Perception And Attitude of Domestic Kerala State Electricity Board (Kseb) Customers In Malappuram District, Kerala

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***Abstract*—Solar energy has immense potential to provide clean and renewable electricity. The use of solar panels and other technologies can harness the power of the sun and reduce reliance on fossil fuels, thus mitigating the negative impacts of climate change. However, the adoption of solar energy is dependent on the perception and attitude of individuals towards this technology. As the demand for electricity continues to escalate, understanding the mindset of consumers becomes imperative for the successful integration and adoption of solar energy initiatives Malappuram, situated in the southern part of India, is known for its rich cultural heritage and diverse demographic. Like many regions worldwide, it grapples with the dual challengeofmeetinggrowingenergydemandswhilemitigatingtheenvironmentalimpact.**

***Index Terms*—Solar energy, solar panels**

I. INTRODCTION

Solar energy conservation is an increasingly important topic in today's world, as the need for sustainable energy sources becomes more apparent This introduction will focus on the perception and attitude of domestic Kerala State Electricity Board (KSEB) customers in Malappuram district specifically with in the Kodur Panchayath area towards solar energy conservation.

The Kerala State Electricity Board plays a pivotal role in supplying electricity to homes and businesses within the district. As the world turns its attention towards renewable energy, it becomes imperative to explore the perceptions and attitudes of domestic consumers towards solar energy conservation with a micro-focus on the unique dynamics of Kodur Panchayath the Kodur Panchayat area in Malappuram district is known for its agriculture-based economy and rural setup. The residents here are predominantly dependent on KSEB for their electricity needs. Understanding the perception and attitude of these domestic customers towards solar energy conservation is crucial to further promote its usage in the region.

This study aims to explore the perception of domestic KSEB customers in Kodur Panchayat towards solar energy conservation. It will involve understanding their level of awareness and knowledge about solar energy, the perceived benefits and challenges and their willingness to adopt solar energy technologies. Additionally, the study will analyze the factors that affect their attitudes towards solar energy conservation, such as socio- economic status, age, education, and environmental consciousness By gaining insights into the perception and attitude of domestic KSEB customers in Kodur Panchayath

Towards solar energy conservation, this study will contribute to the development and implementation of effective strategies to promote renewable energy adoption. It will provide valuable information to policymakers, energy companies, and other stakeholders to design targeted initiatives and create awareness campaigns to encourage the use of solar energy in domestic settings.

The research aims to unravel the intricacies of how residents perceive and approach the adoption of solar energy solutions. By exploring the awareness levels, attitudes, and potential barriers within this community, the study endeavors to offer tailored recommendations for fostering a positive outlook on solar energy. The insights gained from this research will not only contribute to the energy landscape of Malappuram District but will also serve as a valuable reference for policy makers and stake holders aiming to promote sustainable energy practices at the local level.

II. RELEVANCE OF THE STUDY

The relevance of investigating the perception and attitude towards solar energy conservation among domestic Kerala State Electricity Board (KSEB) customers in Malappuram district, with a focus on Kodur Panchayat, lies in its potential to inform and shape sustainable energy initiatives at both the local and global levels. Understanding the awareness, knowledge, perceived benefits, and challenges related to solar energy conservation among domestic customers is crucial for promoting sustainable practices and to know the specific mindset of consumers within this region is critical for designing effective policies and interventions tailored to their needs and concerns to know the Potential adoption of renewable energy sources in the region

The findings of this study can serve as a practical guide for policymakers, enabling them to implement targeted strategies that overcome barriers, capitalize on motivations, and foster community engagement. Moreover, the insights gained contribute to the broader discourse on renewable energy adoption aligning with global efforts to transition towards sustainable energy sources Thus the projects relevance extends beyond the immediate community, influencing regional energy practices and contributing to the collective global pursuit of a greener future

III. STATEMENTOFPROBLEM

The embrace of solar energy within domestic households served by the Kerala State Electricity Board (KSEB) in Malappuram district, with a Lenson Kodur Panchayat, confronts multifaceted challenges that demand focused investigation There is a lack of understanding regarding the perception and attitude of domestic customers towards solar energy conservation in this specific region. Furthermore, the factors influencing their awareness, knowledge, perceived benefits and challenges related to solar energy conservation practices a well understood Despite the global push towards sustainable energy, a critical gap persists in comprehending the intricate tapestry of consumer perceptions and attitudes prevalent in this specific locale. The barriers obstructing the seamless integration of solar technologies, the motivations steering or impeding adoption, and the contextual nuances shaping consumer decisions are paramount yet elusive. This study aims to bridge this gap by delving into the heart of these complexities, offering a comprehensive exploration of the challenges and opportunities associated with solar energy conservation in domestic settings. By doing so, it aspires to furnish policymakers, energy stake holders and the community itself with the insights needed to navigate and unlock the full potential of solar energy adoption in Kodur Panchayat “Perception and Attitude Of Solar Energy Conservation Among Domestic KSEB Customer’s in Malappuram District with Special Reference to Kodur Panchayath”

IV. SCOPE OF THE RESEARCH

This research unfolds within the distinct geographical and sociocultural confines of Kodur Panchayath in Malappuram district, offering a focused lens on the solar energy landscape. The scope encompasses a comprehensive exploration of the perceptions and attitudes of domestic Kerala State Electricity Board (KSEB)customers, dissecting the barriers and motivations that influence their stance on solar energy conservation The study incorporates a variety of factors such as socio-economic variables, cultural influences, and existing energy infrastructures to provide announced understanding of the challenges and opportunities unique to this region By concentrating on a specific locality the research aims to furnish targeted recommendations and insights, ensuring the outcomes are not only academically enriching but also practically applicable to the community in Kodur Panchayat. The study will target domestic customers who are currently receiving electricity from Kerala State Electricity Board (KSEB) in Malappuram district with a particular emphasis on those residing in Kodur Panchayat and the study will explore the various factors that influence the perception and attitude of domestic customers. These factors may include: education level, awareness, campaigns, availability of subsidies or incentives, environmental consciousness, and social influences

V. OBJECTIVESOFTHE STUDY

- To assess the level of awareness among domestic customers in Malappuram district, especially

within Kodur Panchayat, about solar energy conservation practices

- To analyze the perception of domestic customers towards solar energy conservation, including their understanding of the benefits, advantages, and potential drawbacks of solar energy systems
- To identify the factors that influence the attitude of domestic customers towards solar energy conservation, such as socio-economic factors, environmental awareness, cultural or social influences, and availability of incentives or subsidies.
- To explore the attitudes and perceptions of domestic customers towards the Kerala State Electricity Board's (KSEB) initiatives and policies related to solar energy conservation.
- To determine the level of adoption and implementation of solar energy conservation practices among domestic customers in Malappuram district, with a specific focus on Kodur Panchayat.

VI. RESEARCHMETHODOLOGY

Research methodology is a plan for conducting the research. It is the description, explanation and justification of various method of conducting research. It is the specific procedure or techniques used to identify, select, process and analysis information about topic. In a research paper the methodology section allows the reader to critically evaluate

A study's overall validity and reliability the methodology section answer 2 main questions how was the data collected or generated? How was it analyzed.

VII. RESEARCHDESIGN

Research design is a framework of methods and techniques chosen by a researcher to combine various components of research in a reasonably logical manner so that the research problem is efficiently handled. It provides insights into how to conduct research using a particular methodology. Structured questionnaire is used in this study for collecting data from students in the Malappuram District with special reference to kodur panchayath

VIII. DATACOLLECTION

- PRIMARYDATA

Primary data is data that is collected by a researcher from first-hand sources by using methods like survey, interviews or experiments. In this project primary data are collected from students in Malappuram district special reference to Kodur Panchayth by using structured questionnaires through Google forms

- SECONDARYDATA

Secondary data is the data that have been already collected from other sources. Secondary data was collected from previous research publications, books, Google and different websites.

IX. SAMPLEDESIGN

Sampling design is a definite plan Followed in the study to collect information from a sample in the population. Convenience sampling is used to collect data from students. Convenience sampling is a specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in the study.

Sample size: Sample size refers to the number of individuals or observations chosen from a larger population for a study. It impacts the reliability and generalizability of research findings. A balance is needed between a sufficiently large sample for accuracy and practical constraints like cost and time.

The Number of Samples Selected FortheStudyIs60

i. Population of the study:

The population of study refers to the entire group that the researcher aims to investigate. It includes all individuals, items, or elements with common characteristics relevant to the research objectives.

The population for the study consists of people in Malappuram district special reference to kodur panachath

ii. Sampling method:

Nonrandom convenient sampling method Nonrandom convenient sampling is a method where participants are chosen based on ease of accessor availability rather than through a random selection process. This approach is convenient but may introduce bias into the sample.

X. TOOLS FOR DATA ANALYSIS AND INTERPRETTION

Tables, charts, diagram and graphs are used to classify categories and present data mathematical analysis aids such as ratios and percentages are planned to use on appropriate occasions.

LIMITATION

i. The study is focused on primary data which is expected to obtain through interviews and questionnaires and therefore a very chance for response bias.
ii. The research work is only limited to 60respondent
iii. Sampling errors may occur.
iv. It cannot expect 100 % honesty from samples

XI. REVIEW OF LITERATURE

1. Arshiya Fathima Ms, H Moideen Batcha, Ansari Sarwar (2023) The research is based on primary data that has been collected from a total of 351 non-users of seps from different cities of Tamil Nadu state (India)Confirmatory factor analysis and structural equation modelling have been used to examine the collected data. Findings Attitude, perceived behavioral control and energy concern variables are significant towards consumers' purchase intention. The outcome of this study will be effective in developing action plans to improve environmental quality through solar products.
   Originality/value.Thisstudyhastargetedthepotentialconsumersandidentifiedfactors that are influencing consumers' intention to purchase SEP.

