

Consumer Awareness And Preference on Solar Products With Special Reference To Coimbatore City

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Abstract- Energy is one of the major input for the growth of the economy. Energy is the life of the entire population of the country. The main objective of the study is to find the factors that influence people to buy solar products. Well-structured questionnaire has been created and collected a total of 50 responses from the random people. The responses can be used to determine the needs and wants of the consumers by analyzing the responses that are gathered. Most of the respondents prefer solar water heater and solar light for their daily use. Solar products play a major role in the future period when compared to other products.

Keywords- Solar products, Consumer Awareness & Preference

I. INTRODUCTION

Solar product - It is a device used to absorb sun rays and convert into the form of heat or electricity. These type of conversion of sun rays into energy is called as solar energy. There are different types of solar energy based products. The most used solar products are Solar water heater, Solar light, Solar cooker etc. Recent times solar car and solar bikes are beginning to grow among people. By using Solar water heater the usage of the household carbon footprint by reducing reliance on dirty fossil fuel usage and other means. Solar bikes and cars are well liked by the people, and it is growing in different nations. It also reduces the usage of petroleum and benefits the consumers. The sun rays can also be stored and converted for throughout the day. Conversion of sunlight into electricity the thermal form which is used for cooking, water heating and production of steam for power generation.

Awareness -The study is to know the consumer's awareness towards solar products and different types of solar products available in markets and brands that is highly known by the consumers. Some may only be aware of the solar products like solar light, solar fan, solar car, solar bike, solar water heater etc. Rest of the solar products may not be well known by the consumers. Some buy solar products for the brand name. So this study is to know the consumer awareness on solar products and brands.

Preference -To find the consumers preference and buying motive on different types of solar products and brands that lasts long period of time. Some may prefer solar water heater and some prefer solar cooker & light the study is to analyze and to know the consumer preference on different types of solar products and the factors that influence the consumer to buy solar products.

II. STATEMENT OF PROBLEM:

The world demand for electric energy is constantly increasing, and conventional energy resources are diminishing and are even threatened to be depleted, and their prices are rising for these reasons the need for alternative energy source has become indispensable and solar energy in particular has proved to be very promising. Solar products are produced and sold by different companies in different names. Recent times solar products are growing among households. Competition in the market among different solar product's company are the reason for adopt marketing strategies and to improve shares in market. The main important role of marketing is to satisfy the consumers of the product. It is essential for every company to analyze the consumer awareness level, usage pattern, satisfaction level & factors influencing the customers to purchase the product. The outcome of the analysis helps the different companies to improve their products by advertising personal selling, sales promotion etc. The research work is carried out to find the market value of the solar product and to know the buying knowledge of the customer.

III. OBJECTIVES

- To measure the consumer's awareness towards solar products.
- To analyze the consumer preference on buying solar products.
- To study the factors that influence the consumers for buying solar products.

IV. RESEARCH METHODOLOGY

This study has used primary data for collecting primary data. Well-structured questionnaire was distributed to

the random people in the form of google form. The researcher collected 50 samples by using questionnaires. The study is within the Coimbatore. In this study I have used simple random sampling.

TOOLS USED FOR THE STUDY :

- Percentage analysis method

V. REVIEW OF LITERATURE

Shailendra Kumar Bohidar (2015) in his study captioned, “**Study On Solar Water Heater And Its System Performance**”, Said that Solar energy is one of the renewable energy which it is the simplest and is easy use.

Graham L. Morrison (2016) in their study captioned, “**Packaged Solar Water Heating Technology Twenty Years of Progress**”. “**Social Impact of Solar Home System in Rural Bangladesh: A Case Study of Rural Zone**”. Questionnaires were used to collect data from 450 sampling. The tools that were used are T-test and specific customer ranking. This article says that study a passive solar water heating system was also fabricated, by using indigenous and locally available materials.

Zaid Almusaied, Bahram Asiabanpour and Semih Aslan(2018) in their study captioned “**Optimization of Solar Energy Harvesting: An Empirical Approach**” Said that Renewable energy is the path for a sustainable future.

