

## **1.1 INTRODUCTION TO THE STUDY**

Green products are those items considered eco-friendly. This means that the manufacturer of the particular product took the proper steps in ensuring that the environment was not harmed during its manufacturing process. The raw materials used in the product were derived from sustainable sources. And the production should have a low impact on the environment regarding waste, carbon emissions and energy use

Competition is one of the major challenges that a business man want to face in a modern world. Every industry is composed of many individual firms and each individual firm is providing similar goods and services. Naturally this situation makes a big chance for competition among this firms.so in order to becoming the market leaders every business wants to adopt different strategies.

Nowadays one of the major strategy adopted by companies to capture market is the marketing of green products or eco-friendly products. A green product provides a lot of advantages to us. Today people giving more attention to protection of environment, as they are aware about the appearance of hole in the ozone layer, destruction of forest etc. Because of these factors green products get more attention in today's world.

The term 'green' has nothing to do with color, but the choice of name is appropriate because green is a color that is often associated with nature. Green products are considered kinder to the environment than non-green goods, in one way or another. The term is widely used and it doesn't take much for a product to be called green, so it can cover a wide

range of consumer goods.

A product is considered earth-friendly if it is biodegradable, meaning that it will pose no threat to the earth and environment, when it is released to the air, water or earth while in use or when disposed of. These types of products usually decompose much quicker in a landfill, than similar items that are not biodegradable. Biodegradable household cleaners, soaps, dish and dishwasher detergents and laundry soaps are just a few examples of this type of green product.

If a product contains any amount of recycled goods in its construction, it is also considered green for two reasons. That's because recycling reuses a material keeping it out of the landfill, as well as saves on the environment when alternative materials are not manufactured and used for that component.

A product where packaging has been considerably reduced compared to other similar products requiring less shipping room and in turn reducing carbon emissions during transport to market, might also be considered green.

When a product's manufacturing process is designed specifically to save energy, reduce carbon emissions or use renewable energy to make that item, it can also give it a green label. In this case, the product really should also be earth friendly, but this is not always the case. Great strides have been made to manufacture green products in such a way as to reduce the manufacturing process and resulting impact on the earth, as well as making them earth-friendly when it comes to usage and disposal. Many

countries, states and provinces also have green initiatives in place that encourage companies to look for ways to manufacture products in an earth-friendly manner. Every effort, even those that may appear minor to us, help to reduce the impact consumer goods have on our environment.

An unwanted or unneeded gift that is regifted to another person is also considered 'green' because the item is saved from landfill or waste, and another item does not have to be manufactured for the gift. Re gifting is gaining popularity with those who love to recycle or simply want to better manage their gift budget. Many re gifted gifts are much appreciated, but the gift-giver needs to adhere to some basic Re gifting Rules to successfully re gift a gift. How do you know if your product is 'green'? Not all, but most green products have labels denoting the fact that they are either biodegradable, have been made from recycled goods or were subject to an earth-friendly manufacturing process. Manufacturers are well aware of the demand for green products and want to draw customer's attention to their wares, which they usually consider to be the best green products. However, consumers should read labels to confirm before buying to ensure they are getting what they pay for. It's just too easy to put the word 'green' on any product.

Note that green products are not the same as carbon zero or carbon neutral products which are in fact greener, though there may be similarities. Green can also apply to services or processes.

Green initiatives are undertaken in an effort to draw attention to the need to be kinder to our environment in everything we do. Green initiatives and green products are not same, though there is somewhat of a

relation. Though green policies and endeavours should be conducted on an ongoing basis, there is much emphasis in the spring when initiatives are often scheduled close to or on Earth Day every year. However, we really should be thinking green all the time.

Man has limited resources at his disposal. But his wants are unlimited. Due to increase in population across the globe, mass production is inevitable. The manufacturing concerns have to meet the global demands with limited resources. Therefore, a strategic way satisfying the consumer's need is the crucial issue today. The modification of business or production process towards green marketing may involve start-up cost, but it will save money in the longrun. Therefore through green marketing firms can make use of the limited resources in an effective and efficient manner. Awareness about environment related goods is constantly increasing across the globe .thus, focusing on green marketing has its relevance in the present context.

The products that are manufactured through technology and that caused no environmental hazards are called green products. Promotion of green product is necessary for the conservation of natural resources. Green products like solar light, solar heater, handicraft items, paper bags and clay products have a good demand today. Solar light and solar heater makes the use of solar energy. Solar power products are innovative mechanisms that help to conserve energy. Solar products are environment friendly and are usually cost effective also.

Plastic makes a lot of problems to world; especially plastic bags are bad for our environment. Low cost and easy availability leads to the

promotion of plastic bags. in order to save our environment from the threat of plastic bags; an alternative is developed that is paper bags. Paper bags are degradable and it does not make any harm to the environment.

Handicraft items and clay products are also made by giving protection to environment as they are made from environment friendly materials.

## **1.2 STATEMENT OF THE PROBLEM**

In modern world people are concerned about the environment. Green products have a vital role in the protection of the environment as it does not make a negative impact to the nature. A company can increase its competitive position by providing green products. This study is conducted to know the attitude of people towards green products like solar power products, paperbags, handi craft items and clay products.

## **1.3 OBJECTIVES OF THE STUDY**

- ✓ To know the attitude of people towards green products
- ✓ To analyze those factors which induces people to purchase green products
- ✓ To know the level of satisfaction of the respondents towards the green products
- ✓ To determine the willingness of people for paying high price for the green products

## **1.4 SCOPE OF THE STUDY**

The study is conducted to know the attitude of people towards green products like solar light, solar heater, handicraft items, paper bags and clay products. Around 50 people are considered for the analysis. The study helps to acquire maximum information about the acceptability of the products, level of satisfaction of people using these products and also helps to get an overall picture of factors influencing people to purchase these products.

## **RESEARCH HYPOTHESIS**

HO: There is no significant relationship between the purchasing decision and level of income.

H1: There is significant relationship between the purchasing decision and level of income.

## **1.5 RESEARCH METHODOLOGY**

Research methodology is a way to systematically solve the research problem. It deals with the objective of a research study, the method of defining the research problem, the type of data collected, method used for data collecting and analyzing the data etc. The methodology includes collection of primary and secondary data.

### **Research Design**

Research design is the arrangement of activities for the collection and analysis of data in a manner that aims to combine relevance to the purpose with economy in procedure. For this study the design used was

descriptive. Descriptive design as the name itself implies, is conducted to describe something.

### **Type of research**

The type of research employed for this study was Descriptive Research. Descriptive Research is to describe something which is both qualitative and quantitative in nature.

### **Population**

Population refers to aggregate of sampling units. Total population for the study is un know.

### **Sampling method**

The sampling method is convenient sampling method.

### **Sample size**

Sample selected is 50.

### **Source of data**

Primary data are collected by administering questionnaires and secondary data from journal, organization record, magazines and internet.

### **Tools of analysis**

The data collected were analyzed with various methods. The types of methods used for the data analysis are:

Tables

Percentage

Charts

## **ANALYTICAL TOOLS USED**

Analysis of data is performed to find out this something. Analysis of data therefore means the critical examination of the data for studying the characteristics of the object. Under the study and for determining the patterns of relationships among the variables relating to it, using both quantitative and qualitative methods. The analytical tool used for analyzing the collected data is percentage analysis, charts, diagrams and chi square test.

