

Green Consumer Behavior: Empirical Study of Swedish Consumer Behavior

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Abstract: -. This study provide a better opportunity to examine how environmental issues are important in consumer decision making process and what are the important factors that affecting the consumers while taking decision towards electricity providing company. Every human adopt different activities to live happy on this planet and takes different measures to protect the environment. Companies in turn study and identify the behavior and start target products manufactured according to the consumer behavior.

This research paper starts by presenting the background information of Swedish energy market, and then presents concepts and theories of consumer behavior in literature review. In conceptual frame work authors adopt consumer decision model. Data collected through self administrated questionnaires and quantitative research method is used to analysis the results. Primary data collected through questionnaire. Survey result shows that consumers are willing to pay more for environment sustainability but perceive that the price of green energy is higher than conventional energy. To develop awareness in consumers mind; companies should use advertisement and positioned themselves as a socially responsible and environmentally with competitive prices. Research proves that when consumer makes decision he does not consider only the product but he also keeps other factors in mind. He takes influence from society and interprets information as he receives from different sources. The study concludes by outlining the theoretical and practical implications are also for the marketers.

Key-Words: Green purchase behavior, consumer decision, green energy, environmental Concern, environmental knowledge.

1 Introduction

The world is currently facing the environmental sustainability problems and environmental issues influencing and changing the consumptions patterns of human life and activities on this planet. It has become the priority to educate the consumers about the sustainability of the environment and to reduce green houses gas emission [1]Fossil fuels the conventional energy sources are not only running out at a dangerous pace but also give off tons of pollution [2].

The finite natural resources of this planet have created a confronting challenge for the inhabitants of this planet to develop such a mechanism to protect and preserve for their future generations [3] The preferred mechanism for protecting the natural

environment is to adopt harmless production process and more emphasize should put for using of eco-labeling on products [4].

In order to meet the growing energy demands and save the planet from being defaced and poisoned, nations all over the worlds are seriously turning towards natural renewable energy systems. Green energy is, thus, considered an extremely important aspect in safeguarding the planet as livable for the generations [2].

As the energy market is restructured in Sweden in 1996 since then competition is high among the different energy companies and this competition [5] created challenged for existing and new companies (Gerpott and Mahmudova, 2010) in order to increase efficiency among the suppliers and to

reduce the retail prices [6]. Low prices in energy market will allow the consumer to choose the energy company and consumer will make decision in purchasing the energy depends on environmental products [5].

Traditional energy products will replace the traditional brown power products as people behavior and attitude continue to change due environmental movements towards the sustainability of the environment[7] environmental friendly power or renewable electricity defined as electricity generated through eco-friendly or sustainable ways includes 'solar, hydro, and bio-energy or biomass' [8].

1.1 Aim of research

The aim of this research work is to investigate the consumer behavior towards the green energy and study how consumers take environmental and other factors in consideration when making choices on buying the electricity from the energy companies. For the purpose authors will put more focus on studying consumer behavior of energy users particularly in Västerås and Eskilstuna, Stockholm and some other cities of Sweden. Further authors will examine which strategies, electricity companies can use in the current as well as in the new market.

1.2 Research Question

After 1996 when the deregulation of electricity act was promulgated electricity market in Sweden became open for competition. Increasing environmental movements and customers concerns environment related issues led the companies to change their usual business practices and focus on the new activities [5] However, the present energy market is dominated by companies producing electricity from conventional resources. In this scenario, green electricity companies are working hard to compete on equal grounds. 'What are the main factors that influence consumers in their choice of green energy company over the conventional energy'?

1.3 Introduction to the Sweden Energy Market

The Sweden energy market¹ was restructured in 1992; sales and production of electricity were separated. Svenska Kraftnät is acting as transmission system operator in Sweden. Deregulations of electricity act were come into force on January 01, 1996 which made possible to trade and produce electricity competitively. Through this act,

government abolished a number of regulatory barriers for energy producers. Since Swedish electricity market has become open for competition, it provides the consumer to choice and contract with any energy company resulting in increased trade of energy [9].

1.4 The Role of Green Energy in Sweden

Green energy is playing a vital role in development of country economy. Sweden has achieved a low level of carbon dioxide (CO₂) emissions and heading towards a low carbon economy in Nordic region The Swedish government has also started to issue Renewable Electricity Certificate (REC) for encouraging the producers of electricity to produce electricity through renewable energy sources [10].

The government has set target to achieve 25TWh (terawatt-hours) energy to be produced by the end of year 2020. According to the website, Sweden will produce 51% of electricity through Renewable Energy Sources (RES) by the end of the year 2010. The government wants to promote 'efficient and sustainable energy use and a cost-effective energy supply' that would 'facilitate the transition to an ecologically sustainable society'. Electricity consumption in Sweden is 17,000 KWh per person per year which makes it the 4th largest country in world with biggest consumption [10].

