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CONTRIBUTIONS TO BOOKS

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JOURNAL AND OTHER ARTICLES

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CONSUMERS PERSPECTIVE TOWARDS SOLAR PANEL PRODUCTS

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ABSTRACT

Energy utilization cannot be forgetting in our life. But there is always gap between demand and supply. Due to the increasing energy demand and less availability of energy sources, society needs to find out the alternate source of energy, which should be clean and green, in this way we have abundantly consecrated with solar energy. Solar is the only source can satisfy energy need of the nation. Solar energy can be used for several applications such as lighting, heating and cooling etc., Hence the study creates awareness to use the solar panel products in day to day life.

KEYWORDS

heating, lighting, solar energy.

INTRODUCTION

Energy consumption can never be marginalized in day to day lifecycle. Our energy needs are rising as a result of continued population increases, economic growth, and individual fuel/energy consumption. Solar energy is a natural resource, which has radiant light and heat energy from the sun. Out of all energy released by sun only a small fraction of energy is absorbed by the earth. Just this tiny portion of the sun's energy that hits the earth is enough to meet all our power needs. The use of solar panels or photovoltaic cell is the most communal way to obtain the much-needed solar energy. They are very efficient in producing a clean and renewable source of electricity. Although solar energy is widely known but it is not widely used today, solar energy has a great prospective to be used in future. So this conception required more research then only we can educate the people to use the solar energy in their day to day lifespan.

IMPORTANCE OF THE STUDY

Solar will become a crucial component of India's energy portfolio in the next decade-perhaps more so than it is in most other countries. We believe a solar market can develop fairly quickly-going from nothing to several billion-dollar solar-centric firms within a decade.

REVIEW OF LITERATURE

According to **IEA 2010**, between the periods 2000 to 2011, solar PV was the fastest-growing renewable power technology worldwide. The cumulative installed capacity of solar PV reached roughly 65 gigawatts at the end of 2011. This number has increased immensely from only 1.5 GW in 2000. In the year 2011, Germany and Italy accounted for over half the global cumulative capacity, followed by Japan, Spain, the United States and China.

Seth and Obed 2011, in their energy sector presentation indicated that electricity generation in Ghana is concentrated on hydropower with over 60% contribution whilst the rest emanated from thermal and other sources of renewable energy. The Government of the Republic of Ghana in achieving its goal on universal access to electricity in all areas in Ghana by the year 2020 has instituted certain policies with the mandate of increasing the usage of renewable energy in the country's energy mix.

OBJECTIVE OF THE STUDY

To study the buying behaviour among the selected sample towards Solar panel products.

METHODOLOGY

This study employs simple random sampling, a type of probability sampling, which involves the probability of each and every item has a chance to participate in the study. Through this probability sample, the final sample is drawn from the respondents who have intention to purchase solar panel products. A survey was conducted among consumers through self-administered questionnaires.

STATISTICAL TOOLS USED

1. Simple percentage analysis
2. Factor Analysis
3. One-Way ANOVA

ANALYSIS AND INTERPRETATION

SOCIO-ECONOMIC PROFILE OF THE RESPONDENTS

The profile of the respondents towards purchase of solar products include duration of years living in the current home, External infrastructure, Gender, Age, type of home.

TABLE 1: DURATION OF YEARS LIVING IN THE CURRENT HOME

Duration of Years	Frequency	Percent
0-4 years	430	48.3
5-9 years	220	24.7
10-14 years	128	14.4
More than 20 years	112	12.6
Total	890	100.0

Table 1 explains about the respondents stay in the current home. It can be inferred that 48.3 percent of the respondents stay in the same house for 0-4 years of duration, 24.7 percent of the respondents stay in the current home for 5 – 9 years of duration, 14.4 percent of the respondents stay in the same home for 10-14 years of duration and 12.6 percent of the respondents stay in the current home for more than 20 years of duration.

TABLE 2: EXTERNAL INFRASTRUCTURE MATERIAL

External Infrastructure material	Frequency	Percent
Brick	231	26.0
Weather Band	135	15.2
Stone/Masong	133	14.9
Timber	391	43.9
Total	890	100.0

From the table 2, it can be inferred that 43.9 percent of the home's external infrastructure is made up of timber, 26.0 percent of the home's external infrastructure is made up of bricks, 15.2 percent of the home's external infrastructure is made up of weather band and 14.9 percent of the home's external infrastructure is made up of Stone / Masong.