- Percentage Analysis
- Chi-square test

### **Percentage analysis**

The percentage method was extensively used for analysis and interpretation. It can be generally calculated as follows.

$$\frac{\text{Number of respondents favourable}}{\text{Total No. of respondents}} \times 100$$

## **1.6 LIMITATIONS OF THE STUDY**

- Time allotted for the study is limited
- The study does not reveals actual result as the sample size limited to 50
- Sometimes the respondents may give false information

## 2.1 REVIEW OF LITERATURE

- Aditya maheswari and Guan malthotre (2011) wrote an article entitled “Green marketing: A study on Indian youth”. This study focus on the awareness, perception and parameters considered by the consumers while purchase the green products. Statistical tools like percentages and one way ANOVA were used, to analyze the purchase behaviour through parameters considered by the consumers while purchasing the products such as price, availability, convenience, brand name and variety of the products. They found that brand name is the significant factor considered by the respondents while purchasing the green products rather than all the product variables adopted in the study. Finally they concluded that majority of the consumers are confused with the information provided in the products related with the green attributes, so consumers are needed to be educated with the green claims in the products.
- Ishawini and Sarojkumar Datta (2011) in their paper analyzed with the objective of pro environmental concern and its influence to green purchase behaviour of the consumers. In order to achieve the objectives consumers’ preference, pro environmental concern, and knowledge about the environmental issues are the variables used. Correlation analysis reveals that pro environmental concern and green buying behaviour are significantly related. This study concludes that educated consumers are high concern towards the environment, so companies may focus on the segment of educated consumers for green products.

- Ronald Drozdenko et al.,(2011) in their study entitled with “pricing of green products, premium paid, consumer characteristics and incentives”. The study focus on customer’s perception towards the price premium of green products based on the demographic, situational, and product categories. From the study, they found that male customers are willing to pay extra for green products, and also there was no significant difference in purchase behaviour of the consumer’s while purchasing the green products based on their income and education. They suggested that tax incentives were highly influence the consumers for willing to pay the green products.
  
- Afzaal Ali and Israr Ahmad (2012) focused on the factors that influence the green purchase intension of the consumers. To fulfil the objectives of the study organization green image, environment knowledge, environment concern; perceived product price and quality are the variable used. They found that organization green image, environmental knowledge, environmental concern, perceived product price and quality are the influential factors to the green purchase behaviour of the consumers. So green companies are offer price and quality of the product with the identical one to motivate the consumers towards the green products.
  
- Aysel Boztepe (2012) in his research paper he found that environmental awareness, price, product features, promotion are the variables of green product influencing the purchase behavior of male consumers but promotion is the only variable influence the purchase behaviour of female consumers and also mentioned that environment awareness, green product features, price and

promotion are significantly related with green purchase behavior. Finally he suggested that there is a significant difference between the male and female consumers while purchase the green products, so companies are focus the different strategies on gender basis.

- Azhagaiah (2006) observed the impact of green marketing and environmental protection. In his study, found that the environmental issues have a significant impact on the modern society. The environmental problems are the result of mass consumption and production across the globe. Due to limited resources, an extra caution is needed from both the consumers and the producers. Therefore, awareness is needed for the protection of environment.

### **3.1 THEORETICAL REVIEW**

The products which are made of environment friendly materials are Eco-friendly products or green products. Eco-friendly products do not harm the environment.

The term green product is used to describe a product that meets one of these criteria.

1. It has qualities that will protect the environment.
2. It has replaced artificial ingredients with natural ingredients.

For example, a cleaning product may be considered green for two distinct reasons.

It may be manufactured without phosphates in order to reduce a source of pollution in the water supply, which makes it better for the environment than a cleaner that contains phosphates. Or it may contain ingredients derived from natural sources to lower the risk of health problems that can be caused by exposing the skin to artificial dyes or fragrances.

Before we get started with how to identify a green product, we have to understand what the definition of a green product is. The terms “green” or “sustainable” often refer to products, services or practices that allow for economic development while conserving for future generations. We prefer to describe a green product as one that has less of an environmental impact or is less detrimental to human health than the traditional product equivalent. While on the topic of defining a green product, you must realize that almost no product will ever be 100% “green,” since all

product development will have some impact on the surrounding environment

Green products are...

- Energy efficient, durable and often have low maintenance requirements.
- Free of Ozone depleting chemicals, toxic compounds and don't produce toxic by-products.
- Often made of recycled materials or content or from renewable and sustainable sources.
- Obtained from local manufacturers or resources.
- Biodegradable or easily reused either in part or as a whole.

Green products have a vital role in conservation of environment. Green products like solar power products, handicraft items, paper bags and clay products have a higher demand in the modern world.

## **SOLAR PRODUCT**

Solar products are innovative mechanism that helps to conserve energy. Solar products are environment friendly and are usually cost effective as well.

Today there are several solar power products in the market for our home and office use. Solar products include items such as solar hot water heaters, solar flash lights, small radios, , solar calculators, solar battery chargers, solar lighting, solar car batteries, etc.....

## **SOLAR LIGHT**

Solar lights have a good demand and acceptance in the modern world. There are several companies providing solar lights. The solar light manufactured by COMPLEX International Ltd, provides multi-pin USB cable for mobile charging facility.

## **SOLAR HEATER**

Solar water heaters have a better acceptance because of its benefits and durability. Solar heater makes the use of solar energy for its functioning. There are different varieties of products which are work on solar energy.

## **PAPER BAG**

The cheap availability and low cost of plastic bags makes it popular among people. But plastic bag makes a lot of problems to our environment. In order to save our earth from the threat of plastic bags, an alternative is developed that is paper bags. Paper bags are green products as they are bio degradable and not harm the environment.

Paper bags are always environment friendly and easily bio degradable. Here to save our environment from the threat of plastic, we should start using paper made products.

These paper bags are either made of virgin wood pulp or recycle paper or handmade paper. To produce paper we want to cut lot of trees. It will badly effect our environment and earth.

Handmade paper is environment friendly like other waste products are converted in to something meaningful by recycling.

Benefits of handmade paper are use of non-wood raw materials, this saving trees and it is made with Pollution free methods as solar energy is used extensively Handmade paper have good quality.

Paper made from recycled fibres or handmade paper required at least 50% less energy and up to 70% less water than making it from virgin fibre. It also produces up to 90% less wastewater and reduces air pollution.

There are different types of paper bags such as retail bags, fast food bags, etc. Retail bags are used for packages that consumer to hold light weight items, big and strong bags are used in packaging all types of food products, textiles, sugar, flour, etc...Fast food bags are ideal for fast food store.

## **BENEFITS OF GREEN PRODUCTS**

### **\*BENEFITS AVAILABLE FOR FIRMS AND INDUSTRIES**

- 1) Helps to access new markets.
- 2) Can help to achieve competitive advantage over other companies.
- 3) Protects the company in the long run.
- 4) Aids in long term growth.
- 5) Improves the quality of the environment.
- 6) Environmentally responsible company will hold a unique status in the society.

## **\*BENEFITS FOR THE CONSUMERS**

- 1) Health benefits.
- 2) The network of green users expands.
- 3) Less threat to the eco-system by the consumers.
- 4) The earth will be protected from hazardous goods.

## **GREEN PRODUCTS AND ECO-LABEL**

### **\*ECO- LABELING**

It is an environmental claim that appears on the packaging of a product. It is awarded to a manufacturer by an appropriate authority. ISO 14020 is a guide to the award of eco- labelling works like an instructor for the firms who indulge in the production of goods and services that cause damage both to the health of humans and the environment. The government of India launched an eco-mark scheme in 1991 to increase consumer's awareness with respect to environment friendly products. The products are requiring eco-marketing are textiles, toilet soaps, detergent cakes, paints, packages, pesticides, cosmetics, and pharmaceutical products.

### **\*Eco-mark scheme**

The government of India launched an eco-mark scheme in 1991 to increase consumer's awareness towards environmental friendly products. Another aim of the eco-mark scheme is to stimulate the consumers to go for pro-environmental products. The eco-mark is needed for products like cosmetics, leather goods paints, lubricant oil, plastic products, batteries, etc...

## Green Product Certification

When looking for green products, there are a couple of ways you can ensure you are not being duped into buying a fake, though it can be tricky. A stroll through any supermarket will yield products labeled “earth friendly,” “eco-friendly,” “biodegradable” and many other buzzwords which will make you feel warm and fuzzy about the purchase, even though this could be false. A good rule of thumb is to look for the certification labeling, if that is not on the product then keep on walking. This leads us into what certification labels are available and what do they mean, which is why we have put together the list below. This is not an all encompassing list, it will however provide you with the most common certifications and their meaning.