A customer can choose a number of different agreements for the supply of electricity from different electricity producer. Demographic factors are not affected on consumers in switching the electric supplier, consumers has weak switching intentions because their electric supplier providing services and low cost electricity [11]. Hence as [12] Price factor is dominated in all decision making and is key determinant factor in choosing the electricity supplier but this factor is not primary motive for the consumers to switch from the current electric supplier to another.

Customers can also switch from one electric supplier to another supplier. Swedish households' behavior regarding changing the electricity supplier has increased during the last few years [13]. Moreover public administrative bodies and municipalities in Sweden have established contracts to use Eco-label electricity [14].

2 Conceptual Framework

2.1 Green Marketing and Corporate social responsibility

¹ Energy Market is to be read as Electricity Market"

Green marketing is defined by [15] a responsible organization activity to minimize ecological problems for sustainable development [16] concerned with educate the consumers about environmental effects [17] used for enhancement of the consumer interest [18] organizational activities designs to protect the individual and society concerned about the environmental affect.

‘Environmental consumerism’ is defined as Consumers notice ecology concerns and trying to protect ‘themselves and this planet’ buying more products that have no ecology effect in production process and ‘leaving other products in shelves’ [19] Marketer should look at the green products that are positioned on the consumer as they seek the target customer [20].

According to [21] consumer would like to buy those products which are environmentally friendly. Consumers need awareness about the clear benefits of the products. Marketers should be careful while using mode of communication that matched with the beliefs and behavior of the consumers and positively linked to create interest in the product [22] green communication provides the verifiable claims about the product.

2.2 Ecolabel

Swedish Society for Nature Conservation (SSNC) introduced electricity ecolabeling in 1996 labelled ‘Bra Miljöval’ Good Environmental Choice [23] [24] suggested that companies can create competitive advantage if they use innovations related to environmental sustainability rather than simply comply with the government regulations. [25] Environmental labels make ease consumer to identify the product is environmentally friendly [26] eco-label is positively correlated with consumer willingness to purchase [27] studies indicated that eco-label does not motivate consume to purchase green product Significant influence of eco-labeled information on recycling behavior [28].

[29] Study communicate brand image between buyer and sellers [30] consumer make purchase decision with less effort and time. [31] investigate eco-labelling as a green marketing tool is not effective under certain conditions. According to [32] green power products are generally produced by use fo the natural resource like wind, solar or geothermal [33]the product totally or partially created from recyclable materials

2.3 Green Consumer Behavior

Several studies like [12];[33];[4];[34];[7];[35] and [36] and others have researched and analyze the consumer green energy purchasing behavior.

The field of consumer behavior covers a lot of different areas. [37] define consumer behavior as ‘studies concerning attitudes, intentions and decision processes in order to explain and predict behavior’. [37] Defines attitude an individual particular trait who behaves and sees the world according to his own preset favorable or unfavorable manner?

[19] Defines green consumer as ‘those actively seek and support those products satisfy their needs that are having less impact on environment’ [38] all consumers are potentially green consumers. When a consumer has choice to buy from two identical products, the consumer will prefer to buy environmentally friendly product. [33] suggest that there is no ‘significant relation between gender and green behavior’ .However in turn research of [39] found that women are generally more environmentally conscious and willing to buy green products.

[33] states that research shows that income and environmental education have positive relationship and direct impact on green behavior. [40]; [18] investigate a parallel relation is associated with education and environmental consciousness. [4]; [34] Discovered a positive relationship between environmental knowledge and level of a education. Whereas [41] found that there is no correlation exit between educating the consumers and environmental issues [42] demonstrate a negative relationship.

According to [21] distinct market segments like, demographic variables such as age, income and education are positively related to the consumer attitude in environmental [43] research show that ‘younger individuals are likely to become sensitive to environmental issues’. Young consumers in any market constitute as a heavy-spending segments [44] Most of the researchers studies shows that younger individuals show a greater propensity to adopt a more Environmentally-friendly behavior and difficult to establish relation between gender and green consumption [45].

[46] Pointed out that the existence of environmentally conscious consumers in food products packaged with recycled materials has created a demand in niche markets for green power. A consumer, who is knowledgeable about environment, will tend to make ‘green purchase’

[47] Most of consumer perceived that Green products are high price and low in quality [17]; [48] 'Product perception is influenced by situational variables and social reference groups[21].

[49] study that consumer willingness to pay more for environment friendly products and his concern for pollution and recycling forms his attitude as a 'Green buying behavior'. A number of researcher have studied the consumer behavior willingness to pay for green electricity in many countries [7]; [35].

Surveys showed that the European consumers are interested in green products and willingness to pay for green features. Owing to consumers' green concerns, 92% of European multinationals has adopted environmental sustainability programs [50].