2. Mirza Huzaifa Asif, Tan Zhongfu, Azer Dilanchiev, Muhammad Irfan Elchi Eyvazov & Bilal Ahmad (2023) This research investigates the factors influencing consumer attitudes and intentions towards adopting renewable energy (RE) in Pakistan. Using structural equation modeling on survey data from 359 consumers using solar panels, the study finds that value orientation and utilitarian benefits positively influence the reason for adopting RE and attitudes toward RE Additionally, collective is main reason for adoption positively relate to attitudes toward RE. The study concludes that consumer intentions to use renewable energy are influenced by their attitudes toward RE. These findings contribute to future research and practice in renewable energy adoption.

3. Shah Rukh Shakeela, Hassan Yousafb, Muhammad Irfancde, Arto Rajala(2023) This paper systematically reviews 146 studies to identify key factors influencing household adoption of solar photovoltaics (PV). It categorizes 127 unique factors into eight groups: economic, environmental, social, personal, demographic, technical, regulatory, and market-related. The study proposes guidelines for practitioners, highlights knowledge gaps, and suggests directions for future research to promote solar PV adoption.

4. Muhammad Ashraf Fauzi, Nazim Hanis Zainal Abidin, Norazah Mohd Suki, Ahmed Mokhtar Albshir Budiea (2023) The study reviews residents' adoption of rooftop solar PV and aims to understand the knowledge structure in this area. Using a bibliometric approach with 564 publications from the Web of Science, the study performs co-citation and co-word analyses to uncover trends. Significant themes include diffusion, innovation adoption, and motivation/predictors. This review contributes to understanding critical determinants of solar PV adoption among households

5. Iuliana Petronela Gârdan, Adrian Micu, Carmen Adina Paștiu, Angela Eliza Micu, Daniel Adrian Gârdan (2023) The study examines the relationship between various factors and the use of renewable energy (RE) among 1126 respondents. It validates a theoretical model highlighting the complex interplay of variables such as environmental concern, knowledge about RE, perceived utility and ease of use attitude toward RE, and behavioral intentions. Results indicate that attitudes toward RE are strongly influenced by perceived utility, social influence, and environmental concern. The study also finds that decisions regarding RE technology preference are linked to education level and income.

6. Amin Barnawi, Mohamed A Zohdy, Tarik Hawsawi (2020) This study explores the adoption of solar energy in reside initial buildings in Saudi Arabia focusing on Makkah. Despite global energy demand and environmental concerns, solar energy adoption in Saudi housing remain slow. there search uniquely examines customer perspectives on a national scale to identify factors influencing their intentions to use solar energy Using the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2),the study Analyzes data from 250 participants to reveal that Social Influence, Performance Expectancy, Effort Expectancy, and Facilitating Conditions significantly impact .consumer behavior and decisions regarding solar PV technology adoption.
7. MAlipour,Sara Ghaboulian Zare, Firouzeh Taghikhah, RezaHafezi (2023) This study explores the adoption of solar water heaters(swhs)in residential areas driven by environmental concerns and cost reductions. It focuses on household decision-making processes and identified predict or influencing SW diffusion. A systematic review of 101 articles categorizes predictors into socio demographic and individual factors, revealing 121 predictors. Key factors include demographics, environmental values, income, education, environmental concerns, and emission reduction. These findings can inform policymakers and industry stakeholders in designing effective incentive policies for promoting renewable energy technologies.
8. Hmh Asif TZhongfu,B Ahmad, M Irfan, A Razzaq (2023) This study investigates solar energy adoption in rural China, focusing on consumers' buying intentions. It adds new variables to the theory of planned behavior and finds that attitude, environmental knowledge subjective norm, perceived control, and beliefs positively in fluence buying intentions. However, environmental concern does not significantly affect buying intention. The study emphasizes the importance of changing societal norms, increasing consumer awareness, and redesigning regulatory mechanisms to promote solar energy and enhance environmental sustainability practices.
9. Kevin Chadwick, Rebekah Russell-Bennett, Nicholas Biddle (2022) This review synthesizes research on household adoption and rejection of energy technologies, proposing a framework with five psychosocial categories. It contrasts with simplistic consumer archetypes, highlighting affective influences. The framework can enhance the realism of future energy transition efforts, improve engagement with households, and address challenges in mainstream consumer rejection and engaging excluded households.
10. Emily Schulte Fabian Scheller Daniel Sloot, Thomas Bruckner (2022) This paper conducts a meta-analysis on residential PV system adoption intention, analyzing four behavioral models. Out of 653 studies, eight were integrated into the analysis. Results show correlations between environmental concern novelty seeking perceived benefits, subjective norm, and adoption intention. Meta-analytical modeling reveals that adoptionintentionispredictedbyperceivedbenefitsandperceivedbehavioralcontrol. The findings suggest a focus on enhancing the perception of benefits to promote residential PV system adoption
11. MM Fouad, Stratis Kanarachos, Mahmoud Allam (2022) This study aims to understand consumer perceptions of new energy services. It conducted a literature review, an online questionnaire with 212 respondents, and qualitative interviews with six early adopters. Results show that over half of the respondents would accept third- party device control but have security concerns. Consumers are willing to invest in renewable energy systems with a payback time of less than 5 years. Factors driving acceptance include financial rewards and bill reductions, while barriers include data security, privacy, ignorance of control nature, and high initial costs. This study helps Egyptian energy actors adapt their plans to encourage consumer participation in the energy market.
12. Wan-Hao Zhang, Li-Chen Chou, Mengdi Chen (2022) This study explores factors influencing Chinese residents 'intention to use house hold photo voltaic (PV) systems It examines the roles of environmental concern and innovativeness, as well as the mediating effects of perceived

benefits and harm of PV systems. Data from 400 participants in Zhejiang Province were analyzed. Results show that environmental concern and innovativeness positively influence use intention, mediated by perceived benefits and harm. Residents' monthly electricity consumption also moderates these associations. The study suggests regulating safety standards nationwide and reducing conspicuous consumption to enhance social confidence in PV systems.

13. Haneen Abuzaid, Lama Abu Moeilak, Ayman Alzaatreh (2022) This paper examines factors influencing customers' perception of photovoltaic (PV) solar projects for residential use in the United Arab Emirates (UAE). It highlights the UAE's pioneering role in regulating renewable energy and sets annual targets for renewable energy use and carbon emissions reduction. Using confirmatory factor analysis and structural equation modeling, the study finds that financial and environmental aspects are key factors influencing customers' perception. The research suggests that perception positively impacts the intention to adopt residential PV systems. The findings can be useful for governmental authorities, PV system contractors, leasing companies, and energy consultants to enhance customer perception and increase the adoption of PV systems in the residential sector.
14. Sambo Zulu, Ephraim Zulu, Mwansa Chabala (2022) This study examined the factors that influence households' intention to adopt solar energy solutions in Zambia. This, in view of low adoption rates of solar energy solutions even in the wake of a widespread electricity power generation deficit across sub-Sahara Africa (SSA) has plagued the region with daily electricity load shedding lasting several hours at a time. Given the vast potential for solar energy generation in the region solar energy solutions have become an attractive option to grid-based electricity, and many households have intentions of adopting these solutions.
15. PGârdan,AMicu, CAPaștiu, AEMicu, DA Gârdan (2023)This research focuses on the relationship between variables such as environmental concern, knowledge about renewable energy, perceived utility and ease of use of renewable energy, attitude toward renewable energy and behavioral intentions to use renewable energy The study uses a sample of1126 respondents to validate a theoretical model, finding that attitudes toward renewable energy consumption are strongly influenced by perceived utility, social influence, and concern for the environment The study highlights the importance of factors such as education level and income in shaping behavioral intentions and actual consumption behavior for renewable energy.
16. R Senthil-Acta Innovations (2022) This review discusses recent innovations in solar energy education, research, and development aimed at providing clean and affordable energy, aligning with Sustainable Development Goal 7 (SDG7: Affordable and Clean Energy) of the United Nations. It highlights the importance of solar energy in providing clean water and addresses global warming challenges. The article a lso discusses drivers and barriers to implementing solar energy systems at different education levels and emphasizes the need for expedited solar energy education and research for sustainable energy development.
17. AbdulazizI.Almulhim (2023) This study investigates public awareness and attitudes toward renewable energy in Saudi Arabia. Using a sample of 310 respondents the study finds that the majority of Saudi Arabians have moderate knowledge about renewable energy. While many are concerned about pollution and see the benefits of alternative energy, high prices are a major barrier to adoption. The study suggests that raising awareness and implementing smart measures are essential to encourage the use of renewable energy technologies in everyday life and achieve the goals set in Saudi Vision 2030.

XII. THEORETICALFRAMEWORK

INTRODUCTION

Solar energy conservation is an increasingly important topic in today's world, as the need for sustainable energy sources becomes more apparent Solar energy has immense potential to provide clean and renewable Electricity. The use of solar panels and other technologies can harness the power of the sun and reduce reliance on fossil fuels, thus mitigating the negative impacts of climate change However, the

adoption of solar energy is dependent on the perception and attitude of individuals towards this technology. The Kodur Panchayat area in Malappuram districts known for its agriculture-based economy and rural setup. The residents here are predominantly dependent on KSEB for their electricity needs. Understanding the perception and attitude of these domestic Customers towards solar energy conservation is crucial to further Promote its usage in the region. Renewable Energy (RE) is now making a noticeable impact especially in the lives of rural masses. Simultaneously though, its use for urban and semi-urban applications is also growing by the day. The Indian Renewable Energy program was amongst the first few such programs to shape up globally. Since then, it has assumed respectable market Leadership position in few areas more so in wind energy and solar energy. Solar Energy products like solar panels are now widely being used in India and other parts of the world.