Dr. P. Ravichandran (2015) in their study captioned “**A Study on Consumers Satisfaction towards Solar Energy Products in Coimbatore District**”, reveals the purpose of the study is to analyse the satisfaction level of Solar Energy System consumers in Coimbatore District. The primary data were collected from the solar energy products consumers in Coimbatore District. Sample size is 75 respondents of domestic and non-domestic solar energy product consumers. The collected data were analysed using statistical tools like Percentage analysis and Chi-Square test. This study concluded that Solar Energy Products has huge market in The near future because of importance given by both state and central government, improvement of services and new technology are the need of the hour to improve the consumers satisfaction towards the solar products.

Enas R. Shouman (2016) in their study captioned, “**Economics Analysis of Diesel and Solar Water Pumping with Case Study Water Pumping for Irrigation in Egypt**”, made an attempt to know the reasons for choosing solar products. The study was based on both primary and secondary

data. Then the customers have been selected using a simple random sampling method. Sample size is 272 respondents. The statistical tool used was regression analysis. The study concluded that An economic analysis of the water pumping for irrigation and human purposes using PV and diesel are discussed for three pumping systems; PV system, hybrid PV-Diesel system and Diesel unit.

Graham L. Morrison (2016) in their study captioned, “**Packaged Solar Water Heating Technology Twenty Years of Progress**”. “**Social Impact of Solar Home System in Rural Bangladesh: A Case Study of Rural Zone**”. Questionnaires were used to collect data from 450 respondents by using quota sampling. The statistical tools used were T test and specific customer ranking. In this study a passive solar water heating system was also fabricated, by using indigenous and locally available materials.

Prakash Kumar Sen and Nishita Kispotta (2015) in their study captioned, “**Study on Solar Water Heater and Its System Performance**”, aims to explore that the solar energy is one of the renewable energy which it is the simplest and is easy to use.

VI. PERCENTAGE ANALYSIS METHOD

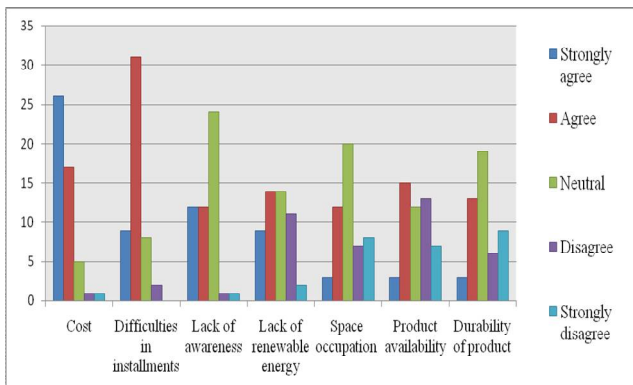
VARIABLE	CATEGORY	FREQUENCY	PERCENT
AWARENESS ON GOVERNMENT BENEFITS FOR SOLAR ENERGY	YES	33	66
	NO	17	34
	TOTAL	50	100
AWARENESS ON DIFFERENT BRANDS OF SOLAR PRODUCTS	PANASONIC	12	24
	LUMINOUS	15	30
	TATA POWER SOLAR	17	34
	INDO SOLAR	6	12
	TOTAL	50	100
INFLUENCE ON BUYING SOLAR PRODUCTS	ADVERTISEMENTS	15	30
	SOCIAL MEDIA	15	30
	FRIENDS AND FAMILY	10	20
	OTHERS	10	20
	TOTAL	50	100
APPLIANCES THAT YOU WILL USE SOLAR POWER	WATER HEATER	13	26
	FAN	13	26
	LIGHT	17	34
	OTHERS	7	14
	TOTAL	50	100

REASON TO BUY SOLAR PRODUCTS	POWER CUT	21	42
	REDUCE ELECTRICITY BILL	10	20
	ECO-FRIENDLY	8	16
	GOVERNMENT SCHEME	5	10
	RENEWABLE & POLLUTION FREE	6	12
	TOTAL	50	100
PREFERENCE ON DIFFERENT TYPES OF SOLAR PRODUCTS	SOLAR HYPER CLEANER	5	10
	SOLAR CAR	9	18
	SOLAR BIKE	6	12
	SOLAR WATER HEATER	11	22
	SOLAR COOKER	7	14
	SOLAR LIGHT	8	16
	SOLAR INVERTORSE	4	8
	TOTAL	50	100