Accordingly, different [51];[52];[53];[54];[55] were undertaken studies to determine the younger's influence on the purchase decision and found that adolescent consumers have substantially influence on the buying decision of their family.

[19] support that a green consumer can be motivated by providing an added benefit in product either a cost effective or a environmentally friendly solution. [47] states that consumer behavior can be developed by highlighting the relative advantage of Greener Products as compared with the other products that creates environmental problems. [37] further states that behavior of the consumer can be changed and modified if company speaks desirable benefits or features of product or services that matched with the consumer belief in his advertising or other communication. A firm engaged in the cause related marketing because of its long term benefits i.e. Attract and retain consumer for longer period of time. In such type of marketing activity, consumers are emotionally motivate to take part and because they wanted to feel different from other members of society or in their groups Ottman [19].

[19] is in the opinion that 'Habits are decided early in life' children will make better decision if they start educate at an early age. Peattie is in the view that the companies should put more focus on rewarding schemes in early stages of 'habit formation' of consumer [47].

[56] explained that consumer wanted to know about the particular and specific information about the product or service which they about to buy are environmentally friendly. Through advertisements on radio, on billboards & in print media, are making aware the consumers about the environmental issues by the green companies along with price that has substantial effect on consumers

to choose a new electric supplier [57] Consumer's decisions influence by the media, as a stakeholder, the role of media cannot be ignored; it is the only source through which a consumer received much of environmental related information. [19] Consumers become more suspicious towards those firms that stress more environmental theme in their communication. Thus, a firm should design strategy carefully for the long term [58]. Environmentally friendly communication form consumer attitude purchasing the green products[59]and use of product labeling in advertising some time influence on consumer[60].Where as [61] it may or may not affect the consumer purchasing decision.

[49] Defines reference group as 'A reference group is a person or a group that influences another person's decision'. Reference groups have important role in spreading of information about the product and have influence on behavior. People in groups make decision collectively rather than individually. Consumer in a group likes to inform others about the positive and negative features of the green product [37].

3 Consumer Decision Process

According to [13] changing the electricity supplier behavior in Swedish household has increased during the last years. Sweden Government deregulated electricity market in 1996. Large numbers of countries have deregulated their electricity market allowing house hold customers freedom to choose any electricity supplier that are connected to the grid. So product differentiation became a potentially important strategy to attract consumers.

Many researchers [4];[62] have suggested that environmental concerns have become important issues in every society that increased the intention of prospect consumer to buy Energy Efficiency (EF) products and those consumer who are more environmentally conscious are showing more willingness to engage in Energy Efficiency consumer behavior.

[63] has suggested that consumer purchase decision help the marketers to design the marketing mix to achieve the target of sustainability and provide the criteria that the product system must be 'compatible with ecosystems'. [63] further stated that 'Customers must learn to base their purchase decision not only on how well products satisfy individual needs but also on how these products affect the natural environment'.

[64] Suggested that consumer will repeat purchase if the outcome of purchase and consumption would be

rewarding. On the other side [19] emphasized, when consumers make decision to buy the product/service, evaluate products not only on 'performance and price, but also on the 'social responsibility of manufacturers'.

Information and knowledge consumer received from environment, affect in their decision making process. Society (As reference group) and communication (usually received from media) are formed their attitude towards the product or service [38]. The research findings of various researchers are presented in the table 1. Show variable links With Green Purchase Behavior: Correlations and environmental behavior.

[65] Divides the innovation into three categories. 'Process innovations' are those innovations good or service can be produced with less input. Second the 'Product innovations' are those innovations that require improvements or developments in goods or services and finally 'Organizational innovations' are those which include new forms of management, e.g. total quality management. In medium degree of innovation, however, exiting product is required to be introduced in new format. The main motive is to attached with the ecological needs it is hardly express and not recognized by the consumer at all. [63].

3.1 Stages of Consumer Decision Process

Problem Recognition

3.1.1 Information Search The ecological attributes of a product plays important role in choosing the product. The consumer here will pass from the two situation "Firstly Sustainability Needs" it's required by a consumer likes or not and secondly "the environment" lower in importance but influence on the consumer [63] change the customer behavior and it takes time to diffuse in the marketing. For this type of degree on innovation, firms usually introduce a different manufacturing process, product or service that attains environmental sustainability [66] the consumer decision process model starts with the problem recognition what are the needs and satisfaction process. Consumer is not always

3.1.2 Purchasing Process

This phase focuses on the two aspects (i).purchase patterns, it include where to buy (Location), quantity to buy, and when to buy (timing) and

(ii).Purchasing outcome, the final outcome of the action (Fuller 1999, p.322).