**ENERGY STAR:** A labeling program for energy efficient homes, building products, electronics and appliances. ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy helping protect the environment through energy efficient products and practices.



**Green Seal:** Green Seal Certification ensures that a product meets rigorous, science-based leadership standards. It is a lifecycle

assessment based labeling program for building products, green operations and maintenance procedures. A green seal can be found on anything from a coffee filter to a hotel.



**Forest Stewardship Council:** A certification program for wood products that come from forests that are managed in an environmentally responsible, socially beneficial and economical viable way. They are a non-profit organization, not affiliated with the government, working to promote responsible management of the world's forests since 1993.



**Leadership in Energy and Environmental Design (LEED):** The LEED certification was created by the U.S. Green Building Council in 2000, it is an internationally recognized standard for green building and design. The rating system works off 5 categories and is associated to both business and residential buildings. LEED focuses on whole building sustainability which can be used by diverse professionals and government agencies. You could look for the LEED seals when looking to purchase green homes or office buildings, as an example.



**USDA Organic Product:** When looking to go green at the dinner table many will look for certified organic foods. The United States Department of Agriculture has implemented the National Organic Program, which will indicate whether an agricultural product was produced in such a way that integrates biological, cultural and mechanical processes to conserve biodiversity and foster cycling of natural resources. In general this means synthetic fertilizer, irradiation or genetic engineering practices will not be used.

Green products are now mainstream, whether you are looking for a new home, automobile or even just some vegetables for a salad, there is a green product alternative available. It is up to you to weigh your options and identify what attributes of a green product is important to you; though make sure you are fully informed and aware prior to making the purchase. We applaud your commitment to sustainable living and look forward to building a greener future.

The traditional sub mixes of the marketing mix like the 4p's i.e., product, price, place and physical distribution need to be nurtured with environmental contents.

❖ The green product

The wide variety of products available in the market should meet the environmental norms. The products with green characteristic

automatically demand an extra premium. Thus, the manufacturer should take utmost care at the time of manufacturing the goods.

❖ Green price

Fixation of price is a critical and the most important factor in green marketing. When a product fetches green features, it is eco- friendly and naturally the product needs an extra premium from the users. Therefore apart from meeting the regular expenses incurred on the product, the consumers are prepared to meet the additional price for extra premium on the quality of the product.

Example; for energy saving bulb like CFL, the consumers need to pay more for CFL bulb than what they pay for the other bulbs.

❖ Green promotion

Promotional techniques and policies are the strongest strategies which hold and turn the consumers. Holding the customers for long duration is the crucial issue in present context. Therefore in the promotional activities like advertising, sale promotional activities, the environmental issues need to be passed to ultimate users.

❖ Green place

The green place is about managing logistics to cut down transportation cost. Logistics may relate to the procurement of raw materials, concentration or dispersion of productions plants in a particular region.

## **MEASURES TAKEN BY GOVERNMENT TO PROMOTE GREEN PRODUCTS**

### **❖ GREEN TAX**

Green taxes” (also called "environmental taxes" or "pollution taxes" or “eco taxes”) are excise taxes on environmental pollutants or on goods whose use produces such pollutants. “Green taxes” are meant to improve the environment or reduce the negative impact on the environment or create an environmentally sustainable environment. “Green taxes” are a kind of economic instruments to address environmental problems. It is generally believe that “green taxes” will reduce environmental harm in the least costly manner, by encouraging changes in behaviour by firms, organizations, communities and households and individuals etc. Taxes on pollution provide clear incentives to polluters to reduce emission.

One “green tax” that has recently gained favour is a carbon tax. Australia introduced carbon tax (July 2012), which is an excise levy on the carbon-based content of fossil fuels (coal, petroleum, gas) as a means of reducing greenhouse gas emissions that contribute to global warming and climate change. The carbon tax may encourage development and use of clean energy sources in Australia (renewable or green energy such as wind, hydro, and solar). India and Japan has also introduced carbon tax. In Europe, a number of countries have imposed energy taxes or energy taxes based partly on carbon content. There is apparently no “green tax” in the USA; however “green tax” supporter often cite the gasoline tax as a “green tax”. Many European countries have used pollution taxes imposing taxes on emissions of common air pollutants such as sulfur dioxide and nitrogen oxides. To combat the negative environmental

effects, several states in India (Maharashtra, Andhra Pradesh, Himachal Pradesh, and Karnataka- August 2010) have implemented/going to implement a new “green tax” to fight pollution from old vehicles (commercial vehicles over 8 years old and private vehicles over 15 years old) and creating better public transportation. Very recently, Bangladesh imposed green tax (June 2014) to force polluting factories (principally tanneries) to pay extra levies to clean up the country's increasingly dirty rivers and reducing impacts on the aquatic environment.

Everyone may not agree with “green taxes” however, “green taxes” can be seen as an incentive to lessen environmental burden and preserve the environment. The revenues generated by “green taxes” can also be used for other environmental preservation projects or to cut other taxes. Nevertheless, everyone for sure would like to see an environmentally sustainable future and a healthy natural and living environment in their country.

#### ❖ **INDIA’S SOLAR MISSION**

India's solar mission provides strong support to solar deployment and includes a goal of developing 20,000 megawatts of solar power capacity by 2022. A key objective of the program is to boost the capacity of India to domestically manufacture solar panels. To achieve this objective, the government of India has required Indian developers of solar photovoltaic ("PV") projects using crystalline silicon technology to buy solar modules manufactured in India in order to take advantage of the programs benefits, including subsidies and guaranteed long-term competitive rates for solar power. These requirements to purchase locally manufactured solar panels are referred to as domestic content rules.

The government of India initially exempted thin film solar cells having lower efficiency solar panels used in large-scale industrial solar projects

from the domestic content rules because of low domestic capacity to manufacture such cells. This loophole created an opening for foreign countries, including the United States and China, to export thin-film cells to India. U.S. exports of thin film solar cells to India have been particularly successful thanks to low-interest loans from the U.S. Overseas Private Investment Corporation and the Export-Import Bank.

The result is that foreign thin-film panels now dominate India's market. Whereas global thin film installations are a very small portion of total solar deployment, in India they are the vast majority. To correct this imbalance and protect India's solar manufacturers, India is now considering expanding the use of domestic content rules to thin-film technologies in the second phase of its program, which may curtail imports of American-made solar panels to India.

Concerned about the impact that the potential expansion of India's domestic content rules to thin-film technologies would have on its exports, the United States filed a claim at the WTO. In this claims, the United States asserts that India's domestic content rules appear to have violated trade rules in the General Agreement on Trade and Tariffs, the Agreement on Trade-Related Investment Measures, and the Agreement on Subsidies and Countervailing Measures by allegedly providing more favorable treatment to domestic solar producers and products than to foreign ones.

Officially launched in November 2009, Jawaharlal Nehru National Solar Mission (JNNSM) is one of the eight National Missions laid out in **India's National Action Plan on Climate Change (NAPCC)**. It aims to incentivize the installation of 22,000 MW of on- and off-grid solar power using both Photovoltaic (PV) Concentrated Solar Power (CSP) technologies by 2022, as well as a large number of other solar applications such as solar lighting, heating, and water pumps. As the

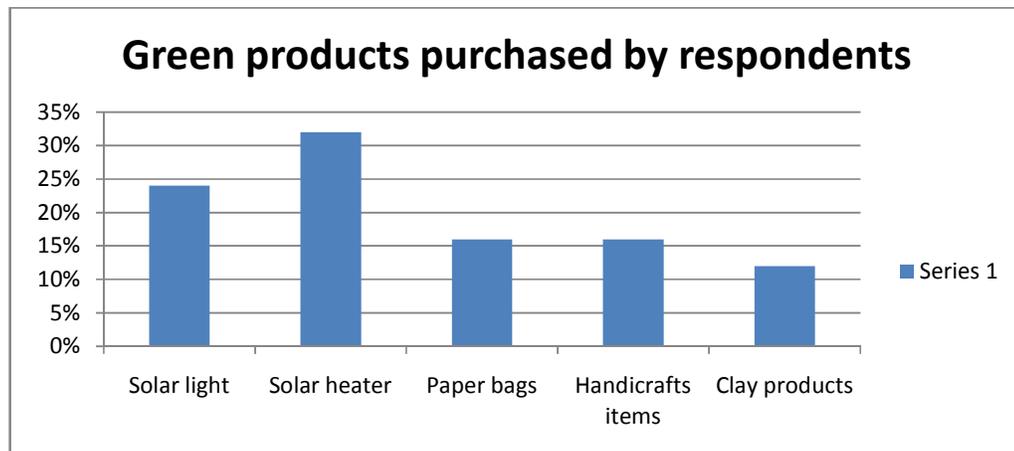
power trading arm of the National Thermal Power Corporation (NTPC), NTPC Vidyut Vyapar Nigam Ltd (NVVN) has been designated as the nodal agency to ensure the execution of Phase 1 of the mission. The Solar Mission will be implemented in three stages, with specific targets defined for the respective segments.

