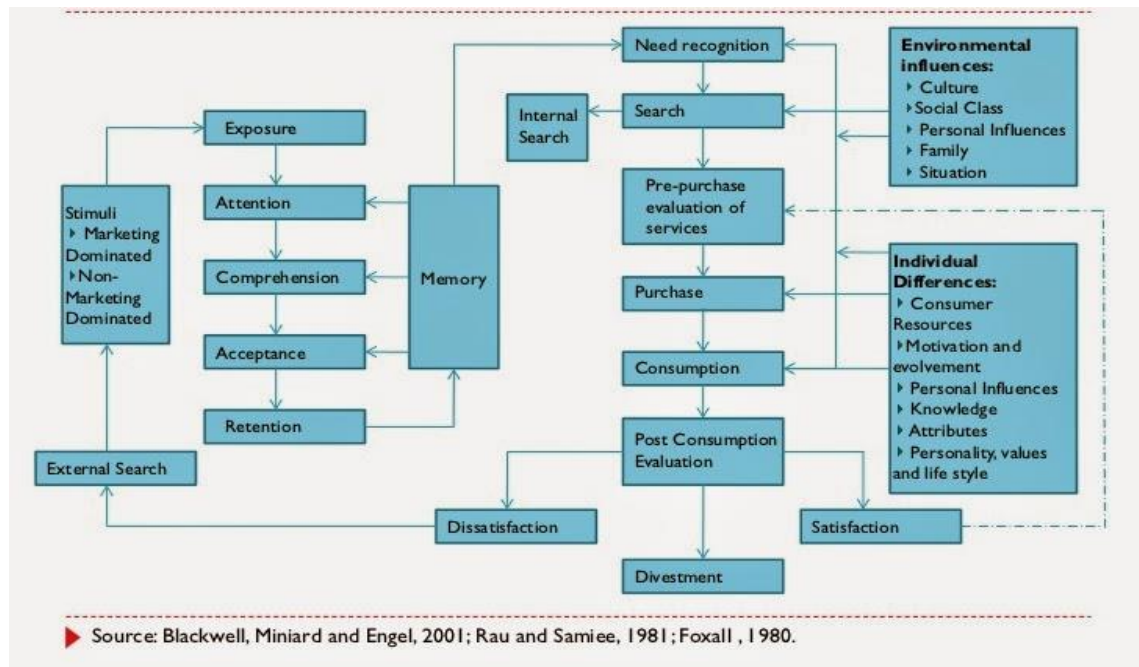
Figure: 3.6

Engel-Kollat-Blackwell Model

3.26.h. Input, Process and Output Model

It is a simple model of consumer behaviour which involves three stages-input, process and output. Input is the firm's marketing stimuli (the product, price, promotion and place) and the social environment. Both these factors together constitute the input in the mind of the consumer. This input is processed in the mind (Black Box), which constitutes the characteristics of the buyer and the process of decision-making. Second phase is buyer's decisions which may or may not be influenced by the marketing mix elements and social environment. Last part is buyer's responses. It is the result of buyer's decision and expresses in the form of choice of product, brand, dealer, frequency of purchase and amount of purchase.
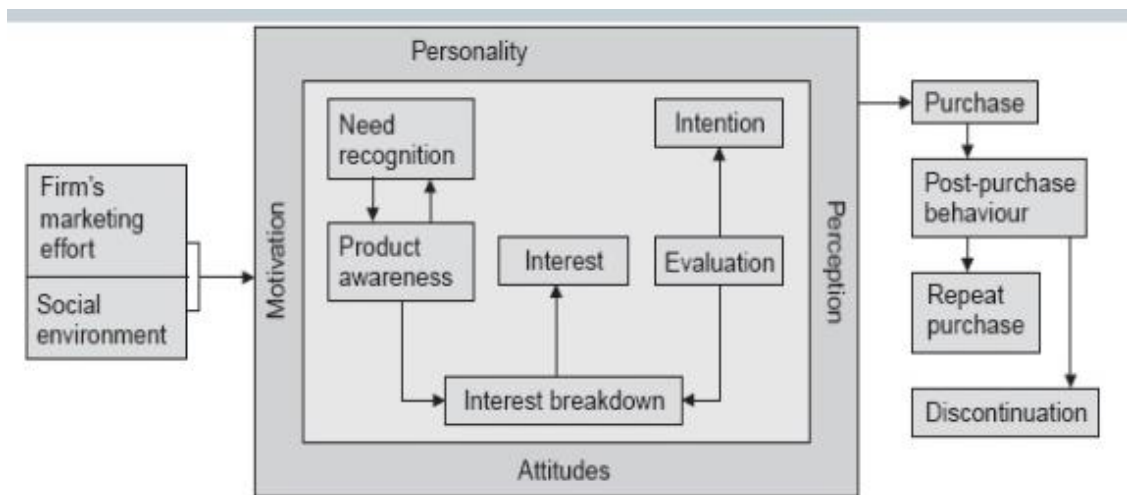
Figure: 3.7

Input, Process and Output Model

3.26.i. Andreason model

Andreason (1965) is one of the earliest models of consumer behavior which recognizes the importance of information and consumer attitudes in the consumer decision-making process. All the sources of information are filtered and matched with other behavioral variables like belief, norms, values etc; along with the search for alternate, substitute and other probable suitable products. Finally it goes through the budget, priority and fit for needs which some time work as constraint against the initial needs and wants.
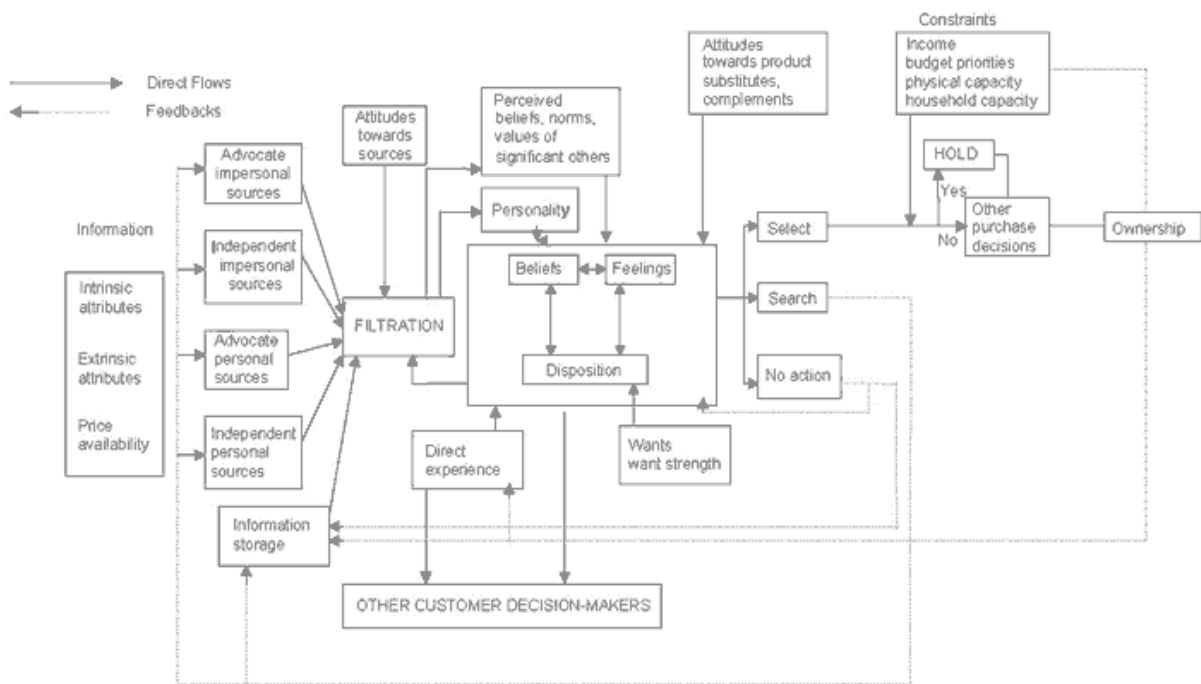
Figure: 3.8

Andreason model

3.26.j. Nicosia Model

This buyer behaviour model was developed by Francesco Nicosia in 1966. This model states that there is a link between organization and consumer. According to this model the message or information from the organization will influence consumers decision making process. Model contains four phase. First phase has two subfields ie firm's attributes and consumer's attributes. According to firm's attribute consumer will form an attribute towards the product or service offered by the organization. This resulting attitude forms second phase of the model. Before forming the attitude consumers go through a detailed search and evaluation process of the available alternatives. Third phase is the actual purchase decision ie consumers have decided to purchase the product. Fourth area covers consumption and feedback about the product and services.
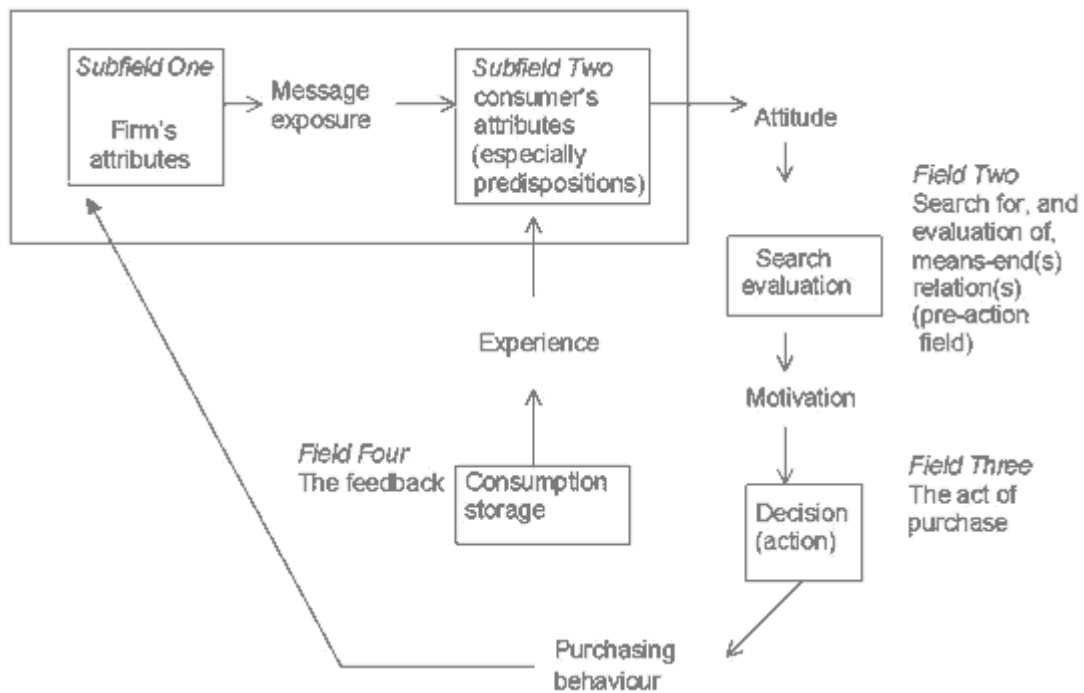
Figure: 3.9

Nicosia Model

3.27 Summary of the chapter

Green marketing is new approach to marketing which has an environmental and social dimension. Green marketing is a tool for protecting the environment for future generation. For the success and survival of companies, there is a need to go green in their business practices. Consumers gain valuable insights in their consumption- related behaviour. Marketer should understand the behaviour of consumers, which enable them to formulate suitable marketing policies and strategies. They can anticipate the reactions of the consumers to various cues, both informational and organizational. It is likely to give them a competitive advantage. For understanding the various aspects of the buying decision, the buying decision theories, buying behavioural models, buying decision process and factors influencing buying behaviour are presented in this chapter.

REFERENCES

Coddington, Walter. 1993. Environmental Marketing: Positive Strategies for Reaching the Green Consumer. New York: McGraw-Hill Inc.

Dr.M M Varma, R K Aggarwal, Consumer Behaviour. Delhi: King Books.

Hawkins, Del I. and David Mothersbaugh, (2012), Consumer Behavior: Building Marketing Strategy, 12th edition, New York: McGraw-Hill/Irwin.

Jacquelyn A Ottman, (2014). *Green marketing: Opportunities for Innovation*, Book Surge Publishing.

Jacquelyn A. Ottman, (2011).*The New Rules of Green Marketing: Strategies, Tools, and Inspiration for Sustainable Branding*,Berrett-Koehler Publishers.

JajieMandana, (1998). *The Indian Market Place: Guidelines to Consumer Education*, BrindavanPub.House.

John F. Wasik, (1996).*Green Marketing Management: A Global Perspective*. Wiley; 1 edition,

Kotler Philip and Armstrong Gary,(2008).*Principles of Marketing*.12th edition , Prentice hall , New Delhi :Pearson Education-Inc.

Kotler Philip, and Armstrong, G. (2006).*Principles of Marketing*, Eleventh Edition, Prentice-Hall.

Kotler Philip, Armstrong Gary, Agnihotri, Y .Prafulla, EhsanUlHaque,(2011). Marketing Management, Thirteenth edition, Pearson.

Kotler Philip, Gary Armstrong, (1999).Principles of Marketing. Eighth edition, New Delhi: Prentice Hall of India private limited.

Kotler Philip, Keller, K.L.(2009).Principles of Marketing-A South Asian Perspective, Thirteenth edition, Doling Kindersley (India) Pvt Ltd (Pearson Education).

Leon G. Schiffman, Leslie lazar Kanuk, (2002). Consumer behavior. Sixth edition, New Delhi :Prentice Hall of India private limited.

Leon, G.Schiffman, Leslie lazar Kanuk, (2008).Consumer behavior. Ninth edition, New Delhi: Prentice Hall of India private limited.

Loudon, D.L. Bitta, A.J. Della, (2002).Consumer Behavior. Fourth Edition, New Delhi: Tata McGraw-Hill.

Mowen, J.C.,& Minor, M.S. (2001). Consumer Behavior: A Framework. Englewood Cliffs, New Jersey: Prentice-Hall.

NeeranGautam, Kokil Jain, (2008).Consumer Behaviour. New Delhi: Wisdom Publications.

Ottman, J. (1998), Green Marketing: Opportunity for Innovation, NTC-McGraw-Hill, New York.

William J. Stanton, 'Fundamentals of Marketing', McGraw Hill International Book.

https://www.energystar.gov/products/lighting_fans/light_bulbs

https://www.energystar.gov/products/lighting_fans/ceiling_fans

https://www.energystar.gov/products/spec

https://greengarageblog.org/the-eco-friendly-automobiles-of-the-future

www.ijbmi.org

https://www.fintapp.com/blog/consumer-durables-industry-analysis-research-report/

http://www.indiahandicraftstore.com/furniture/http://www.indiahandicraftstore.com/furniture/

https://economictimes.indiatimes.co

https://greenfc.com

https://greengarageblog.org/the-eco-friendly-automobiles-of-the-future

https://wikibizpedia.com

https://www.alibaba.com/showroom/green-electronic-products.html

https://www.bing.com

https://www.energystar.gov/products/lighting_fans/ceiling_fans

https://www.energystar.gov/products/lighting_fans/light_bulbs

https://www.energystar.gov/products/spec

https://www.fintapp.com/blog/consumer-durables-industry-analysis-research-report/

https://www.furniture.com

https://www.ibef.org/industry/consumer-durables

https://www.ibef.org/industry/india-automobiles.

https://www.indiaretailing.com/

https://www.kenresearch.com

www.energystar.gov

www.greendust.com

www.managementstudyguide.com

https://www.bing.com

CHAPTER IV

ANALYSIS AND INTERPRETATIONS
OF CONSUMERS SURVEY

AWARENESS, ATTITUDE AND FACTORS INFLUENCING BUYING BEHAVIOUR

In this chapter, the researcher has made an attempt to analyze the socio-economic and demographic characteristics of the respondents as well as their relationship with awareness, attitude, behavior and perceived barriers to purchase decision of green consumer durables. The primary data were collected by using questionnaire and Interview schedule. Primary data were analyzed by using parametric and non-parametric test and presented by way of charts and tables. It includes demographic profile, consumer's awareness of green consumer durables, consumer's attitude towards 4 p's green marketing mix, social factors, environmental concern for attitude formation, factors affecting awareness, purchase intention and satisfaction of consumers and problems faced by consumers while purchasing such products. Statistical Package for Social Sciences (SPSS 20.0) was the software package used for analysis. Various hypotheses are tested and the interpretations are explained in detail.

4.1 PROFILE OF RESPONDENTS

The study of profile of the respondents is essential in every research. This part covers the respondent's sex, age, qualification, monthly income occupation and residential area.

Table 4.1

Demographic Profile of the Respondents

Demographic Variables	Classification	No. of respondents	Percentage
Gender	Male	292	48.7
	Female	308	**51.3**
Total		600	100
Age	Up to 20	28	4.7
	21 - 30	118	19.7
	31 - 40	122	20.3
	41 - 50	226	**37.7**
	Above 50	106	17.6
Total		600	100
Occupational status	Govt. Employees	85	14.2
	House Wives	210	**35.0**
	Self Employed	210	**35.0**
	Professionals	10	1.6
	Students	85	14.2
Total		600	100
Monthly Income(Rs)	Below 10,000	11	1.9
	10,001- 20,000	107	17.8
	20,001- 30,000	98	16.4
	30,001 - 40,000	135	22.5
	40,001 - 50,000	86	14.3
	50, 001 - 60,000	152	**25.3**
	Above 60,000	11	1.8
Total		600	100
Educational Status	Below SSLC	138	23.0
	SSLC	237	39.5
	Graduates	155	25.8
	Post Graduates	67	11.2
	Others	3	0.5
Total		600	100
Residential area	Corporation	150	25
	Municipality	150	25
	Panchayath	300	50
Total		600	100

(Source: Primary survey)

The above table shows that majority of the respondents of the study (51.3 percent) are female. Out of the total 600 respondents, majority (58 percent) consumers are in the age group 31 years to 50 years and only 24.4% consumers belong to the age group below 30 years. On the basis of occupation, majority of respondents (70 percent) are self-employed and housewives and only 1.6% of them belongs to professionals.

The above table also presents that 25.3% have an income ranging between Rs 50,001- 60,000, 22.5 percent of them are from income group of Rs. 30,001-40,000 and only1.8% are from the income group above Rs. 60,000. On the basis of samples selected from the study area; out of 600 respondents, 150 were drawn from the corporation area and 150 from municipality area and remaining from Panchayath. Here, Corporation and Municipality are treated as urban area and Panchayath as a rural area.

On the basis of education, 39.5% of the respondents were found to be with SSLC, 25.8% were graduates, 23% were educated below SSLC, 11.2% were having post-graduation and 0.5% belonged to the category of respondents who had no formal education.

4.2   CONSUMER'S AWARENESS OF GREEN CONSUMER DURABLES

Some previous studies have attempted to identify awareness level of consumers on the subject of various environmental issues and green products, and came up with mixed results. Some of them showed higher level of awareness, whereas some advocated the average level of awareness regarding green products. Awareness plays an instrumental role in determining consumer's buying behaviour. Hence, in the present study an attempt has been made by the researcher to measure the level of consumers' awareness regarding the following dimensions of green consumer durables.

- General awareness of green consumer durables.
- Awareness of environmental sustainability
- Awareness of the availability

- Awareness of brands
- Awareness of symbols/certificates
- Awareness of environmental sustainability.
- Awareness of product price
- Awareness of recyclable quality
- Awareness of company's promotional strategies.
- Awareness of energy saving quality
- Awareness of environmental benefits

4.2.a General awareness of green consumer durables:

For the purpose of measuring general level of awareness, the respondents are asked to mark their level of awareness with a five point Likert scale. Table 4.2 and figure 4.1 are shows the general level of awareness about the products.

Table 4.2

Level of Awareness of Green Consumer Durables

Sl. No.	Level of Awareness	Number of Respondents	Percentage
1	Very low	16	2.7
2	Low	79	13.2
3	Average	309	**51.5**
4	High	160	26.7
5	Very high	36	6.0
	Total	600	100.0

(Source: Primary Survey Data)
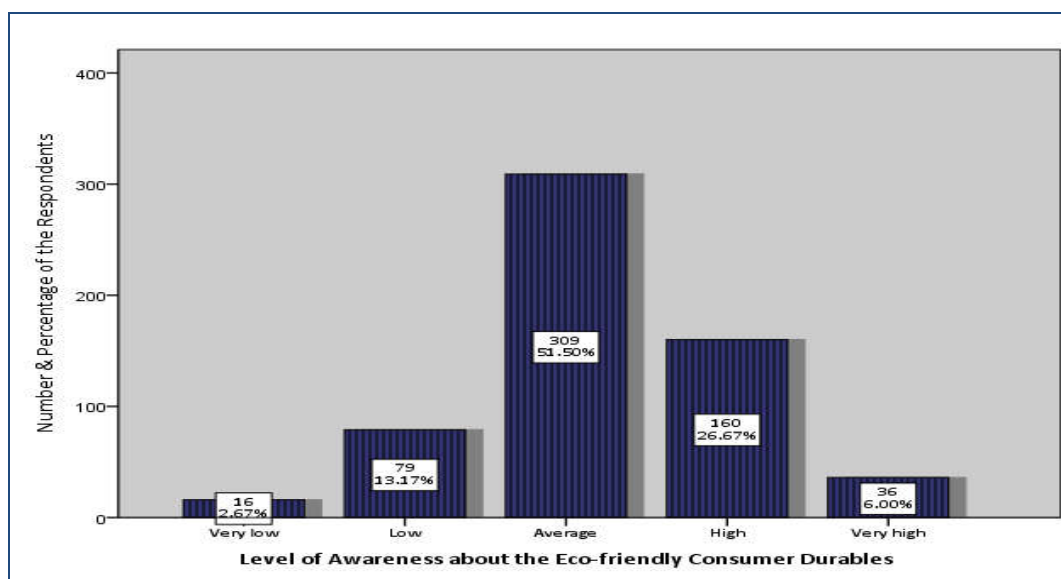
(Source: Primary Survey Data)

Figure 4.1

Level of Awareness of Green Consumer Durables

The above table shows awareness level of consumers towards green consumer durables. It is found that majority of respondents (51.5%) have an average level of awareness, 26.67% of consumers have high awareness and 13.17 % of consumers have low awareness. Hence it can be concluded that more than half of the consumers have 'average level' of general awareness towards green consumer durables.

4.2.b   Awareness of Brands

Table 4.3

Awareness of Brands

Sl. No.	Level of Awareness	Number of Respondents	Percentage
1	Very low	47	7.8
2	Low	156	26.0
3	Average	205	**34.2**
4	High	165	27.5
5	Very high	27	4.5
	Total	600	100.0

(Source: Primary Survey Data)

The above table shows awareness level of respondents regarding different brands of green consumer durables. Respondents (34.2%) have 'average level' of awareness, 27.5% respondents have 'high awareness' and only 7.8 % respondents are 'very low' awareness towards various brands of green consumer durables. Thus majority of the respondents are not well aware about various brands of green consumer durables.

4.2.c Awareness of Energy Saving Quality.

Table 4.4

Awareness of Energy Saving Quality

Sl. No.	Level of Awareness	Number of Respondents	Percentage
1	Very low	20	3.3
2	Low	85	14.2
3	Average	212	35.3
4	High	228	**38.0**
5	Very high	55	9.2
	Total	600	100.0

(Source: Primary Survey Data)

The table 4.4 depicts 47.2% respondents are highly aware of energy saving quality of the products and 35.3% respondents have average awareness. Therefore, it can be concluded that majority of the respondents are high aware of energy saving quality of products.

4.2.d   Awareness about the Symbols and Certifications

Table 4.5

Awareness about the Symbols and Certifications

Sl. No.	Level of Awareness	Number of Respondents	Percentage
1	Very low	63	10.5
2	Low	147	24.5
3	Average	196	**32.7**
4	High	135	22.5
5	Very high	59	9.8
	Total	600	100.0

(Source: Primary Survey Data)

Regarding the symbols and certifications, 32.7% of the respondents have 'average awareness, 35% of the respondents have 'low' awareness, 22.5% of respondents have 'high level' of awareness and only 9.8% of respondents have ' very high level' of awareness. So   majority of respondents were not well-versed with various certifications and symbols of products.

