A STUDY ON USER'S PREFERENCE AND SATISFACTION TOWORDS SELECTED BRANDED SOLAR PANEL SYSTEM IN COIMBATORE CITY

***Dr.S.M.Yamuna,Associate Professor & Head, Department of B.Com (BPS), PSG College of Arts and Science, Coimbatore.**

****Sruthi.T., AjithKumar.T, PraveenKumar.R., III B.COM (BPS)., PSG College of Arts and Science, Coimbatore.**

ABSTRACT

Solar being a generally new innovation development has been seen as one of the most encouraging sustainable power sources. Sunlight based board framework are propelled for the most part with the goal to make ecological attention to mass force utilization and the need to save power utilizing sun based force The significant downside of Solar vitality gadgets its is significant expense and high space necessity to arrangement a solar panel. Aside from these disadvantages, the clients must consider the way that Solar panel are exceptionally advantageous for nature as well as for people for its one of a kind component of boundless plentiful vitality. Despite the fact that the vast majority despite everything favor the utilization of electrical gadgets, the mentality of the clients is consistently changing attributable to the flow ecological risks brought about by the previous. Thus, the examination inspects about the client's disposition, inclinations and their fulfillment and reactions about the highlights and use of Solar panel and their advancement in the market pattern.

Keywords : Electrical gadgets, Ozone, Eco-friendly.

INTRODUCTION

Since the get-go, individuals have been captivated by the sun. Antiquated human advancements represented the sun, adoring it as a God or Goddess. From the beginning of time, cultivating and farming endeavors have depended upon the sun's beams to develop crops and support populaces. Recently, we have built up the capacity to tackle the sun's great force. The subsequent advancements have promising ramifications for the eventual fate of sustainable power source and supportability. Sunlight based has been all around acknowledged as extraordinary compared to other wellspring of maintainable and clean vitality. A great deal of headway has occurred on the specialized front of creating sunlight based vitality frameworks

with higher effectiveness and better solidness. Anyway the nearness of sunlight based stays a major worry as appropriation levels has not reached to adequate levels. Sun powered Energy has become a basic item in our cutting edge society.

OBJECTIVES

- To study the consumer awareness towards selected branded solar panel system.
- To assess the consumer's preference and attitude towards the usage of solar panel system.
- To examine the factors that influences consumers while selecting the solar panel system.
- To evaluate the level of satisfaction derived by the consumer while using the solar panel system.

STATEMENT OF PROBLEM

A switch over from the non-inexhaustible to sustainable power source can be accomplished through producing power from sustainable power sources. A large portion of solar product makers produce items with certainty of winning the clients. Regardless of that, there is a significant limitation in use of sustainable power source framework is higher beginning speculation. Simultaneously, client's desire was towards fundamental utilization of sun based force frameworks as well as with the thought of brand, quality, cost and strength. On the premise, an endeavor was made to examine the client inclination and fulfillment towards chose marked solar panel.

SCOPE OF THE STUDY

The significance of solar power has expanded with steady rising worries of a worldwide temperature alteration and draining wellsprings of petroleum derivative in constrained flexibly on earth. Solar energy has developed as one of the most reasonable type of sustainable power source received over the globe. The issues from existing wellspring of vitality, for example, age of ozone depleting substances and having constrained holds on earth have made individuals to search for elective wellspring of vitality. Anyway despite the fact that sun based has been acknowledged as one of the most practical type of exchange vitality source, the genuine selection levels has not been good. This study incorporates more extensive degree for solar

power as it initiated from the current vitality utilization and repeating nature consumption towards their vitality use. Purchasers' expectation towards vitality reserve funds are evaluated thus the shoppers the individuals who are happy to set aside vitality and cash, additionally wanted to discover an answer for vitality deficiencies and will consequently consider for vitality age through inexhaustible sources.

RESEARCH METHODOLOGY

Research methodology refers to the way in which the research is conducted and how the data collection progressed . It includes the procedures and techniques which are used to perform the research effectively.

- **Research design**

  A sample design is the definite plan for obtaining a sample from a given population. **Convenient Sample Techniques** has been adopted for consumer preference towards the selected branded solar panel system in Coimbatore. It comprises the plan for the assortment, estimation, and examination of information.