ENERGYANDSOLARENERGY–AN OVERVIEW

Energy is consumed in a variety of forms in India. Fuel wood, animal waste and Agricultural residues are traditional sources of energy that continue to meet the bulk of Energy requirement in rural India. These non-commercial fuels are gradually getting replaced by commercial fuels such as coal, lignite, petroleum products, natural gas and Electricity. Energy is a key input in economic growth there is a close link between the Availability of energy and the future growth of a nation. However, in a developing country Like India greater the availability of energy the more is its shortage. In spite of the increase in power generating capacity from 2000 MW in 1950 to 91,190 MW by the end of 2000, the peak shortage is expected to touch 30 per cent 4Commercial fuel accounts for 60 percent of the total primary energy supply in India with the balance 40 percent coming from non-commercial fuels. Of the total Commercial energy produced in the form of power or electricity, 69 percent is from coal or Thermal power, 25 percent is from hydropower, 2 percent is from nuclear power,3Percent is from diesel and gas and lessthan1percent is from non-conventional sources like solar, wind, bio-gas, mini hydro etc. Petroleum and its products are the other large Sources of energy.

The Government of India has formulated an energy policy with the objective of Ensuring adequate energy supply at a minimum cost, achieving self-sufficiency in energy Supplies and protecting environment from adverse impact of utilizing energy resources in an un-judicial manner. The main features of the policy are(i) Accelerated exploitation of Domestic conventional energy resources-oil, coal, hydro and nuclear power;(ii) Intensification of exploration to achieve indigenous production of oil and gas; (iii)Management of demand of oil and other forms of energy;(iv) Energy conservation and Management;(v) Optimization of utilization of existing capacity in the country; (vi)Development and exploitation of renewable sources of energy to meet energy Requirements of rural communities;(vii) Intensification of resources and development Activities in new and renewable energy resources; and(viii) Organization of training for Personnel engaged at various levels in the energy sector5

Classifications of Energy Resources Energy sources
Energy Sources can be broadly divided into two major categories commercial Energy and Noncommercial Energy. Further commercial Energy can be sub-divided into Conventional Energy and non-conventional Energy
Commercial Energy: The energy sources that are available in the market for a definite Price are known as commercial energy. By far the most important forms of commercial Energy are electricity, coal and refined petroleum products. Commercial energy forms the Basis of industrial, agricultural, transport and commercial development in the modern World.

Non-Commercial Energy: The energy sources that are not available in the Commercial market for a price are classified as non-commercial energy. Non-commercial Energy sources include fuels such as firewood, cattle dung and agricultural wastes, which are traditionally gathered, and not bought at a price used especially in rural households. These are also called traditional fuels.

SOLARENERGYPRODUCT

- Solar Photovoltaic
- Solar water heating systems

- Domestic and commercial applications of Solar Water Heater
- Solar Air Heating/ Steam Generating System
- Solar cookers
- Solar Flat Plate Collector (FPC)
- Solar street lighting systems
- PV Water Pumping
- Solar Traps/pest catcher
- Solar Traffic Signals
- Police wireless system in remote areas
- Telecommunication network
- Solar T.V and other devices
- Solar-Tech PV Systems
- Solar-Tech Thermal System

PERCEPTION AND ATTITUDE

Solar energy adoption," perception refers to how individuals interpret and make sense of information related to solar energy. It involves the awareness, understanding, and subjective interpretation of solar energy's benefits, effectiveness, and relevance. Attitude, on the other hand, represents individuals' predispositions or evaluations regarding solar energy. It encompasses their overall positive or negative inclinations, beliefs, and sentiments toward adopting solar energy solutions. Understanding perception and attitude in this context is crucial for analyzing the factors influencing individuals' decisions to embrace or resist solar energy technologies and practices.

KSEB CUSTOMERS

KSEB customers are individuals or entities who receive electricity services from the Kerala State Electricity Board (KSEB). As the primary electricity provider in Kerala, India, KSEB serves residential, commercial, industrial, and agricultural customers across the state. These customers rely on KSEB for their electricity needs, including lighting, heating, cooking, and powering various appliances and equipment. KSEB customers may also include government institutions, educational facilities, hospitals, and other public establishments that depend on electricity for their operations.

VARIOUS FACTORS INFLUENCE CUSTOMER SATISFACTION

1. Performance and Reliability: Satisfaction may be influenced by the actual performance of solar energy systems, including reliability, efficiency, and the ability to meet energy needs consistently.

2. Installation Process A smooth and well-managed installation process can enhance customer satisfaction, ensuring that the transition to solar energy is seamless and minimally disruptive.

3. Cost-Effectiveness: Customers may be satisfied if they perceive tangible financial benefits, such as reduced energy bills and a favorable return on investment from adopting solar energy.

4. Customer Support: Effective customer support, including assistance with system maintenance, troubleshooting, and addressing queries, can contribute to overall satisfaction.

5. Education and Information: Providing clear and comprehensive information about solar energy benefits, maintenance procedures, and potential savings can positively impact satisfaction by empowering customers with knowledge.

6. Government Incentives: If applicable, the accessibility and effectiveness of government incentives or subsidies for solar energy adoption may influence customer satisfaction.

7. Environmental Impact: Customers who prioritize sustainability and environmental consciousness may derive satisfaction from the positive impact of solar energy adoption on reducing carbon footprint.

8. Long-Term Benefits: Satisfaction could be influenced by the perceived long-term benefits of solar energy, such as energy independence, resilience, and contributing to a cleaner environment.

XIII. DATA ALAYSIS AND INTERPRETATIONS

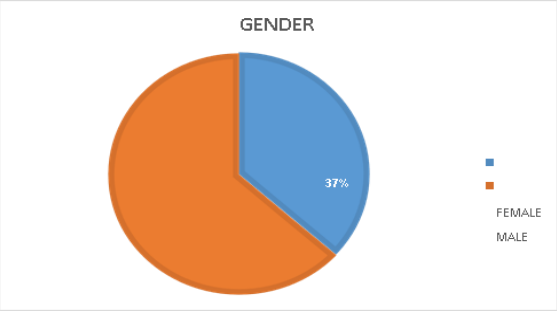
GENDERWISECLASSIFICATION

TABLE4.1

GENDER	FREQUENCY	%OF RESPONDENTS
FEMALE	22	36.67%
MALE	38	63.33%
Grand Total	60	100.00%

(Source primary source)

CHART 4.1



INTREPRETATION

Table4.1displays a gender wise distribution with36.67%femaleand63.33%male respondents, offering insights into the gender dynamics within the study.

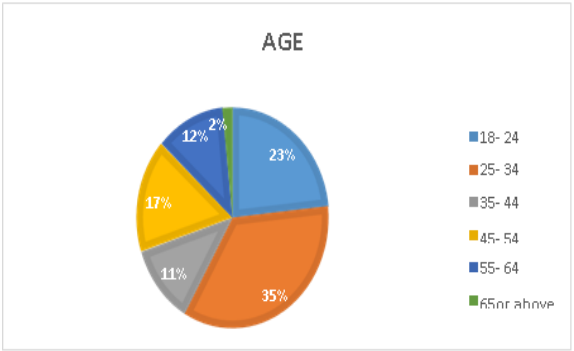
AGEWISECLASSIFICATION

TABLE4.2

AGE	FREQUENCY	PERCENTAGE
18 – 24	14	23.33%
25 – 34	21	35.00%
35 – 44	7	11.67%
45 – 54	10	16.67%
55 – 64	7	11.67%
65 or above	1	1.67%
Grand Total	60	100.00%

(Source: primary source)

Chart4.2



INTERPRETATION

Table4.2illustrates the age distribution with a significant portion in the25-34 age group (35.00%). The data provides a diverse representation across various age brackets, contributing to a comprehensive analysis.

EDUCATIONWISECLASSIFICATION

TABLE4.3

EDUCATION	NO.OF PERSONS	PERCENTAGE
Advanced degree	7	11.67%
Bachelor's degree	25	41.67%
High school graduate	22	36.67%
Less than high school	6	10.00%
Grand Total	60	100.00%

(Source: primary source)

CHARTNO.4.3

INTERPRETATION

Table 4.3 displays the educational distribution, with 41.67% holding a Bachelor's degree, 36.67% high school graduates, and 11.67% with advanced degrees. A smaller percentage (10.00%) have education levels less than high school, showcasing diverse educational backgrounds for analysis.