4.2.e   Awareness of point of purchase

Table 4.6

Level of Awareness of point of purchase

Sl. No.	Level of Awareness	Number of Respondents	Percentage
1	Very low	22	3.7
2	Low	61	10.2
3	Average	214	**35.7**
4	High	221	36.8
5	Very high	82	13.7
	Total	600	100.0

(Source: Primary Survey Data)

Table 4.6 shows that majority of respondents (86.2%) are high aware of point of purchase of products and 13.9% respondents have only unaware of point of purchase. Therefore, majority of respondents were having awareness about from where these products may be procured.

4.2.f   Awareness of Environmental Sustainability

Table 4.7

Awareness of Environmental Sustainability

Sl. No.	Level of Awareness	Number of Respondents	Percentage
1	Very low	29	4.8
2	Low	63	10.5
3	Average	198	**33.0**
4	High	184	30.7
5	Very high	126	21.0
	Total	600	100.0

(Source: Primary Survey Data)

The above table reflects that, out of 600 respondents, 33% reported 'average' awareness about environmental sustainability of the products. Whereas only 4.8% respondents expressed 'very low' level of awareness and 21% stated 'very high' level of awareness about environmental sustainability. Thus, majority of the respondents are found to have 'high' level of awareness regarding environmental benefits of green products.

4.2.g   Awareness of Product's Price

Table 4.8

Awareness of Product's Price

Sl. No.	Level of Awareness	Number of Respondents	Percentage
1	Very low	36	6.0
2	Low	125	20.8
3	Average	231	25.2
4	High	151	**38.5**
5	Very high	57	9.5
	Total	600	100.0

(***Source: Primary Survey Data***)

As recorded in the table 4.8, out of 600 respondents, 25.2% of the respondents were found to have 'average' level of awareness regarding price of green consumer durables, whereas 38.5% expressed 'high' level of awareness and only 6% of the respondents still stated 'very low' level of awareness regarding price of such products. Therefore, majority of respondents' awareness about price dimension of green consumer products are found to be 'high'.

4.2.h   Awareness of Availability

Table 4.9

Awareness of availability

Sl. No.	Level of Awareness	Number of Respondents	Percentage
1	Very low	44	7.3
2	Low	118	**41.0**
3	Average	246	24.3
4	High	146	19.7
5	Very high	46	7.7
	Total	600	100.0

(***Source: Primary Survey Data***)

The above table portrays respondents' level of awareness about the availability of green consumer durables. It clearly states that majority, 72.6% respondents are low aware about availability of products and only 7.7% have 'very high' awareness regarding availability of products. Thus, majority of respondents are low awareness about availability of such products.

4.2.i Awareness of Biodegradable Quality

Table 4.10

Awareness of Biodegradable Quality

Sl. No.	Level of Awareness	Number of Respondents	Percentage
1	Very low	42	7.0
2	Low	171	28.5
3	Average	210	**35.0**
4	High	132	22.0
5	Very high	45	7.5
	Total	600	100.0

(Source: Primary Survey Data)

Table 4.10 states that 35% the respondents were found to have 'average' awareness regarding the biodegradable quality of products, whereas 35.5% expressed 'low' level of awareness and 29.5% expressed 'high' awareness about biodegradable quality of such products. So, more than half of the respondents are an average and low aware of biodegradable quality.

4.2.j Awareness of Recyclable Quality

Table 4.11

Level of Awareness of Recyclable Quality

Sl. No.	Level of Awareness	Number of Respondents	Percentage
1	Very low	52	8.7
2	Low	131	21.8
3	Average	221	**36.8**
4	High	151	25.2
5	Very high	45	7.5
	Total	600	100.0

(*Source: Primary Survey Data)*

Table 4.11 reveals that 36.8% respondents were found to have 'average' awareness of recyclable quality of products. Followed by this, 25.2% respondents have 'high' awareness and only 7.5% respondents have 'very high' awareness regarding the recyclable features of products.

4.2.k. Awareness of Company's Promotional Strategies

Table 4.12

Level of Awareness of Company's Promotional Strategies

Sl. No.	Level of Awareness	Number of Respondents	Percentage
1	Very low	131	21.8
2	Low	173	**28.8**
3	Average	159	26.5
4	High	93	15.5
5	Very high	44	7.3
	Total	600	100.0

(*Source: Primary Survey Data)*

The above table reveals that more than half of the respondents are not much aware of promotional strategies whereas 26.5 % respondents expressed 'average' awareness about it. And 7.3% respondents show only 'very high' level of awareness about the company' promotional strategies. Therefore, respondents are have an average and low level of awareness about promotional activities of the retailers.

4.3 LEVEL OF AWARENESS OF DIFFERENT DIMENSIONS OF GREEN CONSUMER DURABLES:-

Table 4.13 represents awareness level of consumers towards different dimensions of green durables. Respondents are asked to mark their level of awareness on a five point scale ranging from 'highly aware' to 'highly unaware'. The ten dimensions are listed out for measuring it. Mean score and one-sample t test are used for analysing and testing of data.

Table 4.13

Awareness about Different Dimensions of products

Sl. No.	Awareness of different Dimensions	Mean	SD	Median	Level of Awareness (%)	Rank
1	Contribution to Environmental Sustainability	3.53	1.080	4	70.50	1
2	Point of purchase	3.47	0.970	4	69.33	2
3	Energy Saving Quality	3.36	.950	4	67.10	3
4	Price of Products	3.11	1.030	3	62.17	4
5	Availability of Products	3.05	1.020	3	61.07	5
6	Recyclable Quality	3.01	1.060	3	60.20	6
7	Symbols and Certifications	2.97	1.130	3	59.33	7
8	Different Brands	2.95	1.010	3	58.97	8
9	Biodegradable Quality of products	2.95	1.040	2	58.90	9
10	Company's Promotional Strategies	2.58	1.200	2	51.53	10
	Overall	3.10	0.66	3.1	61.92	Cronbach's Alpha =.832

(Source: Primary Survey Data)

The figure 4.2 represents level of awareness of the respondents regarding different dimensions of green consumer durables.
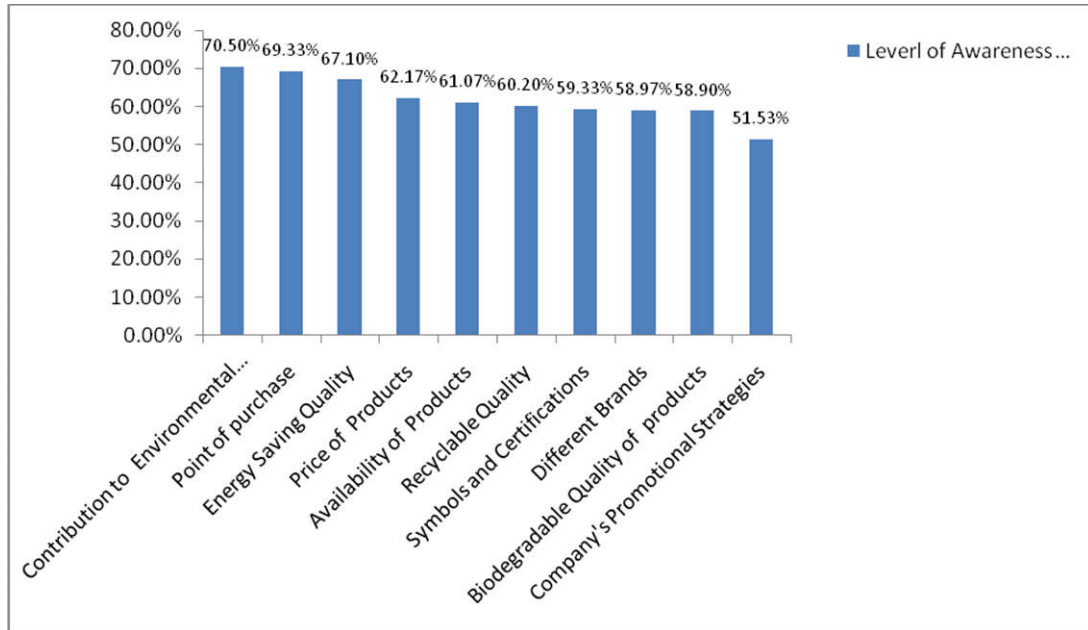
Figure 4.2

Awareness about Different Dimensions of Green Consumer Durables

Note: Level of awareness is ranked according to the percentage of the level of awareness, which is calculated by taking the percentage of weighted sum of responses of 600 respondents to each dimension of awareness to the maximum possible value of the weighted sum.

In order to identify the awareness of different attributes of green products, the following hypothesis is formed and tested by using one-sample t test.

H0: **Consumers have an average level of awareness across different dimensions of green consumer durables**.

Table 4.14

Awareness of product dimensions – One sample t - test

Sl. No.	Awareness of Different Dimensions	t	d.f.	p-value. (one-tailed)
1	Contribution to Environmental Sustainability	11.88	599	<.001
2	Point of purchase	11.75	599	<.001
3	Energy Saving Quality	9.18	599	<.001
4	Price of Products	2.69	599	.007
5	Availability of Products	1.28	599	.200
6	Recyclable Quality	0.23	599	.817
7	Symbols and Certifications	-0.72	599	.472
8	Different Brands	-1.25	599	.212
9	Biodegradable Quality of products	-1.29	599	.196
10	Company's Promotional Strategies	-8.66	599	<.001
	Overall	3.54	599	<.001

Source: Estimated from the Primary Survey Data

Here, One-sample t-test is conducted to evaluate whether the mean of the summated score for 10 items reflecting consumer's awareness about various dimensions of green consumer durables is significantly different from 3, which is the mean value for the neutral situation (i.e., neither low nor high). The test results confirm that, overall, the population mean of the awareness score is significantly different from 3, t (599) = 3.54, p < .001. Therefore, null hypothesis is rejected. The sample mean of 3.10 (SD = 0.66) indicates that consumers, on average, have high general awareness about green consumer durables (Table.4.13). However, the t-test results for the 10 indicators of awareness (see Table.4.14) reveals that the awareness of consumers are not high on the availability of products, its recyclable quality, symbols and certifications, different brands, and its bio-degradable quality.

Friedman Test is also conducted to examine whether the consumer's level of awareness about different dimensions of green consumer durables are different in Kerala. For this purpose the following null hypothesis are formulated.

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H0: **Consumer's awareness about different dimensions of green consumer durables are same**

Table 4.15

Descriptive Statistics of the Components of Awareness about Green Consumer Durables & Friedman Test Results

Sl. No.	Awareness of Different Dimensions	N	Mean	Std. Deviation	Mini-mum	Maxi-mum	Mean Rank
1	Contribution to the Environmental Sustainability	600	3.5	1.08	1	5	6.7
2	Point of purchase	600	3.5	0.97	1	5	6.7
3	Energy Saving Quality	600	3.4	0.95	1	5	6.4
4	Price of Products	600	3.1	1.03	1	5	5.5
5	Availability of Products	600	3.1	1.02	1	5	5.4
6	Recyclable Quality	600	3.0	1.06	1	5	5.3
7	Symbols and Certifications	600	3.0	1.13	1	5	5.0
8	Different Brands	600	2.9	1.01	1	5	5.0
9	Biodegradable Quality of products	600	2.9	1.04	1	5	5.0
10	Company's Promotional Strategies	600	2.6	1.20	1	5	4.0
Friedman Test Statistics							
1	Number of Respondents	600					
2	Chi-Square (Friedman's Q) Statistic	542.174					
3	Degree of Freedom	9					
4	p-value	<.001					

(Source: Primary Survey Data)

Here, null hypothesis is rejected because test results indicate that there is a statistically significant difference in the level of awareness of the consumers across different dimensions of green consumer durables, χ^2 (9, N= 600) = 542.174, p<.001. It can be inferred that consumers are more aware of some dimensions of green consumer durables (such as its contribution to the environmental sustainability, Point of purchase, energy saving quality, price, availability, and recyclability); but they are less aware of some other dimensions of the products (such as symbols & certifications, different brands, bio-degradable quality, and companies promotional activities).

4.4   SOURCES OF INFORMATION ABOUT GREEN CONSUMER DURABLES

The below table represents descriptive statistical analysis of different sources of information about green consumer durables.

Table 4.16

Sources of Information

Sl. No.	Source of Information	Number of Consumers	Percentage*
1	Television	396	22.4%
2	News Paper	380	21.5%
3	Internet	240	13.6%
4	Magazines	205	11.6%
5	Friends / Relatives	173	9.8%
6	Shop Keeper	123	7.0%
7	Shopping Place	114	6.5%
8	Outdoor Advertisement	96	5.4%
9	Radio	36	2.0%
10	Others	01	0.1%
	Total	1764	100%

Note: * Percentage of the column

Source: Primary Survey

The respondents in the sample received information about green consumer durables from multiple sources. Table 4.16 reveals that television is the most important source of information, followed by newspaper. More than two-third of the total information about the products come from four important sources, viz., television, news paper, Internet, and magazines.

The figure 4.3 present pareto chart which shows the different sources of information about green consumer durables .
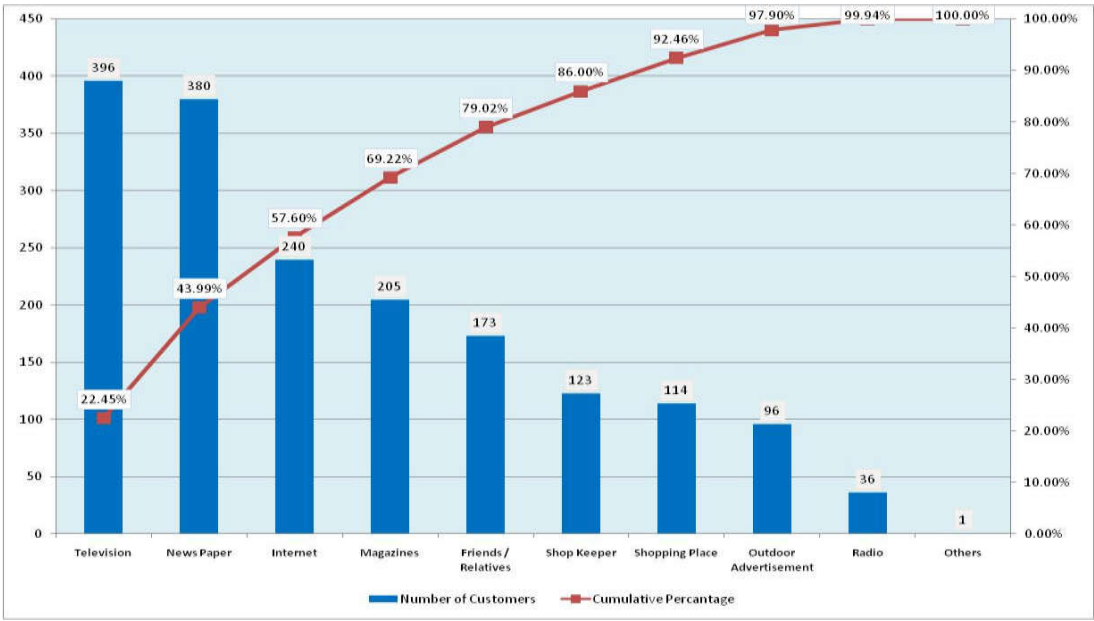
Source: Primary Survey Data

Figure 4.3

Sources of Information

The Pareto chart (Figure 4.3) makes it clear that around 80 percent of the information about green consumer durables came from five important sources viz., television, newspaper, Internet, magazines, and friends & relatives.

4.5 LEVEL OF AWARENESS OF GREEN CONSUMER DURABLES WITH DEMOGRAPHIC VARIABLES

The study is attempted to identify the difference, if any, exists between respondents' general awareness regarding green consumer durables across the selected demographic variables. The differences were examined using chi-square test and demographic variables selected for this purpose are age, gender, educational qualification, occupation, monthly income, and residential area of the respondents. The hypothesis for every demographic variable was formulated to test the differences in general awareness of consumers towards green durables in Kerala.

4.5.a Level of Awareness across male and female respondents

To identify the difference, if any, exists between respondent's general awareness regarding green consumer durables across gender, Chi-square test is done. Table 4.17 explained the level of awareness across male and female respondents regarding green consumer durables.

H0: There is no significant association between level of awareness of green consumer durables and gender

Table 4.17

Awareness among Male and Female

			Gender		Total
			Male	Female	
Level of Awareness	Very low	Count	6	10	16
		%	2.1%	3.2%	2.67%
	Low	Count	24	55	79
		%	8.2%	17.9%	13.17%
	Average	Count	158	151	309
		%	54.1%	49.0%	51.5%
	High	Count	91	69	160
		%	31.2%	22.4%	26.67%
	Very high	Count	13	23	36
		%	4.5%	7.5%	6%
Total		Count	292	308	600
		%	100.0%	100.0%	100%

Note: * Percentage of the column

Source: Primary Survey

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The below table shows the chi-square test results for the association between level of awareness among male and female respondents about green consumer durables.

Table 4.18

Awareness and Gender - Chi-square test

	Value	*df*	*P-value (2-sided)*
Pearson Chi-Square	18.713	4	.001
Number of Valid Cases	600		
Cramer's V	.177		.001

(Source: Primary Survey)

The results indicate that there is statistically significant association between the level of awareness and gender of the respondents, χ^2 (4, N= 600) = 18.713, p=.001. However, the degree of association between gender and level of awareness is not strong, because of Cramer's v= .177, p=.001. It can be inferred from the results that the level of awareness of male consumers is different from that of female consumers in Kerala.

4.5.b   Level of Awareness across the Age Group of Respondents

Table 4.19 depicts the level of awareness about green durables across age group of the respondents and following hypothesis is made for identifying the significant relation between awareness and age of the respondents.

H0:   There is no significant association between level of awareness of green consumer durables and age of the respondents.

Table 4.19

Awareness across Age Group

			Age Group					Total
			Up to 20	21 - 30	31 - 40	41 - 50	Above 50	
Level of Awareness	Very low	Count	0	3	2	6	5	16
		%*	0.0%	2.5%	1.6%	2.7%	4.7%	2.7%
	Low	Count	3	7	29	25	15	79
		%	10.7%	5.9%	23.8%	11.1%	14.2%	13.2%
	Average	Count	14	61	54	132	48	309
		%	50.0%	51.7%	44.3%	58.4%	45.3%	51.5%
	High	Count	11	39	29	50	31	160
		%	39.3%	33.1%	23.8%	22.1%	29.2%	26.7%
	Very high	Count	0	8	8	13	7	36
		%	0.0%	6.8%	6.6%	5.8%	6.6%	6.0%
Total		Count	28	118	122	226	106	600
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: * Percentage of the column

Source: Primary Survey

The below table shows the chi-square test results for the association between level of awareness of Green consumer durables and age group of the respondents.

Table 4. 20

Awareness and Age Group - Chi-Square Test

	Value	df	P-value (2-sided)
Pearson Chi-Square	30.949	16	.014
Number of Valid Cases	600		
Kendall's tau-c	-.037		.220
Gamma	-.061		.220

There is an association between age group of respondents and level of awareness about green consumer durables are confirmed with the help of Chi-square test. The test results show that awareness is different on the basis of age of the respondents. χ^2 (16, N= 600) = 30.949, p=.014. It can be concluded that the awareness level of consumers is different among the age group of consumers. However, the degree of association between age and level of awareness is not strong, because of Gamma= -.061, p=.220.

4.5.c   Level of Awareness across Educational Status of Respondents

Here, Chi-square test is carried out to examine the association between the level of awareness and educational qualification of the consumers, null hypothesis is formed. The below table is explains the level of awareness about green consumer durables across educational status of respondents.

H0:   There is no significant association between level of awareness and educational qualification

Table 4.21

Awareness across Educational Status

			Educational Qualification					Total
			Below SSLC	SSLC	Graduate	Post Graduate	Others	
Level of Awareness	Very low	Count	9	6	1	0	0	16
		%*	6.5%	2.5%	0.6%	0.0%	0.0%	2.7%
	Low	Count	20	40	13	6	0	79
		%	14.5%	16.9%	8.4%	9.0%	0.0%	13.2%
	Average	Count	71	126	79	30	3	309
		%	51.4%	53.2%	51.0%	44.8%	100.0%	51.5%
	High	Count	26	55	58	21	0	160
		%	18.8%	23.2%	37.4%	31.3%	0.0%	26.7%
	Very high	Count	12	10	4	10	0	36
		%	8.7%	4.2%	2.6%	14.9%	0.0%	6.0%
Total		Count	138	237	155	67	3	600
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: * Percentage of the column

Source: Primary Survey

Table 4.22 describe the chi-square test result for the association between awareness and level of education of the respondents.

Table 4.22

Awareness and Educational status - Chi-Square Test

	Value	df	P-value (2-sided)
Pearson Chi-Square	48.17	16	<.001
Number of Valid Cases	600		
Kendall's tau-c	.117		<.001
Gamma	.203		<.001

The results indicate that there is significant association between level of awareness and educational qualification, χ^2 (16, N= 600) = 48.017, p=<.001. Thus, null hypothesis is rejected (p < 0.05). And it also shows that the degree of association between education and the level of awareness is not strong. because Gamma (<.001).

4.5.d Level of Awareness across Occupational Status of the Respondents

In order to examine the whether there is any relationship between awareness and occupation, Chi-square test is used for testing the hypothesis. The level of awareness about green durables on the basis of occupational status of the respondents are explained in the table 4.23.

H0: **There is no significant association between level of awareness of green consumer durables and occupation of the respondents.**

Table 4.23

Awareness across Occupational Status

			Occupation					Total
			Student	Govt. Employee	House Wife	Self Employed	Professional	
Level of Awareness	Very low	Count	0	0	12	3	1	16
		%*	0.0%	0.0%	5.7%	1.4%	10.0%	2.7%
	Low	Count	7	8	48	16	0	79
		%	8.2%	9.4%	22.9%	7.6%	0.0%	13.2%
	Average	Count	48	40	106	113	2	309
		%	56.5%	47.1%	50.5%	53.8%	20.0%	51.5%
	High	Count	28	21	30	75	6	160
		%	32.9%	24.7%	14.3%	35.7%	60.0%	26.7%
	Very high	Count	2	16	14	3	1	36
		%	2.4%	18.8%	6.7%	1.4%	10.0%	6.0%
Total		Count	85	85	210	210	10	600
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: * Percentage of the column

Source: Primary Survey

The association between level of Awareness about green consumer durables and occupational status of the respondents are tested by using Chi-square. The test result shows in the Table 4.24.

Table 4.24

Awareness and Occupational Status - Chi-Square Test

	Value	*df*	*P-value (2-sided)*
Pearson Chi-Square	98.653	16	.001
Number of Valid Cases	600		
Cramer's V	.203		.001

Chi-square test is carried out to examine the whether the level of awareness is associated with the occupation of the consumers in the target population. The results express that there is a significant association between awareness and occupation of the respondents, χ^2 (16, N= 600) = 98.653, p=.001. However, the degree of association between occupation and the level of awareness is not strong. Because Cramer's V=.001.

4.5.e Level of Awareness across Residential Area of the Respondents

In order to identify whether there is an association between urban and rural consumers about the awareness of consumer durables, the following hypothesis is formed for testing. Table 4.25 clearly express the awareness of green consumer durables across residential area of the respondents.