TABLE 3: GENDER

Gender	Frequency	Percent
Male	401	45.1
Female	489	54.9
Total	890	100.0

Table 3 explains the gender of the respondents participated in the study. From the table, it can be inferred that 54.9 percent of the respondents were female and 45.1 percent of the respondents were male.

TABLE 4: AGE OF THE RESPONDENTS

Age of the respondents	Frequency	Percent
18-24 years	151	17.0
25-34 years	332	37.3
35-44 years	137	15.4
45-54 years	81	9.1
55-64 years	189	21.2
Total	890	100.0

Table 4 explains the age of the respondents. From the table it can be inferred that 37.3 percent of the respondents belongs to 25-34 years of age, 21.2 percent of the respondents belongs to 55-64 years of age, 17.0 percent of the respondents belongs to 18-24 years of age, 15.4 percent of the respondents belongs to 35-44 years of age and 9.1 percent of the respondents belongs to 45-54 years of age.

TABLE 5: TYPE OF HOME

Type of home	Frequency	Percent
Currently being paid off	401	45.1
Fully owned	489	54.9
Total	890	100.0

From the table 5 it can be inferred that 54.9 percent of the respondents stay in the fully owned home and 45.1 percent of the respondents stay in currently paid off home.

FACTOR ANALYSIS

A sample of 890 respondents was taken for the study to study about the purchase intention of respondents towards purchase of solar panel products. The data collected for the study were classified, tabulated and processed for factor analysis which is the most appropriate multivariate technique to identify the group of determinants. Factor analysis identifies common dimensions of factors from the observed variables that link together the seemingly unrelated variables and provides insight into the underlying structure of the data. In this study Principal component Analysis has been used since the objective is to summarize most of the original information in a minimum number of factors for prediction purpose.

A Principal Component Analysis is a factor model in which the factors are based on the total variance. Another concept in factor analysis is the rotation of factors. Varimax rotations are one of the most popular methods used in the study of simplify the factor structure by maximizing the variance of a column of pattern matrix. Another technique called latent root criteria is used. An Eigen Value is the column sum of squares for a factor. It represents the amount of variance in data. After determination of the common factors, factor scores are estimated for each factor. The common factors themselves are expressed as linear combinations of the observed variables.

Factor Model : Fi = Wi1X1 + Wi2X2 +…….. WikXk

Where

Fi = Estimate of the ith factor, W1= Weight or Factor score coefficient

k = Number of variables.

The respondent considers various factors while deciding about savings. Twenty one factors are considered for measuring on a five point scale. Factor matrix and their corresponding factor loading after the Varimax rotation are presented in the table.

TABLE 6: KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.782
Bartlett's Test of Sphericity	Approx. Chi-Square	7990.769
	df	210
	Sig.	0.000

TABLE 7: COMMUNALITIES

Variables	Initial	Extraction
I intend to purchase solar panels because of my environmental concerns	1.000	.365
I intend to purchase solar panels because of the financial benefits it will return	1.000	.267
Solar panels are an environmentally friendly energy source, therefore intend to purchase them in the future	1.000	.354
Current government subsidies will encourage me to purchase solar panels	1.000	.391
I intend to purchase solar panels as an alternative source of energy	1.000	.327
Solar must be less expensive than power from a utility (lower price)	1.000	.293
Solar must provide better features or functionality than power from a utility (greater benefits)	1.000	.385
Solar must not have any switching or adoptions cost (easy to use)	1.000	.298
Solar must be readily available (easy to buy)	1.000	.406
Solar appliances cannot compete with electrical appliances	1.000	.495
Solar appliances cannot be used through out the year	1.000	.510
Solar appliances saves electricity consumption	1.000	.523
Solar appliances are very suitable for Indian climate conditions	1.000	.366
Solar products are reliable	1.000	.300
Solar products are very easy to use	1.000	.405
Solar products are very close to nature	1.000	.482
Solar products are very environment friendly	1.000	.515
I would like to buy a solar appliance of my own.	1.000	.455
I believe that a well-known brand is always safe to buy	1.000	.474
I believe that the quality of environmentally safe product is not as good as other products	1.000	.337
I believe that the price of environmental safe product is usually more than	1.000	.216
Extraction Method: Principal Component Analysis.		