OCCUPATIONWISECLASSIFICATION

TABLE4.4

OCCUPATION	FREQUENCY	PERCENTAGE
Employed	25	41.67%
Other	3	5.00%
Self employed	19	31.67%
Student	13	21.67%
Grand Total	60	100.00%

(Source primary source)

CHART 4.4

INTERPRETATION

Table 4.4 illustrates the occupation distribution, with 41.67% employed, 31.67% self- employed, and 21.67% students. A smaller percentage (5.00%) falls into the 'Other' category, showcasing diverse occupational backgrounds for analysis

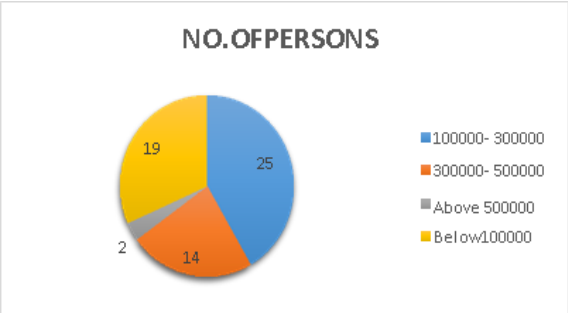
INCOMELEVELCLASSIFICATION

TABLE4.5

INCOME LEVEL	NO OFPERSONS	PERCENTAGE
100000 - 300000	25	41.67%
300000 - 500000	14	23.33%
Above500000	2	3.33%
Below100000	19	31.67%
Grand Total	60	100.00%

(Source primary source)

CHART 4.5



INTERPRETATION

Table 4.5 illustrates income-level distribution, with 41.67% falling in the 100,000 - 300,000 range Additionally,23.33%fallinthe300,000 -500,000 bracket and 3.33% have an income above 500,000 A significant percentage (31.67%) falls below 100,000, show casing economic diversity for analysis

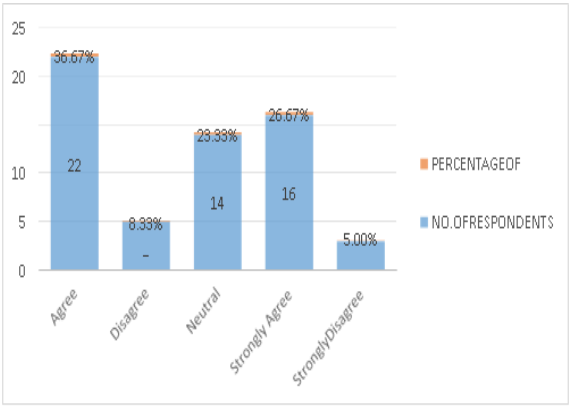
THESOLARENERGY'SEFFICIENCYINENERGYCONSERVATION

TABLE 4.6

OPTIONS	N.OF RESPONDENTS	PERCENTAGEOF RESPONDENTS
Agree	22	36.67%
Disagree	5	8.33%
Neutral	14	23.33%
Strongly Agree	16	26.67%
Strongly Disagree	3	5.00%
Grand Total	60	100.00%

(Source: primary source)

CHART4.6



INTERPRETATION

Table4.6shows varied perceptions on the efficiency of solar energy in energy conservation A notable36.67%agree,26.67%stronglyagree,8.33%disagree,5.00% strongly disagree and 23.33% remain neutral.

VIEWSREGARDINGTHEDOMESTICVIABILITY OFSOLAR POWER

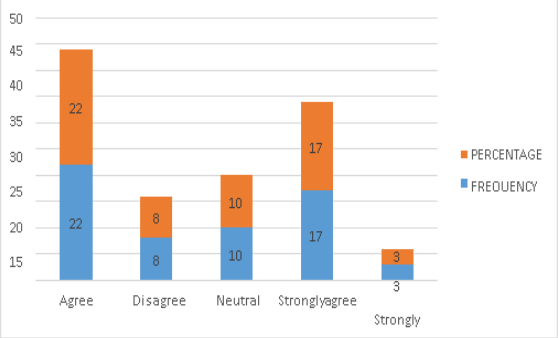
TABLE4.07

OPTIONS	FREQUENCY	PERCENTAGE
Agree	22	22
Disagree	8	8

Neutral	10	10
Strongly agree	17	17
Strongly Disagree	3	3
Grand Total	60	60

(Source: primary source)

CHART4.7



INTERPRETATION

Table 4.07 reflects varied opinions on the domestic viability of solar energy. While 22% agree and17% stronglyagree,8% disagree and3%stronglydisagree. Additionally,10% remain neutral.

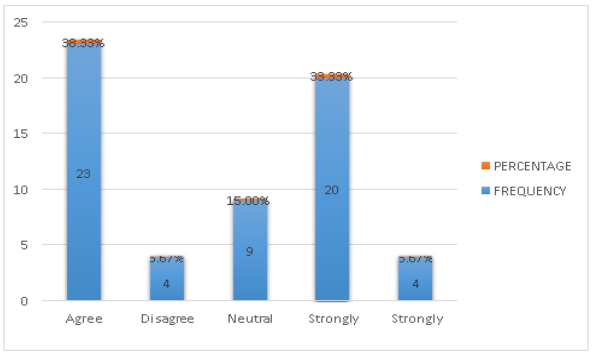
DIVERSEOPINIONSONRESIDENTIALSOLARENERGY ADVANTAGES

TABLE4.8

OPTIONS	FREQUENCY	PERCENTAGE
Agree	23	38.33%
Disagree	4	6.67%
Neutral	9	15.00%
Strongly agree	20	33.33%
Strongly Disagree	4	6.67%
Grand Total	60	100.00%

(Source primary source)

CHARTNO.4.8



INTERPRETATION

Table 4.8 reveals diverse opinions on residential solar energy advantages, with 38.33% agreeing and 33.33% strongly agreeing Only 6.67% disagree while 6.67% strongly disagree. Additionally, 15.00% remain neutral,

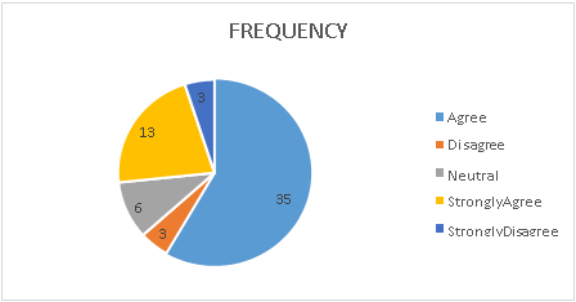
ANALYSING THE HOME BOUND BENEFITS OF SOLAR ENERGY

TABLE4.9

OPTIONS	FREQUENCY	PERCENTAGE
Agree	35	35
Disagree	3	3
Neutral	6	6
Strongly Agree	13	13
Strongly Disagree	3	3
Grand Total	60	60

(Source primary source)

CHART4.9



INTERPRETATION

Table 4.9 reveals strong agreement (35%) and strong disagreement (3%) regarding the homebound benefits of solar energy. Additionally, 13% strongly agree, 3% strongly disagree, and 6% remain neutral.

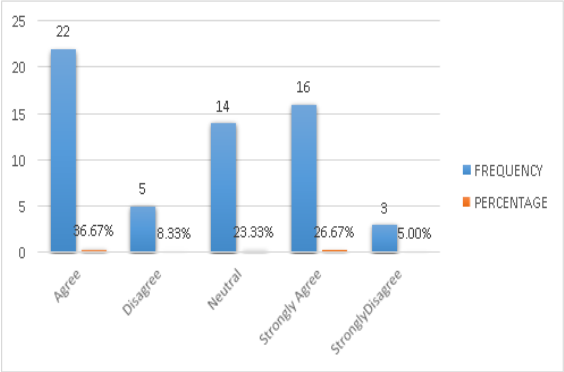
VIEWS ON SOLAR ENERGY AND COMMUNITY SUSTAINBLITY

TABLE4.10

OPTIONS	FREQUENCY	PERCENTAGE
Agree	22	36.67%
Disagree	5	8.33%
Neutral	14	23.33%
Strongly Agree	16	26.67%
Strongly Disagree	3	5.00%
Grand Total	60	100.00%

(Source: primary source)

CHART4.10



INTERPRETATION

Table 4.10 reflects diverse views on the link between solar energy and community sustainability.36.67% agree,26.67%stronglyagree,8.33%disagree,5.00%stronglydisagree, and 23.33% remain neutral,

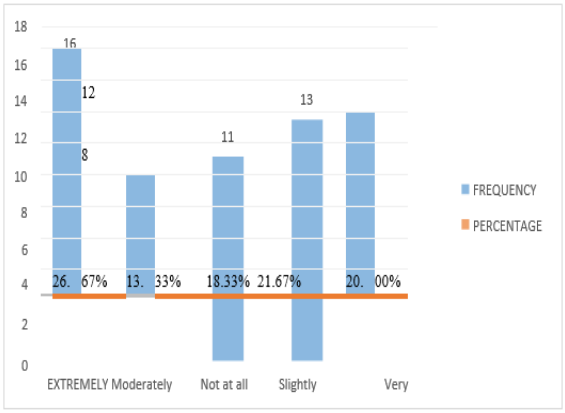
VIEWS ON PRACTICALITY OF SOLAR ENERGY

TABLE4.11

OPTIONS	FREQUENCY	PERCENTAGE
EXTREMELY	16	26.67%
Moderately	8	13.33%
Not at all	11	18.33%
Slightly	13	21.67%
Very	12	20.00%
Grand Total	60	100.00%

(Source primary source)

CHART4.11



INTERPREATION

Table4.11explores perceptions of the practicality of solar energy with26.67%consideringit extremely practical and 20.00% very practical. Additionally, 13.33% find it moderately practical, 21.67% slightly practical, and 18.33% believe it is not at all practical