- **Area of study**

  Importance of solar energy has increased with constant rising concerns of global warming, Solar energy has emerged as one of the most viable form of renewable energy adopted across the globe and it has more openings and installation in Coimbatore city which has motivated the researcher to select this region for the field research.

- **Sample size**

  Sample size refers to the number of persons to be selected from the area to constitute a sample. The sample size for this study is 200, who are the solar panel users in Coimbatore City.

- **Database and Methodology**

  Both Primary and Secondary sources of data have been collected for the purpose of the study. The primary data has collected through a well-structured questionnaire. The questionnaire comprised of dichotomous questions, rating scale questions, buying propensity questions, ranking and five-point scale type questions which has designed to elicit necessary data and details from the domestic consumer in Coimbatore city. The data have been collected to analysis their awareness levels and

the marketing strategies which encouraged them to install solar panel systems. The secondary data have been collected from the books, journals, magazines and web portal.

STATISTICAL TOOLS APPLIED

Data collected from the respondents are coded and manipulated through Statistical Package for Social Sciences (SPSS) and below mentioned Statistical tools have applied to analyze the data to derive inference.

- **Percentage Analysis:**

Percentage analysis is used to make comparison between two or more series of data. Percentages are based on descriptive relationship and compare the relative items. Percentage reduces even the large volume of numerical data into a common base and thereby meaningful comparisons are derived.

- **Henry Garrett's Ranking Technique:**

This strategy was utilized to assess the issues looked by the specialists. The sets of legitimacy given by the respondents were changed over in to rank by using this technique. To discover the most critical factor which impacts the respondent, Garrett's positioning strategy was utilized. According to this technique, respondents have been approached to dole out the position for all components and the results of such positioning have been changed over into score esteem

- **Average Score Analysis**

The average score analysis is usually employed to identify the priority of the respondents on various issues selected for the study. In this study, the average score analysis was employed to identify the priority of the different category of respondents on the various aspects relating to solar panel systems. Based on the consolidated opinion of the respondents, the average score was calculated.

REVIEW OF LITERATURE

G.K.SINGH, (2013) has conducted a study on "Solar power generation by PV (photovoltaic) technology". The research has been underway since very beginning for the development of an affordable, in-exhaustive and clean solar energy technology for longer term benefits. This paper, therefore, reviews the progress made in solar power generation research and development since its inception. Attempts are also made to highlight the current and future issues involved in the generation of quality and reliable solar power technology for future

applications. The various forms of solar energy – solar heat, solar photovoltaic, solar thermal electricity, and solar fuels offer a clean, climate-friendly, very abundant and in-exhaustive energy resource to mankind.

Dr. M. VENKATRAMAN et al. (2014) in their study on **"**Customer's Attitude towards Solar Energy Devices" have studied the awareness of the solar energy devices and the ideas, preferences and attitude among respondents. They also examined customer's satisfaction and customer opinion regarding CRM practices of Manufacturers of solar energy devices. Customer's attitude towards solar energy devices is definitely changing and there has been a significant increase in the awareness and benefits of using solar energized devices over electrical devices and also increases the consumer's responsibility towards the environment and eco-friendliness.

P. C. PHADKE et al. (2015) in their study "A Review on Indirect Solar Dryers" Solar drying is one of the most ancient and simplest forms of drying known to mankind. Even today, most of the agricultural produce such as grains, spices, fruits and vegetables are dried under the sun. However, drying these products directly under the open sun has many drawbacks such as debris, rain, blowing wind, insect infestation, human and animal interference etc. which leads to contamination of the products. By the use of solar dryers, such problems can be easily overcome. Thus, there is a need to make the solar dryers more economical.

W.STREICHER (2016) in their study "Solar thermal technologies for domestic hot water preparation and space heating" Extensive works on improving the thermal efficiency of solar water heaters resulted in techniques to improve the convective heat transfer. Passive technique has been used to augment convective heat transfer. These techniques when adopted in solar water heaters proved that the overall thermal performance improved significantly. This paper reviews various techniques to enhance the thermal efficiency in solar water heater.

OVERVIEW OF PRODUCT

SOLAR PV SYSTEM

Solar power is the transformation of vitality from daylight into power, either straightforwardly utilizing photovoltaics (PV), by implication utilizing concentrated sun powered force, or a blend. Concentrated sun based force frameworks use focal points or reflects and sun oriented global positioning frameworks to centre a huge zone of daylight into a little bar. Photovoltaic cells convert light into an electric flow utilizing the photovoltaic impact.