In Table Bartlett's test of sphericity and KAISER MEYER OLKIN measures of sample adequacy were used to test the appropriateness of the factor model. Bartlett's test was used to test the null hypothesis that the variables of this study are not correlated. Since the approximate chi-square satisfaction is 7990.769 which is significant at 1% level, the test leads to the rejection of the null hypothesis.

The value of KMO statistics (0.782) was also large and it revealed that factor analysis might be considered as an appropriate technique for analysing the correlation matrix. The communality table showed the initial and extraction values.

TABLE 8: TOTAL VARIANCE EXPLAINED

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.724	27.257	27.257	5.724	27.257	27.257	4.435	21.121	21.121
2	2.440	11.618	38.875	2.440	11.618	38.875	3.728	17.754	38.875
3	1.901	9.053	47.928						
4	1.584	7.541	55.469						
5	1.244	5.923	61.392						
6	1.158	5.514	66.906						
7	.920	4.379	71.285						
8	.804	3.829	75.115						
9	.770	3.669	78.784						
10	.642	3.059	81.843						
11	.547	2.604	84.446						
12	.470	2.238	86.684						
13	.439	2.093	88.776						
14	.400	1.904	90.680						
15	.387	1.845	92.525						
16	.323	1.539	94.064						
17	.300	1.427	95.491						
18	.273	1.302	96.793						
19	.246	1.170	97.964						
20	.220	1.050	99.014						
21	.207	.986	100.000						
Extraction Method: Principal Component Analysis.									

From the table it was observed that the labelled "Initial Eigen Values" gives the EIGEN values. The EIGEN Value for a factor indicates the 'Total Variance' attributed to the factor. From the extraction sum of squared loadings, it was learnt that the I factor accounted for the variance of 5.724 which was 27.257%, the II factor accounted for the variance of 2.440 which was 11.618%. The two components extracted accounted for the total cumulative variance of 38.875%

DETERMINATION OF FACTORS BASED ON EIGEN VALUES

In this approach only factors with Eigen values greater than 1.00 are retained and the other factors are not included in this model. The two components possessing the Eigen values which were greater than 1.0 were taken as the components extracted.

TABLE 9: COMPONENT MATRIX[a]

Description of variables	Component	
	1	2
Current government subsidies will encourage me to purchase solar panels	.612	
Solar panels are an environmentally friendly energy source, therefore intend to purchase them in the future	.590	
Solar appliances saves electricity consumption	.584	
Solar appliances are very suitable for Indian climate conditions	.577	
I intend to purchase solar panels as an alternative source of energy	.569	
Solar must provide better features or functionality than power from a utility (greater benefits)	.566	
I intend to purchase solar panels because of my environmental concerns	.547	
Solar products are reliable	.544	
Solar must be less expensive than power from a utility (lower price)	.526	
Solar appliances cannot be used through out the year	.522	
Solar appliances cannot compete with electrical appliances	.518	
I intend to purchase solar panels because of the financial benefits it will return	.517	
I believe that the quality of environmentally safe product is not as good as other products	.517	
I believe that a well-known brand is always safe to buy	.511	
Solar must be readily available (easy to buy)	.506	
I would like to buy a solar appliance of my own.	.501	
Solar must not have any switching or adoptions cost (easy to use)	.746	
I believe that the price of environmental safe product is usually more than	.831	
Solar products are very close to nature		.547
Solar products are very environment friendly		.536
Solar products are very easy to use		.503
Extraction Method: Principal Component Analysis. a. 2 components extracted.		

TABLE 10: ROTATED COMPONENT MATRIX[a]