- 52% of the respondents prefer solar water heater.
- 76% of the respondent's reason to buy solar product is that it is power cut.
- 26% of the respondents strongly agree that cost is an obstacle in installing solar based products.
- 31% of the respondents agree that there are difficulties in installments of solar based products.
- 34% of the respondents are aware about Tata power solar brand.
- Most of the respondents are satisfied with solar products.
- 29% of the respondents are aware about solar car & solar light.

HURDLES FACED IN INSTALLING SOLAR PRODUCTS:

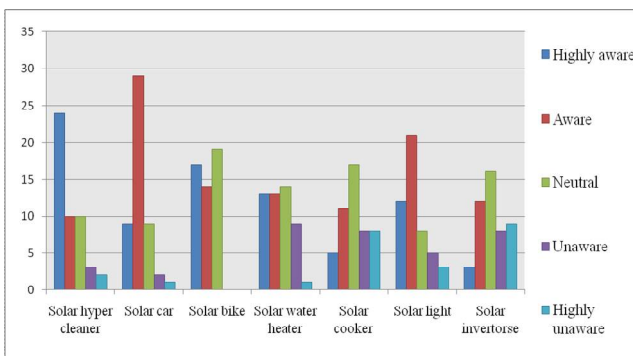
VIII. SUGGESTION



The study shows that most of the respondents are aware about the different types of solar products and its uses. To increase the growth of solar products use different strategies and techniques that attract consumers to buy solar products. Some respondents feel that the cost of setting up solar products is high and the cost of maintenance is also high. In case of any improvement in the technologies used in solar products that increase the durability that lasts long may increase the growth of the solar products and by offering discounts and assuring warranty like if in case of any problems faced with the solar product during the warranty period the company will make the service fee free.

AWARENESS ON DIFFERENT TYPES OF SOLAR PRODUCTS:

IX. CONCLUSION



The growth of the technology is massive and changing according to the preference of the consumer and adopting to the new methods and strategies like posting ads in social media and presenting it in a good manner that attracts the consumers eye that may satisfy the needs of the customers in market. The main objective of marketing is to find the wants and needs of the consumer and improve the products according to it and satisfy the consumers. The study on “CONSUMER AWARENESS AND PREFERENCE ON SOLAR PRODUCTS” helped in identifying the consumers knowledge and preference on solar products and the source of information about solar products and their opinion about it. Most of the consumers get influenced through social media and advertisements.

VII. FINDINGS

REFERENCES

- 54% of the respondents prefer that they will use the solar power for light.
- 66% of the respondents are aware about the government benefits for solar energy.
- 30% of the respondents got influenced through social media and advertisements.

[1] Aggarwal P., Cha T., Wilemon D. (1998) Barriers to the adoption of really-new products and the role of surrogate buyers. Journal of Consumer Marketing. Vol 15. 4. pp 358-371.

- [2] Book T. (1999) Marketing and selling solar energy equipment Renewable Energy 16 pp. 800-804.
- [3] BRECSU (2001) Solar hot water systems in new housing – a monitoring report. Energy Efficiency Best Practice Programme General Information Report 88. BRECSU Watford UK.
- [4] Bolinger M., Wiser R., Milford L., Stoddard M., Porter K. (2001) States emerge as Clean Energy investors: A review of state support for renewable energy. The Electricity Journal. November pp82-95.
- [5] P.Vijay K .Raja Sekhar, E. Srikanth Reddy “An Analytical On Solar Water Heater ” International Journal Pf Scientific Research And Management, Volume-1,Issue2 Pp. 90-93may2013.
- [6] Dr. D.Paul Dhinakaran, “Exports and Imports Stagnation in India During Covid-19- A Review” GIS Business (ISSN: 1430-3663 Vol-15-Issue-4-April-2020).