H0: **There is no significant association between level of awareness of green consumer durables across residential area of the respondents**

Table 4.25

Level of Awareness across Residential Area

			Geographical Location			Total
			Corporation	Municipality	Panchayath	
Level of Awareness	Very low	Count	4	2	10	16
		%*	2.7%	1.3%	3.3%	2.7%
	Low	Count	26	12	41	79
		%	17.3%	8.0%	13.7%	13.2%
	Average	Count	62	83	164	309
		%	41.3%	55.3%	54.7%	51.5%
	High	Count	43	43	74	160
		%	28.7%	28.7%	24.7%	26.7%
	Very high	Count	15	10	11	36
		%	10.0%	6.7%	3.7%	6.0%
Total		Count	150	150	300	600
		%	100.0%	100.0%	100.0%	100.0%

Note: * Percentage of the column

Source: Primary Survey

Table 4.26

Awareness and Residential Area - Chi-Square Test

	Value	df	P-value (2-sided)
Pearson Chi-Square	18.332	8	.019
Number of Valid Cases	600		
Cramer's V	.124		.019

To examine the association between the level of awareness and residential area of consumers, chi-square test is done. The result implied that awareness of rural consumers is different from that of urban consumers. Hence, null hypothesis is rejected (p<0.05). However, the degree of association between the residential area and the level of awareness is not strong. Because Cramer's V=.019.

4.5.f Level of Awareness across Monthly Income of the Respondents:-

To examine whether the level of awareness of green consumer durables is associated with the monthly income of the consumers, the following hypothesis is formulated and tested by using chi-square test. The below table presents the level of awareness of green durables on the basis of monthly income of the respondents.

H0: **There is no significant association between the level of awareness across income of the respondents.**

Table 4.27
Level of Awareness across Monthly Income

			Monthly Income Class (Rs.)							Total
			Up to 5,000	5001 - 10,000	10,001 - 15,000	15,001 - 20,000	20,001 - 25,000	25,001 - 50,000	Above 50,000	
Level of Awareness	Very low	Count	0	0	5	5	2	4	0	16
		%*	0.0%	0.0%	5.1%	3.7%	2.3%	2.6%	0.0%	2.7%
	Low	Count	1	9	17	22	9	21	0	79
		%	9.1%	8.4%	17.3%	16.3%	10.5%	13.8%	0.0%	13.2%
	Average	Count	10	69	46	77	35	64	8	309
		%	90.9%	64.5%	46.9%	57.0%	40.7%	42.1%	72.7%	51.5%
	High	Count	0	23	25	25	32	52	3	160
		%	0.0%	21.5%	25.5%	18.5%	37.2%	34.2%	27.3%	26.7%
	Very high	Count	0	6	5	6	8	11	0	36
		%	0.0%	5.6%	5.1%	4.4%	9.3%	7.2%	0.0%	6.0%
Total		Count	11	107	98	135	86	152	11	600
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: * Percentage of the column

Source: Primary Survey

Table 4.28

Awareness and Monthly Income - Chi-Square Test

	Value	*df*	*P-value (2-sided)*
Pearson Chi-Square	44.215	24	.007
Number of Valid Cases	600		
Kendall's tau-c	.070		.015
Gamma	.108		.015

Chi-square test is carried out to examine whether the level of awareness is associated with the monthly income of the consumers in Kerala. The results prove that there is significant association between awareness and respondent's income level ($p<0.05$). So, null hypothesis is rejected. However, the degree of association between monthly income and level of awareness is not strong. Because Gamma =.015.

4.6 FACTORS INFLUENCING AWARENESS OF GREEN CONSUMER DURABLES

A multiple linear regression model is carried out to examine the influence of a few socio-economic and demographic variables on the level of awareness of consumers about green consumer durables. The results of the regression estimation are presented in Table 4.29, Table 4.30 Table 4.31, Table 4.32 The model adequacy tests are conducted and the results reported in Table 4.30 and Table 4.31 It can be observed from the tables that the estimated model is correctly specified, the error terms are normally distributed and there is no serious multi-collinearity among the regressors. However, the homoscedasticity assumption was found violated in the estimated model as per the White's test. Since the estimated model suffers from the heteroscedasticity problem, *heteroscedasticity-robust standard errors* have been used for the significance testing of the estimated regression coefficients.

The below tables are clearly explains the regression model summary, adequacy test, descriptive statistics and multiple regression results about the factors influencing the awareness of consumers..

.   **Table 4.29**

Factors Influencing Level of Awareness of Green Consumer Durables

Method: Ordinary Least Squares (OLS) using observations 1-600

Dependent variable: Awareness Score

Sl. No.	Predictors	Unstandardised Coefficients		Standardised Coefficients	t-ratio	p-value	Significance@	Collinearity Statistics	
		B	Std. Error#	Beta				Tolerance	VIF
	(Constant)	29.330	1.209		24.250	<0.001	***		
1	Age	-0.027	0.030	-.045	0.8930	0.372	ns	.558	1.792
2	Income	1.468E-05	0.000	.040	1.375	0.170	ns	.917	1.091
3	Number of Information Sources	0.242	0.115	.073	2.111	0.035	**	.956	1.046
4	Gender (Dummy Variable)	0.741	0.608	.056	1.218	0.224	ns	.570	1.753
5	Urban/Rural (Dummy Variable)	-0.166	0.506	-.012	0.3274	0.744	ns	.968	1.033
6	Education (Dummy Variable)	3.628	0.596	.265	6.082	<0.001	***	.738	1.356
7	Govt. Employee (Dummy Variable)	0.154	1.004	.008	0.153	0.878	ns	.456	2.195
8	Self-employed (Dummy Variable)	0.800	1.031	.057	0.776	0.438	ns	.236	4.245
9	Professional (Dummy Variable)	1.979	3.089	.038	0.641	0.522	ns	.829	1.206
10	House wife (Dummy Variable)	-0.914	0.891	-.066	1.026	0.306	ns	.305	3.279

(Source: Primary Survey Data)

Notes: # Heteroskedasticity-robust standard errors, variant HC1; @ *** indicate significant at 01 percent level, *** indicate significant at 05 percent level and '*ns*' *indicates* not significant.

Table 4.30

Model Summary

Sum squared residuals	23037.240		S.E. of regression	6.254
R-squared	.129		Adjusted R-squared	.114
F(10, 589)	8.805		p-value(F)	<.000
SIC	3961.855		AIC	3913.489

Table 4.31

Regression Model Adequacy Tests

Sl. No.	Type of test	Name of the Test	Null hypothesis (H_0)	Test statistic	p-value	Conclusion
1	Test for Specification	Ramsey's RESET	Specification is adequate	$F(2, 587)$ = 0.829	p(F(2, 587) > 0.829) = 0.437	Specification is adequate
2	Test for Heteroskedasticity	White's test	Heteroskedasticity not present	LM = 103.498	P(Chi-square (50) > 103.498) = <.001	Heteroskedasticity is present
3	Test for Normality of Residual	Chi-square test	Error is normally distributed	Chi-square(2) = 5.075	p-value = 0.079	Error is normally distributed

The following table shows the descriptive statistics of variables used in the multiple regression model

Table 4.32

Descriptive Statistics of the Variables

Sl. No.	Variable	Mean	Std. Deviation
1	Awareness Score (Dependent Variable)	30.96	6.644
2	Age (Years)	40.30	11.341
3	Income (Rs.)	23266.67	18103.640
4	Number of Information Sources	2.91	2.013
5	Gender	0.49	0.500
6	Urban/Rural	0.50	0.500
7	Education	0.38	0.485
8	Govt. Employee	0.14	0.349
9	Self-employed	0.35	0.477
10	Professional	0.02	0.128
11	House wife	0.35	0.477
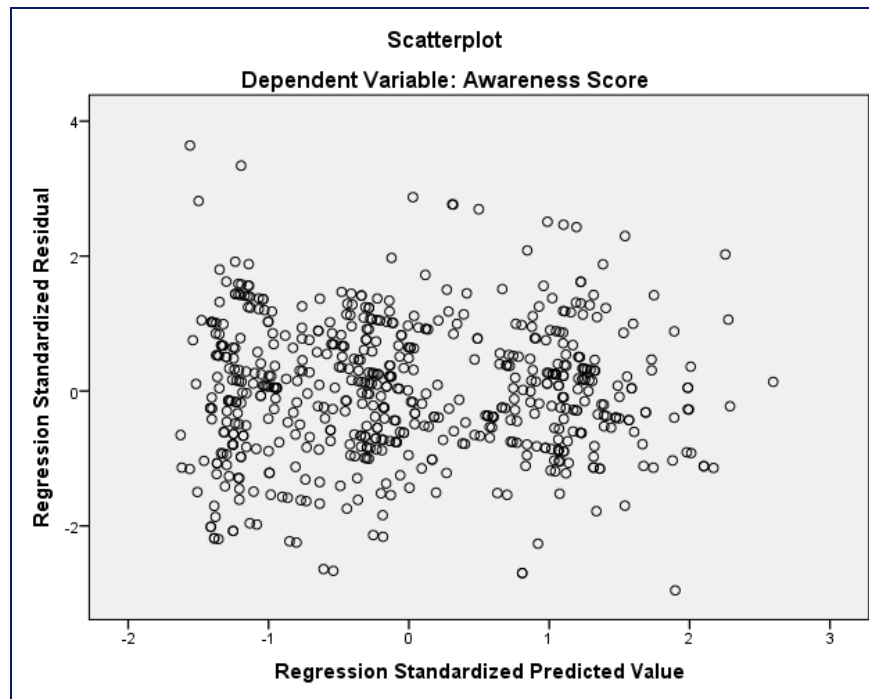
Figure 4.4

Residual Plot for the Regression

The regression results (see Table 4.29) indicates that consumers' awareness about green consumer durables are influenced only by two of the repressors in the model, viz., ' a number of information sources', and 'level of education'. The other socio-economic and demographic factors such as age, income, gender, the area of residence, and occupational status are not found to have a statistically significant influence on the awareness level of the consumers.

These results contradict conclusions derived from two of the results reported earlier, viz., the effect of income on the level of awareness (based on chi-square test) and the effect of gender on the level of awareness (based on chi-square test). The conclusions based on the multiple linear regression results, is based on a parametric general linear modeling technique, is more reliable and powerful compared to the conclusions based on the results obtained from the other methods.

4.7 CONSUMER'S ATTITUDE TOWARDS 4 P'S OF GREEN MARKETING MIX

The attitude of consumers of green consumer durables towards the effectiveness of four *P*s (i.e., product, price, place, and promotion) of green marketing mix is measured using a five-point Likert scale statements. The 'product' subscale consists of 11 items (α = .745), the 'price' subscale consists of five items (α = .314), the 'place' subscale consists of three items (α = .514), and the 'promotion' subscale consists of four items (α = .695).

4.7.a Attitude towards 'Product' Dimension of Green Marketing Mix

The attitude of consumers towards the *'product'* dimension of the green marketing mix has been measured using the eleven Likert scale statements shown in Table 4.33.Here attitude are measured and tested by using mean score and One-sample t-test.

Table 4.33

Attitude of Consumers towards the '*Product*' Dimension

Sl. No.	Product Dimension	Mean	Std. Deviation	Median	Degree of Agreement (%)*	Rank
1	I prefer to buy products because it saves energy	3.9	0.84	4	78.7	1
2	Green consumer durables are innovative in nature	3.9	0.70	4	77.7	2
3	Quality of green products is better than conventional products	3.8	0.90	4	76.5	3
4	I prefer to purchase green products because of it's is biodegradable	3.7	0.82	4	74.5	4
5	I carefully read the green information on the label.	3.7	1.0	4	73.5	5
6	I prefer to buy products because of its recycled package	3.6	0.86	4	72.8	6

Sl. No.	Product Dimension	Mean	Std. Deviation	Median	Degree of Agreement (%)*	Rank
7	Labels of green products should be self explanatory to explain its green information	3.6	0.70	4	71.5	7
8	I prefer to buy products because its package can be refilled	3.54	0.80	4	70.8	8
9	Quality of products conforms to my expectations	3.5	0.82	4	70.1	9
10	I am influenced by "Green Certification" on the package	3.5	0.98	4	70.0	10
11	Quality of products I purchase has remained same over the years	3.4	0.93	4	68.5	11
	Overall	3.7	0.47	3.7	73.1	Cronbach's Alpha = .745

(Source: Primary Survey Data)

Note: *The degree of agreement is measured by taking the percentage of the summated value, which is a weighted sum of the responses of 600 respondents to each dimension of the product, to the maximum possible value, which is 3000 (5 x 600) in the study.

The following hypothesis are made for measuring the whether there is a neutral attitude of consumers towards the product element of green marketing mix and one sample t- test are used for it.

H0: **Consumers have neutral attitude towards product dimension of green marketing mix**

Table 4.34

Attitude of Consumers towards *'Product'* Dimension - One-sample t-test

Sl. No.	Product Dimension	t	d.f.	p-value. (one-tailed)
1	I prefer to buy products because it saves energy	27.34	599	<.001
2	Green consumer durables are innovative in nature	31.00	599	<.001
3	Quality of green products is better than conventional products	22.41	599	<.001
4	I prefer to purchase green products because it is biodegradable	21.69	599	<.001
5	Quality of products conforms to my expectations	15.15	599	<.001
6	Quality of green products I purchase has remained same over the years	11.19	599	<.001
7	I prefer to buy products because of its recycled package	18.274	599	<.001
8	I prefer to buy products because its package can be refilled	16.531	599	<.001
9	I carefully read the green information on the label	16.398	599	<.001
10	I am influenced by "Green Certification" on the package	12.510	599	<.001
11	Labels of green products should be self-explanatory to explain its green information	14.300	599	<.001
	Overall	34.460	599	<.001

Source: Primary Survey Data

One-sample t-test is conducted to evaluate whether the mean of the summated score for the eleven items reflecting the 'product' dimension of the marketing mix is significantly different from hypothesized value 3, which is the mean value for the neutral situation. The test results indicates that the population means is significantly different from 3, t (599) = 34.460, p < .001. The sample mean

of 3.7 (SD = 0.47) indicates that consumers, on average, have positive attitude towards the *product* dimension of marketing mix of the green consumer durables.

4.7.b   Attitude towards 'Price' Dimension of Green Marketing Mix

The attitude of consumers towards *'price'* dimension of the green marketing mix has been measured using the following five Likert scale statements listed in Table 4.35.The fifth statement, being a negative one, was reverse coded for the analysis.

Table 4.35

Attitude of Consumers towards the 'Price' Dimension

Sl. No.	Price Dimension	Mean	Std. Deviation	Median	Degree of Agreement (%)	Rank
1	I compare price of traditional products before buying green products	3.8	0.94	4.0	75.4	1
2	I prefer to buy green products when price discounts are offered	3.8	0.98	4.0	75.0	2
3	Price is the first factor I look into before taking decision to purchase green products	3.7	1.04	4..0	73.7	3
4	Green products are very expensive (reverse coded)	2.58	0.936	2.0	51.57	4
5	Most of the eco-friendly products are overpriced (re-coded)	2.4	0.96	2.0	48.4	5
	Overall	3.3	0.48	3.4	66.69	Cronbach's Alpha = 0.314

(Source: Primary Survey Data)

Note: *The degree of agreement is measured by taking the percentage of the summated value, which is a weighted sum of the responses of 600 respondents to each dimension of the product, to the maximum possible value, which is 3000 (5 x 600) in the study.

One-sample t-test is applied to identify the consumer's attitude towards price dimension of green marketing mix. For this, null hypothesis is formed and properly analysed.

H0: **consumers have neutral attitude towards price dimension of green marketing mix**

Table 4.36

Attitude of consumers towards 'Price' Dimension - One-sample t-test

Sl. No.	Price Dimension	t	d.f.	p-value. (one-tailed)
1	I compare price of traditional products before buying green products	20.100	599	<.001
2	I prefer to buy green products when price discounts are offered	18.711	599	<.001
3	Price is the first factor I look into before taking the decision to purchase green products	16.120	599	<.001
4	Green products are very expensive(reverse coded)	-11.040	599	<.001
5	Most of the eco-friendly products are overpriced (re-coded)	-14.726	599	<.001
	Overall	11.759	599	.000

(Source: Primary Survey Data)

One-sample t-test results reveal that the population mean of the summated score of the price dimension of the green marketing mix is significantly different from 3, t (599) = 11.759, p < .001. The same results are obtained for five items reflecting the price dimension (See Table.4.36). The sample mean indicates that consumers, on an average, have positive attitude towards price dimension of the

marketing mix. However, the fifth item listed in the table reveals that consumers, on average, felt that green products are overpriced.

4.7.c   Attitude towards 'Place' Dimension of Green Marketing Mix

Mean score and one - sample t- test are used for analysing and testing of data. Table 4.37 represent mean score of attitude of consumers towards place dimension of green consumer durables.

Table 4.37

Attitude of Consumers towards 'Place' Dimension

Sl. No.	Place (Availability) Dimension	Mean	Std. Deviation	Median	Degree of Agreement (%)	Rank
1	I would purchase green products if they are easily available in retail outlet	3.94	0.880	4.0	78.8	1
2	I have to select from a limited variety of green products	3.49	0.924	4.0	69.8	2
3	I can easily find green products in the supermarkets	3.18	1.072	2	63.6	3
	Overall	3.54	0.685	3.7	70.7	Cronbach's Alpha = 0.514

Source: Primary Survey Data

One-sample t-test is also applied here for measuring whether there is a neutral attitude regarding availability of products. For this null hypothesis are formed and clearly analysed.

H0: **Consumers have neutral attitude towards place dimension of green marketing mix**

Table 4.38

Attitude of Consumers towards 'Place' Dimension - One-sample t-test

Sl. No.	Place (Availability) Dimensions	t	d.f	p-value (one-tailed)
1	I would purchase green products if they are easily available in a retail outlet	26.166	599	<.001
2	I have to select from a limited variety of green products	13.027	599	<.001
3	I can easily find green products in the supermarkets	4.112	599	<.001
	Overall	17.585	599	<.001

Source: Primary Survey Data

One-sample t-test results indicate that the population means of the summated score of the place dimension of green marketing mix is significantly different from 3, t (599) = 17.586, p < .001. Same results were obtained for the three items reflecting the place dimension (See Table 4.38.). The sample mean indicates that consumers, on an average, have positive attitude towards the place dimension of marketing mix.

4.7.d Attitude of Consumers towards 'Promotion' Dimension of Green Marketing Mix

The attitude of consumers towards 'promotion' dimension of the green marketing mix has been measured by using the following four Likert scale statements listed and its mean score are shown in Table 4.39.

Table 4.39

Attitude of Consumers towards 'Promotion' Dimension

Sl. No.	Promotion Dimension	Mean	Std. Deviation	Median	Degree of Agreement (%)	Rank
1	Advertisement highlights the eco-friendly nature of product	3.65	1.062	4	74.4	1
2	Advertisement highlights the environmental sustainability of product	3.62	.894	4	73.8	2
3	Advertisement highlights the virtue of usefulness of green products.	3.59	.913	4	72.9	3
4	I am attracted towards eco-friendly products because of its advertisement	3.51	1.110	4	70.6	4
	Overall	3.59	.722	3.5	72.9	Cronbach's Alpha =.695

Source: Primary Survey Data

Hypothesis is formed for identifying the attitude of consumers towards promotion strategy adopted by the retailers. One-sample t-test are selected for testing the below hypothesis.

H0: **Consumers have neutral attitude towards promotion dimension of green marketing mix**

Table 4.40

Attitude of Consumers towards "Promotion" Dimension - One-sample t-test

Sl. No.	Promotion Dimension	t	d.f	p-value. (one-tailed)
1	Advertisement highlights the eco-friendly nature of product	14.879	599	<.001
2	Advertisement highlights the environmental sustainability of product	17.077	599	<.001
3	Advertisement highlights the virtue of usefulness of green products	15.737	599	<.001
4	I am attracted towards eco-friendly products because of its advertisement	11.329	599	<.001
	Overall	20.088	599	<.001

Source: Primary Survey Data

One-sample t-test results show that population mean of the summated score of the promotion dimension of the green marketing mix is significantly different from 3, t (599) =20.088, p < .001. The same results are obtained for four items reflecting the promotion dimension (See Table 4.40). The sample mean indicate that consumers, on average, have positive attitude towards the place dimension of the marketing mix.

The above test results expressed that consumers have positive attitude towards product, price, place and promotion elements of marketing mix of green consumer durables (Mean score>3).). Also, repeated measure of ANOVA has been used to examine the relative perception of consumers towards four components of green marketing mix. For this, null hypothesis are made and duly analysed.

H0: **Relative perception of consumers towards the 4 P's of green marketing mix are same.**

Descriptive statistics of the items used in repeated measure of ANOVA are shown in the table 4.41.

Table 4.41

Descriptive Statistics

Sl. No.	Component	Mean	Std. Deviation
1	Product Mean Score	3.66	0.467
2	Price Mean Score	3.24	0.503
3	Place Mean Score	3.54	0.685
4	Promotion Mean Score	3.59	0.722

Repeated measure ANOVA has been used to examine the relative perception of consumers towards four components of the green marketing mix. Mauchly's test indicates that the assumption of sphericity had been violated, χ^2 (5) = 108.885, p < .001, therefore degrees of freedom are corrected using Huynh–Feldt estimates of sphericity (ε= .910). The results show that the perceived effectiveness of the four Ps of the green marketing mix are significantly different, F(2.72, 1635.83) = 72.65, p < .001. It implies that all ingredients of the marketing mix are not equally effective in the marketing of green consumer durables in Kerala. (see Table.4.42 and 4.43)

Table 4. 42

Mauchly's Test of Sphericity

Within-Subjects Effect	Mauchly's W	Approx. Chi-Square	df	p-value	Epsilonb		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Marketing mix	.833	108.875	5	.000	.906	.910	.333

Table 4.43

Tests of Within-Subjects Effects

Source		Type III Sum of Squares	df	Mean Square	F	*p-value*	Partial Eta Squared
Marketing mix	Sphericity Assumed	60.706	3	20.235	71.652	<.001	.107
	Greenhouse-Geisser	60.706	2.717	22.340	71.652	<.001	.107
	Huynh-Feldt	60.706	2.731	22.229	71.652	<.001	.107
	Lower-bound	60.706	1.000	60.706	71.652	<.001	.107
Error (Marketing mix)	Sphericity Assumed	507.491	1797	.282			
	Greenhouse-Geisser	507.491	1627.689	.312			
	Huynh-Feldt	507.491	1635.827	.310			
	Lower-bound	507.491	599.000	.847			

For measuring whether there is any difference in the effectiveness across all the pairs of marketing mix, Pair wise comparison test is done. Table 4.44 shows the different pairs of marketing mix.

Ho: Effectiveness across all pairs of marketing mix is same.

Table 4. 44

Pairwise Comparisons

(I) Marketing mix	(J) Marketing mix	Mean Difference (I-J)	Std. Error	*p-value*[b]
Product	Price	.415[*]	.026	.000
	Place	.120[*]	.028	.000
	Promotion	.065	.028	.122
Price	Product	-.415[*]	.026	.000
	Place	-.296[*]	.034	.000
	Promotion	-.351[*]	.035	.000
Place	Product	-.120[*]	.028	.000
	Price	.296[*]	.034	.000
	Promotion	-.055	.032	.410
Promotion	Product	-.065	.028	.122
	Price	.351[*]	.035	.000
	Place	.055	.032	.410

The test results reveal that there are no perceived difference in between product - promotion, and place – promotion. The consumer's perceived difference in the effectiveness of all other pairs of the marketing mix (Table 4.44).

4.8 SOCIAL INFLUENCE FOR THE ATTITUDE FORMATION TOWARDS GREEN CONSUMER DURABLES

Mean score and one-sample t -test are used for analysing and testing the social influence for attitude formation towards green consumer durables. The following hypothesis is formulated for measuring influence of social factors for purchasing green products. Table 4.45 clearly shows the mean score of social factors.