Description of variables	**Component**	
	1	**2**
Solar appliances saves electricity consumption	.722	
Solar appliances cannot be used throughout the year	.712	
Solar appliances cannot compete with electrical appliances	.702	
Solar must be readily available (easy to buy)	.637	
Solar must provide better features or functionality than power from a utility (greater benefits)	.601	
Solar appliances are very suitable for Indian climate conditions	.564	
Current government subsidies will encourage me to purchase solar panels	.557	
Solar must not have any switching or adoptions cost (easy to use)	.537	
Solar panels are an environmentally friendly energy source, therefore intend to purchase them in the future	.510	
Solar must be less expensive than power from a utility (lower price)	.712	
I intend to purchase solar panels as an alternative source of energy	.832	
I intend to purchase solar panels because of the financial benefits it will return	.748	
Solar products are very environment friendly		.717
Solar products are very close to nature		.694
I believe that a well-known brand is always safe to buy		.680
I would like to buy a solar appliance of my own.		.666
Solar products are very easy to use		.637
I intend to purchase solar panels because of my environmental concerns		.542
I believe that the quality of environmentally safe product is not as good as other products		.530
I believe that the price of environmental safe product is usually more than	.545	
Solar products are reliable	.685	
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 3 iterations.		

The rotated component matrix shown in Table is a result of VARIMAX procedure of factor rotation. Interpretation is facilitated by identifying the variables that have large loadings on the same factor. Hence, those factors with high factor loadings in each component were selected. The selected factors were shown in the table.

Table 11: CLUSTERING OF INDUCING VARIABLES INTO FACTORS

Factor	Inducing Variable	Rotated factor loadings
I (21.121) Complex buy-ing behaviour	I intend to purchase solar panels as an alternative source of energy PI5	0.832
	I intend to purchase solar panels because of the financial benefits it will return PI2	0.748
	Solar appliances saves electricity consumption BI3	0.722
	Solar products are very environment friendly BI8	0.717
	Solar must be less expensive than power from a utility (lower price) E1	0.712
	Solar appliances cannot be used through out the year BI2	0.712
	Solar appliances cannot compete with electrical appliances BI1	0.702
	Solar products are very close to nature BI7	0.694
	Solar products are reliable BI5	0.685
	I believe that a well-known brand is always safe to buy BI10	0.680
	I would like to buy a solar appliance of my own. BI9	0.666
II(38.875) Dissonance reducing buy-ing behaviour	Solar products are very easy to use BI6	0.637
	Solar must be readily available (easy to buy) E4	0.637
	Solar must provide better features or functionality than power from a utility (greater benefits) E2	0.601
	Solar appliances are very suitable for Indian climate conditions BI4	0.564
	Current government subsidies will encourage me to purchase solar panels PI4	0.557
	Solar must not have any switching or adoptions cost (easy to use) E3	0.537
	I intend to purchase solar panels because of my environmental concerns PI1	0.542
	I believe that the quality of environmentally safe product is not as good as other products BI11	0.530
	Solar panels are an environmentally friendly energy source, therefore intend to purchase them in the future PI3	0.510
	I believe that the price of environmental safe product is usually more than BI12	0.545

In this table two factors were identified as being maximum percentage variance accounted. The variable PI5, PI2, BI3, BI8, E1, BI2, BI1, BI7, BI5, BI10 and BI9 constitutes factor I and it accounts for 21.121 per cent of the total variance. The variable BI6, E4, E2, BI4, PI4, E3, PI1, BI11, PI3 and BI12 constitutes factor II and it accounts for 38.875 per cent of the total variance.

RANKING OF PURCHASE INTENTION FACTORS

Using factor analysis, the twenty-one purchase intention variables are grouped into two factors namely, "Complex buying behaviour", and "Dissonance reducing buying behaviour". Mean values assigned to each of the two purchasing intention factors are portrayed in Table 12.

TABLE 12: STRENGTH OF PURCHASE INTENTION FACTORS

Purchase Intention Factors	Mean	Rank
Dissonance reducing buying behaviour	3.5033	I
Complex Buying Behaviour	3.4035	II

It can be inferred from the above table that the mean value in respect of Dissonance reducing buying behaviour factor is the highest. This implies that this group is found to be the most dominant factor among purchase Intention factors.

ANALYSIS OF VARIANCE

H0: There is no significant difference between Purchase intention and tenure of living.

H1: There is significant difference between Purchase intention and tenure of living.

TABLE 13: ANOVA

Source of variance		Sum of Squares	df	Mean Square	F	Sig.
Complex buying behaviour	Between Groups	9.455	3	3.152	6.997	.000*
	Within Groups	399.067	886	.450		
	Total	408.521	889			
Dissonance reducing buying behaviour	Between Groups	8.294	3	2.765	6.585	.000*
	Within Groups	372.006	886	.420		
	Total	380.301	889			

Source: Primary data

* Significant at 5 percent level of significance

The above table indicates that Purchase intention do not have significant differences across tenure of living. Hence, the null hypothesis is rejected and it is concluded that there is significant difference between purchase intention factors and tenure of living.