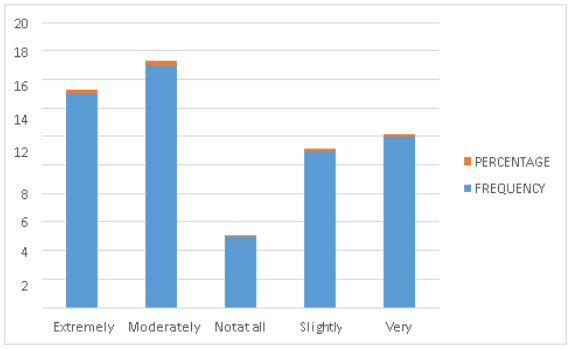
AWARENESS OF SOLAR ENERGY BENEFITS ON PERCEPTION

TABLE4.12

OPTIONS	FREQUENCY	PERCENTAGE
Extremely	15	25.00%
Moderately	17	28.33%
Not at all	5	8.33%
Slightly	11	18.33%
Very	12	20.00%
Grand Total	60	100.00%

(Source primary source)

CHART4.12



INTERPRETATION

Table 4.12 illustrates diverse levels of awareness regarding solar energy benefits and their impact on perception. Not ably,25.00% indicate extreme awareness,28.33%report a moderate level, while 8.33% claim no awareness. Additionally, 18.33% have slight awareness, and 20.00% express a very high level

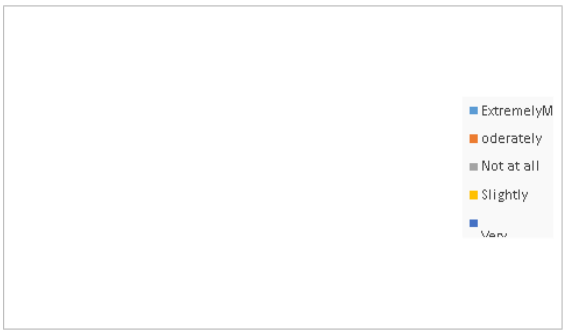
ATTITUDE TOWARDS ENVIRONMENTAL CONCERNS

TABLE4.13

OPTIONS	FREQUENCY	PERCENTAGE
Extremely	14	23.33%
Moderately	21	35.00%
Not at all	4	6.67%
Slightly	7	11.67%
Very	14	23.33%
Grand Total	60	100.00%

(Source primary source)

CHART4.13



INTERPRETATION

Table 4.14 displays varied levels of environmental concern among respondents. Notably, 23.33% express extreme concern, 35.00% report a moderate level Additinally,23.33% feel very concerned 11.67% slightly concerned, and only 6.67% indicate no concern.

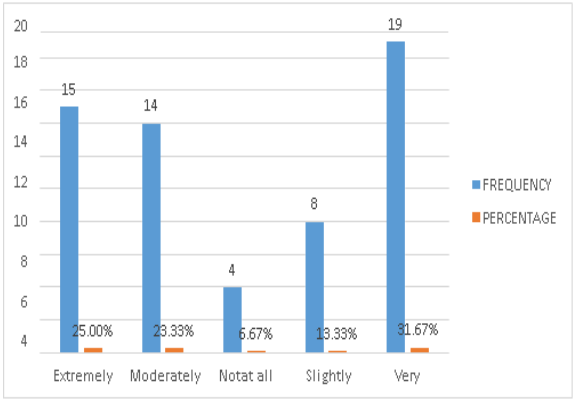
PERSPECTIVE SON THE DUAL BENEFITS OF SOLAR ENERGY FOR INDIVIDUALS AND THE ENVIRONMENT

TABLE4.14

OPTIONS	FREQUENCY	PERCENTAGE
Extremely	15	25.00%
Moderately	14	23.33%
Not at all	4	6.67%
Slightly	8	13.33%
Very	19	31.67%
Grand Total	60	100.00%

(Source primary source)

CHART4.14



INTERPRETATION

Table 4.14 indicates diverse perceptions of the dual benefits of solar energy. A significant portion (25.00%) perceives these benefits as extreme, while 23.33% express a moderate level of perception. Additionally,31.67% feel very strongly about these dual benefits,13.33%have a slight perception, and only 6.67% indicate no perception at all

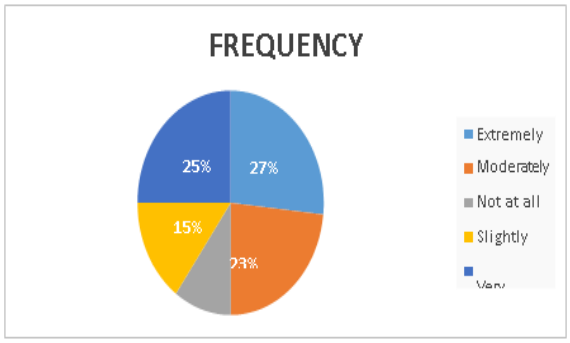
AWARENESS REGARDING COST EFFECTIVENESS OF SOLAR ENERGY

TABLE4.15

OPTIONS	FREQUENCY	PERCENTAGE
Extremely	16	26.67%
Moderately	14	23.33%
Not at all	6	10.00%
Slightly	9	15.00%
Very	15	25.00%
Grand Total	60	100.00%

(Source primary source)

CHART4.15



INTERPRETATION

Table 4.15 shows diverse perceptions of solar energy's influence on cost effectiveness, a notable portion (26.67%) perceives this influence as extreme while23.33% express a moderate level of perception. Additionally,25.00%feel very strongly about the influence, 15.00%have a slight perception, and 10.00% indicate no perception at all.

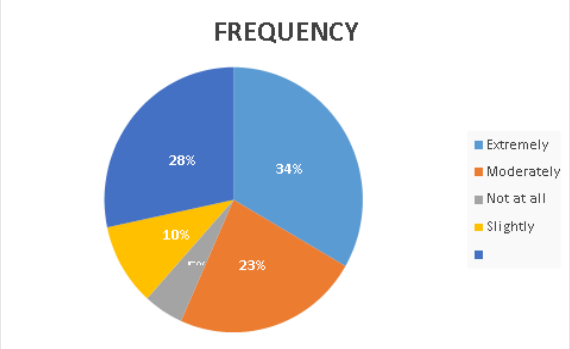
KNOWLEDGE ABOUT AVAILABLE ENERGY SYSTEMS

TABLE4.16

OPTIONS	FREQUENCY	PERCENTAGE
Extremely	20	33.33%
Moderately	14	23.33%
Not at all	3	5.00%
Slightly	6	10.00%
Very	17	28.33%
Grand Total	60	100.00%

(Source primary source)

CHART4.16



INTERPRETATION

Table4.16 indicates diverse awareness levels of available energy systems, a significant portion (33.33%) indicates an extreme level of awareness, while 23.33% report a moderate level. Additionally, 28.33% feel very aware, 10.00% have a slight awareness, and only 5.00% indicate no awareness at all

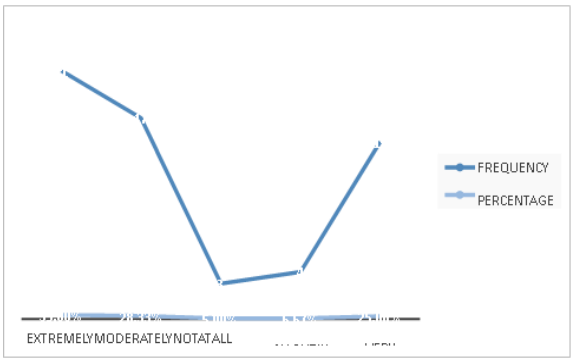
AWARENESS REGARDING SOLAR ENERGY ROLE AS A CONTINOUS POWER SOURCE

TABLE4.17

OPTIONS	FREQUENCY	PERCENTAGE
Extremely	21	35.00%
Moderately	17	28.33%
Not at all	3	5.00%
Slightly	4	6.67%
Very	15	25.00%
Grand Total	60	100.00%

(Source primary source)

CHART4.17



INTERPRETATION

Table 4.17 shows diverse perceptions of solar energy as a continuous power source, a significant portion (35.00%) perceives this influence as extreme, while 28.33% express a moderate level of perception. Additionally, 25.00% feel very strongly about this influence, 6.67% have a slight perception, and 5.00% indicate no perception at all.

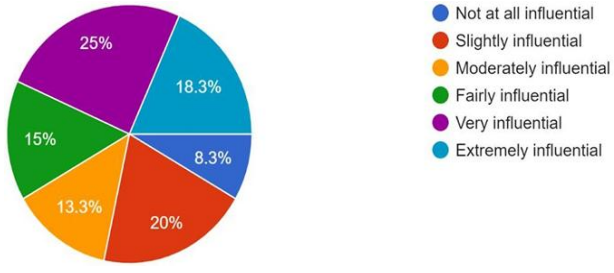
ASSESSING THE IMPACT OF KSEBINITIATIVES ON SOLAR ENERGY ADOPTION

TABLE4.18

OPTIONS	FREQUENCY	PERCENTAGE
Extremely influential	11	18.33%
Fairly influential	9	15.00%
Moderately influential	8	13.33%
Not at all influential	5	8.33%
Slightly influential	12	20.00%
Very influential	15	25.00%
Grand Total	60	100.00%

(Source primary source)

CHART4.18



INTERPRETATION

Table 4.18 reflects diverse opinions on the influence of KSEB initiatives on solar energy adoption. A considerable portion (25.00%) perceives the influence

as very influential, while 18.33%find it extremely influential. Additionally, 15.00%considerit fairly influential, 13.33% moderately influential, and 20.00% slightly influential. Only 8.33% believe KSEB initiatives are not at all influential.