## 4.1 Data analysis and interpretations

**Table – 1- Green products purchased by respondents**

Green products	No of respondents	Percentage
Solar light	12	24%
Solar heater	16	32%
Paper bags	8	16%
Handicrafts items	8	16%
Clay products	6	12%
Total	50	100

**Chart - 1**



### Interpretation

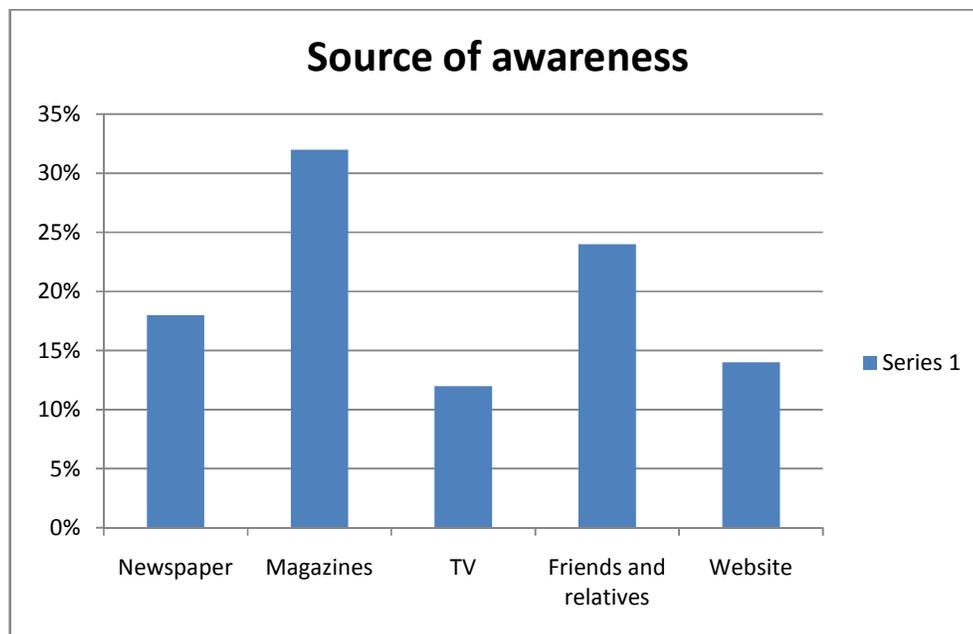
From this table it is clear that most of the people are in the habit of purchasing solar heater (32%).

24% of people purchased solar light. 16% of people purchased paper bags and 16% of people purchased handicraft items and only 12% of people purchased clay products

**Table – 2 - Source of awareness**

Source	No of respondents	Percentage
Newspaper	9	18%
Magazines	16	32%
TV	6	12%
Friends and relatives	12	24%
Website	7	14%
Total	50	100

**Chart - 2**



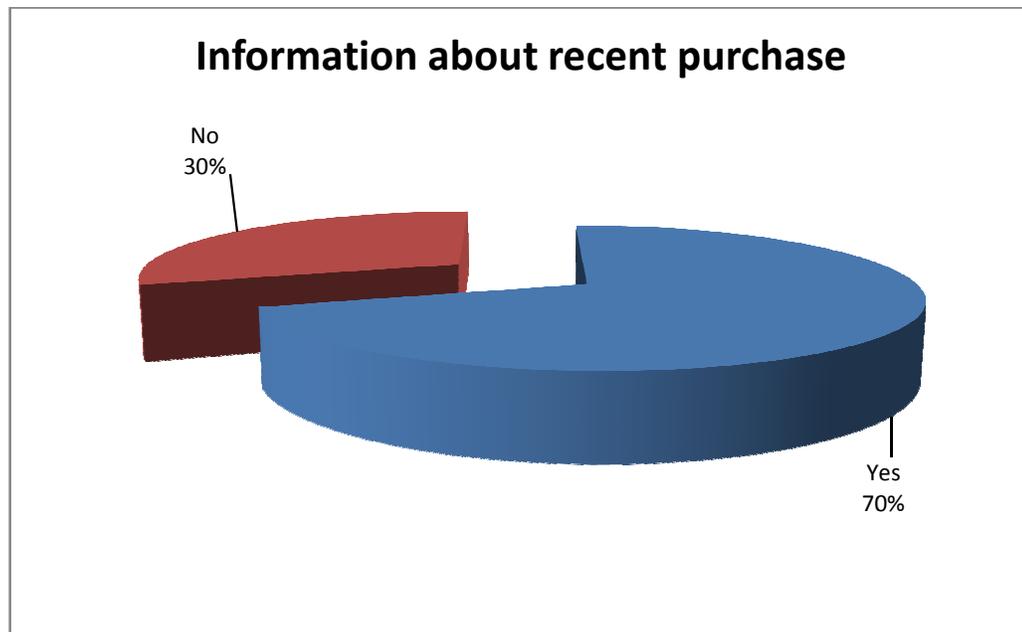
**Interpretation**

32% of people are come to know about green products through magazines and 24% of people got information about green products through friends and relatives. Newspaper provides awareness about green products to 18% of people. 14% of people are aware about green products through websites. TV provides awareness to a small percentage of people (12%).

**Table – 3- Showing information about recent purchase**

<b>Response</b>	<b>No of respondents</b>	<b>Percentage</b>
Yes	35	70%
No	15	30%
Total	50	100

**Chart - 3**



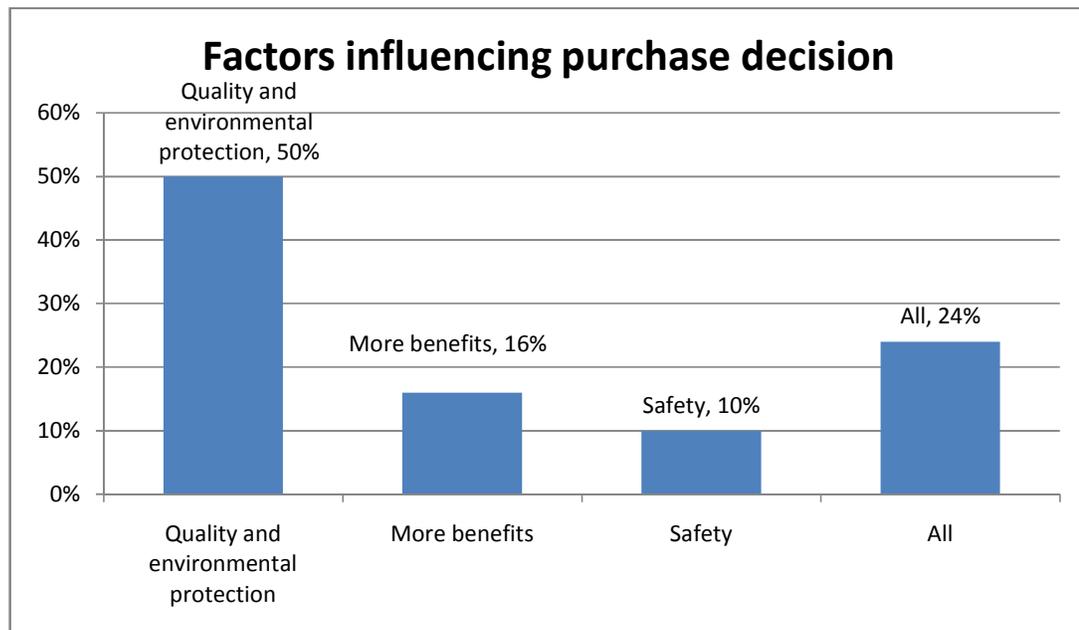
**Interpretation**

70% of people make recent purchase and 30% of people do not make recent purchase.