3.1.3 Post Purchase Behavior

The consumer post purchase behavior is particular imported in sustainable market as follow:

3.1.4 Avoiding Dissonance

Fuller (1999, p.233) describes when the purchase is less than satisfactory for whatever reasons, it creates a state of tension called post purchase dissonance. Post purchase dissonance is basically an after purchase cognitive behavior. Kreidler, & Joseph, (2009) explained that people react in two different ways toward environment, "Approach and Avoidance behavior". In approach behavior people shows positive behaviors to stay, keep searching for the product, power to spend money and look into particular environment. On the other side Avoidance includes negative behavior is attached, exhibiting to leave from a particular situation.

4 Conceptual Model

Authors have developed the following conceptual model based on the frame of reference discussed in literature. Authors of this model will describe what factors are influences on consumer in his decision making behavior towards the ecology problems. These factors are influence on consumer which lead his behavior towards action, which in turn consumer decide to buy the ecology energy and finally outcome is acceptance and continue to adopt the process for ecology product.

5 Research Method

The main purpose is to assess environmental sound consumer behavior, eco-attitude, behavior and factors that can influence customer in their decision to buy green energy. Authors of this research report conducted a survey to gain understanding on what are the consumers' preferences and what factors influence consumers to buy the electricity.

This survey is conducted from those people who are living in different cities of Sweden- Vasteras, Eskilstuna, and Stockholm who are using the electricity and paying the electricity bills. Sample size of this survey was conducted from 500 inhabitants selected randomly. The response rate was over 90 per cent, after sorting out ineligible survey, useable responses sample for data analysis.

Variables	Positive correlations	Negative	Neutral
Sex (female)	Mainieri and Barnett (1997)	Arbuthnot 1977. Brooker, 1976	(Getzner and Grabner-Krauter 2004)
Age (Adolescent)	Pickett, M. G., Kangun. N. and Grove, J. S. (1995, P.77),(Moses 2000)		
Income (High)	(Laroche et al. 2001), Anderson & Cunnigham, 1972.Pickett, M. G., Kangun. N. and Grove, J. S. (1995, P.77)		(Getzner and Grabner-Krauter 2004). Mainieri and Barnett (1997)
Environmental knowledge	(Laroche et al. 2001), Zimmer et al. 1994, Roberts 1996). Anderson & Cunnigham, 1972, (Peattie, 2001).(Granzin and Olsen 1991, Paco and Raposo 2009). Peattie & Crane, 2005).	Kinnear et al.1974	Samdahl and Robertson1989, Fuller (1999)
Social Group Influence	Kramer and Goldman, 1995, Macdonald and Oates (2006).		Antonies et al, (1998,p (270).
Perceived Benefits	Mintel (2006), Wiser, 2007 Ottman (1993, P.27), Antonies et al (1998, p.205) Wood, & Neal (2009)		
Price (High)	(Mendleson, 1994),. (Ginsberg and Bloom, 2004),		(Glaser, 2009), Ottman, (1993 P.8)
Eco-labelled	(Chase and Smith (1992)	Bleda and Valente (2008)	
Communication	Nik Abdul Rashid (2009), D'Souza, 2004 ;) Baldwin (1993), Chase and Smith (1992),		Davis (1993)

Table. 1 Variable links With Green Purchase Behavior: Correlations and environmental behaviour

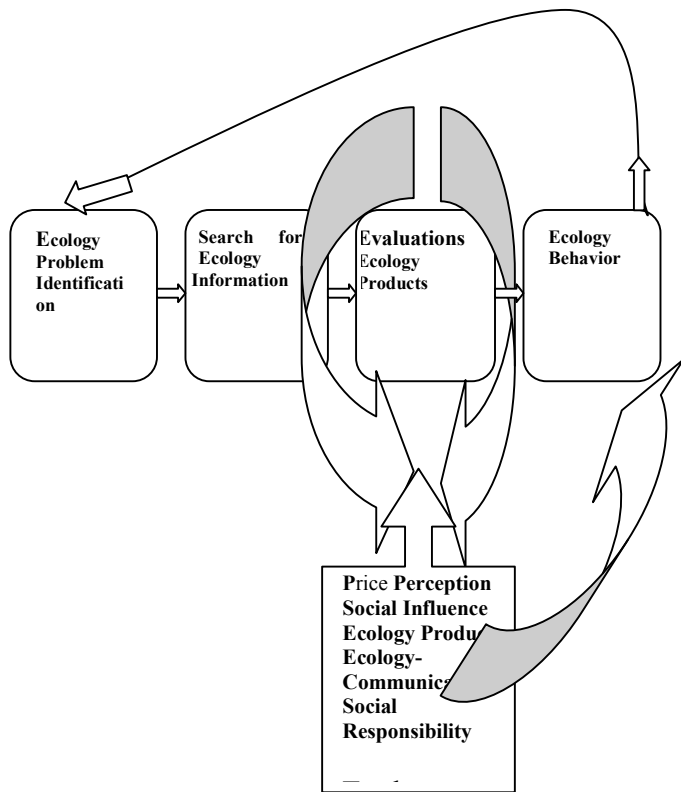


Figure 1: Ecology Decision Process Model

was 400 inhabitants in Sweden. In survey it is a notable achievement to get filled maximum survey for questionnaires. In our survey method respondents were given a questionnaire to fill, questionnaire contain, 29 questions which consists of Demographic information, level of information about the electricity market, why they choose the certain electricity supplier and some questions were related to the green electricity. Authors of this survey select some important questions from this questionnaire that was more closely related with our research questions. Due to time and resource limitations the research could not analyze all the questions from the different prospects.