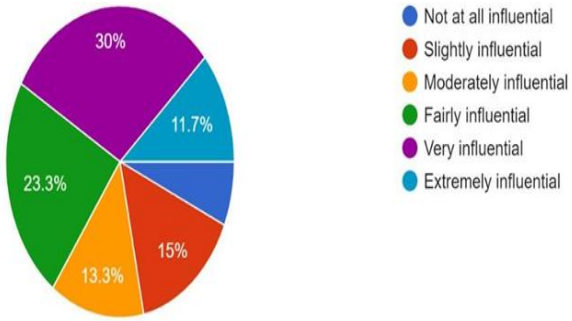
SOCIAL INFLUENCE IN SOLAR ATTITUDES

TABLE4.19

OPTIONS	FREQUENCY	PERCENTAGE
Extremely influential	7	11.67%
Fairly influential	14	23.33%
Moderately influential	8	13.33%
Not at all influential	4	6.67%
Slightly influential	9	15.00%
Very influential	18	30.00%
Grand Total	60	100.00%

(Source primary source)

CHART4.19



INTERPRETATION

"Table 4.19 reflects diverse opinions on the social influence in solar attitudes, with 30.00% perceiving it as very influential and11.67%as extremely influential Additionally,23.33%find it fairly influential, 13.33% moderately influential, and only 6.67% believe it is not at all influential.

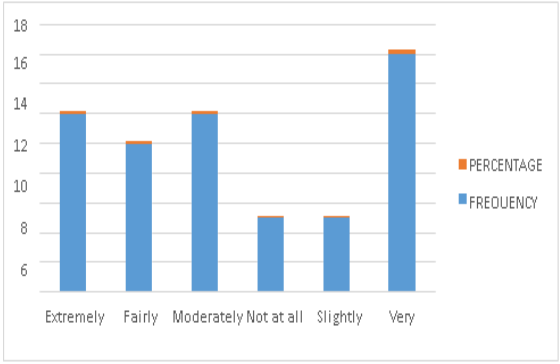
VIEWS ON FINANCING OPTIONS IN SOLAR ENERGY ADOPTION

TABLE4.20

OPTIONS	FREQUENCY	PERCENTAGE
Extremely influential	12	20.00%
Fairly influential	10	16.67%
Moderately influential	12	20.00%
Not at all influential	5	8.33%
Slightly influential	5	8.33%
Very influential	16	26.67%
Grand Total	60	100.00%

(Source: primary source)

CHART4.20



INTERPRETATION

Table 4.20 reflects diverse opinions on the positive impact of affordable financing options in solar energy adoption, with 26.67% perceiving it as very influential and 20.00% as extremely influential. Additionally, 16.67% consider it fairly influential, 20.00% moderately influential, and only 8.33% believe it is not at all influential

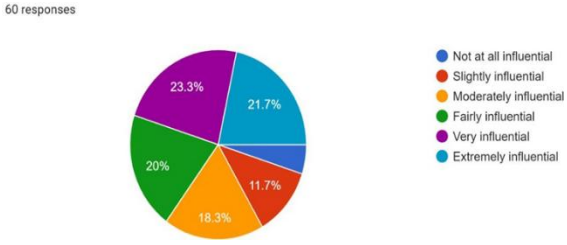
COST SAVING OF SOLAR ENERGY

TABLE4.21

OPTIONS	FREQUENCY	PERCENTAGE
Extremely influential	13	21.67%
Fairly influential	12	20.00%
Moderately influential	11	18.33%
Not at all influential	3	5.00%
Slightly influential	7	11.67%
Very influential	14	23.33%
Grand Total	60	100.00%

(Source: primary source)

CHART4.21



INTERPRETATION

Table 4.21 reflects diverse opinions on the saving of solar energy, with 23.33% perceiving it as very influential and21.67%asextremely influential Additionally,20.00%consider it fairly influential, 18.33% moderately influential, and only 5.00% believe it is not at all influential

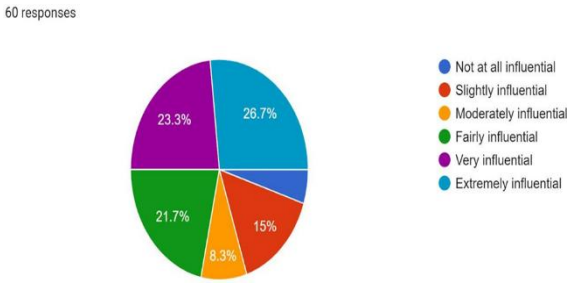
INFLUENCE OF SOCIAL MEDIA ON ENERGY ADOPTION

TABLE 4.22

OPTIONS	FREQUENCY	PERCENTAGE
Extremely influential	16	26.67%
Fairly influential	13	21.67%
Moderately influential	5	8.33%
Not at all influential	3	5.00%
Slightly influential	9	15.00%
Very influential	14	23.33%
Grand Total	60	100.00%

(Source: primarysource)

CHART4.22



INTERPRETATION

Table4.22 indicates diverse opinion son the influence of social media for energy adoption Notably, 23.33% find it very influential, and 26.67% consider it extremely influential. Additionally, 21.67% perceive it as fairly influential, while 8.33% find it moderately influential Only5.00%believe social media is not at all influential and15.00%find it slightly influential

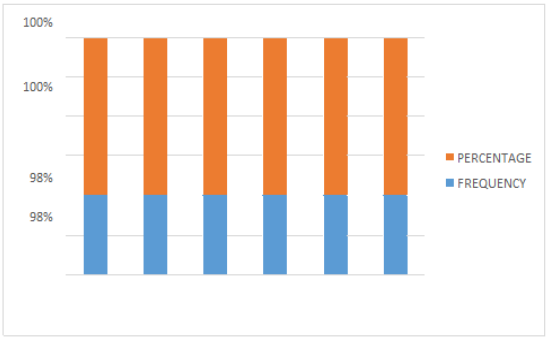
FAMILY INFLUENCE IN ADOPTING SOLAR ENERGY

TABLE4.23

OPTIONS	FREQUENCY	PERCENTAGE
Extremely influential	16	26.67%
Fairly influential	12	20.00%
Moderately influential	9	15.00%
Not at all influential	3	5.00%
Slightly influential	2	3.33%
Very influential	18	30.00%
Grand Total	60	100.00%

(Source: primary source)

CHART4.23



INTERPRETATION

Table 4.23 indicates diverse opinions on family influence in adopting solar energy, with 30.00% perceiving it as very influential and 26.67% as extremely influential. Additionally, 20.00% consider it fairly influential, 15.00% moderately influential 3.33% slightly influential and only 5.00% believe it is not at all influential.

VIEWS ON THE EFFECTIVENESS IN SOLAR ADOPTION

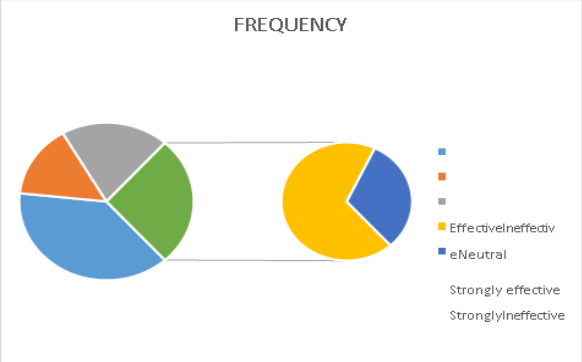
TABLE4.24

OPTIONS	FREQUENCY	PERCENTAGE
Effective	23	38.33%
Ineffective	9	15.00%
Neutral	12	20.00%
Strongly effective	11	18.33%

Strongly Ineffective	5	8.33%
Grand Total	60	100.00%

(Source: primary source)

CHART4.24



INTERPRETATION

Table 4.24 reveals opinions on the effectiveness of policies in solar adoption, with 38.33% considering them effective and 18.33% strongly effective. Additionally, 15.00% find them ineffective, 8.33% strongly ineffective, and 20.00% are neutral

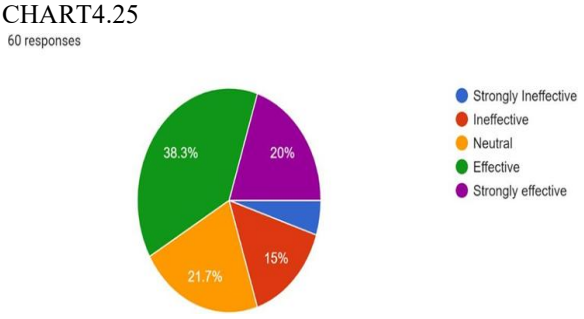
PERCEPTION OF INITIATIVES IN CONVEY ING SOLAR ENERGY BENEFITS TO DOMESTIC CONSUMERS

TABLE4.25

OPTIONS	FREQUENCY	PERCENTAGE
Effective	23	38.33%
Ineffective	9	15.00%
Neutral	13	21.67%
Strongly effective	12	20.00%
Strongly Ineffective	3	5.00%
Grand Total	60	100.00%

(Source: primary source)

CHART4.25



INTERPRETATION

Table 4.25 Analyses perceptions of initiatives in conveying solar energy benefits to domestic consumers, with 38.33% finding them effective and 20.00% strongly effective. Additionally, 15.00% consider them ineffective, 5.00% strongly ineffective, and 21.67% are neutral.