**Table – 4 -Showing factors influencing the purchase decision**

<b>Faction</b>	<b>No of respondents</b>	<b>Percentage</b>
Quality and environmental protection	25	50%
More benefits	8	16%
Safety	5	10%
All	12	24%
Total	50	100

**Chart - 4**



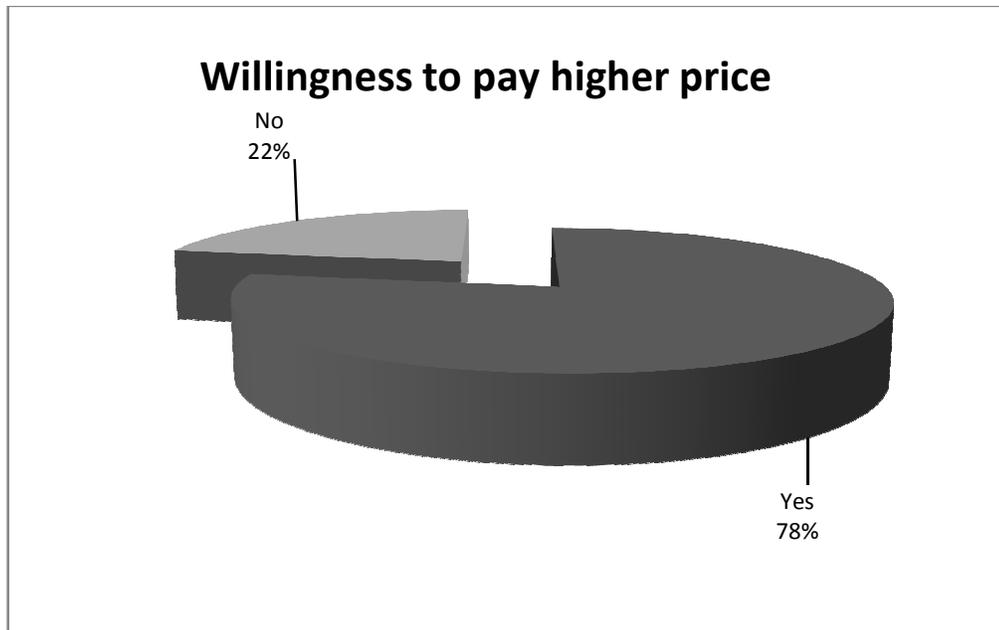
### **Interpretation**

The major factor induces people to purchase green product are quality and environmental protection. 50% of people are fall under this category. 16% of people are induces to purchase these products, because of its benefits. Safety is the another criteria which influence the purchase decision. 5% of people are fall under this category. 24% of people are in the habit of purchase these products by expecting all these benefits.

**Table – 5-Willingness to pay higher price**

<b>Response</b>	<b>No of respondents</b>	<b>Percentage</b>
Yes	39	78%
No	11	22%
Total	50	100

**Chart - 5**



**Interpretation**

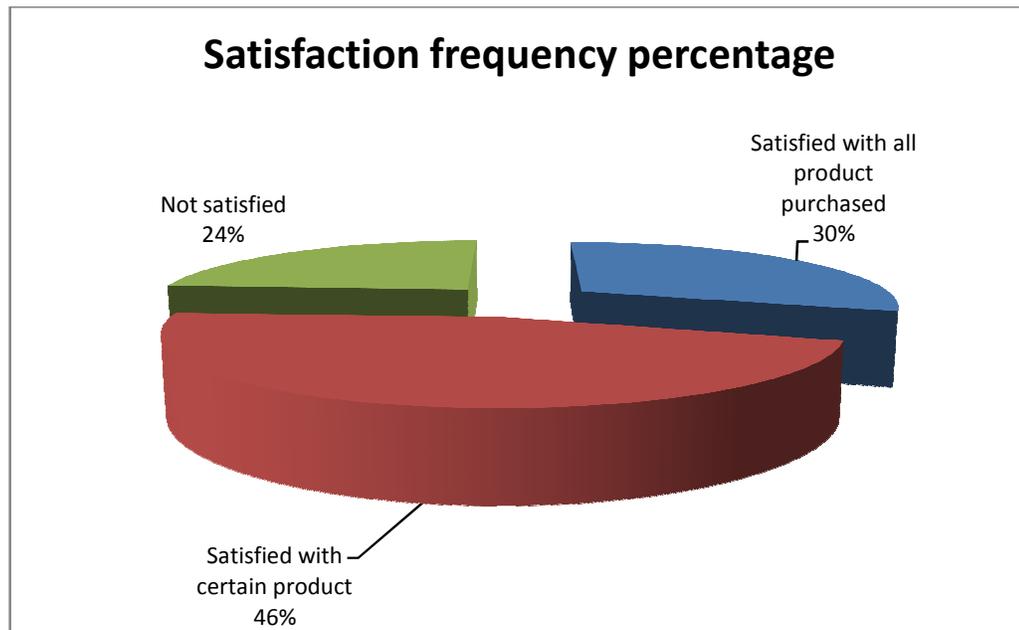
78% of people are willing to pay higher price for green products and 22% are not willing.

## Table – 6-Satisfaction level

### Satisfaction frequency percentage

Satisfaction	Frequency	Percentage
Satisfied with all product purchased	15	30%
Satisfied with certain product	23	46%
Not satisfied	12	24%
Total	50	100

Chart - 6



### Interpretation

30% of people are satisfied with all products purchased by them. 46% of people do not get satisfaction from all the products, they are satisfied only with certain products. 24% of people are not satisfied with the products they are purchased.

**Table – 7-Opinion about the quality**

<b>Opinion</b>	<b>No of respondents</b>	<b>Percentage</b>
Excellent	9	18%
Good	15	30%
Average	9	18%
Poor	4	8%
Quality varies according to the product	12	26%
Total	50	100

**Chart - 7**



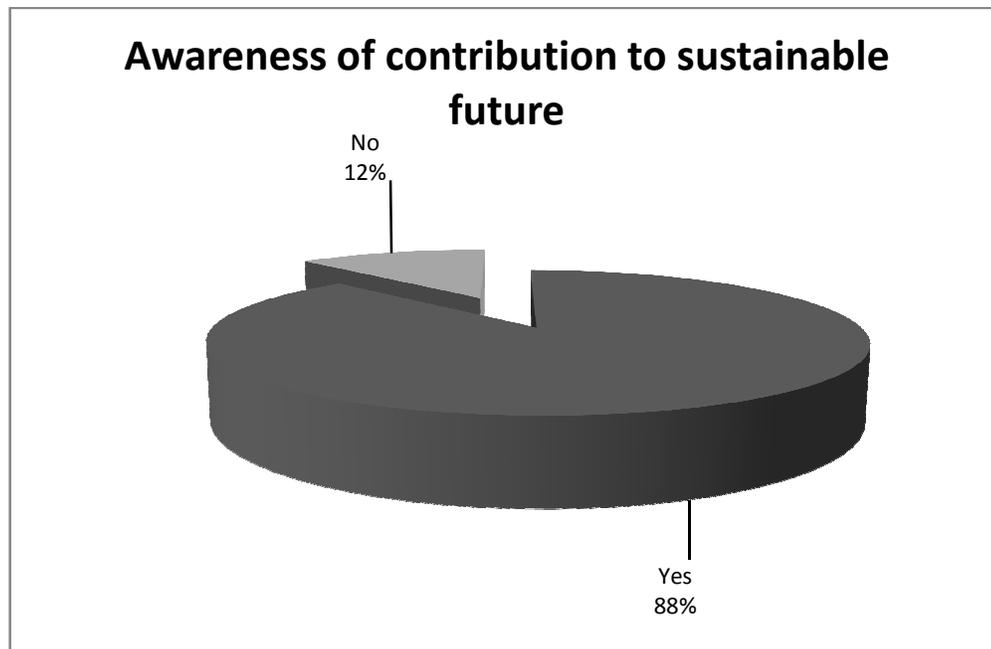
**Interpretation**

30% of people have good opinion about the quality of the product they are purchased. 26% of people are in the opinion that quality varies according to the product. 18% people have excellent opinion about the quality. 18% of people believe that green products have an average quality and 8% of people have poor opinion about the quality.