H0: There is no significant difference between Purchase intention and type of external infrastructure.

H1: There is significant difference between Purchase intention and type of external infrastructure.

TABLE 14: ANOVA

Source of variance		Sum of Squares	df	Mean Square	F	Sig.
Complex buying behaviour	Between Groups	1198.046	3	399.349	7.336	.000*
	Within Groups	48233.055	886	54.439		
	Total	49431.101	889			
Dissonance reducing buying behaviour	Between Groups	240.062	3	80.021	1.876	.132
	Within Groups	37789.993	886	42.652		
	Total	38030.055	889			

Source: Primary data

* Significant at 5 percent level of significance

The above table indicates that Purchase intention factor – 'Complex buying behaviour' do not have significant differences across type of external infrastructure. Hence, the null hypothesis is rejected with respect to Complex buying behaviour factor and the alternative hypothesis (H1) is rejected for 'Dissonance reducing buying behaviour' factor.

H0: There is no significant difference between Purchase intention and gender of household.

H1: There is no significant difference between Purchase intention and gender of household.

TABLE 15: ANOVA

Source of variance		Sum of Squares	df	Mean Square	F	Sig.
Complex buying behaviour	Between Groups	122.493	1	122.493	2.206	.138
	Within Groups	49308.608	888	55.528		
	Total	49431.101	889			
Dissonance reducing buying behaviour	Between Groups	32.844	1	32.844	.768	.381
	Within Groups	37997.211	888	42.790		
	Total	38030.055	889			

Source: Primary data

* Significant at 5 percent level of significance

The above table indicates that Purchase intention factors have significant differences across gender of household. Hence, the null hypothesis is accepted with respect to purchase intention factors and the alternative hypothesis (H1) is accepted for all purchase intention factors.

H0: There is no significant difference between Purchase intention and Current age.

H1: There is no significant difference between Purchase intention and Current age.

TABLE 16: ANOVA

Source of variance		Sum of Squares	df	Mean Square	F	Sig.
Complex buying behaviour	Between Groups	627.514	4	156.879	2.845	.023*
	Within Groups	48803.587	885	55.145		
	Total	49431.101	889			
Dissonance reducing buying behaviour	Between Groups	242.890	4	60.722	1.422	.225
	Within Groups	37787.166	885	42.697		
	Total	38030.055	889			

Source: Primary data

* Significant at 5 percent level of significance

The above table indicates that Purchase intention factor – 'Complex buying behaviour' have significant differences across current age. Hence, the null hypothesis is rejected with respect to purchase intention factor – 'Complex buying behaviour' and the alternative hypothesis (H1) is rejected for purchase intention factor – 'Dissonance reducing buying behaviour'.

H0: There is no significant difference between Purchase intention and type of home.

H1: There is significant difference between Purchase intention and type of home.

TABLE 17: ANOVA

Source of variance		Sum of Squares	df	Mean Square	F	Sig.
Complex buying behaviour	Between Groups	122.493	1	122.493	2.206	.138
	Within Groups	49308.608	888	55.528		
	Total	49431.101	889			
Dissonance reducing buying behaviour	Between Groups	32.844	1	32.844	.768	.381
	Within Groups	37997.211	888	42.790		
	Total	38030.055	889			

Source: Primary data

* Significant at 5 percent level of significance

The above table indicates that Purchase intention factors have significant differences across type of home. Hence, the null hypothesis is accepted with respect to purchase intention factors and the alternative hypothesis (H1) is accepted for all purchase intention factors.

CONCLUSION

The demand for solar products by the consumers is due to cost reduction and eco friendliness on the other hand the electricity shut down, and under productivity of solar products has induced the demand for solar products. As the sun is more in the country India, the installation of solar panel and usage of other solar produces reduces the bill towards a greater extent.

REFERENCES

1. IEA 2010. International Energy Agency-Energy Statistics. [Retrieved 8th November, 2012]. Available at: http://www.iea.org/stats
2. Seth Mahu&EssandohObed, 2011. Ghana investment opportunities in the energy sector presentation, June 26.

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