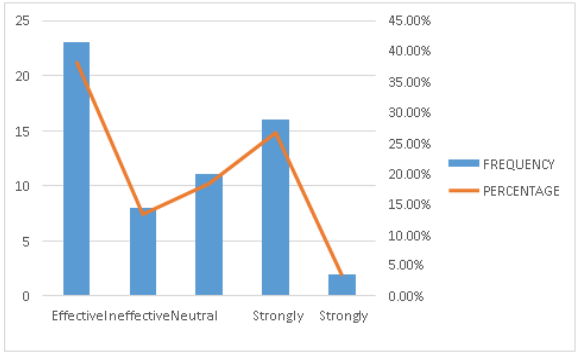
VIEWS ON THE ACCESSIBILITY OF INCENTIVES AND SUBSIDIES FOR SOLAR INSTALLATION

TABLE4.26

OPTIONS	FREQUENCY	PERCENTAGE
Effective	23	38.33%
Ineffective	8	13.33%
Neutral	11	18.33%
Strongly effective	16	26.67%
Strongly Ineffective	2	3.33%
Grand Total	60	100.00%

(Source: primary source)

CHART4.26



INTERPRETATION

Table 4.26 examines opinions on the accessibility of incentives and subsidies for solar installation, with 38.33% considering them effective and 26.67% strongly effective. Additionally, 13.33% find them ineffective, 3.33% strongly ineffective, and 18.33% are neutral.

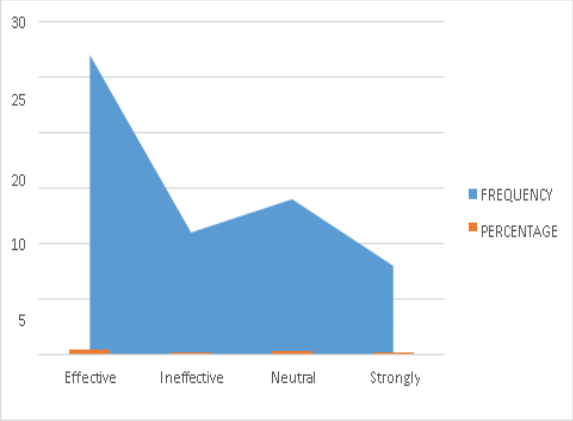
OPINIONS ON THE AVAILABILITY OF GOVERNMENT PROGRAMS PROMOTING SOLAR ENERGY

TABLE4.27

OPTIONS	FREQUENCY	PERCENTAGE
Effective	27	45.00%
Ineffective	11	18.33%
Neutral	14	23.33%
Strongly effective	8	13.33%
Grand Total	60	100.00%

(Source: primary source)

CHART4.27



INTERPRETATION

Table 4.27 assesses opinions on the availability of government programs promoting solar energy, with 45.00% finding them effective and 13.33% strongly effective. Additionally, 18.33% consider them ineffective, and 23.33% are neutral

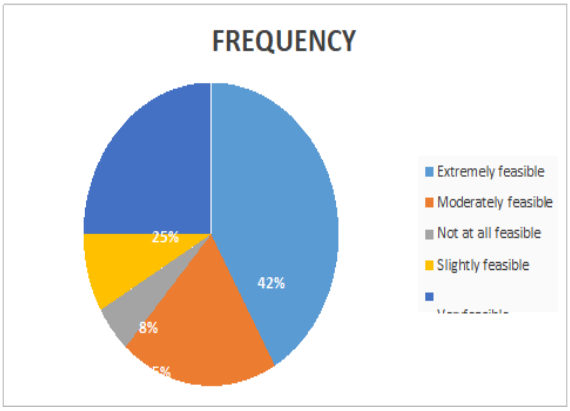
FEASIBILITY OF FINACIAL INCENTIVES

TABLE4.28

OPTIONS	FREQUENCY	PERCENTAGE
Extremely feasible	25	41.67%
Moderately feasible	12	20.00%
Not at all feasible	3	5.00%
Slightly feasible	5	8.33%
Very feasible	15	25.00%
Grand Total	60	100.00%

(Source: primary source)

CHART4.28



INTERPRETATION

Table 4.28 examines perceptions of the feasibility of financial incentives, with 41.67% considering them extremely feasible and 25.00%very feasible. Additionally,20.00%find them moderately feasible,8.33%slightly feasible, and only5.00% believe they are not at all feasible

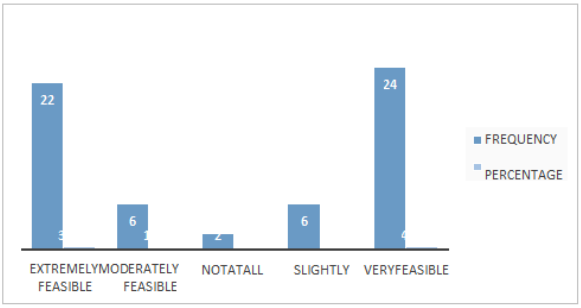
FEASIBILITY ON EDUCATIONAL PROGRAMS FOR SOLAR AWARENESS

TABLE4.29

OPTIONS	FREQUENCY	PERCENTAGE
Extremely feasible	22	36.67%
Moderately feasible	6	10.00%
Not at all feasible	2	3.33%
Slightly feasible	6	10.00%
Very feasible	24	40.00%
Grand Total	60	100.00%

(Source: primary source)

CHART4.29



INTERPRETATION

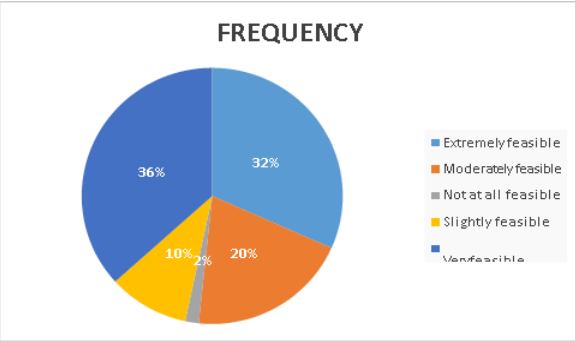
Table4.29 assesses perceptions of the feasibility of educational programs for solar awareness, with 40.00% considering them very feasible and 36.67% extremely feasible. Additionally, 10.00% find them moderately feasible, 10.00% slightly feasible, and only3.33% believe they are not at all feasible.

FEASIBILITY OF ADDRESSING CONCERNS AND MISCONCEPTION ABOUT SOLAR ENERGY

TABLE4.30

OPTIONS	FREQUENCY	PERCENTAGE
Extremely feasible	19	31.67%
Moderately feasible	12	20.00%
Not at all feasible	1	1.67%
Slightly feasible	6	10.00%
Very feasible	22	36.67%
Grand Total	60	100.00%

CHART4.30



INTERPRETATION

Table4.30 evaluates perceptions of the feasibility of addressing concerns and misconceptions about solar energy, with 36.67% considering it very feasible and 31.67% extremely feasible. Additionally, 20.00% find it moderately feasible, 10.00% slightly feasible, and only 1.67% believe it is not at all feasible

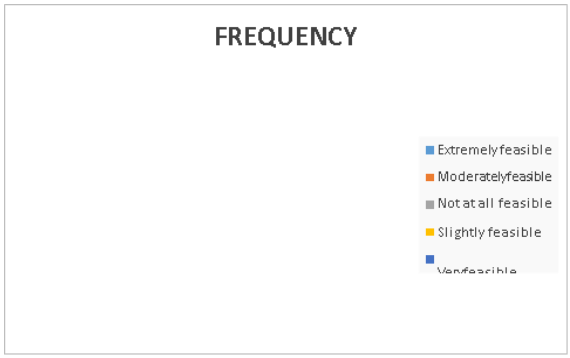
FEASIBILITY OF PROVIDING RELIABLE INFORMATION SOLAR ENERGY

TABLE4.31

OPTIONS	FREQUENCY	PERCENTAGE
Extremely feasible	19	31.67%
Moderately feasible	12	20.00%
Not at all feasible	1	1.67%
Slightly feasible	6	10.00%
Very feasible	22	36.67%
Grand Total	60	100.00%

Source: primary source)

CHART4.31



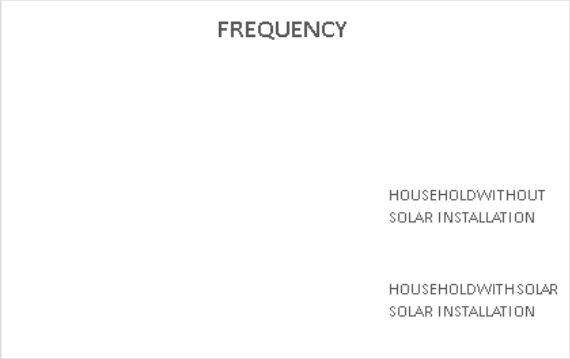
INTERPREATATION

Table 4.31 assesses perceptions of the feasibility of providing reliable information on solar energy, with 40.00% considering it very feasible and 28.33% extremely feasible. Additionally, 16.67% find it moderately feasible, 10.00% slightly feasible, and only 5.00% believe it is not at all feasible.

NUMBER OF HOUSEHOLDS WITH SOLAR INSTALLATION

TABLE4.32

OPTIONS	FREQUENCY	PERCENTAGE
HOUSEHOLDWITHOUTSOLARINSTALLATION	52	86.67%
HOUSEHOLDWITHSOLARSOLAR INSTALLATION	8	13.33%
Grand Total	60	100.00%



(Source: primary source)

CHART4.32

INTERPRETATION

The table 4.32 indicates the distribution of households based on the presence of solar installations. Approximately 13% of the surveyed households have solar installations, while 87% do not.

INTEGRATION OF SOLAR POWERED APPLIANCES IN HOUSEHOLD SYSTEMS

TABLE4.33

OPTIONS	FREQUENCY	PERCENTAGE
Agree	25	41.67%
Disagree	8	13.33%
Neutral	18	30.00%
Strongly disagree	9	15.00%
Grand Total	60	100.00%

(Source primary source)

CHART4.33

INTERPRETATION

The table explores opinions on the integration of solar-powered appliances in household systems. Approximately 41.67% agree, 30.00% are neutral, 13.33% disagree, and 15.00% strongly disagree.