**Table – 8-Awareness of contribution to sustainable future**

<b>Response</b>	<b>No of respondents</b>	<b>Percentage</b>
Yes	44	88%
No	6	12%
Total	50	100

**Chart - 8**



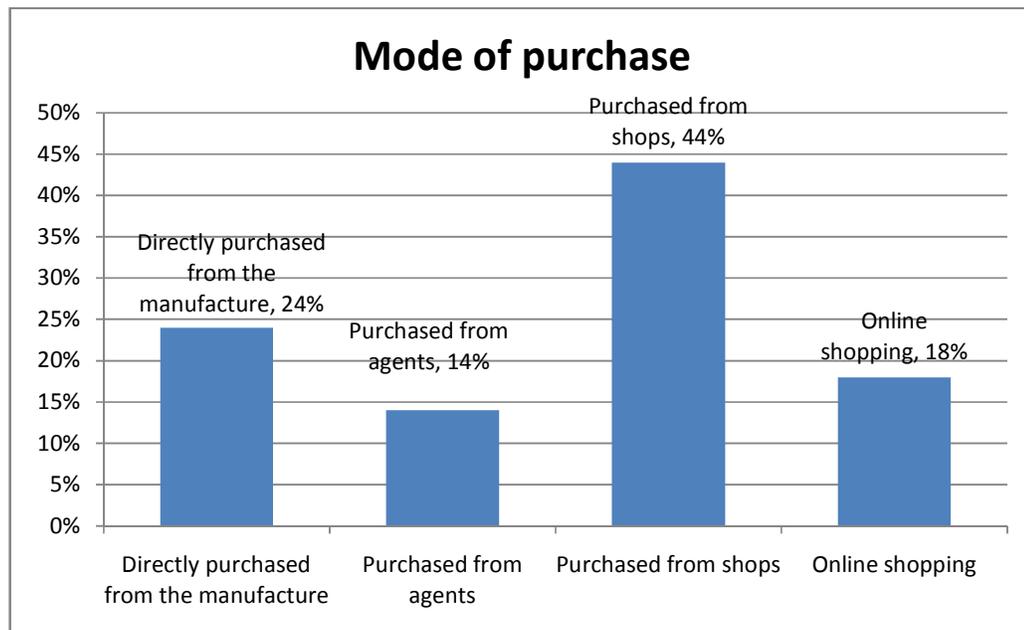
**Interpretation**

88% of people are aware that purchase of green products will contribute to the sustainable future and 12% people are not aware about this.

**Table – 9-Showing mode of purchase**

Mode	No of respondents	Percentage
Directly purchased from the manufacture	12	24%
Purchased from agents	7	14%
Purchased from shops	22	44%
Online shopping	9	18%
Total	50	100

**Chart - 9**



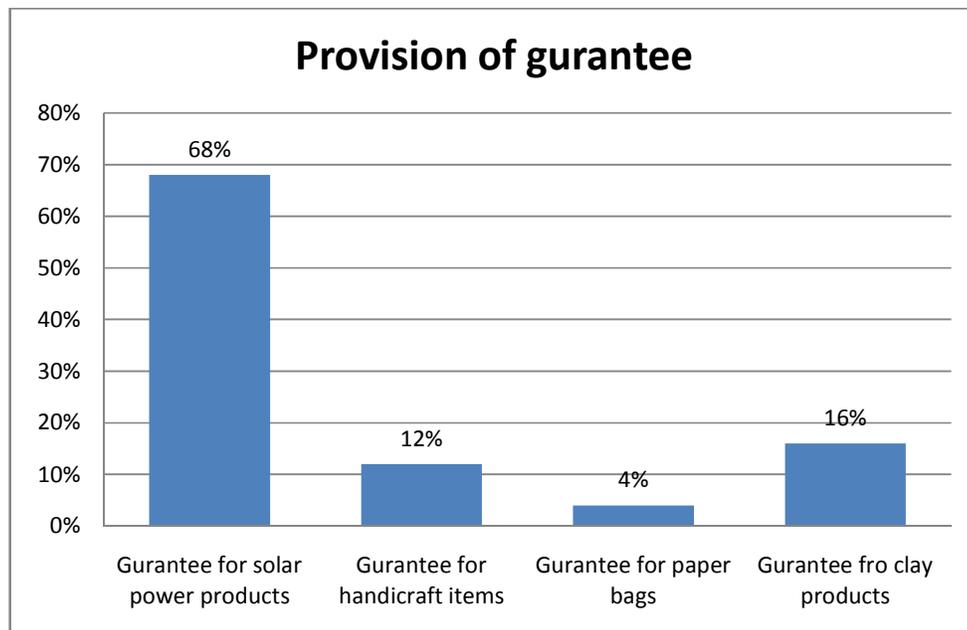
**Interpretation**

44% of people are in the habit purchasing the products from shops. 24% of people purchased products from the manufactures. 14% people depend agents to get the product and 18% people makes online shopping.

**Table – 10-Showing provision of gurantee**

<b>Response</b>	<b>No of respondents</b>	<b>Percentage</b>
Gurantee for solar power products	34	68%
Gurantee for handicraft items	6	12%
Gurantee for paper bags	2	4%
Gurantee fro clay products	8	16%
Total	50	100

**Chart - 10**



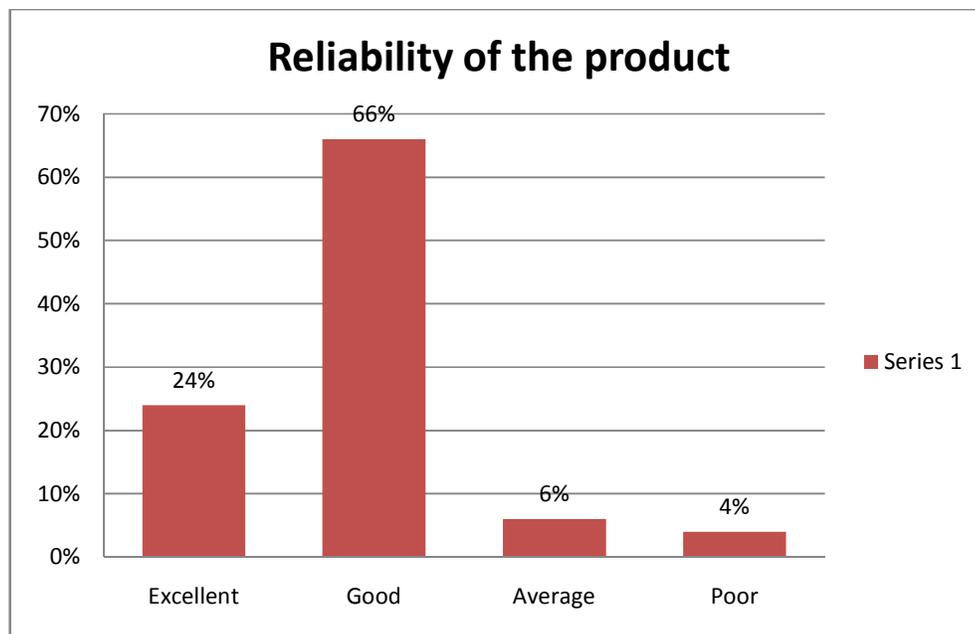
**Interpretation**

68% of people get gurantee from solar power products. 16% of people get gurantee for clay products. 12% of people get gurantee for handicraft items and only a few percentages of people (4%) get gurantee for paper bags.