The questionnaires include in our survey are include some background information like, Nationality, Gender, Profession, year of Birth, Place of living, Live in House or Apartment or with children , and which electricity company peoples are using. Further we will include some question to know about the actual electricity supplier, to know that whether they are satisfied with their current supplier and their energy companies are providing the quality or not. Overall the question would be included, trust, commitment, price perception, subject norms, past behavior, questionnaires regarding from the new energy market and alternative attractiveness.

The questionnaire consists on mainly into two parts, in the first part data were collected about demographic information and characteristics e.g. gender, age, income and children. In the second part examined the concern of environment and use of green energy and important factors that influenced in the purchasing decision. Likert rating was used to record the consumers response by using six scales (1) Strongly disagree (2) Partially disagree (3) Donot know (4) uncertain(5)partly agree(6) strongly disagree

For this research the data were gathered through Questionnaire is to measure the respondent behavior, their knowledge on sustainability on environment and how they see the role of energy companies in promoting the renewable energy. However, authors of this survey believe that the results of this questionnaires analysis would serve a good resource for further research in the area of green energy market. In our research we are not examining the purchasing behavior of the individual, despite that studying the consumer decision behavior what factors influence or effect on behavior of consumer concerned renewable energy choices.

5.1 Descriptive Research

After writing the literature review and developing own conceptual frame work, the descriptive analysis was an appropriate research method through which we can answer our research question which was based on describing the decision process of consumer.

Hair et al. (2002, p.41) define descriptive research as methods and strategy to compile and consolidate data in structured form that show the existing characteristics i.e. 'attitude, intentions, price Perception preferences, Social influences (purchase behaviors), environment knowledge of a target population.

According to Hair et al (2002, p.41), the descriptive research is applicable when a researcher look to answers to the how, what, who, when and where. These questions are interconnected with marketing and decision variables in a uniqueness market structure.

5.3 Data Collection

The Population would be selected for questionnaires in particular from Vasteras, Eskilstuna, Stockholm and some other cities of the Sweden. The questionnaires will be filled on the spot from those people who are using and paying for the energy.

The data will be gathered through primary and secondary sources in order to answer the research question. The primary data will be collected through the survey questionnaires. Secondary data would be collected through different sources, studying the previous research on our research topic.

5.4 Population and Sampling

In this research study population will be consisted mainly from the Vasteras, Eskilstuna, and Stockholm and from some other cities. Fisher et al (2007, p.190) in probability sampling, all elements in the population have an equal chance of being included in the sample. It minimizes the possibility of an unrepresentative sample.

‘Convenience Sampling’ it is a non-probability sampling method Hair et al (2002, p.359) defines ‘in this method participants are selected according to the convenience of the researcher that meets requirements of the study’.

5.5 Reliability

Reliability of the primary data is very important because we mainly depend upon the respondent’s opinion. When we have completed all the Questionnaires filled from the respondents on spot, the data compiled into excel sheet independently by each author to check the validity of the data and minimize the error of duplication in the data. Then authors compared the both excel sheet to check the accuracy of the data. Questionnaire was filled and collected from the respondent on the spot, because we want to make sure that the survey form is filled by the person himself. If we hand over the survey form to the respondent and collect it later, there might some chances that they get filled form with the help of other person and credibility of the data could not be established. We had put more focus in obtaining the personal opinion of the respondents.

6 Analysis

6.1 Back Ground Information

Demographic data is useful in order to make the analysis more meaning full for the readers. The reason to include this question is to determine the reliability of the data, that our sample size included only the Swedish citizens. The survey result shows that 97% of the data collected from the Sweden citizens and rest 3% of the peoples are staying in Sweden for different purposes. Authors include this question because Gender Equality is important in the survey to determine the ratio of men and women. This question tells the researcher how many respondents were males and females. According to

result presented in the Graph below, 46% respondents were males and 54% were females. Here authors are using percentage method for analysis of the data. Authors will relate this question with other questions to make analysis from different perspectives. Sample size of this survey was 400, and those respondents selected randomly. Following graph shows number of respondents according to gender and occupation. Mostly respondent of this survey were employed people, among those employees 184 were male and 216 were females.