H0: Consumers have neutral attitude towards social factors

Table 4.45

Social Influence for the Attitude Formation

Sl. No.	Statement on the various items of *Social Influence* Factor	Mean	Std. Deviation	Median	Degree of Agreement (%)	Rank
1	I often share information regarding environmental products with my friends and relatives.	3.75	.842	4	75.0	1
2	I learned so much about environmental products from my friends.	3.57	.940	4	71.4	2
3	I learned so much about environmental issues from my colleagues and club.	3.56	.972	4	71.3	3
4	Use of eco-friendly consumer durables enhance social status.	3.31	1.076	3	66.2	4
5	News media reports have influenced me to try green products.	3.43	1.118	4	68.6	5
6	I often buy a green products with my friends.	3.30	1.084	3	66.0	6
	Overall	3.49	.660	3.5	69.7	Cronbach's Alpha =.731

(Source: Primary Survey Data)

Table 4.46

Social Influence for Attitude Formation - One-sample t-test

Sl. No.	Statement on the various items of Social Influence Factor	t	d.f	p-value (one-tailed)
1	I often share information regarding environmental products with my friends and relatives	21.8	599	<.001
2	I learned so much about environmental products from my friends	14.9	599	<.001
3	I learned so much about environmental issues from my colleagues and club	14.2	599	<.001
4	Use of eco-friendly consumer durables enhances social status	7.0	599	<.001
5	News media reports have influenced me to try green products	9.4	599	<.001
6	I often buy green products with my friends	6.7	599	<.001
Overall		18.1	599	<.001

Source: Estimated from the Primary Survey Data

One-sample t-test is conducted to evaluate whether the mean of the summated score for the six items reflecting social influence for the attitude formation towards green consumer durables is significantly different from hypothesized value 3, which is the mean value for the neutral situation. The test results indicate that the population mean is significantly different from 3, t (599) = 18.1, p < .001 and at the same time, overall mean score is higher than 3 (Mean score >3) that is consumers, on an average, have positively influenced the social factors towards green consumer durables.

4.9 ENVIRONMENTAL CONCERN FOR THE ATTITUDE FORMATION TOWARDS GREEN CONSUMER DURABLES

In order to identify the environmental concern among consumers, mean score and One sample t-test are applied for analysing and interpreting the data. The following hypothesis is made for measuring the environmental concern among the

respondents. Table 4.47 shows the mean score of Environmental concern towards purchase decision of green durables.

H0:   Consumers have neutral attitude towards Environmental Concern

Table 4.47

Environmental Concerns

Sl. No.	Statements on various dimensions of environmental attitude & concerns of consumers	Mean	SD	Median	Degree of Agreement (%)	Rank
1	I believe that more environmental protection works are needed in Kerala	4.27	0.84	4	85.37	1
2	I am concerned about protecting our environment	4.15	0.73	4	83.07	2
3	It is very important to raise environmental awareness among households in Kerala	4.14	1.09	4	82.73	3
4	I am willing to take up responsibility to protect our environment	4.07	0.85	4	81.33	4
5	I often think about how to reduce environmental pollution	4.02	0.73	4	80.37	5
6	I am worried about global warming	3.91	1.10	4	78.20	6
7	Environmental protection issues are none of my business (recoded)	3.89	1.16	4	77. 77	7
8	Environmental protection is the responsibility of the environmental organization, not me (Reverse coded)	3.19	1.37	3	63.80	8
9	It is unwise to spend a huge amount of money on promoting eco-friendly products (Reverse coded)	3.17	1.23	3	63.33	9
	Overall	3.87	0.50	3.78	77.33	Cronbach's Alpha =.580

(***Source: Primary Survey Data)***

Table 4.48

Consumer's Environmental Concern & Attitude - One-sample t-test

Sl. No	Statements on various dimensions of the *environmental attitude & concerns* of the consumers	t	d.f.	p-value. (One-tailed)
1	I believe that environmental protection works are needed in Kerala	37.023	599	<.001
2	I am concerned about protecting our environment	38.658	599	<.001
3	It is very important to raise environmental awareness among households in Kerala	25.595	599	<.001
4	I am willing to take up the responsibility to protect our environment	30.578	599	<.001
5	I often think about how can reduce environmental pollution	34.192	599	<.001
6	I am worried about global warming	20.203	599	<.001
7	Environmental protection issues are none of my business (Reverse coded)	18.811	599	<.001
8	Environmental protection is the responsibility of the environmental organization, not me (Reverse coded)	3.403	599	<.001
9	It is unwise to spend a huge amount of money on promoting eco-friendly products (Reverse coded)	3.332	599	<.001
Overall		2.49	599	<.001

The test results indicate that the population mean is significantly different from 3, $t(599) = 2.49$, $p < .001$ and at the same time, overall mean score is 3.87 (Mean score >3) that is consumers, on an average, have positively influenced the environmental concern towards green consumer durables.

4.10 PURCHASE INTENTION OF CONSUMERS TOWARDS GREEN CONSUMER DURABLES

Mean score and One sample t test are also conducted here for measuring the purchase intention of consumers towards green durables. Table 4.49 depicts the mean score rank of various statements of purchase intentions. The hypothesis is formed for measuring the consumer's intention towards purchase of such products.

H0: **Consumers have a neutral intention for purchasing green consumer durables**

Table 4.49

Purchase Intention of Consumers

Sl. No.	Statement on various dimensions of the *Purchase Intention*	Mean	Std. Deviation	Median	Degree of Agreement (%)	Rank
1	Based on my experience with green products I will recommend these products to my friends	3.92	0.78	4	78.3	1
2	I am likely to purchase any green product	3.80	0.79	4	76.0	2
3	Based on experience with green products I will continue to buy the products again in future	3.79	0.76	4	75.8	3
4	I am ready to take some risk of buying eco-friendly products from distant markets.	3.27	1.03	3	65.4	4
	Overall	3.69	0.62	3.75	73.86	Cronbach's Alpha = 0.708

(Source: Primary Survey Data)

Table 4.50

Purchase Intention of Consumers - One-sample t-test

Sl. No.	Statement on various Dimensions of the *Purchase Intention*	t	d.f	p-value (one-tailed)
1	Based on my experience with green products I will recommend these products to my friends	28.810	599	<.001
2	I am ready to take some risk for buying eco-friendly durables from distant markets	24.794	599	<.001
3	I am likely to purchase any green product	25.258	599	<.001
4	Based on experience with the green products I will continue to buy the products again in future	6.360	599	<.001
	Overall	27.38	599	<.001

Source: Primary Survey Data

Table 4.49 makes it clear that majority of the consumers in the sample intends to purchase green products in future even from distant markets and they are willing to recommend it to their friends. One sample t-test results presented in Table 4.50 indicate that the sample results can be generalized to the population as a whole. It implies that the consumers of green consumer durables in Kerala intend to purchase such products in future, and they will purchase it even by taking some risk. They also intend to recommend the products to their friends.

4.11 CONSUMER SATISFACTION OF GREEN CONSUMER DURABLES

Consumer satisfaction is one of the objectives of every marketer and therefore its measurement is very relevant for the survival of the business. Here, consumer satisfaction is measured by using mean score and one sample t- test is applied for testing the following hypothesis.

H0: Consumers have an average satisfaction regarding green consumer durables.

Table 4.51

Consumer Satisfaction of Green Consumer Durables

Sl. No.	Statements	Mean	SD	Median	Degree of Agreement (%)	Rank
1	I am sure it has been a right thing to buy the green products.	3.87	0.88	4	77.4	1
2	I am satisfied with my decision to buy the green products.	3.84	0.73	4	76.8	2
3	I have truly enjoyed these products.	3.70	0.83	4	74.1	3
4	My choice to buy green products was a wise one.	3.69	0.85	4	73.8	4
5	Owing green products have been a good experience.	3.68	0.99	4	73.6	5
6	I feel bad about my decision to buy green products (Reverse Coded).	3.64	1.04	4	72.8	6
7	The green products are the best products I have bought.	3.59	0.82	4	71.8	7
8	Green products are exactly what I need.	3.52	0.82	4	70.3	8
9	I have no regrets about having the green products in the past.	3.41	0.99	3	68.2	9
10	Overall, I am very satisfied with the green products.	3.86	0.80	4	77.1	--
	Overall	3.68	0.46	3.7	73.6	Cronbach's Alpha =.709

Source: Primary Survey Data

Table 4.52

Consumer Satisfaction of Green Consumer Durables - One-sample t-test

Sl. No.	Statement on various Dimensions of the *Consumer Satisfaction of the Green Consumer Durables*	t	d.f	p-value. (one-tailed)
1	I am sure it has been a right thing to buy the green products.	24.2	599	<.001
2	I am satisfied with my decision to buy the green products.	28.0	599	<.001
3	I have truly enjoyed these products.	20.8	599	<.001
4	My choice to buy green products was a wise one.	19.9	599	<.001
5	Owing green products have been a good experience.	16.9	599	<.001
6	I feel bad about my decision to buy green products (Reverse Coded).	15.0	599	<.001
7	The green products are the best products I have bought.	17.7	599	<.001
8	Green products are exactly what I need.	15.4	599	<.001
9	I have no regrets about having the green products in the past.	10.2	599	<.001
10	Overall, I am very satisfied with the green products.	26.2	599	<.001
Overall		36.0	599	<.001

Source: Estimated from the Primary Survey Data

Table 4.51 exposes that consumers in the sample are satisfied with various dimensions of green consumer durables and one sample t-test results confirm it for the population as a whole. It can be inferred from the results that consumers are satisfied with products. Table 4.53 explain the rating the satisfaction of consumers towards green consumer durables.

Table 4.53

Level of Consumer's Satisfaction of Green Consumer Durables

Sl. No.	Level of Satisfaction	Number of respondents	Percentage
1	Very much dissatisfied	2	0.3
2	Dissatisfied	27	4.5
3	Neutral	126	21.0
4	Satisfied	343	57.2
5	Very much satisfied	102	17.0
	Total	600	100

Source: Primary Survey Data

As can be seen from table 4.53, out of total consumers of green products, majority i.e. 57.17% of respondents reported that they are 'satisfied' with these, whereas satisfaction level of 21% respondents is found to be 'neutral'. Apart from this, some of the respondents i.e. 17 % stated that they are 'very much satisfied' and only 0.33% respondents stated that they are 'very much dissatisfied' with these products.
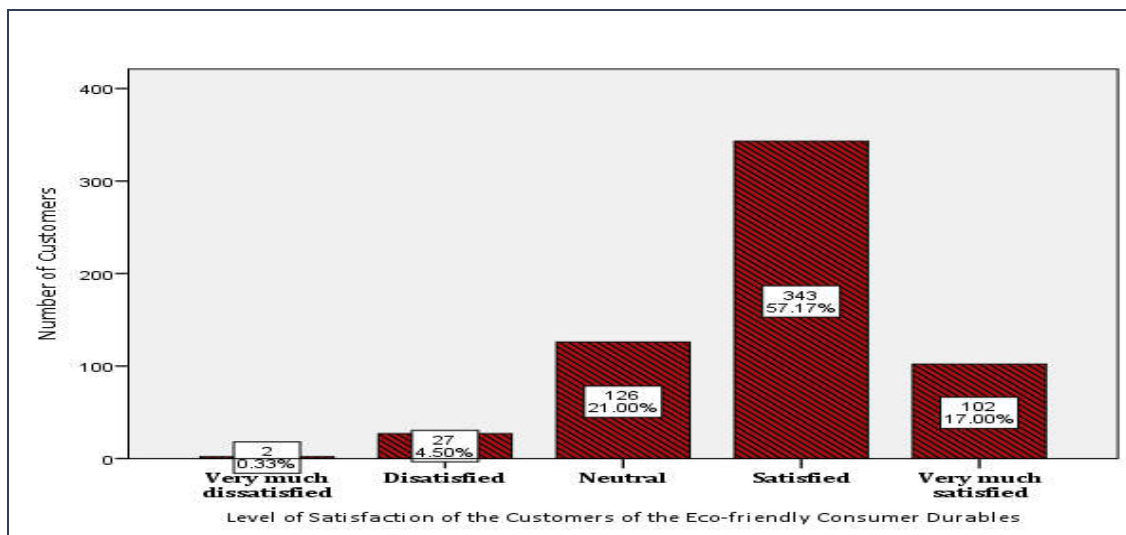
Source: Primary Survey Data

Figure 4.5

Level of Consumer's Satisfaction of Green Consumer Durables

The above figure demonstrates that around three-fourths of the consumers in the sample are satisfied with green consumer durables.

4.12 FACTORS INFLUENCING PURCHASE DECISION OF CONSUMERS TOWARDS GREEN CONSUMER DURABLES

Multiple linear regression model has been used to examine the factors influencing purchase decision of the consumers of green consumer durables in Kerala. The following multiple linear regression models is specified and estimated for that purpose:

$$PI = \alpha + \beta_1 \Pr dt + \beta_2 \Pr c + \beta_3 Plc + \beta_4 \Pr m + \beta_5 SI + \beta_6 EA + \beta_7 \Pr b + \beta_8 CS + \beta_9 Awr + \beta_{10} Age + \beta_{11} Inc + \gamma_1 Gen + \gamma_2 Urb + \gamma_3 Edn + \gamma_4 GE + \gamma_5 SI + \gamma_6 SE + \gamma_7 \Pr f + \gamma_8 HW + \varepsilon$$

where α is intercepted, βs are the slope coefficients for continuous explanatory variables, γs are the coefficients of Dummy variables, ε is the random disturbance term, and the description of the variables are given in Table 4.54. The independent variables: product, price, place, and promotion are included to measure the influence of marketing mix factors on the purchase decision of the consumers of green consumer durables in Kerala; and the last three dummy variables are intended to measure the effect of occupation on the purchase decision.

Table 4.54

Description of the Variables Used in the Regression Model

Sl. No.	Variables	Description of Variables
1	*PD* (Purchase Decision)	It is the dependent variable in the model, which is the mean score of four Likert scale items of purchase intention (see Table 4.49)
2	*Prdt* (Product)	It is the mean score of 11 Likert scale items measuring 'product' dimension of green marketing mix (see Table.4.33)
3	*Prc* (Price)	It is the mean score of five Likert scale items, which measure 'price' dimension of green marketing mix (see Table.4.35)
4	*Plc* (Place)	It is the mean score of three Likert scale items that measure 'place' dimension of green marketing mix (see Table.4.37)

Sl. No.	Variables	Description of Variables
5	*Prm (*Promotion)	It is the mean score of four Likert scale items measuring 'promotion' dimension of the green marketing mix (see Table.4.39)
6	*SI* (Social Influence)	It is the mean score of six Likert scale items that measure the social influence towards purchasing the green consumer durables (see Table.4.41)
7	*EA* (Environmental Attitude)	It is the mean score of nine Likert scale items that measure the environmental attitude/concerns of consumers of green consumer durables (see Table.4.43)
8	*Prb* (Problems)	It is the mean score of nine Likert scale items that measure the intensity of problems faced by the consumers of green consumer durables while making their purchase decisions (see Table 4.63)
9	*CS* (Customer Satisfaction)	It is the mean score of 10 Likert scale items that measure customer satisfaction (see Table.4.51)
10	*Awr* (Awareness)	It is the mean score of 10 Likert scale items, which measure various aspects of the consumers' awareness about the green consumer durables (see Table.4.13)
11	Age	Age of the respondents in years
12	*Inc* (Income)	Monthly household income of the respondent's household measured in Indian rupees.
13	*Gen* (Gender)	It is a dummy variable taking value 1 if the respondent is male and 0 otherwise.
14	*Urb* (Urban/Rural)	It is a dummy variable taking value 1 if the respondent is residing in an urban area (i.e., in Municipalities or Corporations) and 0 otherwise.
15	*Edn* (Education)	It is a dummy variable taking value 1 if the respondent is educated up to Graduation and above and 0 otherwise.
16	*GE* (Govt. Employee)	It is a dummy variable taking value 1 if the respondent is a government employee and 0 otherwise.
17	*SE* (Self-employed)	It is a dummy variable taking value 1 if the respondent is self-employed and 0 otherwise.
18	*Prf* (Professional)	It is a dummy variable taking value 1 if the respondent is a professional and 0 otherwise.
19	*HW* (Housewife)	It is a dummy variable taking value 1 if the respondent is a housewife and 0 otherwise.

The model was estimated using the ordinary least square method (OLS) based on data collected from 600 consumers and the results reported in Table 4.54, Table 4.55 and Table 4.56.

The model adequacy tests were conducted and the results are reported in Table 4.56. It can be seen from the table that the estimated model is correctly specified, the error terms are normally distributed and there was no serious multicollinearity among the regressors. However, the presence of heteroscedasticity can be noticed from the White's test results. In the presence of heteroscedasticity problem in the estimated model, *heteroscedasticity-robust standard errors* have been used for the significance testing of the estimated regression coefficients.

The results reported in Table 4.56 indicate that the goodness of fit of the model was moderate as indicated by the coefficient of determination (R^2 = .4128); however, the R^2 (therefore, the model as a whole) was statistically significant at one percent level, $F (18, 581) = 26. 44$, $p<.001$.

The results presented in Table.4.55 indicate that only the product dimension of green marketing mix had statistically significant influence on the purchase decision, whereas the other three ingredients, *viz*, price, place, and promotion did not have any significant influence on the customer purchase decision. The social factors are having a significant positive influence on the purchase decision, while, environmental attitude and concerns did not influence the purchase decision.

Consumer satisfaction has statistically significant positive influence on the purchase decision of consumers towards green consumer durables in Kerala; it implies that consumers who are more satisfied with the products intend more to buy the products than consumers with less satisfaction. It is striking to note that the intensity of problems faced by consumers in using the products had no significant influence on the purchase decision. The level of awareness of green durables has significant positive influence on the purchase decision of the consumers. The age of the consumers is found to have significant but negative effect on the purchase decision; which implies that aged people intend less to purchase eco-friendly

consumer durables compared to youngsters. The 'Housewife' dummy variable is statistically significant, indicating that the level of purchase decision of the housewives, on an average, is significantly higher than that of others in Kerala. No other socio-economic and demographic regressors listed in Table 4.55 are found to have significant influence on the purchase decision of consumers.

Table 4.55

Multiple Regression Results on the Factors Influencing the Purchase decision of Green Consumer Durables

Method: Ordinary Least Squares (OLS) using observations 1-600

Dependent variable: Purchase Intention Mean Score

Sl. No.	Predictors	Unstandard-ised Coefficients		Standar-dised Coeffici-ents	t-ratio	p-value	Significance[@]	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error#	Beta				Lower Bound	Upper Bound	Tolerance	VIF
	(Constant)	.101	0.32		0.314	0.75	ns	-.557	.758		
1	Product	.180	0.06	.136	3.011	0.003	***	.076	.285	.630	1.59
2	Price	-.004	0.04	-.004	0.11	0.91	ns	-.085	.077	.900	1.11
3	Place	-.037	0.03	-.041	1.19	0.24	ns	-.101	.027	.784	1.25
4	Promotion	.049	0.03	.058	1.48	0.14	ns	-.015	.114	.687	1.46
5	Social Influence	.123	0.05	.131	2.33	0.02	**	.054	.193	.711	1.41
6	Environmental Attitude	.052	0.04	.041	1.18	0.24	ns	-.033	.136	.861	1.16
7	Problems	.012	0.02	.011	0.30	0.767	ns	-.060	.084	.844	1.19
8	Customer Satisfaction	.511	0.05	.381	9.39	<0.001	***	.416	.605	.784	1.28
9	Awareness	.171	0.09	.183	4.483	<0.0001	***	.102	.240	.715	1.40
10	Age (in Years)	-.005	0.00	-.099	2.293	0.022	**	-.010	-.001	.542	1.85
11	Income (in Rs.)	.000	0.00	-.025	0.8654	0.387	ns	.000	.000	.905	1.11
12	Gender (Dummy Variable)	-.067	0.05	-.054	1.279	0.201	ns	-.173	.038	.540	1.85
13	Urban/Rural (Dummy Variable)	-.053	0.04	-.043	1.270	0.205	ns	-.133	.027	.935	1.07
14	Education (Dummy Variable)	.084	0.05	.066	1.716	0.087	*	-.012	.180	.693	1.44

Sl. No.	Predictors	Unstandard-ised Coefficients		Standar-dised Coeffici-ents	t-ratio	p-value	Significance@	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error#	Beta				Lower Bound	Upper Bound	Tolerance	VIF
15	Govt. Employee (Dummy Variable)	.107	0.09	.061	1.205	0.229	ns	-.060	.275	.438	2.28
16	Self-employed (Dummy Variable)	.041	0.08	.031	0.500	0.617	ns	-.129	.211	.227	4.400
17	Professional (Dummy Variable)	-.214	0.13	-.044	1.689	0.092	*	-.549	.121	.814	1.23
18	House wife (Dummy Variable)	.181	0.07	.140	2.517	0.012	**	.033	.330	.298	3.36

Notes: # Heteroskedasticity-robust standard errors, variant HC1;

@ *** indicate significant at 01 percent level, *** indicate significant at 05 percent level, * indicates significant at 10 per cent level,   and 'ns' indicates not significant.

Table 4.56

Model Summary

Sum squared residuals	135.181		S.E. of regression	0.416
R-squared	.4128		Adjusted R-squared	.3946
F(18, 581)	26.44		p-value(F)	<.001
SIC	930.078		AIC	846.536

Table 4.57

Regression Model Adequacy Tests

Sl. No.	Type of test	Name of the Test	Null hypothesis (H$_0$)	Test statistic	p-value	Conclusion
1	Test for Specification	Ramsey's RESET	Specification is adequate	F(2, 579) = 2.499	p(F(2, 579) > 2.499) = .083	Specification is adequate
2	Test for Heteroske dasticity	White's test	Heteroske dasticity not present	LM = 270.137	P(Chi-square(170) > 270.137)= <.001	Heteroske dasticity is present
3	Test for Normality of Residual	Chi-square test	Error is normally distributed	Chi-square(2) = 2.327	p-value = .065	Error is normally distributed

4.13 FACTORS INFLUENCING CONSUMER SATISFACTION OF GREEN CONSUMER DURABLES

Multiple linear regression analysis has been carried out to understand the factors influencing consumers satisfaction of green consumer durables. The following linear regression model was estimated using the ordinary least square method (OLS):

$$CS = \alpha + \beta_1 \Pr dt + \beta_2 \Pr c + \beta_3 Plc + \beta_4 \Pr m + \beta_5 SI + \beta_6 EA + \beta_7 \Pr b + \beta_8 Age + \beta_9 Inc + \gamma_1 Gen + \gamma_2 Urb + \gamma_3 Edn + \gamma_4 GE + \gamma_5 SI + \gamma_6 SE + \gamma_7 \Pr f + \gamma_8 HW + \varepsilon$$

where α is intercepted, βs are the slope coefficients for continuous explanatory variables, γs are the coefficients of Dummy variables, ε is the stochastic error term and the construction of the variables are explained in Table 4.33. The independent variables: product, price, place, and promotion are included to measure the influence of marketing mix factors on consumer satisfaction of green consumer durables; and the last three dummy variables are intended to measure the effect of occupation on the consumer satisfaction.

The following table explains the descriptive statistics used in the regression model.