**Table – 11-Showing reliability of the product**

<b>Opinion</b>	<b>No of respondents</b>	<b>Percentage</b>
Excellent	12	24%
Good	33	66%
Average	3	6%
Poor	2	4%
Total	50	100

**Chart - 11**



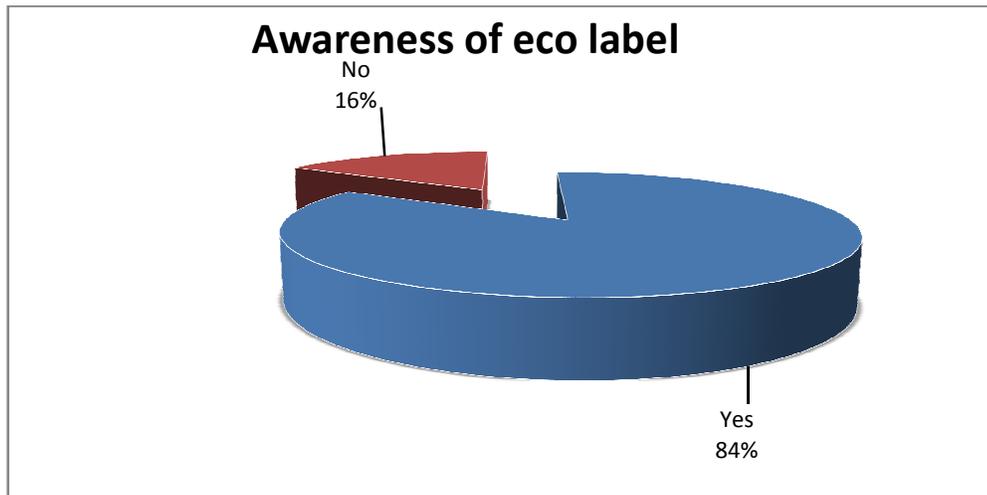
### **Interpretation**

66% of people have a good opinion about the reliability of the products that are purchased. 24% of people have an excellent opinion about the reliability. 6% of people believes that reliability is average and only a few percentage of people are in the opinion that its reliability in poor.

**Table – 12-Awareness of eco label**

<b>Response</b>	<b>No of respondents</b>	<b>Percentage</b>
Yes	42	84%
No	8	16%
Total	50	100

**Chart - 12**



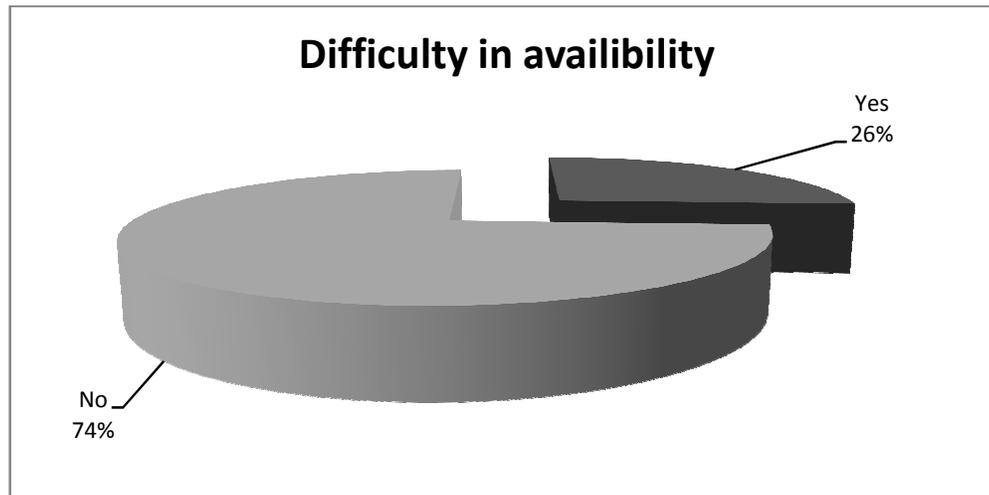
**Interpretation**

84% of people are aware about the eco label and 16% of people are not aware about this.

**Table – 13-Difficulty in availability**

<b>Response</b>	<b>No of respondents</b>	<b>Percentage</b>
Yes	13	26%
No	37	74%
Total	50	100

**Chart - 13**



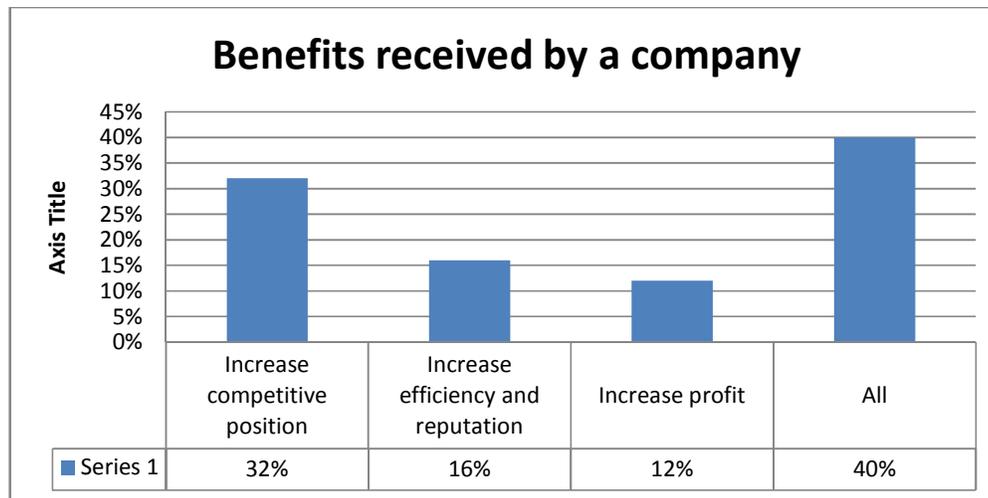
**Interpretation**

74% of people are not facing any problem in availability and 26% of people face some problems in availability of the product.

**Table – 14-Benefits received by a company**

Benefits	No of respondents	Percentage
Increase competitive position	16	32%
Efficiency and reputation	8	16%
Profit	6	12%
All	20	40%
Total	50	100

**Chart - 14**



**Interpretation**

32% of people believe that a company deals with green product will have a higher competitive position.

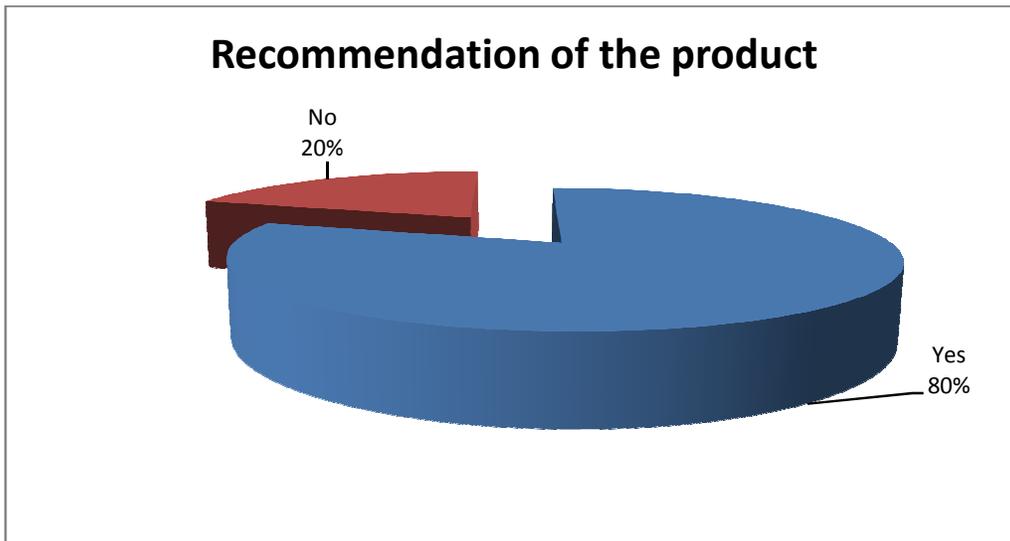
16% of people believe that company which provides green products can increase its efficiency and reputation.