6.2 Market Communication

6.2.1 Consider my electricity supplier to be good a give good value for the money?

This question was asked to respondents to see, either they are satisfied from current electricity provider company or not? If a customer does not satisfy from its electricity provider then he or she can consider switching to other company.

The results shows this 6% respondent are strongly disagree from the question, 15% are partly disagree, 23% are uncertain about their electric supplier is provided the good services and gives the value of their money, 22.75% are Partly agree, 18.25% are strongly agree, and 15% do not know. Here we can see that 44% respondent of this survey are those who are strongly disagree, partially disagree and uncertain collectively. The result drawn these consumers may switch their electricity provider. So companies have to do work for availing this opportunity.

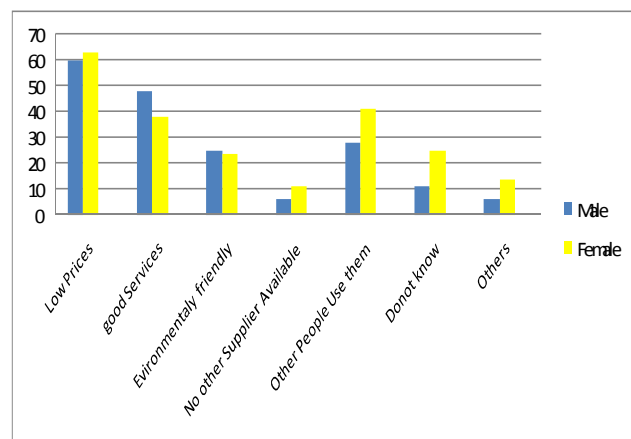


Fig:2 Reason for choosing the current supplier

6.2.2 The reason for choosing your current supplier

The items measuring what factors affect on consumers in choosing the current supplier. The results are more significant people are more likely to switch the electric supplier. The dominate factor is the lower prices (Figure 2) a significant number of

customer preferred good services of a company. when we compare the result of consumers preferred that the company is environmentally friendly with the other people use them (figure 2) gives the results that in most case particular women chose a certain supplier, decision is based on the reference group 'other people used them'. Positive attitude of male is exists towards environmentally friendly company as compared with the women. There are opportunities for the companies to positioning themselves as services oriented firms by providing good quality services.

Fig:2 Reason for choosing the current supplier

6.3.3 Use green energy and Received Information from company

27% of respondents are using green energy while remaining 73% are using conventional energy. This shows that opportunities for the growth of green energy is still exist and companies can carefully design their marketing activities towards these customers.

6.3 Price perception

6.3.1 Compare to its competitors, I believe that my electricity supplier's prices are

The purpose of this question is to find out the perception of people in order to price perception of their current electricity provider company. From the analysis 29.50% of respondent agree o that their current electricity provider company charging lower prices than the rest of companies, 46% have favorable attitude that companies charge equal prices or charge average with their competitors, 10% said that current supplier are charging higher prices while 12.50% don't know about this.

6.3.2 Price of green electricity

Question on price was asked to check and understand the customer sensitivity towards the green energy. The result shows that most of the respondent doesn't know about green electricity prices and their percentage among all respondent is 43%, 34% said green electricity prices are higher than conventional electricity providers, 19% said both type of electricity prices are same or averagely same, while 4% said green electricity prices are lower than other companies.

6.4 Social Influence

6.4.1 Neighborhoods or Households change electricity supplier

To check the influence of reference group (influenced by others) in choosing of electricity provider researcher put this question in front of respondents to check their response. The result shows that 2.25% strongly disagree with the question, 8.25% partly disagree, 24.25% said they do not have any idea about that, 12.75% are uncertain may be or may not be, 20% are partly agree with the question while mostly respondents which are 32.50% of total feel that many other households in their municipality have changed electricity supplier. We can conclude that reference group/society has major impact on individual in choosing the energy that other uses. If members of closed group using green energy the individual would also tend to choose the green energy.