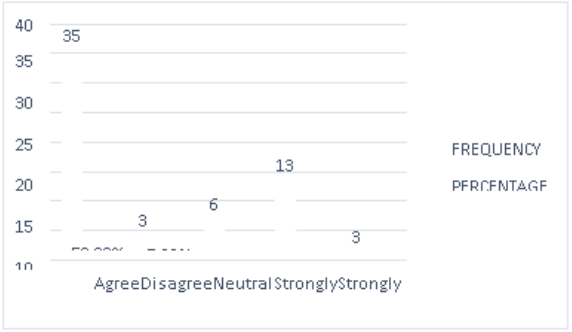
FUTURETHOUGHTS: USIN GORUP GRADING THECURRENT SOLAR ENERGY SYSTEM

TABLE4.34

OPTIONS	FREQUENCY	PERCENTAGE
Agree	35	58.33%
Disagree	3	5.00%
Neutral	6	10.00%
Strongly Agree	13	21.67%
Strongly Disagree	3	5.00%
Grand Total	60	100.00%

(Source primary source)

CHART4.34



INTERPRETATION

Table 4.34 examines future considerations, such as adoption or upgrading of current solar energy setups. The results indicate that 58.33% agree, 21.67% strongly agree, 10.00% are neutral, 5.00% disagree, and 5.00% strongly disagree.

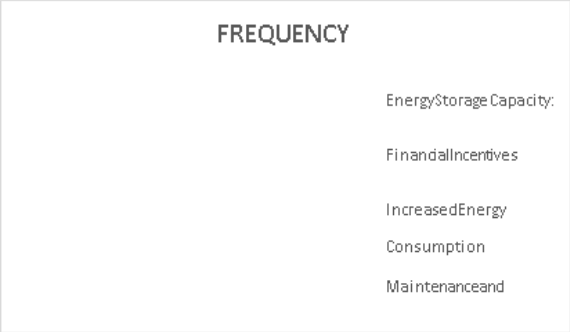
INFLUENCING FACTORS ON SOLAR ENERGY SETUP

TABLE4.35

PARTICULARS	FREQUENCY	PERCENTAGE
Energy Storage Capacity:	8	13.33%
Financial Incentives	10	16.67%
Increased Energy Consumption	17	28.33%
Maintenance and Durability	6	10.00%
Other	14	23.33%
Technological Advancements	5	8.33%
Grand Total	60	100.00%

(Source: primary source)

CHART4.35



INTERPRETATION

Table4.35highlights influencing factors on solar energy set up, with respondents emphasizing: Energy Storage Capacity (13.33%) Financial Incentives (16.67%) Increased electricity Consumption (28.33%) Maintenance and Durability (10.00%); Technological Advancements (8.33% and Other Factors (23.33

XIV. FINDINGS

- 36.67% Of Respondents Are Female, While 63.33% Are Male. This Highlights a Noticeable Gender Imbalance In The Adoption Of Solar Practices, Emphasizing The Predominance Of Male Participation.
- A Significant Presence in the 25-34 Age Group, Constituting35.00% of Respondents. This Diverse Age Distribution Contributes To A Thorough Analysis Of The Demographic Landscape In Solar Adoption.
- Majority Of Respondents Are Holding A Bachelor's Degree, At Rate Of 41.67%
- Majority Of Respondents Are Employed At The Rate Of 41.67%
- Income-Level Distribution Shows Diversity, With 41.67% Falling In The 100,000 - 300,000 Range, 23.33% In The 300,000 - 500,000 Bracket, And 3.33% Reporting An Income Above 500,000. Notably, 31.67% Fall Below 100,000, Indicating Economic Diversity
- Majority Of Respondents Perceive Solar Energy As A Viable Option For Domestic Use.
- Awareness about Solar Energy Benefits Positively Influences Perception.
- EnvironmentalConcernsSignificantlyShapeAttitudestowardsSolarEnergyConservation.
- ConfidenceinUnderstandingSolarEnergy'sBenefitsCorrelateswithPositive Attitudes.
- Financial Incentives Play A Crucial Role in the Decision To Invest In Solar Energy Solutions.
- Social Influence, Such As Recommendations From Friends Or Family Affects Attitudes Towards Solar Energy Conservation.
- Availability of Affordable Financing Options Positively Impacts Decisions to Invest In Solar Energy.
- GovernmentIncentivesAndSubsidiesForSolarInstallationsAreConsidered Accessible And Well-Promoted.
- Effective Communication Of Solar Energy Benefits By Existing Initiatives Is Perceived Positively.
- Customer Satisfaction With Solar Energy Adoption Is Influenced By Performance, Installation Process, And Cost-Effectiveness.
- Smooth Installation Processes Contribute To Higher Customer Satisfaction Levels.
- Clear and Comprehensive Information about Solar Energy Benefits Enhances Customer Satisfaction.
- Government Incentives and Subsidies Significantly Influence Customer Satisfaction Levels.

- CustomerSatisfactionIsPositivelyCorrelatedWith Long-TermBenefitsSuchAs Energy Independence And Environmental Impact.
- Integration Of Solar-Powered Appliances In Household Systems Is Perceived As Practical And Feasible.

XV. SUGGESTIONS

- Implement comprehensive awareness programs to educate the community about the benefits of solar energy. This can include workshops, seminars, and informational campaigns to address mis conceptions and promote understanding.
- Explore the possibility of introducing or enhancing financial incentives for solar installations This could involve collaborating with local government bodies or private organizations to provide subsidies, tax credits, or low-interest loans to incentivize adoption.
- Collaborate with Kerala State Electricity Board (KSEB)to develop joint initiatives that promote solar energy adoption. This could include joint awareness campaigns, special tariffs for solar-powered households, or partnerships to make solar installations more accessible.
- Foster a sense of community involvement by organizing community events, forums, or discussion sessions. Encourage residents to share their experiences with solar energy, creating a supportive network and addressing concerns through shared knowledge
- Advocate for supportive policies at the local government level to streamline the process of solar energy adoption. This may involve working with policy makers to simplify regulations, reduce bureaucratic hurdles, and create a more favorable environment for solar installations.
- Develop and distribute educational materials specifically tailored to address common concerns and misconceptions within the community. This could include pamphlets, brochures, or online resources that provide clear and accessible information.
- Organize live demonstrations of solar installations within the community. Seeing practical examples can demystify the technology address doubts, and showcase the tangible benefits of solar energy.
- Partner with local educational institutions, community centers, or religious organizations to integrate solar energy education into their programs. This can reach a wide audience and in still a sense of responsibility towards sustainable energy practices
- Engage with influential community members, leaders, and influencers to champion the benefits of solar energy. Their endorsement and support can significantly impact community perceptions and encourage adoption
- Collaborate with local schools and colleges to integrate solar energy education in to their curricula. This not only educates the younger generation but also involves families in the learning process
- Implement peer-to-peer initiatives where households with existing solar installations share their positive experiences with their neighbors. Personal testimonials can be powerful in influencing community attitudes and fostering trust.

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XVI. CONCLUSION

This study offers a comprehensive examination of the perception and attitude towards solar energy conservation among domestic KSEB customers in Malappuram District, with a specific focus on Kodur Panchayath Through a combination of survey sand data analysis there search has provided valuable insights into the factors influencing solar energy adoption and conservation practices in the region.

The findings of this study reveal a multifaceted landscape of attitudes towards solar energy conservation among domestic KSEB customers in Kodur Panchayath While there is a general awareness of solar energy and its potential benefits, attitudes vary widely, reflecting a complex interplay of socio-economic, cultural, and infrastructural factors. Some residents exhibit enthusiasm and receptiveness towards solar energy adoption, driven by a desire for energy independence, environmental consciousness, and the prospect of long-term cost savings. However, others remain skeptical or hesitant due to concerns about upfront costs, perceived technical complexities, and doubts regarding system reliability and maintenance.

One of the key insights gleaned from this research is the pivotal role of government policies and incentives in shaping consumer attitudes towards solar energy conservation. Participants expressed a strong preference for supportive policies, financial incentives, and regulatory frame works that facilitate the adoption of renewable energy technologies. This underscores the importance of proactive government intervention in promoting renewable energy uptake and creating an enabling environment for sustainable energy practices. By implementing targeted policies, such as subsidies, tax incentives, and feed-in tariffs, policymakers can incentivize investment in solar energy infrastructure and accelerate the transition towards a low-carbon economy.

Furthermore, the study underscores the importance of community-level initiatives and peer influence in driving solar energy adoption. Participants highlighted the positive impact of community awareness programs, peer recommendations, and collective efforts in fostering a culture of solar energy conservation within the community. Leveraging social networks, community engagement platforms, and local institutions can thus serve as effective channels for disseminating information, sharing best practices, and mobilizing grassroots support for renewable energy initiatives. By fostering a sense of community ownership and involvement, stakeholders can cultivate a supportive environment conducive to renewable energy adoption and sustainability.

In conclusion this study has provided valuable insights into the perception and attitude towards solar energy conservation among domestic KSEB customers in Malappuram District, specificallyinKodurPanchayath.Byidentifyingkeydeterminants,barriers,andfacilitatorsof solar energy adoption, this research offers actionable recommendations for policymakers, utility providers, and community stakeholders to promote renewable energy uptake and contribute to the transition towards a more sustainable energy future. Through collaborative efforts and targeted interventions, we can harness the potential of solar energy to meet domestic energy needs, reduce carbon emissions, and foster socio-economic development in the region