12% of people are in the opinion that, companies can increase its profit and 40% of people believe that a company deals with green product will get all the benefits.

**Table – 15-Recommendation of the product**

Resource	No of respondents	Percentage
Yes	40	80%
No	10	20%
Total	50	100

**Chart - 15**



**Interpretation**

80% of people are ready to recommend the product and 20% of people are no ready to recommend the product they are purchased.

## STATISTICAL TOOL

Here, Chi-square test is used as statistical tool.

### CHI-SQUARE TEST

The statistical test, based on the statistic following  $X^2$  distribution, is known as  $X^2$  test.

$X^2$  test can be used for testing the given population variance, by comparing with variance of the sample.

### Conditions for the Application of $X^2$ -test

1. The total frequencies (N) must be reasonably large say at least 50.
2. Expected frequency of less than 5 is pooled with the preceding or succeeding frequency so that no expected frequency is less than 5. Then the degrees of freedom are based on the resulting number of frequencies.
3. The distribution should not be of proportions or percentages etc. it should be or original units.

### **Procedure:-**

1. Set up the null hypothesis that there is goodness of fit between observed and expected frequencies.
2. Find the value of  $X^2$  using the formula

$$X^2 = \sum \frac{(O-E)^2}{E}$$

3. Degree of freedom is n-1 where 'n' is the number of frequencies given. Obtain the table value.
4. If the calculated value of  $X^2$  is less than the table value, conclude that there is goodness of fit.

$$\chi^2 = \frac{\sum (O-E)^2}{E}$$

**O** = Observed frequency

**E** = Expected frequency

$$E = \frac{\text{Row Total} * \text{Column Total}}{\text{Grand Total}}$$

**Aim:-**

To find out whether there is a relation between the promotional activities and customer's purchase decision.

Here,

**Null Hypothesis (H<sub>0</sub>):** -There is no significant relationship between the level of income and consumer's purchase decision.

**Alternative Hypothesis (H<sub>1</sub>):**- There is significant relationship between the level of income and consumer's purchase decision.

**Observed Frequency Table:-**

PURCHASE DECISION	LEVEL OF INCOME			TOTAL
	5000	10000	Above 15000	
Influenced	11	12	10	33
Not influenced	9	8	0	17
Total	20	20	10	50

**Expected Frequency Table:-**

PURCHASE DECISION	LEVEL OF INCOME			TOTAL
	5000	10000	Above 15000	
Influenced	13.2	13.2	6.6	33
Not influenced	6.8	6.8	3.4	17
Total	20	20	10	50

O	E	O-E	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
11	13.2	-2.2	4.84	0.36
9	6.8	2.2	4.84	0.711
12	13.2	-1.2	1.44	0.109
8	6.8	1.2	1.44	0.211
10	6.6	3.4	11.56	1.75
0	3.4	-3.4	11.56	3.4

$$\chi^2 = \frac{\sum (O-E)^2}{E}$$
$$= 6.541$$

**Degrees of freedom** =  $(r-1) \times (c-1)$

$$= (3-1) \times (2-1)$$
$$= \underline{\underline{2}}$$

Let us take 5% Level of significance

Table value = 5.991

**Calculated Value > Table Value**

**6.541 > 5.991**

So, here reject  $H_0$  and accept  $H_1$

Hence there is relationship between level of income and consumer's purchase decision. That means, level of income makes an impact on customer's purchase decision.

## FINDINGS

- 56% of people are purchased solar power products
- Most of the people are come to know about the products through magazines
- TV and websites are not effective in providing information about the green products
- Most of the people are willing to pay higher price for the products
- Most of the customers makes the purchase through shops
- Solar power products provides guarantee for 68% of people
- Only 4% of people got guarantee for paper bags
- 66% of people have good opinion about the reliability of the product they are purchased
- 84% of people are aware about the eco label
- 16% of people are not aware about eco label
- 26% of people face difficulty in availability of the products
- Most of the people have an opinion that a firm dealing with green products can increase its competitive positions profitability and efficiency
- 80% of people are ready to recommend the product they are purchased
- There is a relationship between purchase decision and level of income of customers.
- 70% of people makes recent purchases
- The main factors induces people to purchase green product is quality and environmental protection
- 30% of people are satisfied with the products they are purchased
- 24% of people are not satisfied

- 30% of people have good opinion about the quality of the product.
- 88% of people believes that green products will contribute to the sustainable future

## SUGGESTIONS

- Consumers are to be well educated about importance of green products like paper bags, handicraft items and clay products
- In order to increase the sale of paper bags, handicraft items and clay products there is a need to undertake promotional activities
- There is a need for providing more information about the products through TV and websites
- Analyze the reason for low satisfaction of people and take corrective actions to solve these problems
- Provide guarantee for paper bags
- Provide information about eco label to those who are not aware of it
- Take measures to avoid the problem of unavailability of the products
- Educational institutions should introduce a subject on “environmental studies” in the academic curriculum.
- Distribute paper bags in educational institutions, municipalities, etc...
- Deliver the product early as possible
- Conduct awareness classes among the people about the problems of plastic bags
- Provide information to people about the contribution of green products to sustainable future
- Setup specialized outlets to make easy availability of green products

## CONCLUSION

Green products or eco-friendly products have a prominent role in conservation of environment. So there is a need for promoting the green products.

From this study, it is clear that most of the people are in the habit of purchasing green products like solar light, solar heater, paper bags, handicraft items and clay products.

Most of the customers are willing to pay higher price for these products because of the quality and environment protection.

Here, the null hypothesis is rejected and accepted the alternative hypothesis. So we can assume that the purchase behaviour and income level are dependent

This study reveals that people have positive opinion towards solar lights and solar heater. On the other hand, handicraft items, paper bags and clay products are not much attracted to the respondents.

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- Indian journal of marketing
- Research methodology

### ❖ websites

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- [Sierraclub.typepad.com](http://Sierraclub.typepad.com)
- [Energypedia.info](http://Energypedia.info)



- 3) Do you purchase any of the products recently?
  - a) Yes      b) No
- 4) What induces you to purchase these products?
  - a) Quality and environmental protection
  - b) More benefits
  - c) Safety
  - d) All
- 5) Are you willing to pay a higher price for the these products
  - a) Yes      b) No
- 6) Are you satisfied with the products that you are purchased
  - a) Satisfied with all product purchased
  - b) Satisfied with certain product purchased
  - c) Not satisfied
- 7) What is your opinion about the quality of the product?
  - a) Excellent
  - b) Good
  - c) Average
  - d) Poor
  - e) Quality varies according to product
- 8) Are you aware that purchasing green product will contribute to the sustainable future?
  - a) Yes      b) No

- 9) How do you makes the purchase?
- a) Directly purchased from the manufacturer
  - b) Purchased from agents
  - c) Purchased from shops
  - d) Online shopping
- 10) Do you get any guarantee from the product you are purchased.
- a) Guarantee for solar light and heater
  - b) Guarantee for handicraft products
  - c) Guarantee for paper bags
  - d) Guarantee for clay products
- 11) What is your opinion about the reliability of the product?
- a) Excellent
  - b) Good
  - c) Average
  - d) Poor
- 12) Do you face any difficulty in availability of the product?
- a) Yes      b) No
- 13) Are you aware about the Eco-label?
- a) Yes      b) No

14) What is the benefit that a company receives when dealing with green product?

- a) It increases competitive position
- b) It increases efficiency and reputation
- c) It increases profit
- d) All

15) Are you ready to recommend the product you are purchased?

- a) Yes
- b) No