



A STUDY ON CUSTOMER'S SATISFACTION ON SOLAR ENERGY PRODUCTS WITH SPECIAL REFERENCE TO COIMBATORE CITY

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ABSTRACT

Humanity faces an exclusive and extensive challenge in energy/heat. It has played a pioneering role, but there is a narrowing gap between demand and supply of energy. At present we depended the non-renewable source of energy. These are all having the so many carbon by-products and pollute the environment. So the man has evolving to and out the alternatives source of clean energy. In such way one of the alternative renewable energy is solar energy. The study is descriptive in nature both primary and secondary data to be considered for this analysis. 100 samples are randomly selected in the area of north zone of Coimbatore and analysed for the study. Three objectives are framed and required tools to be applied for this study. Through this study customers awareness and attitude towards solar water heater have been analysed and provide the suitable suggestions to improve the solar energy utilization in households..

KEYWORDS- *Alternative source, Non-renewable, Solar energy, Utilisation.*

INTRODUCTION

Customer satisfaction is closely linked to quality. In recent years many companies have adopted total quality management (TQM)programmers, designed to constantly improve the quality of their products, services and marketing process. Quality has a direct impact on product performance and hence on customer satisfaction.Satisfaction is a person feeling of pleasure or disappointment resulting from comparing a product perceived performance in motion to his or her expectation.The extent to which a product perceived performance tells short of expectation, the buyer is dissatisfied. If performance matchers or exceeds expectations, the buyer is satisfied or delighted.Outstanding marketing companies go out of their way to keep their customer satisfied. Satisfied customer make repeat purchase, and they tell others

about their good experiences. Smart companies aim to delight customer by promising only what they can deliver, then delivering more than they promise.Customer is central point and all the marketing activities revolve around him. manufactures products what the customer want. Customer purchase an articles as a consequence of certain mental and economic forces creating designers or wants which they understand can be satisfied by the articles offered for purchase thus producers should identify the motives which prompt them to purchase so that he can offer a couple of articles satisfying their needs. Thus it is buying motive that prompts the purchaser such buying motives maybe fear.



STATEMENT OF THE PROBLEM

This study focuses on the customer satisfaction towards solar energy products. In the market a customer will buy the products when that product fulfil their wants. In today world usage of electricity is high and its price also high, so customers are go for the solar products as the substitute for the electronic products. Solar energy products will fulfil the place of the electronic products. But customers are expecting more from the solar energy product companies. Present survey is conducted to find out the level of customer satisfaction on solar energy products.

SCOPE OF THE STUDY

- The main scope of the study is to analysis the customer satisfaction towards solar energy products.
- This study helps to identify the factors that influence the consumer to buy the solar energy products.
- This study helps to understand the customer needs and wants.

OBJECTIVES OF THE STUDY

- To measure the overall satisfaction towards solar energy products in Coimbatore city.
- To study the factor influencing the customer to purchase solar energy products Coimbatore city.
- To provide the valuable suggestion to the company based on customer feedback.

TOOLS FOR ANALYSIS

The primary data were coded, classified, tabulated and analysed. The statistical tools used for analysis of the study are:

- Simple percentage Analysis
- Likert scale analysis

LIMITATION OF THE STUDY

- The research study on solar energy products is limited to Coimbatore city only.
- This study is limited to 120 respondents.
- The customers may uncertain to provide necessary information.

REVIEW OF LITERATURE

Adam Faiers(2006), This study says that the early adopters are currently adopting, the system, whereas, unless the attributes of solar power change, or external factors increase the relative advantage, the early majority are unlikely to adopt. Early majority may influences how marketing messages should be directed and delivered at a time when solar power becomes attractive to the early majority

Sai Manoj Rompicherla(2013), In the capital city of India, Delhi, citizens can face hours without electricity, but they are lucky. The basic weakness of the electricity supply industry is non availability of tariff. The industries are more depend on self generation of electricity. the use of solar energy for the production of electricity reduces the price/unit. The only problem is high installation charges. In future solar energy is the solution for the electricity insufficiency.

Dr.M. Venkarraman and Ms.U. Sheeba(2014), "Customer is the king of the market. It is also suitable for solar devices. Customers attitude towards solar devices is definitely changing due to many valid reasons and also there been a significant increase in the awareness and benefits of using solar energy devices over electrical devices. In the fastmoving world consumption of energy is abundant thus the customers will move on to othersources like solar energy for their consumption.

DATA ANALYSIS AND INTERPRETATION

In this chapter the analysis and interpretation of "A study on customer's satisfaction on solar energy products with special reference to coimbatore city" is presented based on the opinion of samples of 120 respondents selected from Coimbatore city through a questionnaire containing 20 questions. These were analysed through two different tools and they are as follows,

Simple Percentage analysis

Likert scale Analysis

SIMPLE PERCENTAGE ANALYSIS:

Simple percentage analysis is the method to represent raw streams of data as a percentage for better understanding of collected data. Percentage analysis is applied to create a contingency table from the frequency distribution and represent the collected data for better understanding.