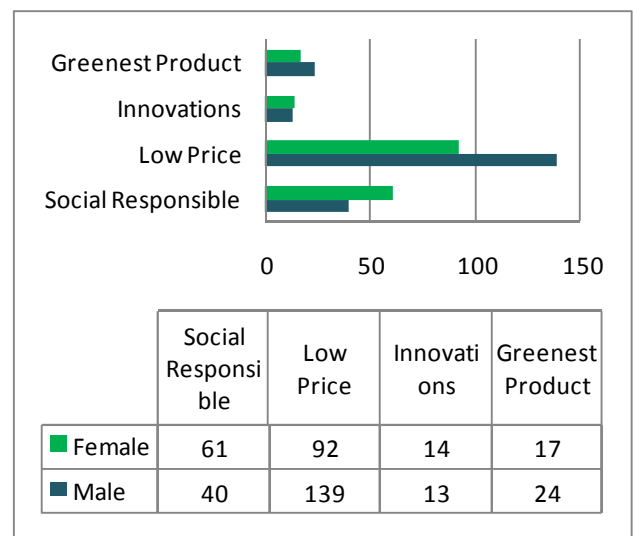


Figure 3: Choice of Energy

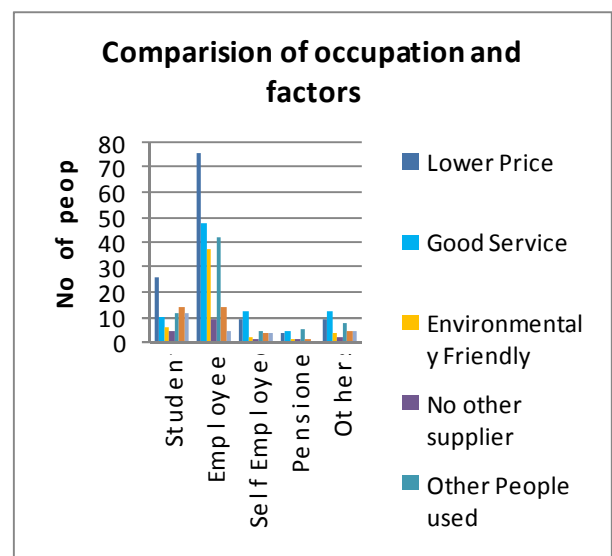


Figure:4 Comparison of occupation and factor

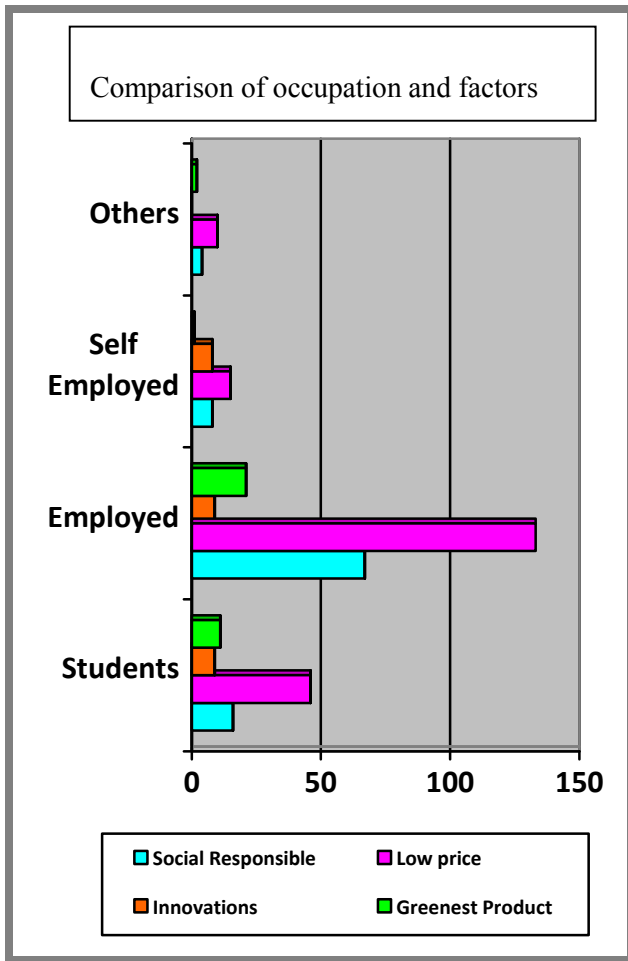


Figure.5 Comparison of occupation and factors

6.4.2 Switch from your current electricity supplier to new one

After getting idea about respondent awareness to electricity companies, price perception and reference group information, subsequently respondents were asked about their intention to switch their from current supplier to new supplier. The result indicates that 2% are unlikely to switch, 6% said certainly they can switch, 15% each said no chance to switch or probably they can switch, 31% respondents said they are likely to switch and 32% said improbable they can switch their current electricity supplier.

6.5 Environmental Knowledge

6.5.1 I received information concerning renewable energy suppliers

The analysis of this data indicates that companies are not providing information regarding the renewable energy. As results shows that 54% of respondents responded that they are not receiving information regarding renewable energy suppliers,

Amount	% Female	% Male
>50 kr	24%	18%
50 to 100 kr	16%	13%
101 to 200kr	11%	6%
201 to 300kr	9%	1%
301< kr	2%	0%

Table: 2. Consumer willingness to pay more for green energy.

20% said they get information while rests of 26% are uncertain that they get it or not. This is another factor is major hindrance in making decision due to which green electricity companies have low market share. Label primarily serves as a source of providing information to consumers

6.5.2 Current supplier provides renewable electricity

After checking awareness level 'environment knowledge' respondents were asked that either their current electric supplier provides green energy or not? Result indicates that 47.75% are using conventional electricity providers 26.50% are using green electricity provider while 25.75% are uncertain about this while their electricity provider is either providing green electricity or not.