Table 4.58

Description of the Variables

Sl. No.	Variables	Variables Description
1	*CS* (Consumer Satisfaction)	It is the dependent variable in the model, which is the mean score of 10 Likert scale items of consumer satisfaction (see Table 4.51)
2	*Prdt* (Product)	It is the mean score of 11 Likert scale items measuring 'product' dimension of the green marketing mix (see Table.4.33)
3	*Prc* (Price)	It is the mean score of five Likert scale items, which measure 'price' dimension of the green marketing mix (see Table 4.35)

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Sl. No.	Variables	Variables Description
4	*Plc* (Place)	It is the mean score of three Likert scale items that measure 'place' dimension of the green marketing mix (see Table.4.37)
5	*Prm* (Promotion)	It is the mean score of four Likert scale items measuring 'promotion' dimension of the green marketing mix (see Table. 4.39)
6	*SI* (Social Influence)	It is the mean score of six Likert scale items that measure social influence towards purchasing green consumer durables (see Table.4.41)
7	*EA* (Environmental Attitude)	It is the mean score of nine Likert scale items that measure environmental attitude/concerns of the user of green consumer durables (see Table.4.43)
8	*Prb* (Problems)	It is the mean score of the nine Likert scale items that measure the intensity of problems faced by consumers of the green consumer durables while making their purchase decisions (see Table.4.63)
9	Age	Age of the respondents in years
10	*Inc* (Income)	Monthly household income of the respondent's household measures in Indian rupees.
11	*Gen* (Gender)	It is a dummy variable taking value 1 if the respondent is male and 0 otherwise.
12	*Urb* (Urban/Rural)	It is a dummy variable taking value 1 if the respondent is residing in an urban area (i.e., in Municipalities or Corporations) and 0 otherwise.
13	*Edn* (Education)	It is a dummy variable taking value 1 if the respondent is educated up to Graduation and above and 0 otherwise.
14	*GE* (Govt. Employee)	It is a dummy variable taking value 1 if the respondent is a government employee and 0 otherwise.
15	*SE* (Self-employed)	It is a dummy variable taking value 1 if the respondent is self-employed and 0 otherwise.
16	*Prf* (Professional)	It is a dummy variable taking value 1 if the respondent is a professional and 0 otherwise.
17	*HW* (Housewife)	It is a dummy variable taking value 1 if the respondent is a housewife and 0 otherwise.

The model is estimated using data collected from 600 consumers. The regression results are presented in Table 4.59, Table 4.60, and Table 4.61. The model adequacy tests were conducted and the results are reported in Table 4.61. It can be seen from the table that the estimated model is correctly specified, the error terms are normally distributed and there was no serious multicollinearity among the regressors. However, the presence of heteroscedasticity can be noticed from the White's test results. In the presence of heteroscedasticity problem in the estimated model, *heteroscedasticity-robust standard errors* have been used for the significance of testing of the estimated regression coefficients.

The results reported in Table 4.60 indicate that the model as a whole is statistically significant, $F(16, 583) = 9.213$, $p<.001$. However, the goodness of fit of the model was low as indicated by the coefficient of determination ($R^2 = .212$); but this R^2 value is statistically significant as per the F-test reported below. The results indicate that only the product dimension of the marketing mix has a statistically significant influence on consumer satisfaction, whereas the other three ingredients, *viz*, price, place, and promotion do not have any significant influence on consumer satisfaction. The social influence factor and the environmental attitude and concerns are having significant positive influence on consumer satisfaction, while, the intensity of problems in using the product has significant negative influence on consumer satisfaction. Age of the consumer is found to have significant but negative effect on the consumer satisfaction; which implies consumer satisfaction decreases with increasing age of the consumers. No other socio-economic and demographic repressors listed in Table 4.59 are found to have significant influence on satisfaction of consumers.

Table 4.59

Multiple Regression Results on the Factors Influencing Consumer Satisfaction of green Consumer Durables

Method: Ordinary Least Squares (OLS) using observations 1-600

Dependent variable: Consumer Satisfaction Mean Score

Sl. No.	Predictors	Unstandardised Coefficients		Standardised Coefficients	t-ratio	p-value	Significance@	Collinearity Statistics	
		B	Std. Error #	Beta				Tolerance	VIF
	(Constant)	2.193	0.288		7.616	<0.001	***	--	--
1	Product	0.169	0.045	.170	3.778	0.000	***	0.689	1.452
2	Price	-0.017	0.037	-.018	0.460	0.646	ns	0.902	1.108
3	Place	0.013	0.029	.020	0.453	0.651	ns	0.786	1.272
4	Promotion	0.004	0.026	.007	0.164	0.870	ns	0.687	1.455
5	Social Influence	0.160	0.031	.228	5.150	<0.001	***	0.757	1.322
6	Environmental Attitude	0.159	0.038	.170	4.237	<0.001	***	0.891	1.123
7	Problems	-0.069	0.035	-.087	1.976	0.049	**	0.856	1.169
8	Age (in Years)	-0.005	0.002	-.117	2.326	0.020	**	0.547	1.828
9	Income (in Rs.)	1.204E-6	0.000	.047	1.701	0.090	*	0.909	1.100
10	Gender (Dummy Variable)	0.028	0.048	.031	0.593	0.554	ns	0.540	1.851
11	Urban/Rural (Dummy Variable)	0.015	0.035	.016	0.420	0.675	ns	0.938	1.066
12	Education (Dummy Variable)	-0.011	0.039	-.012	0.2867	0.775	ns	0.731	1.367
13	Govt. Employee (Dummy Variable)	-0.002	0.071	-.002	0.031	0.975	ns	0.438	2.283
14	Self-employed (Dummy Variable)	0.143	0.073	.148	1.959	0.051	*	0.229	4.368
15	Professional (Dummy Variable)	0.141	0.107	.039	1.311	0.190	ns	0.815	1.227
16	House wife (Dummy Variable)	0.037	0.062	.038	0.596	0.551	ns	0.299	3.345

Notes: # Heteroskedasticity-robust standard errors, variant HC1;

@ *** indicate significant at 01 percent level, *** indicate significant at 05 percent level, * indicates significant at 10 per cent level,   and 'ns' indicates not significant.

Table 4.60

Model Summary

Sum squared residuals	101.043		S.E. of regression	0.416
R-squared	.212		Adjusted R-squared	.190
F(16, 583)	9.213		p-value(F)	<.001
SIC	742.643		AIC	667.895

Table 4.61

Regression Model Adequacy Tests

Sl. No.	Type of test	Name of the Test	Null hypothesis (H_0)	Test statistic	p-value	Conclusion
1	Test for Specification	Ramsey's RESET	Specification is adequate	$F(2, 581)$ = 0.921	p(F(2, 581) > 0.921) = .053	Specification is adequate
2	Test for Heteroskedasticity	White's test	Heteroskedasticity not present	LM = 198.864	P(Chi-square(135) > 198.864)= <.001	Heteroskedasticity is present
3	Test for Normality of Residual	Chi-square test	Error is normally distributed	Chi-square(2) = 2.080	p-value = .353	Error is normally distributed

The below table presents the descriptive statistics of the variable used in regression model

Table 4.62

Descriptive Statistics

Sl. No.	Variables	Mean	Std. Deviation	N
1	Consumer Satisfaction (Dependent Variable)	3.68	0.46	600
2	Product	3.66	0.47	600
3	Price	3.24	0.50	600
4	Place	3.54	0.69	600
5	Promotion	3.59	0.72	600
6	Social Influence	3.49	0.66	600
7	Environmental Attitude	3.87	0.50	600
8	Problems	3.33	0.59	600

Sl. No.	Variables	Mean	Std. Deviation	N
9	Age (in Years)	40.30	11.34	600
10	Monthly Income (Rs.)	23266.67	18103.64	600
11	Gender	0.49	0.50	600
12	Urban/Rural	0.50	0.50	600
13	Education	0.38	0.49	600
14	Govt. Employee	0.14	0.35	600
15	Self-employed	0.35	0.48	600
16	Professional	0.02	0.13	600
17	House wife	0.35	0.48	600

4.14 PROBLEMS OF CONSUMERS TOWARDS PURCHASE DECISION OF GREEN CONSUMER DURABLES

Table 4.63 shows the statement of various problems faced by consumers while making purchase decision of green consumer durables

Table 4.63

Problems Faced by Consumers While Making Purchase Decisions

Sl. No.	Statements	Mean	SD	Median	Degree of Agreement (%)	Rank
1	There is lack of information/ awareness about green products	3.61	1.09	4	72.20	1
2	Green products are not promoted properly	3.56	0.99	4	71.23	2
3	Green products are not available in full range of variety	3.56	0.98	4	71.17	3
4	Green products are very expensive	3.42	0.94	4	68.43	4
5	Green products are not easily available in shopping outlets	3.40	1.00	3	68.00	5
6	We cannot ensure the quality of eco-friendly products	3.20	1.03	3	64.00	6

Sl. No.	Statements	Mean	SD	Median	Degree of Agreement (%)	Rank
7	Green products are not trendy /fashionable	3.16	1.06	3	63.10	7
8	Green products are less convenient to use	3.06	1.05	3	61.27	8
9	I am not sure green products are actually better for the environment	2.98	1.08	3	59.63	9
	Overall	3.33	0.59	3.33	66.56	Cronbach's Alpha =.742

Source: Primary Survey Data
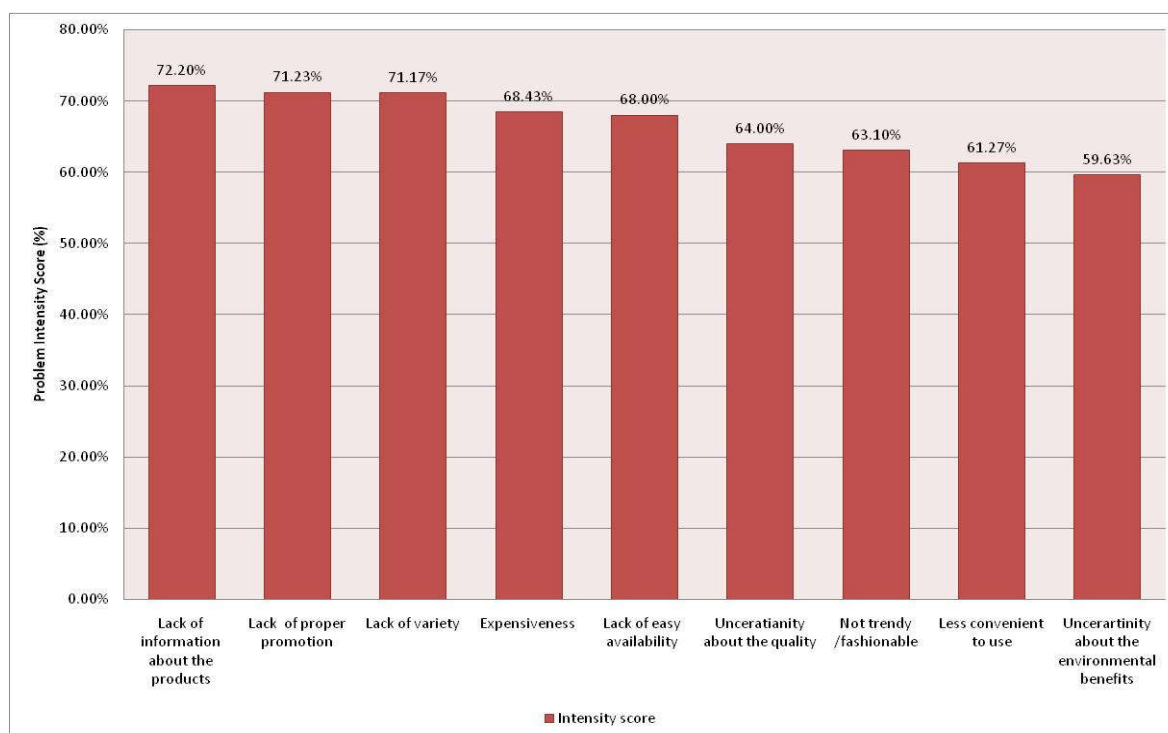
Figure 4.6

Problems Faced by Consumers while Making Purchase Decisions

Here, mean score are used to evaluate whether any problems are faced by consumers while making purchase decision. The findings disclosed that consumers

are facing different problems while purchasing the products. Among them, mean score rank shows lack of awareness, lack of proper promotion and limited variety of products are the serious problems faced by consumers while making purchase decision of green consumer durables.

Intensity of Problems Faced by Consumers of Green Consumer Durable

The intensity of the problems faced by the consumers has been classified into three categories viz., low, medium, and high. The summated score of the nine Likert scale statements are classified into 'low' if it is up to the first quartile of the variable, 'medium' if it is between the first and third quartile and 'high' if it is above the third quartile of the variable.
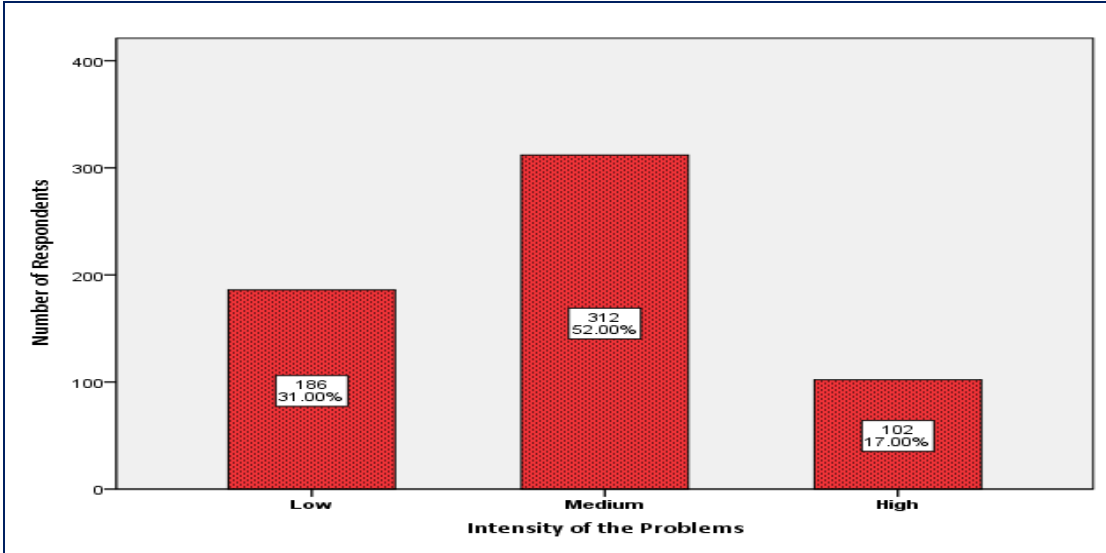
Source: Primary Survey Data

Figure 4.7

Intensity of the Problems

The figure 4.7 shows that majority of the respondents (83%) have average and low level of intensity of problems and only17% respondents faced high intensity of problems while they purchased green consumer durables.

Willingness to Recommend

Respondents' willingness to recommend the products to their friends and relatives was measured in order to ascertain their behavioural intentions towards green consumer durables. Willingness was measured on a scale of 1 to 5, where option 1 represented 'very much unwilling', option 2 represented 'unwilling', option 3 represented 'neutral', option 4 represented 'willing' and option 5 represented 'very much willing'. The respondents were asked to express their willingness by selecting any one option. Table 4.64 gives the description of respondents' willingness to recommend green consumer products to their friends and relatives.

Table 4.64

Willingness to Recommend to Friends and Relatives

Sl. No.	Level of willingness	Number of Consumers	Percentage(%)
1	Very much unwilling	7	1.2
2	Unwilling	19	3.2
3	Neutral	95	15.8
4	Willing	341	56.8
5	Very much willing	138	23.0
	Total	600	100

Source: Primary Survey Data
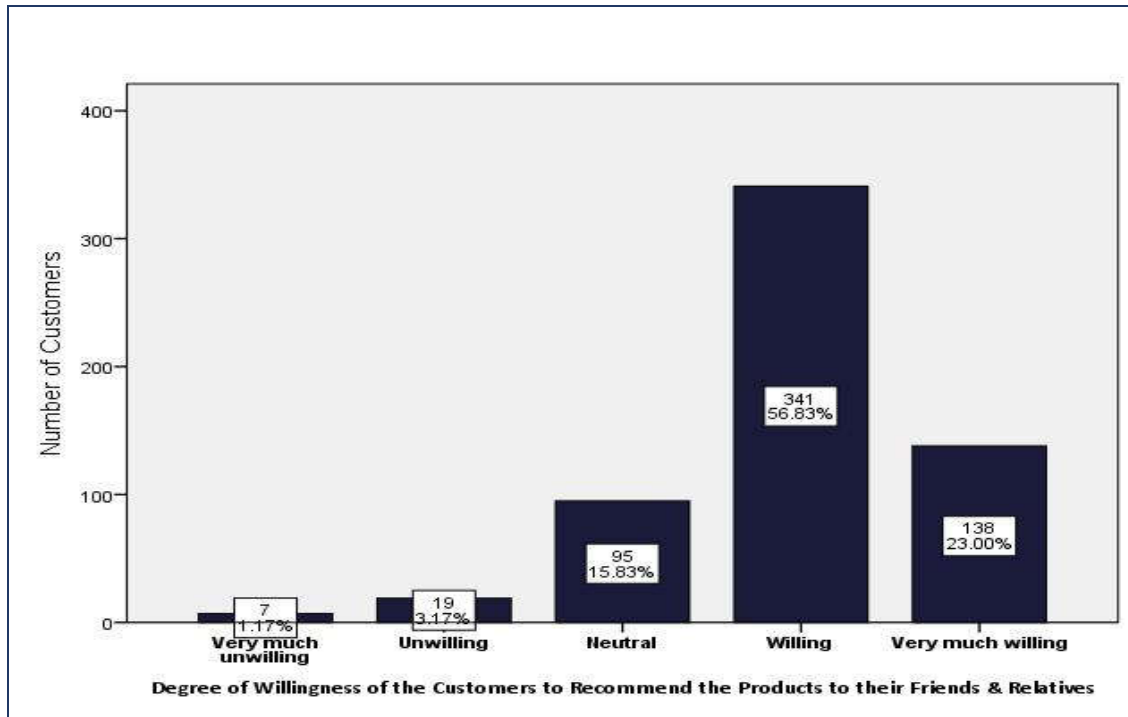
Figure 4.8

Willingness to Recommend to Friends and Relatives

Table 4.64 presented that, out of total consumers, majority i.e. 56.83% of consumers were found to be 'willing' to recommend green products to others, whereas 23% reported that they were 'very much willing' to recommend green products to others. Very few i.e. 15.83 % of consumers expressed their 'neutral' intentions towards recommending green products to others. Apart from this, only 1.17% of users still stated that they were 'very much unwilling' to recommend green products to others. Hence, it can be concluded that around 80 percent of the consumers in the sample are willing to recommend the products to their friends and relatives.

Consumers Intention to consider the use

In order to get more insight into the behavioural intentions, consumer's intention to use green products in the future is also measured. There were five options of intentions in this regard. Option 1 represented 'not at all', option 2 represented 'may consider', option 3 represented 'consider to use but not in

immediate future', option 4 represented 'consider to use sometimes' and option 5 represented 'consider to use always'. The respondents were asked to express their intention by selecting any one option.

Table 4.65

Consumers Intention to consider the use of green Products

Sl. No.	Level of Purchase Intention	Number of Consumers	Percent (%)
1	Not at all consider	2	0.3
2	May consider	28	4.7
3	Consider to use but not in immediate future	42	7.0
4	Consider to use sometimes	274	45.7
5	Consider to use always	254	42.3
	Total	600	100

Source: Primary Survey Data
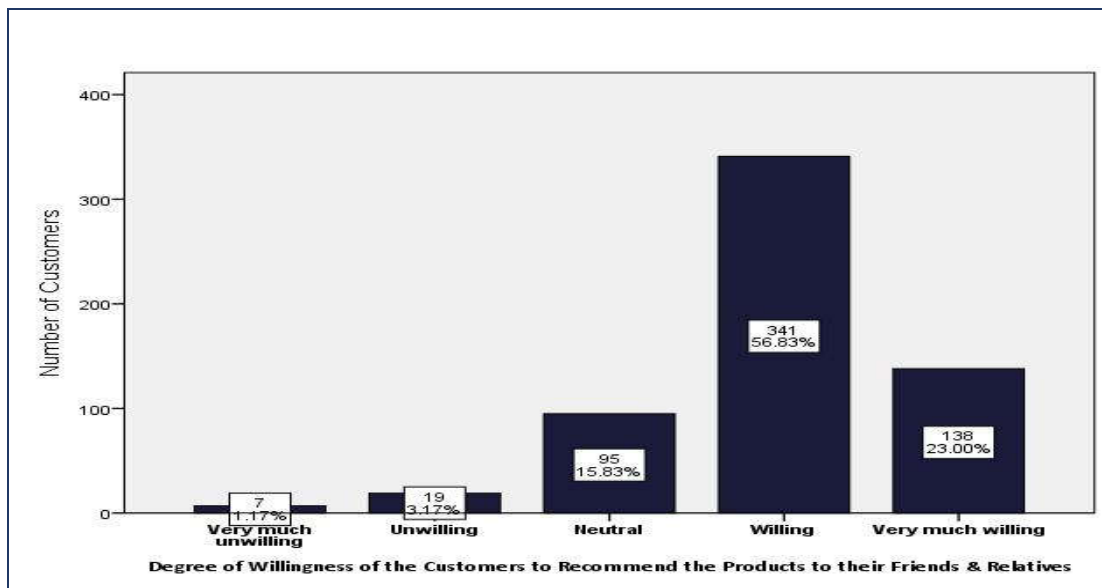
Figure 4.9

Customers Intention to consider the use of Green Products

Table 4.65 shows the number and percentage of responses given by the consumers of green products regarding their intentions to use green products in the

future. The table clearly shows that majority i.e. 45.67% of the respondents expressed that they would consider using green products sometimes in future whereas 42.33% reported that they would consider using green products always. Followed by this, 7% of the respondents were those who expressed that they consider to use but not in nearest future. Apart from this, still there were 0.3% respondents who reported their negative intention to use green products in the future.

Summary of the chapter

This chapter deals with analysis of consumer survey and contains hypotheses wise analysis. Multiple regression, One-sample t test, Chi square test, Mean score, repeated measure of ANOVA, Paired comparison test and Friedman test etc. are used for getting inference from the data. The findings of this chapter point out that consumers are more aware of some dimensions of green consumer durables (such as its contribution to the environmental sustainability, benefits to the environment, energy saving quality, price, availability, and recyclability); but they are less aware of some other dimensions of the products (such as symbols & certifications, different brands, its bio-degradable quality, and companies promotional activities). The 'number of information sources', and the 'level of education' are the two regressors which influenced the consumers' awareness and other socio-economic and demographic factors such as age, income, gender, area of residence, and occupational status are not found to have statistically significant influence on the awareness level of the consumers. Whereas, while making a purchase decision of green products, lack of information/awareness is the serious problem faced by consumers. Product elements in the marketing mix, social factor, customer awareness, and satisfaction are having a significant positive influence on the purchase intention of consumers and product elements in the marketing mix, social influence factor and the environmental attitude and concerns are having a significant positive influence on the consumer satisfaction.

CHAPTER V

ANALYSIS AND INTERPRETATIONS OF RETAILERS SURVEY

FACTORS INFLUENCING GREEN MARKETING PRACTICES AND ITS CHALLENGES

Retail industry has been emerging as one of the largest sector in Indian economy. Retail marketing mainly deals with identifying and meeting needs of people and society and delivering goods and services to consumers. The Indian retail market is a combination of structured and unstructured markets that contain different consumer products. It consists of supermarkets, departmental stores, specialty stores and general shops. In the modern era of globalization, it has become a challenge to keep the producers as well as consumers in touch to keep our natural environment safe, which has been the biggest need of the time to develop the practices for sustainability in the retail sector. The retail sector has key role to play in sustainable production and consumption of products with lower environmental impact, and in promoting them to consumers. This chapter deals with retailer's survey which consists of factors influencing the retailers to sell green consumer durables and challenges of marketing green consumer durables. Statistical tools like Percentage analysis, independent t test, mean score, factor analysis and chi-square test have been applied to analyze the data and draw inferences.