**FORMULA:**

$$\text{Percentage} = \frac{\text{Number of respondents}}{\text{Total no. of respondents}} \times 100$$

TABLE 1
TABLE SHOWING THE GENDER OF THE RESPONDENTS

Gender	No .of Respondents	Percentage
Male	80	60.6%
Female	52	39.6%
Total	132	100

*(Source: Primary data)***INTERPRETATION**

It shows that there are 60.6% of male and 39.6% female respondents in the study

INFERENCE

Majority (60.6) of the respondents belong to the gender of male

TABLE 2
TABLE SHOWING THE EDUCATIONAL QUALIFICATION OF THE RESPONDENTS

Qualification	No of Respondents	Percentage
SSLC	15	11.4%
HSC	40	32.6%
Under Graduate	50	37.9%
Post Graduate	15	15.2%
Others	12	11.4%
Total	132	100

*(Source: Primary data)***INTERPRETATION**

It shows that the above mentioned table 4.1.3 states the qualification of the respondents among which qualification of the respondents SSC or Below is 10.8%, HSC is 32.5%, Under Graduate is 27.5%, Post Graduate is 17.5%, Diploma is 11.7%

INFERENCE

Majority (32.5%) of the respondent belong to the category of qualification with HSC

TABLE 3
TABLE SHOWING THE OCCUPATIONAL STATUS OF THE RESPONDENTS

OCCUPATION	NO OF THE RESPONDENTS	PERCENTAGE (%)
SELF EMPLOYED	22	17.6
SALARIED	49	39.2
OTHERS	54	43.2
TOTAL	125	100

INTERPRETATION

From the above table it is clear that out of 125 respondents 17.6% of the respondents are self

employed, 39.2% of the respondents are salaried, 43.2% are others.

Majority, 43.2% of the respondents are others.

**LIKERT SCALE ANALYSIS**

Likert scales are the most broadly used method for scaling responses in research studies. Research questions that ask you to indicate your level

of agreement, from strongly agree or highly satisfied to strongly disagree or highly dissatisfied, use the likert scale. In Likert scale method, a person's attitude is measured by combining (additional or averaging) their responses across all items.

FORMULA

$$\text{Likert scale} = \frac{\sum fx}{\text{Total number of respondents}}$$

Where,

F = Number of respondents

X = Likert scale value

$\sum fx$ = Total score

Mid value,

Mid-value indicates the middle most value of the Likert scale.

TABLE 4
TABLE SHOWING PRICE SATIAFACTION LEVEL OF SOLAR ENERGY PRODUCT USERS

Satisfied Level	No of Respondents	Likert scale value	Total value
Highly satisfaction	42	5	210
Satisfied	51	4	204
Neutral	21	3	63
Dissatisfied	10	2	20
Highly dissatisfied	8	1	8
Total	132		505

(Sources data : primary data)

INTERPRETATION

$$\begin{aligned} \text{LIKERT} &= \frac{\sum (fx)}{\text{Total number of respondents}} \\ &= 505 / 132 \\ &= 3.82 \end{aligned}$$

INFERENCE

Likert scale value is 3.82 which is greater than 3. So the respondents are satisfied.

FINDINGS, SUGGESTIONS AND CONCLUSION**FINDINGS****SIMPLE PERCENTAGE ANALYSIS**

- Majority (60.6) of the respondents belong to the gender of male

- Majority (62.1%) of respondents belong to the age group of Less than 20 years
- Majority (32.5%) of the respondent belong to the category of qualification with HSC
- Majority (77.3%) of the respondents are un married
- Majority (61.1%) of the respondents are students
- Majority (68.18%) of the respondents belong to the category of monthly income with Less than 200000.
- Majority (38.63%) of the respondents need for the Solar energy products in satisfaction.
- Majority (40.2%) of the respondent purchasing factor is price



- Majority (31.81%) of the respondents previously used models of 10kw, 25kw
- Majority (51.51%) of the respondent expected quality of solar energy products.
- Majority (35.60%) of the respondents knows about TV advertisements.
- Majority (31.06%) of the respondents buying the solar energy products.
- Majority (39.39%) of the respondents to affordable to the opinion concerning to the solar energy products.
- Majority (37.87%) of the respondent of currently using solar lights.

LIKERT SCALE ANALYSIS

- Likert scale value is 3.82 which is greater than 3. So the respondents are satisfied.

SUGGESTIONS

- Solar energy products at low cost.
- Need to improve quality and durability of products .
- Need more innovative products.

CONCLUSION

Solar power is an immense source of directly usable energy and ultimately creates others energy resources biomass, wind, hydropower and wave energy. the energy of lights shifts electrons in some semiconducting materials. This photovoltaic effect is capable of large scale electricity generation.

REFERENCE

1. Adam faiers, "A Study on consumer attitudes towards domestic solar power systems" Vol-34 Issue 14 sep 2006, pages 177-1806.
2. Sai Manoj Rompicherla. " A study on solar energy:the future" Ijett,Vol-4,Issue-6.June-2013,ISSN-2231-5381.
3. Dr.M.Venkatraman and U. Sheeba. "A study on customer attitude towards solar energy devices" Irjbm,Vol-5 May 2014 ISSN:2322-083.