Photovoltaics were at first exclusively utilized as a wellspring of power for little and medium-sized applications, from the adding machine fuelled by a solitary sun based cell to far off homes controlled by an off-framework housetop PV framework. Business concentrated sun oriented force plants were first evolved during the 1980s. As the expense of sun based power has fallen, the quantity of lattice associated sun oriented PV frameworks has developed into the millions and utility-scale photovoltaic force stations with many megawatts are being assembled. Sunlight based PV is quickly turning into a cheap, low-carbon innovation to outfit sustainable power source from the Sun. The current biggest photovoltaic force station on the planet is the Pavagada Solar Park, Karnataka, India with an age limit of 2050 MW.

The International Energy Agency anticipated in 2014 that under its "high renewables" situation, by 2050, sun based photovoltaics and concentrated sun based force would contribute around 16 and 11 percent, separately, of the overall power utilization, and sun oriented would be the world's biggest wellspring of power. Most sun oriented establishments would be in China and India in 2017, sun based force gave 1.7% of complete overall power creation, becoming 35% from the earlier year. Starting at 2018, the unsubsidised levelised cost of power for utility-scale sun powered force is around $43/MWh.

FINDINGS, SUGGESTIONS AND CONCLUSIONS

FINDINGS

PERCENTAGE ANALYSIS

- Majority (63.5%) of respondents are male.
- Majority (63%) of the respondents belong to the age group of 20-30 years.
- Majority (62.5%) of the respondents were unmarried.
- Majority (52%) of the respondents has education up to UG level.
- Majority (33%) of the respondents were Employees.
- Majority (40.5%) of the respondents belong to the category of income level of Less than Rs.20000.
- Majority (58%) of the respondents belongs to Urban area.
- Majority (33.5%) of the respondents uses LG brand.
- Majority (39.5%) of the respondents are consuming solar panel worth Rs.1-2 lakhs.
- Majority (36.5%) of the respondents were aware through Advertisement.
- Majority (37%) of the respondents are consuming solar panel for the period of 1-2 years
- Majority (62%) of respondents were aware of government schemes.
- Majority (44%) of the respondents are following Government yojana scheme.

- Majority (54.5%) of respondents do not face problems during consumption.

AVERAGE RANK ANALYSIS

- Respondents are highly aware of Government Yojana scheme with 3.77 points.
- High initial cost is the major problem faced by the respondents with 3.79 points.
- Durability is the high rated factor with 3.35 points among the responses which was collected.
- Helpful in saving electricity is highly agreed statement with 3.94 points among the responses which was collected
- Constant and consistent power source is highly satisfied factor with 3.88 points from the usage of solar panel system

HENRY GARRET'S RANKING ANALYSIS:

- More electric cost ranks I (52.75%) in reasons for preferring solar panel system.
- Secure investment ranks I (52.75%) when compared to others factors influenced by respondents.

RECOMENDATIONS OF THE STUDY

- We recommended to **create awareness about the availability of the solar PV system** and government subsidies**.**
- **Price and installation charges** of the solar PV system must be reduced.
- Financial institutions like banks should come forth with more liberal **credit policies** in the rural areas.
- Producers of solar PV system should make it **more mobile**.
- **Free demonstrations and Exhibit stalls** can be given for the introduction of the solar PV system.

CONCLUSION

In all the business exercises, the Consumer chooses its reality in the market. This announcement didn't go diverse for Solar panels too. From this study, it can be concluded that Customer's demeanor towards Solar Panel is unquestionably changing because of numerous legitimate reasons and furthermore there has been a critical increment in the mindfulness and advantages of utilizing Solar power. In this quick moving world, the utilization of solar energy

has been expanding in plentiful sum and the clients have gotten increasingly cognizant about sparing force and turning on to different wellsprings of intensity like solar energy for their utilization.

So as to meet the clients need, the business divisions should accompany inventive yet money saving advantage and new procedures in the solar power market as it not just pulls in increasingly number of clients and keeps the business flawless, yet in addition builds the customers duty towards the earth and eco-agreeableness for making sure about mother earth. Hence, it very well may be presumed that the Customer's attitude towards the solar panel system are impacted by numerous elements however the main considerations are Changing of the Trends, Educational capability of the clients and Standard of living of the individuals and this adjustment in the disposition of the clients.

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