5.1 Business Profile of Retailers:-

Information about the retailers consists of nature of ownership, types of retail shop, types of products, nature of products sold, and period of trading and monthly turnover of the shop as shown in table 5.1

Table 5.1

Business Profile of the Respondents

Variables	Categories	No. of Respondents	(%)
Age (Period of trading)	Less than 1 year	23	15.3
	1-5 years	**50**	**33.3**
	5-10 years	42	28.1
	Above 10 years	35	23.3
Nature of ownership	Sole proprietorship	**82**	**54.7**
	Partnership	68	45.3
Type of retail shop	Simple retail shop	**70**	**46.7**
	Departmental stores	52	34.7
	Specialty shop	28	18.6
Monthly turnover	Less than Rs.50,000	17	11.3
	Rs.50,000 − 1,00,000	48	32.0
	Rs.1,00,000 − 1,50,000	**66**	**44.0**
	Above 1,50,000	19	12.7
Types of green products	Electronic home appliances	**86**	**57.3**
	Wood & bamboo furniture	55	36.7
	Electric vehicles	9	6.0
Nature of products sold	Green products only	33	22.0
	Both green and non-green products	**117**	**78.0**
Location of business	Urban	**75**	50
	Rural	**75**	50
	TOTAL	**150**	**100**

(Source: primary)

The above table depicts that 33.3 per cent of the respondents have been running their business from 1-5 years, 28.1 per cent of them have been carrying out their business for 5-10 years, 23.3 per cent of the respondents have been doing their business for more than 10 years and 15.3 per cent of them have been carrying on business for less than a year. It is inferred that majority of the retailers are carrying on their business in the age group of 1 –5 years. On the basis of nature of ownership, 54.7 per cent of the respondents are sole traders and 45.3 per cent are running partnership business.

On the basis of type of retail shop, 46.7 per cent of the respondents have simple retail shops, 34.7 per cent of them have departmental shops and only 18.6 per cent have green products in specialty shops. Therefore, majority of the retailers sell green products in simple retail shops. 22 per cent of the respondents sell only green products in their shop and 78 per cent of them deal with both green and other products. On the basis of types of products, 57.3 per cent of the respondents sell energy efficient home appliances, 36.7 percent of them sell wood and bamboo furniture and only 6 per cent of the respondents sell electric vehicles.

On the basis of monthly turnover of business, 12.7 per cent of the respondents have stated that their monthly turnover has been above Rs.1,50,000, 11.3 per cent of them have stated that their monthly turnover is less than Rs.50,000, 32 per cent of the respondent's monthly turnover is between Rs.50,000 – 1,00,000 and 44 per cent of them have stated that their monthly turnover has been between Rs.1,00,000 – 1,50,000. Hence, it is seen that most of the retailer's monthly turnover is between 1,00,000-150000.

5.2 Factors influencing the retailers for initiating green marketing practices

There are a number of factors which are influencing the retailers for initiating green marketing practices.. It is very important to the authorities for the purpose of supports and promotion of such products. Here factor analysis was used for data reduction. It helps to identify important factors which influence the retailers to start such business.

Table 5.2

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.502**
Bartlett's Test of Sphericity	Approx. Chi-Square	148.704
	df	105
	Sig.	.003

Source: Primary Data

Kaiser-Meyer-Olkin Measure of Sampling Adequacy

KMO Statistic is used to test the interconnectivity of the variables. This measure varies between 0 and 1, and values closer to 1 are better. A value of .5 is a suggested minimum. Generally, $0 < KMO < 1$. If $KMO > 0.5$, the sample is adequate. Here, $KMO = 0.502$ which indicates that the sample is adequate and we may proceed with the factor Analysis.

Table 5.3

Rotated Component Matrix[a]

Motivating factors	Component						
	1	2	3	4	5	6	7
Part of corporate social responsibility	**.469**	-.172	.365	-.330	-.381	.129	.041
Follow competitor	**.469**	.219	.036	.326	-.203	.041	**.418**
Financial support from the government	**.486**	.029	.273	-.331	.096	.096	-.062
Competitive advantage	-.151	-.057	-.331	-.193	.301	.054	**.708**
Demand of customers	.104	**-.617**	.044	.059	-.131	**.464**	.047
Overcoming competition	-.356	-.110	**.543**	**.409**	-.035	.126	.242

Motivating factors	Component						
	1	2	3	4	5	6	7
Easy fund availability	-.170	.157	**.585**	.050	.387	.118	-.046
Customer satisfaction	.217	**.552**	.352	-.300	.109	.274	-.028
Customers environmental awareness	-.116	**.737**	.017	.083	-.148	.143	.209
Pressure from Government	**.497**	.000	.057	**.423**	-.283	-.295	.197
New opportunity in the market.	.204	-.014	.180	-.239	.265	**-.733**	.110
Increasing the market share	**.623**	-.113	-.153	.108	.285	.066	-.089
Own interest	.265	.337	**-.404**	**.415**	.195	.144	-.343
Maximization of profits	.027	.152	**-.445**	**-.431**	-.204	.201	.128
Betterment of society	.271	-.173	-.030	.104	**.594**	.249	.177

Extraction Method: Principal Component Analysis.

a.   **7 components extracted.**

Correlation of the variables with each of the extracted factors is shown in above table. Each variable is highly loaded in one factor and less towards to the other factors. For including variables to each factor, the variable with the above 0.4 value in each column is selected to be part of the respective factor. The variables with above 0.4 value in each column are marked as bold.

Table 5.4

Factor Naming

Factor no	Factor name	Variable	Factor loading
1	External forces	Part of corporate social responsibility	.469
		Follow competitor	.469
		Financial support from the government	.486
		Pressure from Government	.497

Factor no	Factor name	Variable	Factor loading
2	Customer related factors	Demand of customers	-.617
		Customer satisfaction	.552
		Customers environmental awareness	.737
3	Finance related factors	Easy fund availability	.585
		Maximization of profits	..445
4	Objective related factors	Overcoming competition	.409
		Own interest	..415
5	Social welfare	Betterment of society	.594
6	Opportunity	New opportunity in the market.	-.733
7	Competitive advantage	Competitive advantage	.708

External forces :- External forces are the first factor which are influencing the retailers to sell green consumer durables. The variables included in this factor are part of Corporate Social Responsibility (.469), Follow competitor (.469),Financial support from the government (.486) and Pressure from Government (.497).

Customer related factors:- The variables included in this factor are Demand of customers (-.617), Customer satisfaction (.552) and Customers environmental awareness (.737). While designing the marketing plan, the retailers should recommend for designing the products as per the requirements of consumers.

Finance related factors: -Finance related factors are the third influencing factors for starting the green marketing practices. It includes two variables such as Easy fund availability (.585) and Maximization of profits (-.445).

Objective related factors:- Overcoming competition (.409) and Own interest (.415) are the fourth factors which are influenced the green marketing practices.

Social welfare:- The retailers have started the green marketing business because of betterment of society.

Opportunity: - They have started their business because of expecting new opportunity in the markets.

Competitive advantage:- It is the last factor influencing the retailors to start their business practices
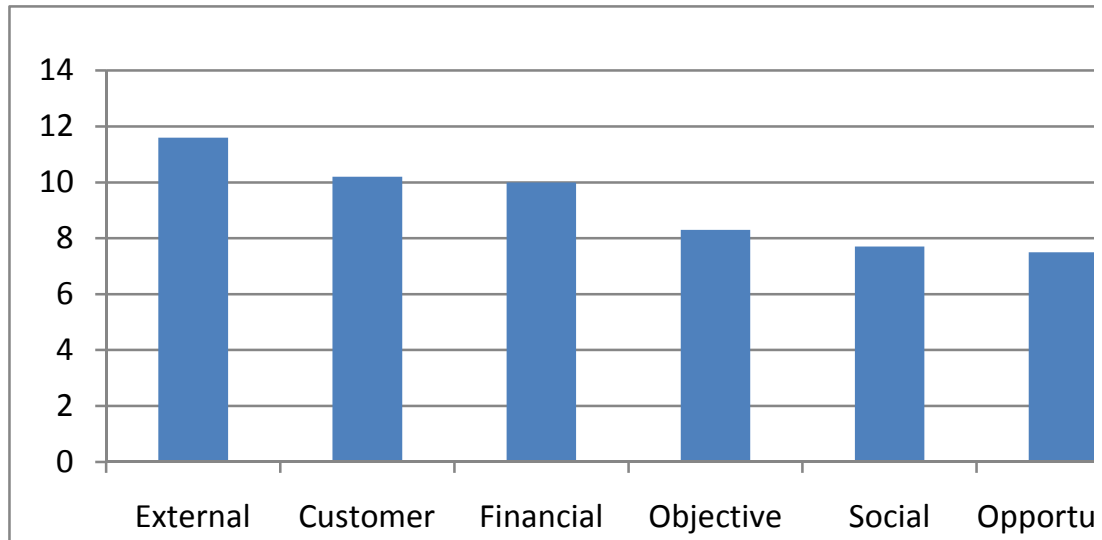
Figure 5.1

Percentage of variance on the basis of Motivating Factors

The above figure shows the motivating factors of retailers to start and proceed marketing of green consumer durables on the basis of percentage of variance between each factor. External forces are the most important factors motivating the retailers to start green marketing practices because its percentage of variance is 11.647 followed by Customer related factors (10.181), Financial related factors (10.016), Objective related factors (8.334), Social welfare (7.681), Opportunity (7.485) and Competitive advantage (6.749).

Motivating factors and nature of Ownership

Table 5.5

Motivating factors and nature of ownership –Independent sample t test

	Nature of ownership	N	Mean	SD	t	P(sig)
Motivating factors	Sole trader	82	54.3293	8.09520	.678	.499
	Partnership firm	68	53.6176	4.52532		

H0: **There is no significant difference between perception of sole trader and partnership firm regarding motivating factors for marketing green consumer durables.**

From the above table it is clear that at 5 % significance level P value (.499) is greater than 0.05 (5%). Hence the null hypothesis, there is no significant difference between perception of sole trader and partnership firm regarding motivating factors for marketing green consumer durables is accepted.

Table 5.6

Motivating factors and Location of business –Independent sample t test

	Area	N	Mean	SD	t	P(sig)
Motivating factors	Urban	75	56.0133	7.36224	3.830	.000
	Rural	75	52.0000	5.30680		

The table 5.6 depicts that at 5 % significance level P value (.000) is less than 0.05 (5%). Hence the null hypothesis, there is no significant difference between perception of urban and rural retailers regarding motivating factors for marketing green consumer durables is rejected. From this it can be concluded that perception of both urban and rural retailers are different about the motivating factors for marketing green consumer durables.

5.3   Challenges of marketing green consumer durables

Retailers always face several problems while marketing their products. Here statistical tools like mean score and chi-square test is applied for analyzing and testing of hypothesis.   Percentage has been used for analyzing the important challenges faced by retailers relating to the marketing of green consumer durables. The results are shown in the following table.

Table 5.7

Challenges of marketing green consumer durables

Sl. No.	Challenges	Frequency	Percent (%)
1	Lack of awareness of consumers about green products	48	32%
2	High capital / investment	109	72.7%
3	**High cost of products**	**133**	**88.7%**
4	Lack of financial support from government	30	20%
5	Consumers are not willing to pay extra price	88	58.7%
6	**Tough competition**	**120**	**80%**
7	Limited variety of products	118	78.7%
8	**High promotion cost**	**121**	**80.7%**
9	**High tax rate on products**	**130**	**86.7%**
10	Not easy available	23	15.3%

While marketing the green consumer durables, the most important problems faced by the retailers are high cost of products (88.7%), high tax rate on products (86.7%), high promotion cost (80.7%) and tough competition (80%).
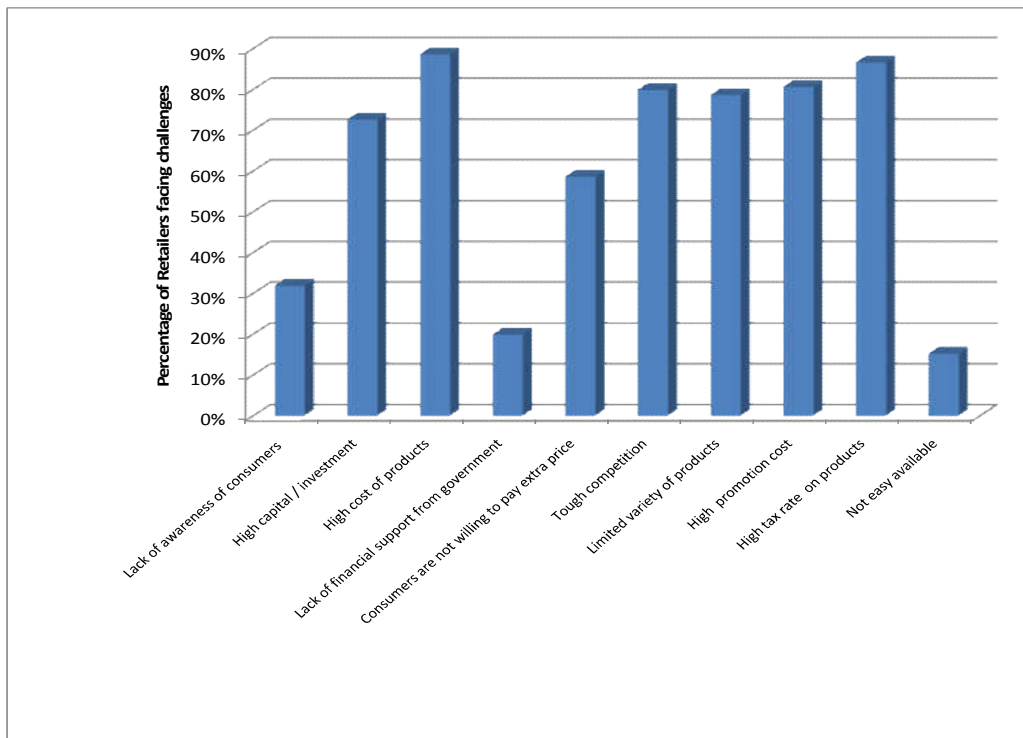
Figure 5.2

Challenges of marketing Green Consumer durables

In order to identify whether there is an association between rural and urban retailers towards challenges of marketing green consumer durables, chi-square test is applied. The test results are shown in the table 5.8, below

Challenges and location of business

In order to identify whether the urban and rural retailers are facing common problems, chi-squire test is applied. The following hypothesis has been formulated to explore the result.

H0: **There is no association between proportion of urban and rural retailers facing different problems in selling green consumer durables.**

Table 5.8

Challenges Faced by Retailers of green Consumer Durables in Rural and Urban Areas

Sl. No.	Challenges	Marketers facing the challenges	Area Rural	Area Urban	Chi-square test
1	Lack of awareness of consumers about green products	Count	13	35	$\chi^2(1) = 0.286$
		%	28.9%	33.3%	$p = .593$
2	High capital / investment	Count	33	76	$\chi^2(1) = 0.014$
		%	73.3%	72.4%	$p = .905$
3	High cost of products	Count	38	95	$\chi^2(1) = 1.140$
		%	84.4%	90.5%	$p = .286$
4	Lack of financial support from government	Count	9	21	$\chi^2(1) = 0.000$
		%	20.0%	20.0%	$p = 1.000$
5	Consumers are not willing to pay extra price	Count	24	64	$\chi^2(1) = 0.754$
		%	53.3%	61.0%	$p = .385$
6	Tough competition	Count	38	82	$X^2(4) = 0.794$
		%	84.4%	78.1%	$p = .373$
7	Limited variety of products	Count	36	82	$X^2(4) = 0.068$
		%	80.0%	78.1%	$p = .794$
8	High promotion cost	Count	38	83	$X^2(4) = 0.588$
		%	84.4%	79.0%	$p = .443$
9	High tax rate on products	Count	40	90	$X^2(4) = 0.275$
		%	88.9%	85.7%	$p = .600$
10	Not easily available	Count	9	14	$X^2(4) = \mathbf{1.078}$
		%	20.0%	13.3%	$p = .299$

Source: Primary Survey Data

Table 5.8 reveals that P value of each challenges of retailers are greater than .05. So, we can say that null hypothesis is accepted. It means that there is no statistically significant difference between the proportion of urban and rural retailers facing different problems in selling the green consumer durables.

Challenges and nature of ownership

Table 5.9

Challenges Faced by Retailers of green Consumer Durables on the basis of nature of ownership

Sl. No.	Challenges	Nature of ownership		Total	Chi-square test
		Sole trader	Partnership		
1	Lack of awareness of consumers about green products	20	28	48	$\chi^2(1) = 4.814$ $p = .028$
2	High capital / investment	57	52	109	$\chi^2(1) = 0.906$ $p = .341$
3	High cost of products	77	56	133	$\chi^2(1) = 4.934$ $p= .026$
4	Lack of financial support from government	17	13	30	$\chi^2(1) = 0.061$ $p = .806$
5	Consumers are not willing to pay extra price	43	45	88	$\chi^2(1) = 2.893$ $p = .089$
6	Tough competition	68	52	120	$X^2(4) = 0.968$ $p = .025$
7	Limited variety of products	64	54	118	$X^2(4) = 0.041$ $p = .839$
8	High promotion cost	62	59	121	$X^2(4) = 2.966$ $p = .085$
9	High tax rate on products	77	53	130	$X^2(4) = 8.195$ $p = .004$
10	Not easily available	17	6	23	$X^2(4) = 4.06$ $p= .044$

Source: Primary Survey Data

In order to examine the association between sole trader and partnership firm relating to the challenges of marketing green consumer durables, the following hypothesis is formulated and tested by using chi-square test.

H0: **There is no significant association between sole trader and partnership firm facing different problems in selling green consumer durables.**

The result shows the there is significant association between sole trader and partnership firm regarding some problems like lack of awareness of consumers (p = .028), High cost of products (p = .026), Tough competition (p = .025), High tax rate on products (p = .004) and Not easily available (p = .044). Because of its p value is less than 0.05. Whereas, there is no significant association between sole trader and partnership firm regarding some problems like high capital / investment (p = .341), Lack of financial support from government (p = .806), Consumers are not willing to pay extra price (p = .089), Limited variety of products (p = .839), High promotion cost (p = .085) because p value of all these factors are greater than 0.05.

5.4 Chapter summary

This chapter deals with the most important factors influencing the retailers to start and proceed marketing of green consumer durables and challenges faced by them. Statistical tools like percentage, mean score, factor analysis, chi-square test, and independent sample t test are used for analysis and interpretation of data. The result shows that external forces such as corporate social responsibility, follow competitor, financial support from the government and pressure from government are major factors influencing by the retailers because percentage of variance of external forces (11.647) is higher than the other factors. Similarly, high cost of products (88.7%), high tax rate on products (86.7%), high promotion cost (80.7%) and tough competition (80%) are the major challenges addressed by retailers. It also shows that while marketing such products, urban and rural retailers are facing same problems. Whereas, challenges of marketing of green consumer durables are different among sole trader and partnership firm.

CHAPTER VI

SUMMARY FINDINGS SUGGESTIONS AND CONCLUSION

SUMMARY FINDINGS SUGGESTIONS AND CONCLUSION

This chapter includes summary, major findings, suggestions and conclusion. Scope for further research is also discussed here.

6.1 INTRODUCTION

For the last few decades, concerns over various environmental issues are gaining the attention of various groups of the society. In the light of this, consumers being the indispensable part of the society are getting more awareness of the environmental issues. They have realized that majority of the issues are coming from increasing population, consumption habits and the impact of technological advancements. These awakened consumers are now ready to change their preferences from non green products to green products which have less impact on the environment. Changing consumption habits and rising preferences for green products are proving to have a greater influence on the corporate world also. Today, green marketing has become necessary to save the world from environment pollution. In response to this, multi-national companies like Nike, Philips, Panasonic, HP, ITC, UV&W and Organic India have changing manufacturing process and producing wide ranges of green products, which appeal to green consumers . Not only corporate world, but also every section of the society now understands the emerging need for becoming green and adopting green behavior.

Green marketing consists of broad range of activities like product modification, changes in production process, packaging changes, and modifying advertising. J.A. Ottman (1998), defined green products as "Products typically durable, non-toxic, made of recycled materials, or minimally packaged. Of course, there are no completely green products, for that, all use up energy and resources and create by-products and emissions during their manufacture, transport to warehouses and stores, usage and eventual disposal. So green is relative, describing products with less impact on the environment than their alternatives".

Several studies in the past have been successfully conducted regarding green products from marketer's point of view and consumer's point of view. Some international and national studies have been conducted relating to consumers' awareness and attitude towards general green products and their motives for usage and non-usage of products. Whereas, most of the studies relating to marketers side are purely conceptual. Yet, no studies are available relating to factors influenced by green initiatives and green consumer behavior towards a particular product line. In this context, the present study is an attempt to investigate the "Marketing and consumption of green consumer durables in Kerala".

6.2   SUMMARY OF THE STUDY

6.2.a. Design of the study

The study is based on an empirical research, conducted in the state of Kerala. Purposive sampling was used for selecting respondents. For the purpose of the study, Kerala is divided into three regions i.e. North, Central and South. From each region one district is selected and 600 consumers and 150 retailers were selected for this study.

6.2.b. Scope of the study

The study is conducted among the household consumers and retailers in Kerala. The study is restricted to green consumer durables and covers only three categories such as energy saving electronic durables, wood, and bamboo furniture and electric vehicles because they are most commonly used by consumers. The study is limited to three districts drawn as a representation of Kerala. Green marketing concept is concerned with various activities but this study is limited to motives and challenges of retailers for marketing and motives and problems of consumers towards green consumer durables in Kerala.

6.2.c. Objectives of the study

The present study is undertaken with the following specific objectives:

➢ To assess the awareness of consumers relating to green consumer durables across selected demographic, economic and social factors.

➢ To study the factors influencing the purchase decision of consumers towards green consumer durables.

➢ To study the factors influencing consumer satisfaction of green consumer durables.

➢ To find out the problems faced by the consumers while making purchase decisions.

➢ To identify the reasons for marketing of green consumer durables.

➢ To explore the challenges faced by the retailers of green consumer durables.

6.2.d. Review of literature

Review of literature is divided into two sections, namely studies on consumer behaviour, studies related to green marketing. From the reviews it is found that no study has been conducted in this particular area of marketing and consumption of green consumer durables in Kerala. So the researcher conducted the study to fill this gap.

6.2.e. Tools of data collection

In order to ensure required data for the study, Interview schedule and questionnaire were used to collect data from retailers and consumers of green consumer durables, respectively.

6.2.f. Tools of data analysis

Primary data collected are analyzed by using statistical tools such as percentage, Chi-square test, independent sample t test, Multiple Regression, Mean

score, Independent t-test, Repeated measure of ANOVA, Paired comparison test and Friedman test etc. for arriving at inferences from the analysis. Pareto chart and bar diagrams are used for presentation of data. SPSS is used for analyzing the data.

6.3 MAJOR FINDINGS OF THE STUDY

The following are the important findings drawn from the study;

➢ **Demographic profile of the Respondents (Consumers)**

- Almost thirty eight percentage of the consumers are from 41-50 age group.

- Majority of the consumers are self- employed and housewives and having schooling SSLC and below.

- Here, corporation and municipality are treated as urban area and grama panchayat as a rural area. 50% of the respondents are selected from urban area and remaining are selected from rural area on the basis of purposive.

➢ **Business profile of the Respondents (Retailers)**

- Almost seventy seven percentage of the respondents are in this business lesser than ten years.

- On the basis of nature of ownership, 54.7 per cent of the respondents are sole traders and on the basis of type of retail shoap,46.7 per cent arerunning simple retail shops.

- 78 per cent of them deal with both green and other products and more than 50% of retailers sell energy efficient home appliances.

- Here, corporation and municipality are treated as urban area and grama panchayat as a rural area. 50% of the respondents are selected from urban and remaining are selected from rural area.

➢ **Level of Awareness across demographic variables of Respondents**

- Awareness level of male consumers is different from female consumers.

- There is significant association between level of awareness of products and age of consumers.

- Awareness is varied on the basis of educational qualification of consumers.

- There is significant association between level of awareness of green consumer durables and occupation of consumers.

- There is significant association between levels of awareness of green consumer durables across income of consumers.

- Awareness of rural consumers is different from that of urban consumers.

Therefore it is observed that demographic factors are significantly influencing the general awareness regarding green consumer durables among consumers.

➢ **Level of Awareness about different dimensions of Green Consumer Durables**.

- More than half of the consumers (51.5%) have 'average level' of general awareness towards green consumer durables.

- Most of the respondents (34.2%) have 'average level' of awareness regarding various brands offering products.

- Most of the respondents (47.2%) are found to have 'high' level of awareness regarding energy saving quality of products.

- Respondents are not well-versed with various certifications and symbols of products.

- A large number of respondents are aware about from where these products can be procured.

- Majority of the respondents (51.7%) are found to have 'high' level of awareness regarding environmental benefits of such products.

- Awareness about price dimension of green consumer durables are found to be 'high'.

- Awareness regarding availability of products are found to be 'average'.

- Respondents are found to have 'average' awareness regarding the biodegradable quality of products.

- Most of the respondents reported an 'average' level of awareness regarding recycle features of these products.

- Awareness of respondents about promotional activities of the retailers are 'average'.

- Awareness of dimensions of green consumer durables is significantly different from neutral situation (neither low nor high).-One-sample t-test.

- Consumers have average and high general awareness of different dimensions of green product. Consumers are more aware of some dimensions of green consumer durables such as its contribution to the environmental sustainability, energy saving quality, price, and recyclability. But, they are less aware of some other dimensions of the products such as symbols & certifications, different brands, its bio-degradable quality, point of purchase and companies promotional activities (Mean score>3).

- There is a statistically significant difference in the level of awareness of consumers across different dimensions of green consumer durables (Friedman test).

- More than 80% of consumers receive information about green consumer durables from five important sources - Television, Newspaper, Internet, Magazines and Friends & relatives (Mean score>3).

Therefore, the study concludes that rigorous marketing efforts are required to make consumers aware about brands, eco-label bio-degradable quality, point of purchase and companie's promotional activities.

> **Factors influencing the awareness of green consumer durables**

Multiple Linear Regression Model is used for identifying the factors influencing the awareness of green products. The result reveals that;

- Awareness of consumers are influenced only by two of the regressors in the model, viz., 'number of information sources', and 'level of education'. The other socio-economic and demographic factors such as age, income, gender, area of residence, and occupational status are not found to have statistically significant influence on the awareness level of consumers.

> **Consumer's attitude towards 4 Ps of the green marketing mix**

- Consumers have not neutral attitude towards 4 P's of green marketing mix (One sample t- test).

- Consumers have a positive attitude towards product, price, place and promotion elements of marketing mix of the products (Mean score>3).

- The relative perception of consumers towards 4Ps of green marketing mix was significantly different. It implies that all ingredients of the marketing mix are not equally effective in the marketing of green consumer durables (Repeated measure of ANOVA).

- There is no perceived difference in the pairs of green marketing mix such as product - promotion, and place – promotion (Paired Comparison Test).

> **Social influence for attitude formation**

- Consumers have not neutral attitude towards social factors which influence the purchase decision (One-sample t-test).

- Consumers, on an average, are positively influenced by the social factors towards purchase decision of green consumer durables (Mean score>3).

➢ **Environmental concern for the attitude formation**

• Consumers have not neutral attitude on environmental concern (One sample t-test).

• Environmental concern has positively influenced the consumer's purchase intention of green consumer durables (Mean score>3).

➢ **Purchase intention of consumers about Green Consumer Durables.**

• Consumers intend to purchase such products in future too ,and they will purchase it even by taking some risk.

• They also intend to recommend the products to their friends (Mean score >3).

➢ **Factors influencing Purchase decision of Green Consumer Durables**

Multiple linear regression models have been used to examine the factors influencing purchase decision of consumers. The result reveals that;

• Product dimension of green marketing mix has statistically significant influence on the purchase decision, whereas the other three ingredients, viz, price, place, and promotion do not have any significant influence on the consumer's purchase decision.

• Social factor, awareness, and satisfaction are having significant positive influence on the purchase decision.

• Environmental attitude and concerns do not influence the purchase decision. Age of the consumers has a significant but negative effect on the purchase intention; which implies that the aged people intend less to purchase green products compared to youngsters.

• Other socio- economic and demographic factors do not have significant influence on the purchase decision of green consumer durables.

Hence, the relevance of determining all these factors are considered while planning the marketing strategies to position the products in the markets. Market should

provide information on serious environmental issues to raise ecological concern among the public.

➤ **Factors Influencing Consumer Satisfaction of Green Consumer Durables.**

Multiple linear regression analysis has been carried out to understand the factors influencing satisfaction of consumers. The result shows that;

- Product dimension of the marketing mix has statistically significant influence on the consumer satisfaction, whereas the other three ingredients, viz, price, place, and promotion do not have any significant influence on the consumer satisfaction.

- Social influence factor and the environmental attitude and concerns are having significant positive influence on the consumer satisfaction.

- The Intensity of problems in using the product has a significant negative influence on consumer satisfaction.

- Age of consumer has a significant but negative effect on consumer satisfaction; which implies consumer satisfaction decreases with increasing age of consumers.

- Other socio - economic and demographic factors do not have significant influence on satisfaction of the consumers of green durables.

- Majority of consumers reported that they are 'satisfied' with green durables.

➤ **Problems of Consumers towards Purchase Decision of Green Consumer Durables.**

- Lack of awareness, lack of proper promotion and limited variety of products are the serious problems faced by consumers while making purchase decision of green consumer durables (Mean score).

➢ **Factors influencing the marketing green products.**

Factor analysis is used for analyzing the most important motivating factors for marketing green consumer durables. The results show that;

- Seven important factors influencing the retailers are external forces (part of Corporate Social Responsibility, Follow competitor, support from the government and Pressure from Government), customer related factors (Demand of customers, customer satisfaction and Customers environmental awareness) Finance related factors (Easy fund availability and Maximization of profits) Objective related factors (Overcoming competition and Own interest), Social welfare, Opportunity and Competitive advantage.

- There is significant difference between perception of urban and rural retailers regarding motivating factors for marketing green consumer durables (Independent sample t test)

- There is no significant difference between perception of sole trader and partnership firm regarding motivating factors for marketing green consumer durables (Independent sample t test).

➢ **Challenges for marketing green consumer durables.**

- High cost of products (88.7%), High tax rate on products (86.7%), High promotion cost (80.7%) and Tough competition (80%) are the major challenges faced by retailers while marketing green consumer durables.(percent)

- There is no significant association between the proportion of urban and rural retailers facing different problems in selling green consumer durables (Chi-square test).

- There is significant association between sole trader and partnership firm regarding some problems like lack of awareness of consumers, high cost of products, tough competition, high tax rate on products and non-availability.

Whereas, there is no significant association between sole trader and partnership firm regarding some problems like high capital / investment, lack of financial support from government, Consumers are not willing to pay extra price, Limited variety of products, High promotion cost (Chi-square test)

6.4. SUGGESTIONS OF THE STUDY

After analyzing the results of the study, the researcher has found out some important points which can help the government authorities and retailers for making policy relating to green products.

Suggestions to the Government

➢ High cost of products, high tax rate on products, high promotion cost are important problems faced by the retailers while marketing their products. So, government should undertake measures for reducing cost of products by way of reducing tax imposed on eco-products and giving increased subsidies from present level. In this way, product cost can be reduced to a great extent and increase the demand for such products.

➢ The government should give best vendor award to the firms for initiation and implementation of green marketing practices.

➢ Seminars and awareness programs should be conducted by the Government authorities to enhance the knowledge of consumers about green products.

➢ Under National Electric Mobility Mission Plan (NEMMP) scheme, the government was to invest up to Rs.14000 crore in creating infrastructure and promoting the use of environment-friendly consumer durables. The government should also spend some more funds on research and development for innovative green technologies and should give subsidies to those who are practicing it.

➢ To be included in the academic curriculum regarding the importance and benefits of green products for making environmental sustainability.

➢ The government should take strict action against those who violate pollution norms and promote measures to save the environment.

➢ Government agencies should take a lead in the direction of enhancing awareness among public regarding various green certifications and certifying agencies.

Suggestions to the Retailers

➢ TV is considered as the most effective source in providing information regarding green products, followed by newspapers, internet ads, and magazines. Retailers should choose the promotional media only in accordance with their extent of effectiveness.

➢ Demographic factors of consumers are significantly influencing the awareness regarding green consumer durables. Therefore, demographic profile of consumers should be considered by the policymakers to design their marketing strategies accordingly.

➢ Consumers are less aware of some dimensions of the products such as symbols & certifications, different brands, its bio-degradable quality and company's promotional activities. Thus, rigorous marketing efforts are required to make consumers aware about brands, eco-label, bio-degradable quality, and company's promotional activities.

➢ The focus on educational campaigns and advertisements with green themes should be on enhancing the awareness of consumers regarding green products. Also, policymakers should ensure trustworthiness of the messages used in communication.

➢ The study proposes the use of a wide range of media in combination, to communicate eco-friendly approach.

➢ The consumers argue that price of green products is comparatively higher than non-green products. So, price of the products should be reduced to an extent which is affordable to all consumers.

➤ The retailers should focus on promotion related green marketing mix strategy. Promotion related GMMS will create awareness among the target/prospective customers about green durable products. Through this promotion campaign, the public should be educated and made aware about green concept and eco-friendly benefits of the product.

➤ Companies should focus more on the quality of green products in order to enhance high level of satisfaction

➤ While designing the promotional activities, policy makers should primarily focus on awareness generation among the target audience.

➤ Retailers should undertake measures in order to ensure the consistent supply of the products.

➤ Retailers are advised to plan their promotional strategies inorder to make awareness about green brands, eco-label, green certification..etc.

➤ While designing marketing strategies, policy makers should primarily focus on awareness generation among target audience.

➤ Retailers should focus on creating awareness about green products and its benefits to the target customers. This type of awareness will trigger the demand for green products.

6.5 SCOPE FOR FURTHER RESEARCH

During this study, the researcher found that certain areas still remain unexplored. Hence the researcher has felt that further studies can be undertaken in the following areas:

• Research can be done on Indian Power Sector with respect to green power.

• The study is unexplored about green marketing strategies of manufacturing firms.

• Green marketing in service sector is unexplored.

- Indian Tourism Industry with respect to green tourism.

- The financial sector with green investment versus Non-Green.

- Green marketing study can be extended to other industry sectors such as FMCG, textiles and real estate.

- The future studies can also be conducted to understand how other factors like values, beliefs, past experiences of consumers influence their decision making with regard to green products.

6.6 CONCLUSION

Today's consumer is well aware of social, economical and environmental responsibilities. A consumer wants products which have good quality and safe to use for them and their families. And companies also want to increase sales and get some innovative product that will facilitate consumer's comfortable life. Hence there is a need for green marketing for a shift in the consumer's behavior and attitude towards green lifestyles. The study results show that product elements, social factors and environment friendly attitude and concerns are the prime motives of consumers who purchase green consumer durables and lack of awareness, lack of proper promotion and limited variety of products are the serious problems faced by consumers while making a purchase decision of green consumer durables. Therefore, the marketers should consider these factors while designing the policies and strategies. Similarly, the retailers also have some motives for marketing green products and at the same time, they face some problems while selling such products. The main motive for marketing green consumer durables is because of External forces, Customer related factors, Finance related factors, Objective related factors, Social welfare, Opportunity and Competitive advantage. High cost of products, high tax rate on products, high promotion cost and tough competition are the major challenges faced by retailers while marketing green consumer durables. Hence, Government should support the companies which produce eco-products by way of reducing tax imposed on eco-products and give subsidies. So, awareness, attitude and behavior are essential elements to be considered by the policymakers to design their marketing strategies accordingly.

BIBLIOGRAPHY

BIBLIOGRAPHY

BOOKS

Jacquelyn A Ottman, (2014). *Green marketing: Opportunities for Innovation*, Book Surge Publishing.

Jacquelyn A. Ottman, (2011). *The New Rules of Green Marketing: Strategies, Tools, and Inspiration for Sustainable Branding*, Berrett-Koehler Publishers.

Jajie Mandana, (1998). *The Indian Market Place: Guidelines to Consumer Education*, Brindavan Pub.House.

John F. Wasik, (1996).*Green Marketing Management: A Global Perspective*. Wiley; 1 edition,

Kotler Philip and Armstrong Gary,(2008).*Principles of Marketing*.12th edition , Prentice hall , New Delhi :Pearson Education-Inc.

Kotler Philip, and Armstrong, G. (2006). *Principles of Marketing*, Eleventh Edition, Prentice-Hall.

Kotler Philip, Armstrong Gary, Agnihotri, Y .Prafulla, Ehsan Ul Haque,(2011). *Marketing Management,* Thirteenth edition, Pearson.

Kotler Philip, Gary Armstrong, (1999).*Principles of Marketing*. Eighth edition, New Delhi: Prentice Hall of India private limited.

Kotler Philip, Keller, K.L.(2009).Principles of Marketing-A South Asian Perspective, Thirteenth edition, Doling Kindersley (India) Pvt Ltd (Pearson Education).

Leon G. Schiffman, Leslie lazar Kanuk, (2002). *Consumer behavior*. Sixth edition, New Delhi :Prentice Hall of India private limited.

Leon, G.Schiffman, Leslie lazar Kanuk, (2008).*Consumer behavior*. Ninth edition, New Delhi: Prentice Hall of India private limited.

Loudon, D.L. Bitta, A.J. Della, (2002).*Consumer Behavior*. Fourth Edition, New Delhi: Tata McGraw-Hill.

Mowen, J.C.,& Minor, M.S. (2001). *Consumer Behavior: A Framework*. Englewood Cliffs, New Jersey: Prentice-Hall.

Neeran Gautam, Kokil Jain, (2008).*Consumer Behaviour*. New Delhi: Wisdom Publications.

Ottman, J. (1998), Green Marketing: Opportunity for Innovation, NTC-McGraw-Hill, New York, NY..

P. C. Jain, Monika Bhatt, (2003).*Consumer Behaviour in Indian Context*. New Delhi: S. Chand & Company LTD.

Peattie, K. (1992), Green Marketing, Pitman, London

Robert Dahlstrom, (2011).*Green Marketing Management*. South-Western Cengage Learning.

S.L.Rao,(1996).*Indian Market Demographics: The Consumer Classes,* Global Business Press.

Schiffman, L.G and Kanuk, L.L. (2004). *Consumer Behavior*, Eight Edition, India: Prentice Hall.

Sigmund A Wagner,(1997).*Understanding Green Consumer Behavior: qualitative Cognitive Approach,* Routledge.

Slock, Carl. E. and Kenneth. J. Roering, (1976).*Essentials of Consumer Behavior*. Dryden press

Solomon R. Michael, (2009). *Consumer Behaviour; Buying, Having and Being.* Eighth Edition, New Delhi :PHI Learning Private Limited.

Sontakki,C.N.(2003).*Marketing Management*, New Delhi: Kalyani Publishers.

Subhash C Mehta,(1973).*Indian Consumers Studies and Cases for Marketing Decisions,*. Bombay, Tata McGraw-Hill Pub. Co.

Wells, W.D. Prensky, D. (1996).*Consumer Behavior* . John Wiley & Sons, Inc.

Wilkie, William, L. (1994).*Consumer Behavior*. 3rd Edition, .New York: John Wiley & Sons.

Willians Terrel, G.(1982).*Consumer Behavior fundamental and Strategies*. West Publishing Company.

ARTICLES

Ahamed S Syed and Ravi A. (2012).Consumer Perception And Green Marketing Impression On FMCG Sector- An Empirical Study In Krishnagiri District, Tamilnadu, *Indian Journal Of Applied Research*, 1(12).

Alwitt, L.F. & Berger, I.E. (1993), "Understanding the Link between Environmental Attitudes and Consumer Product Usage: Measuring the Moderating Role of Attitude Strength", *Advances in Consumer Research,* Vol. 20, 189 – 194.

Armin Shamsollahi, Chin Wei Chong & NedaNahid, (2013).Factors influencing on purchasing behaviour of organic foods*, Human and Social Science Research,* 1(2) 93-104.

Balderjahn I.(1988). "Personality variables and environmental attitudes as predictors of ecologically responsible consumption patterns", *Journal of Business Research*,17(1) 51-56

Chan, R.Y.K. (2001),.Determinants of Chinese Consumers' Green Purchase Behaviour, *Psychology and Marketing*, 18(4), 389–413

Christopher Gan, Han Yen Wee, Lucie Ozanne and Tzu- Hui Kao, (2008). "Consumers' purchasing behavior towards green products in New Zealand," Innovative Marketing, Volume 4, Issue 1,

Collins Marfo Agyeman,(2014). consumers' buying behaviour towards green products: an exploratory study,*International journal of managent and business strategy*, 3(1), 244-260

Cronin, J. J., Smith, J. S., Gleim, M. R., Ramirez, E. and Martinez, J. D., (2011). Green Marketing Strategies: An Examination of Stakeholders and the Opportunities they Present. *Journal of the Academic Marketing Science*, 39: 158-174.

Dr. B. Nagaraju, Thejaswini H,(2014).Consumers\' perception analysis-Market awareness towards ecofriendly FMCG products-A case study of Mysore district, *IOSR Journal of Business and Management (IOSR-JBM),*16(4), 64-71.

Dr. D. Geetha1& D. Annie Jenifer,(2014). A study on consumer behaviour towards purchase of eco friendly products in Coimbatore, *Abhinav International Monthly Refereed Journal of Research in Management & Technology,*3(3).

Dr. Juleebanerji & Amit Kumar Dubey,(2014). Green Marketing: - Necessity as well as Opportunity for industries in current era, *International journal of commerce, business and management (ijcbm)*,03(05),

Dr. Ofunya Francis Afande, (2015). Influence of Green Marketing Strategies on Performance of the Kenyan Tea Sector, *Journal of Marketing and Consumer Research*, *An International Peer-reviewed Journal*, 4(10).

Dr. Shruti P Maheshwari,(2014). Awareness of Green Marketing and its Influence on buying behaviour of Consumers: special reference to Madhya Pradesh, India, *AIMA Journal of Management & Research*, 8 (1/4),

Dr.K.Manian &, AshwinNithish.J,(2014). Present Green Marketing - Brief Reference to Indian Scenario, *International Journal of scientific research and management(IJSRM),*Special Issue On National Level Conference Business Growth and Social Development, 51-57,

Dr.Pranam Dhar & Soumyajit Das,(2012).Green Marketing : Challenges & Opportunities for Innovation and Sustainable Development. *International Journal of Marketing, Financial Services & Management research,*1(5),

Dr.Satpal Sin,(2012). Green marketing: challenges and strategy in the changing scenario. *International Journal of Advanced Research in Management and Social Sciences,* 1(6)

Dr.Shirish Nana Gawali,(2011).Emerging Opportunities and Challenges of Green Marketing in India. *ASM's International E-Journal on Ongoing Research in Management and IT*,

Dr.Tareq N. Hashem&Dr.Nahla A. Al-Rifai,(2011).The influence of applying green marketing mix by chemical industries companies in three Arab States in West Asia on consumer's mental image, *International Journal of Business and Social Science,*2(3).

DuckittJohn and Linda D. Cameron,(2006). A Cross-Cultural Study of Environmental Motive Concerns and Their Implications for Proenvironmental Behaviour, *Environment and Behaviour*, 38(6) ,745-767.

DurmazYakup and Zenginsevil (2011).A Theoretical Approach To Concept of Green Marketing. *Interdisciplinary Journal of Contemporary Research In Business*, 3(2), 1808-1814

E. smith & S. Perks,(2010).A Perceptual Study of the impact of Green practice implementation on the business functions*, Southern African Business Review,* 14 (3).

Ekta Rastogi Singh and M.S. Khan, (2014). Green Marketing& its Impact on Society: Emerging Challenges & Opportunities, *International Journal of Management and International Business Studies,* 4(3) ,263-270

Faizan Zafar Sheikh1, Ashfaq Ahmed Mirza1, Anam Aftab and Bilal Asghar,(2014). Consumer Green Behaviour Toward Green Products and Green Purchase

Decision, *International journal of multidisciplinary sciences and engineering,* 5(9)

Gan, C., Wee, H.Y., Ozanne, L. & Kao, T.H. (2008), Consumers' purchasing behaviour towards green products in New Zealand, *Innovative Marketing,*4(1), 93 – 102.

Gatersleben, B., Steg, L. &Vlek, C. (2002).Measurement and Determinants of Environmentally Significant Consumer Behaviour, *Environment and Behaviour*, 34(3), 335 – 362.

Hassan, Y. and Mohd Nor, M. A. (2013). Understanding Consumer Decision Making towards Green Electronic Products. South East Asia Journal of Contemporary Business, Economics and Law, 2(1): 27-33.

HessamZand Hessami, ParisaYousefi,(2013). Investigation of major factors influencing green purchasing behaviour: Interactive approach, *European Online Journal of Natural and Social Sciences,*2(4),584-59.

Horne, R. E. (2009). Limits to Labels: The Role of Eco-Labels in the Assesssment of Product Sustainability and Routes to Sustainable Consumption. *International Journal of Consumer Studies*, 33(2): 175-182.

Ishaswini & Saroj Kumar Datta,(2011). Pro-environmental Concern Influencing Green Buying:A Study on Indian Consumers, *International Journal of Business and Management,* 6(6).

Ishaswini. & Datta, S.K. (2011), "Pro-environmental Concern Influencing Green Buying : A Study on Indian Consumers", *International Journal of Business and Management*, Vol. 6, No. 6, 124 – 133.

JesminAkter (2012).Consumer Attitude towards Green Marketing in Bangladesh," *ASA University Review*, 6(1)

Johri, L. M. and Sahasakmontri, K. (1998). Green Marketing of Cosmetics and Toiletries in Thailand. *Journal of Consumer Marketing*, 15(3): 265-281.

Johri, L. M. and Sahasakmontri, K. (1998). Green Marketing of Cosmetics and Toiletries in Thailand. *Journal of Consumer Marketing*, 15(3): 265-281.

Joshi, N. & Mishra, D.P. (2011), "Environment Friendly Car: A Study of Consumer Awareness with Special Reference to Maharashtra State", *Information Management and Business Review*, Vol. 2, No. 2, 92 – 98.

Kaman Lee (2008). Opportunities for green marketing: young consumers, *Marketing Intelligence & Planning*, 26(6), 573-586.

Katherine T. Smith,(2010). An examination of marketing techniques that influence Millennials' perceptions of whether a product is environmentally friendly, *Journal of Strategic Marketing,*18(6), 437–450.

Kilbourne William and Pickett Gregory,(2008). How materialism affects environmental beliefs, concern, and environmentally responsible behavior, *Journal of Business Research* 61(9), 885-893.

Kim, H.Y. & Chung, J. (2011), "Consumer Purchase Intention for Organic Personal Care Products", *Journal of Consumer Marketing,* Vol. 28, No. 1, 40 – 47.

Laroche, M., Bergeron, J. &Barbaro-Forleo, G. (2001). Targeting Consumers who are willing to pay more for Environmentally Friendly Products, *Journal of Consumer Marketing,* 18(6), 503 – 520.

Mainieri Tina, Barnett Elaine G., Valdero Trisha R., Unipan John B., and Oskamp Stuart,(1997). "Green Buying: The Influence of Environmental Concern on Consumer Behaviour", *The Journal of Social Psychology*, 137(2), 1997, 189 – 204.

Manju, (2013). Green Marketing: New hopes and Challenges, spectrum: *a Journal of Multidisciplinary Research* vol.1 issue 9, , issn 2278-0637

Manjunath .G. Gundupagi Manjunath, (2013).green marketing and its implementation in indian business organizations. *Asia Pacific Journal of Marketing & Management Review* 2 (7), 34-39

Mary Wanjiru Kinoti,(2011). Green marketing Intervention Strategies and Sustainable Development: A Conceptual Paper, *International Journal of Business and Social Science* 2(23).

Mary WanjiruKinoti,(2011).Green marketing Intervention Strategies and Sustainable Development: A Conceptual Paper, *International Journal of Business and Social Science,* 2 (23).

Mehta, D., Jain, S. & Mehta, N.K. (2011), "Impact on Gender on Adoloscent Consumers towards Green Products - A Study Conducted in Indore City", *The Annals of the "Stefan cel Mare" University of Suceava. Fascicile of the Faculty of Economics and Public Administration*, Vol. 11, No. 1 (13), 98 – 102.

MrPrashand kumar and Bhimrao M Ghodeswar,(2014). A Study of Green Marketing Practices in Indian Companies, *International Journal of Applied Management Sciences and Engineering,* 1(2), 51-69.

Ms. Deepika Kathuria, Ms. Monika Bansal,(2016). Green Marketing: A new Initiative, *International Journal in Commerce, IT & Social Sciences,*03(01),

MuntahaAnvar, Miss Marike Venter, Ms,(2014). Attitudes and Purchase Behaviour of Green Products among Generation Y Consumers in South Africa, *Mediterranean Journal of Social Sciences* , 5 (21)

N. Mahesh,(2013).Concumer's Perceived Value,Attitude And Purchase Intention of Green Products, *Management Insight*,1(1).

NargesDelafrooz, Mohammad Taleghani, BaharehNouri,(2014). Effect of green marketing on consumer purchase behaviour, *A Qatar Foundation Academic Journal of Science Connect* ,6(12)

Nisreen Bahnan; Mayuresh Kelkar; Nicole Curry, Linda Jane Coleman, (2011). Walking The Walk: How The Theory Of Reasoned Action Explains Adult And Student Intentions to go Green, *Journal of Applied Business Research*, 27(3); 107.

Nitin Joshi & D. P. Mishra,(2012). Environment Friendly Car: A study of Customer Awareness in Maharashtra, *Ninth AIMS International Conference on Management* ,1-4,

Ottman, J.A., Stafford, E.R. & Hartman, C.L. (2006).Avoiding Green Marketing Myopia, *Environment*, Vol. 48, No. 5, 22 – 36.

P. Kishore Kumar & Dr. ByramAnand,(2013). A Study on Consumer Behaviour towards Eco-Friendly Paper, *Global Journal of Management and Business Research Administration and Management*, 13(11).

Pavan Mishra & Payal Sharma, Green Marketing in India: Emerging Opportunities and Challenges, *Journal of Engineering, Science and Management Education*, 3,9-14.

Pavan Mishra &Payal Sharma,(2010).Green Marketing in India: Emerging Opportunities and Challenges,*Journal of Engineering, Science and Management Education*, 3,9-14.

Peattie, K. (2001, Summer). Towards Sustainability: Third Age of Green marketing. *The Marketing Review*, 2(2), 129-146.

Peattie, K. and Crane, A. (2005).Green Marketing: Legend, Myth, Farce or Prophesy? Qualitative Market Research: *An International Journal*, 8(4), 357-370

Phuah Kit Teng1, Golnaz Rezai , Zainalabidin Mohamed and Mad NasirShamsudin,(2011). consumers' awareness and consumption intention towards green foods, *International Conference On Management Proceeding*.

Polonsky M. J. (1994), ''An introduction to Green marketing'' *Electronic Green Journal,* vol.1, Issue 2.

Polonsky, M. J. and Rosenberger III, P. J. (2001). Reevaluating Green Marketing: A Strategic Approach. *Business Horizons*, 44(5): 21-30.

Prof. K. Uday Kiran,(2012). Opportunity and Challenges of Green Marketing with special references to Pune. *International Journal of Management and Social Sciences Research (IJMSSR)*,1 (1)

Prof. Govind Teju Rathod, (2014).Green Marketing in India : Emerging Opportunities and Challenge ,*Asian Journal of Management Sciences* 02 (03 (Special Issue)); 111-115.

Rahbar, E. and Wahid, N. A. (2011). Investigation of Green Marketing Tools' Effect on Consumers' Purchase Behaviour. *Business Strategy Series*, 12(2), 73-83.

Rajender Kumar, P.J. Philip and Chetna Sharma,(2014).Marketing Sustainable Innovations: A Study on Energy Efficient Durables, *International Journal of Management and International Business Studies*,4(1),33-38.

Rakesh Kumar,(2013). Green Marketing - A Brief Reference to India, *Asian Journal of Multidisciplinary Studies,* 4(1),44-49

Rashid Saeed, Rab Nawaz Lodhi, AniqaKomal Khan, NaimaKhurshid, FarehaDustgeer, Amna Sami, ZahidMahmood and Moeed Ahmad,(2013). Measuring Impact of Factors Influencing Purchase Intention Towards Green Products: Sahiwal Clothing Industry Perspective, *World Applied Sciences Journal* 26 (10): 1371-1379.

Ravindra Saxena Pradeep K,(2010). Sustainable Development through Green Marketing: TheIndustry Perspective, *The International Journal of Environmental, Cultural, Economic and Social Sustainability*,6(6),237-246

Robert D. Straughan and James A. Roberts, (1999)."Environmental Segmentation Alternatives: A Look at Green Consumer Behavior in the New Millennium," *Journal of Consumer Marketing*, Vol. 16 No. 6 1999, Pp. 558-575.

Rohit HTrivedi, Jayesh D Patel and Jignasa R savalia,(2011). PRO-Environmental behaviour of consumers: A taxonomy and it's implication for the green marketer, *South Asian Journal of Management,* 18(4),121-132.

Rouf Ahmad Rather and R Rajendran, (2014). "Green marketing: an emerging strategy for sustainable development" *Indian streams research journal*, volume 3 issue 12, Jan 2014

Sachin S. Vernekar, Preeti Wadhwa (2011) "Green Consumption: An Empirical Study of Consumers Attitudes and Perception regarding Eco-Friendly FMCG Products, with special reference to Delhi and NCR Region," *Opinion*-Volume 1, No. 1, December 2

Sara and Madhumitha,(2013).Green Marketing – Case studies of companies implementing towards Green Revolution','*AMET International Journal of Management'* 1-6.

SardianouEleni, (2007).Estimating energy conservation patterns of Greek households *Energy Policy*, 35(7), 3778- 3791.

Sharma, Y. (2011), "Changing Consumer Behaviour with respect to Green Marketing – A Case Study of Consumer Durables and Retailing", *International Journal of Multidisciplinary Research*, Vol. 1, No. 4, 152 – 162

Sourabh Bhattacharya (2011).Consumer Attitude Towards Green Marketing in India,*Journal of Marketing Management*, 10(4), 63-71.

Souza, C.D., Taghian, M., & Khosla, R. (2007).Examination of Environmental belief and its impact on the influence of price, quality and demographic characteristics with respect to Green Purchase Intention. *Journal of Targeting, Measurement and Analysis of Marketing*, 15 (2), 69-78.

Straughan, R.D. & Roberts, J.A. (1999), Environmental Segmentation Alternatives: A Look at Green Consumer Behaviour in the New Millennium, *Journal of Consumer Marketing,* 16(6), 558 – 575.

sudhirsachdev,(2011). Eco-friendly products and consumer perception, *International Journal of Multidisciplinary Research,*1(5), 348-357

Syed Ali Raza Hamid, Hateem Adnan Ghafoor & TamkeenZehra Shah,(2012) .Analysis of attitude towards green purchase: Pakistan in context*, International Journal of Business and Social Science* , 3(6)

Vinod Sharma, J. Sonwalkar, MaoharKapse,(2013). Consumer Purchase Behaviour for Green Products, *International Journal of Economics & Business Administration,*1(4),

Waseem Akbar, Saud Hassan, ShahrozKhurshid & Muhammad Niaz,(2014). Antecedents Affecting Customer's Purchase Intentions towards Green Products, *Journal of Sociological Research* , 5(1)

William E. Kilboume (1998).Green Marketing: A Theoretical Perspective. *Journal of Marketing Management*, vol-14(2), 641-655

THESES

A. Elangovan.(2006). *Environmental Marketing : Ecologically Concerned Consumers And Their Consumerist Behaviour Of Environmentally Friendly Packaging(A Study with reference to Pondicherry).* Ph.D. Thesis, Department of Commerce Pondicherry University, Pondicherry.

Anna Oksanen.(2009). *Sustainability and Development of Green Consumer Electronic Products (The Insights of Distributors and Re-Sellers).* Bachelor's thesis, JAMK University of Applied Science,

Artee Aggrawal, (2010). *Factors Affecting Green Marketing in India: A Study of Metro Consumers.* Master of Philosophy, Padmashree Dr. D. Y .Patil University, CBD Belapur, Navi Mumbai.

Asphat Muposhi, (2015). *Green Consumer Buying Behaviour: Antecedents, Selection Attributes of Generation Y Consumers and the Relationship with Future Behavioural Intentions.* Ph.D. Thesis ,Vaal University of Technology ,Vanderbijlpark.

C. Senthil Nathan, (2013). *A Study on Green Marketing Adaption for Select Natural Products in Trichy and Chennai City.* Ph.D. Thesis, Bharathiar University.

D.Joel Jebadurai.(2013). *A Study on Attitude of College Students towards Green Products in Tirunelveli City.* Master thesis, Manonmaniam Sundaranar University, Tirunelveli.

D.Padmavathi. (2012). *Green Consumer Behaviour - An Empirical Study with respect to Select Eco-Friendly Products.* Ph.D. Thesis, Bharathiar University.

Dr. Asha Nagendra. (2012). *Green Marketing: An Attitudinal and Behavioral Analysis of Consumers in Pune.* Ph.D. Thesis, Symbiosis International University, Pune.

Elangovan, A. (2006). *Environmental Marketing: Ecologically Concerned Consumers and their Consumerist Behaviour of Environmentally Friendly Packaging,* Doctoral Dissertation, Pondicherry University, India.

Francis Wong V.N Lee Mei Yean Lin Xin Ru Low Siok Yin.(2012). A Study on The Youth Attitudes Toward Purchase Green Products in Malaysia and Singapore. Master thesis, Universiti Tunku Abdul Rahman,

Haomom Ramananda Singh, (2002).*Consumer Market and Consumer Buying Behaviour-A Case Study of Manipur with Special Reference to Consumer Durable Goods(TV) and Consumer Non Durable Goods(Toilet Soap).* PhD Thesis, Manipur University, Kanchipur, Imphal

J. Radhika. (2013). *Green Marketing Dynamics in Consumer Markets*. A Study on Retailers and Customers in Greater Hyderabad and Visakhapatnam. Ph.D.Thesis /Andhra University, Andhra Pradesh, India.

Magali Morel Francis Kwakye,(2012). *Green Marketing: Consumers' Attitudes towards Eco-Friendly Products and Purchase Intention in the Fast Moving Consumer Goods (FMCG) Sector*. Master thesis Umeå School of Business.

Mehta, P. (2013). *Consumer Behaviour Towards Green Products In Urban Punjab.* Ph.D. Thesis/ Guru Nanak Dev University, Amritsar.

Melinda Majláth, (2011). *Psychographic Differences Between Environmentally Friendly And Nonenvironmentally Friendly Consumers.*

Mohmed Irfan, (2015).*Green Marketing Strategies For Select Consumer Durables.* Ph.D. Thesis, University Of Mysore, Mysore.

Muppavaram Gowri Shankar, (2012). A Study on Attitudes & Perception of the Consumers & Marketers towards Green Marketing with special reference to Fertilizer Industry. Ph.D. Thesis, Shri Jagdish Prasad Jhabarmal Tibrewala University, Vidyanagari, Jhunjhunu, Rajasthan.

Noamesi Adinyra, Elliot Gligui, (2012). *Green Marketing Potential As Assessed From Consumer's Purchasing Behaviors: The Case Of Ghana*. Master's Thesis in Business Administration, School of Management Blekinge Institute of Technology, Sweden.

Ronnie Irawan and Dahlia Darmayanti,MIM,(2011). *The Influence Factors of Green Purchasing Behaviour: A Study of University Students in Jakarta*, School of Marketing, Bina Nusantara University

Sandra Larsson Muhammad Arif Khan.(2011). *A Study of Factors That Influence Green Purchase.* Master thesis, Umeå University.

Sheik M. Isaacs, (2015). *Consumer Perceptions of Eco-Friendly Products. Ph.D. Thesis, Walden University,*

Sudhir Sachdev, (2015). *Green Marketing: Consumer Attitude Towards Eco-Friendly Fast Moving Household Care And Personal Care Products.* Ph.D. Thesis, Manav Rachna International University, Faridabad, Haryana, India.

Suni John Mydock, (2014). *On Green Marketing : Consumer Behaviour in Response to Marketing Renewable Energy Usage.* DBA thesis, Southern Cross University, Lismore.

Tara Mcbride Mintz, (2011). *Profiling Green Consumers: A Descriptive Study.* University of North Carolina at Wilmington.

Tripti Sahu, (2012).*Green Marketing: An Attitudinal and Behavioral Analysis of Consumers in Pune.* Ph.D. Thesis Symbiosis International University. *Pune*

Usama Awan , Muhammad Aamer Raza, (2010).*The role of green marketing in development of consumer behavior towards green energy*. Master thesis, Malardalan University, Sweden.

Zia-ur-Rehman, Muhammad Khyzer Bin Dost,(2013).Conceptualizing Green Purchase Intention in Emerging Markets: An Empirical Analysis on Pakistan, The 2013 WEI *International Academic Conference Proceedings,* Istanbul, Turkey.

WEBSITES

http://www.indiahandicraftstore.com/furniture/

https://economictimes.indiatimes.co

https://greenfc.com

https://greengarageblog.org/the-eco-friendly-automobiles-of-the-future

https://wikibizpedia.com

https://www.alibaba.com/showroom/green-electronic-products.html

https://www.bing.com

https://www.energystar.gov/products/lighting_fans/ceiling_fans

https://www.energystar.gov/products/lighting_fans/light_bulbs

https://www.energystar.gov/products/spec

https://www.fintapp.com/blog/consumer-durables-industry-analysis-research-report/

https://www.furniture.com

https://www.ibef.org/industry/consumer-durables

https://www.ibef.org/industry/india-automobiles.

https://www.indiaretailing.com/

https://www.kenresearch.com

www.energystar.gov

www.greendust.com

www.ijbmi.org

APPENDICES

Questionnaire

I am a Research scholar in the Department of Commerce &Centre of Research, PSMO College, Tirurangadi, Malappuram (Dt). I am doing research work relating to Marketing and Consumption of Green Consumer Durables in Kerala. Kindly spare some of your valuable time to answer these questions. The Information collected shall be used only for academic purpose.

ECO-FRIENDLY PRODUCTS	
CATEGERIES	**ITEMES**
Household durables	**Electronic Durables** –Solar panel, solar light, CFL Light, solar charger, computer monitor, TV, Mobile phone, Digital camera, Personal computer. **Home appliances-** Refrigerator (3star & above), Washing machine, Air conditioner, mixer grinder, Ceiling Fan, solar kettle, Micro wave oven, electric water heater. **Wood & bamboo Furniture-**Chair ,bench, sofa set, Table, Stool, bed coat, Handicraft items, cupboard **Electric Automobiles –** Two wheelers & Four wheelers

I.   Personal Profile

Name of Respondent …………………………………

Gender   **:** Male   Female

Please state your age   : …………….years old.

District   **: …………………………**

Residential area   : Corporation ☐ Municipality ☐ Village ☐

Qualification of Household   : Below SSLC ☐ SSLC ☐ Graduate ☐   PG ☐

                                                         : Others (specify)   …………..

Occupation   : Student ☐ Govt. Employee ☐ House wife ☐

                                                         Self-employed ☐   Professional ☐ Private Sector ☐

Monthly income of Households   : Rs ………………

II – Information for the topic

Awareness Measures

1)   Please indicate your level of awareness about Eco-friendly Consumer Durables

Very high ☐ High ☐ Average☐ Low ☐ Very low ☐

2)   To what extent the level of awareness about following dimensions of   Green Consumer Durables. Please put a tick (✓) mark in the appropriate column.

Sl no	Statements	Very high	High	Average	Low	Very low
1	I am aware about energy saving quality of product					
2	I am aware of various brands of products					
3	I am aware of a variety of symbols and certifications of products					
4	I am aware of point of purchase of products					
5	I am aware that purchase of green product will contribute to Environmental sustainability.					
6	I am aware of the price of products					
7	I am aware of the availability of products					
8	I am aware of biodegradable quality of products					
9	I am aware of recyclable quality					
10	I am aware of promotional strategies of marketers.					

3)   From where you get information about eco-friendly products. Please put a tick (√) mark in the   appropriate column.

Newspaper☐ T.V☐ Magazines☐ Internet☐ Friends/ Relatives ☐ Radio ☐

Information from shopkeeper☐ Outdoor advertisement☐ Shopping Place ☐
Others(specify)…………………

Factors influenced for purchase intention

4) From the following statements, please indicate your degree of agreement by a tick (✓) mark in the appropriate column . (S.A – Strongly Agree; A – Agree; N – Neutral; D – Disagree; S.D – Strongly Disagree)

(a) **Green marketing mix- Products**

Sl no	Statements	SA	A	N	D	SD
1	I prefer to buy products because it saves energy					
2	Green consumer durables are innovative in nature					
3	Quality of green products is better than conventional products					
4	I prefer to purchase green products because of its biodegradable nature					
5	I carefully read the green information on the label.					
6	I prefer to buy products because of its recycled package					
7	Labels of green products should be self-explanatory to explain its green information					
8	I prefer to buy products because its package can be refilled					
9	Quality of products conforms to my expectations					
10	I am influenced by "Green Certification" on the package					

b) **Green marketing mix-   Price**

Sl no	Statements	SA	A	N	D	SD
1	I compare price of traditional products before buying green products					
2	I prefer to buy green products when price discounts are offered					
3	I am ready to pay extra price for green products .					
4	Green products are very expensive					
5	Most of the green products are overpriced					

(c) **Green marketing mix-   Place/availability**

Sl no	Statements	SA	A	N	D	SD
1	I would purchase green products if they are easily available in retail outlet					
2	I have to select from a limited variety of eco-friendly products					
3	I can easily find green products in the markets					

(d) Green marketing mix- Promotion/advertisement

Sl no	Statements	SA	A	N	D	SD
1	I am attracted towards green Products because of its advertisement					
2	Advertisement highlights the virtue of usefulness of green products					
3	Advertisement highlights the environmental sustainability of Product					
4	Advertisement highlights eco-friendly nature of product					

g) Influence of Social factors

Sl no	Statements	SA	A	N	D	SD
1	I often share information regarding environmental products with my friends and relatives.					
2	I learned so much about environmental products from my friends.					
3	Use green consumer durables enhance social status.					
4	I learned so much about environmental issues from my colleagues and club					
5	News media reports have influenced me to try green products.					
6	I often buy a green product with my friends.					

h) **Influence of Environmental concern**

Sl no	Statements	SA	A	N	D	SD
1	I believe that more environmental protection works are needed in Kerala					
2	I am concerned about protecting our environment					
3	It is very important to raise environmental awareness among households in Kerala					
4	I am willing to take up responsibility to protect our environment					
5	I often think about how can we reduce environmental pollution					
6	I am worried about global warming					
7	Environmental protection issues are none of my business					
8	Environmental protection is the responsibility of the environmental organization, not me					
9	It is unwise to spend a huge amount of money on promoting green products					

Purchase intention

5) From the following statements, please indicate your degree of agreement by putting a tick (√)mark in the appropriate column . (S.A – Strongly Agree; A – Agree; N – Neutral; D – Disagree; S.D – Strongly Disagree)

Sl no	Statements	SA	A	N	D	SD
1	Based on my experience with green products I will recommend these products to my friends					
2	I am likely to purchase any green product					
3	Based on experience with green products I will continue to buy the products again in future					
4	I am ready to take some risk of buying eco-friendly products from distant markets					

Customer satisfaction

6) To what extend do you agree or disagree with the following statements? Please put a tick (√) mark in the appropriate column. **(S.A– Strongly Agree; A – Agree; N – Neutral; D – Disagree; S.D – Strongly Disagree)**

Sl no	Statements	SA	A	N	D	SD
1	I am sure it has been a right thing to buy the green products.					
2	I am satisfied with my decision to buy the green products.					
3	I have truly enjoyed these products.					
4	My choice to buy green products was a wise one.					
5	Owing green products have been a good experience.					
6	I feel bad about my decision to buy green products (Reverse Coded).					
7	The green products are the best products I have bought.					
8	Green products are exactly what I need.					
9	I have no regrets about having the green products in the past.					
10	Overall, I am very satisfied with the green products.					

7) How will you describe your level of satisfaction regarding green products?

Very Much satisfied ☐ Satisfied ☐ Neutral ☐ Dissatisfied ☐

Very much dissatisfied ☐

8) What are the problems faced by you while making purchase decision of Products. Put a tick mark (✓) in the appropriate column? **(S.A – Strongly Agree; A – Agree; N – Neutral; D – Disagree; S.D – Strongly Disagree)**

Sl no	Statements	SA	A	N	D	SD
1	There is lack of information/awareness about eco-friendly products					
2	Green products are not promoted properly					
3	Green products are not available in full range of variety					
4	Green products are very expensive					
5	Green products are not easily available in shopping outlets					
6	We cannot ensure the quality of eco-friendly products					
7	Green products are not trendy /fashionable					
8	Green products are less convenient to use					
9	I am not sure green products are actually better for the environment					

9) Please express your willingness to recommend green products to friends and relatives?

Very much willing ☐   Willing ☐   Neutral ☐   Unwilling ☐

Very much unwilling ☐

10) Will you consider green products in the future? Please put tick mark (√) in the appropriate column?

Consider to use always ☐   will consider ☐   Consider to use sometimes ☐

Consider but not in the immediate future ☐   Not at all ☐

Thanks and Regards,

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INTERVIEW SCHEDULE

I am a Research scholar in the Department of Commerce & Centre of Research, PSMO College , Tirurangadi, Malappuram. Kindly spare some of your valuable time to answer the questions. The Information collected shall be used for academic purposes only.

Business profile of the respondents

1) Name of the Institution : ----------------------------

2) District : -------------------------

3) Period of trading : Less than 1 year ☐ 1-5 years ☐ 5-10 years ☐

   Above 10 years ☐

4) Nature of ownership : Sole proprietorship ☐ Partnership ☐

5) Type of retail shop : Simple retail shop ☐ Departmental stores ☐

   Specialty shop ☐

6) Monthly turnover : Less than Rs.50,000 ☐ Rs.50,000 – ☐
   Rs1,00,000

   Rs.1,00,000 – 1,50,000 ☐ Above 1,50,000 ☐

7) Nature of products sold : Green products only ☐

   Both green and non- green products ☐

8) Types of green products : Electronic home appliances ☐
   Electric vehicle ☐

   Wood & bamboos furniture ☐

9) Location : Rural ☐ Urban ☐

10) Rate your level of agreement regarding the following factors that lead you in initiating green marketing practices (Please putt a tick (✓) mark in the appropriate column).

Sl No	Factors	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Part of corporate social responsibility					
2	Follow competitor					
3	Financial support from the government					
4	Competitive advantage					
5	Demand of customers					

Sl No	Factors	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
6	Overcoming competition					
7	Easy fund availability					
8	Customer satisfaction					
9	Customers environmental awareness					
10	Pressure from Government					
11	New opportunity in the market.					
12	Increasing the market share					
13	Own interest					
14	Maximization of profits					
15	Betterment of society					

11) What are the challenges faced by you while marketing the products. Please put tick mark.

Sl no	Challenges	Multiple tick- mark possible
1	Lack of awareness of consumers about green products	
2	High capital / investment	
3	High cost of products	
4	Lack of financial support from government	
5	Consumers are not willing to pay extra price	
6	Tough competition	
7	Limited variety of products	
8	High promotion cost	
9	High tax rate on products	
10	Not easily available	

Suggestions, (If any)…………………………………………………………...
………………………………………………………………………………

THANK YOU