6.5.3 Willing to choose supplier providing green energy

From previous question it's clear that mostly households are not using green electricity, so now researcher will find out why not what is the reason,

buy putting up stated question. 37% respondent said this is due to lack of information they don't sign contract with green energy Provider Company, 24% said it will take time and prices of green electricity are too high, and 15% that they are satisfied from current electricity provider Company.

6.6 Willingness to Pay Extra (Social Responsible)

6.6.1 What makes you want to choose a certain electricity provider

After finding out reasons of not selecting green electricity provider now examine that what factor you give priority in selecting the electric supplier Results shows that mostly respondents think lower price is the main factor in selecting electricity provider in Sweden 57.75% agree on this. According to 25.25% respondents social responsibility is the main factor, while 6.75% think about innovation and 10.25% prefer that product which is most fit or better for environment. It can be stated that social responsibility factor plays significant role after price in choosing electricity provider. But from previous questions it was shown that green electricity companies are doing nothing in building awareness.

From the figure 3 after analyzing data as a whole now authors find out that mostly males prefer low price while choosing electricity provider then females. If we see social responsibility factor females prefer it then males. Response regarding innovation does not have significant difference in males and females, more males prefer greenest product then females.

Table: 2. Consumer willingness to pay more for green energy

Observing from the graph of comparison between occupation and factors in choice of energy, in each of these factors it is clear that all of the occupations support the lower prices of the energy. Majority of the respondents from all occupations prefer those energy suppliers who provide the good services. Perhaps from the above data it is clear that the majority of the students and employed person supports the lower prices and quality of the service of Energy Company.

From each of the above factors it is cleared that environmentally friendly and other people used electricity have influenced on the consumers. It is evident from the above (figure 5) employed person have positively relationship with the factors influence on the consumers in choosing energy

company. The analysis of relationship between the occupation and factors in choosing of Energy Company shows that more specifically in occupations particularly students and the employed person have more attitudes towards choosing the energy companies who owned social responsibility, on the other side self employed over all have least interest in the other factors and this data shows that they have least interest in the lower price and social responsibility of the company. With regard the relationship between factors of employment and reason to choose electric supplier, it can be stated that opportunity is exit for the green energy companies to turn into the socially responsible; they can take advantage in building good image where they are operating.

6.1.2 How much extra would you be prepared to pay per month to get green energy

This results shows that the Swedish peoples are more environmentally conscious and there interest in paying a more for the green energy and they understand the environment impact of other conventional energy resources. Moreover more female consumers are willing to pay more for the green energy as compared with the male.

Female attitude is positively related with the environmentally friendly product (table 2) shows that 24 % of the women are willing to pay extra 50 kr for protecting the environment and 16% are willing to contribute 100 kr. It can be seen that the environment concern is more prevailed in the female than the male respondents.

7 Discussion of analysis and findings

The proceeding analysis of questionnaire data the research indicate that quality of the service of a firm and lower price are particular main factors of concerned which influence on the consumers in making the pre-decision with regard to the social influence. This findings support the primary motive after the price behind in adopting the environmental behavior is the influence of peoples, majority of the people adopted life style from their social networks and these social networks are critical for improving the quality of life [67]. Price is important factor as our analysis shows that both male and female consumers responded that the price of the green energy is high. This research results are consistent with our literature review that the price perception of green energy among the Swedish consumers is high and they consider green electric supplier prices are high. In comparison with the previous research and studies it is consumer perception about the price

of green energy are high [48]; [17]. This analysis also support the notion that the consumers who buy the energy are also convinced form their neighbors and society all these factors have strong influenced on consumers in building their beliefs and behavior towards choosing the energy. Such a conclusion is consistent with the research [38]. This research reveals that consumer participation in green initiative programs have significant influences in their social community and neighbors.

In the questionnaire respondent were asked whether in the past they have switched the electricity supplier or not. Majority of the respondents answered that they have switched from their electricity supplier. This shows that in Sweden switching in one electricity supplier to other is common and this is a big opportunity for those companies who are turning or planning turn into green. [68] supports the idea that consumers attitude towards switching the current electric supplier is probably the negative due to offering choice of green energy. High price and quality of service were other some main factors.

The information level regarding renewable energy information is not significant with the intention to purchase the electricity from the environmentally friendly supplier. This is contradictory with the previous research [25],[26]. However on the other side the female consumers expressed interest in reading the information provided by the electric supplier, this potentially women encourages through providing more precisely information. On the other side, the questionnaire concerning the knowledge of green energy and use of the green energy the majority of the respondents knowledge on green energy is low instead their electric supplier is providing the renewable energy contracts.. The energy companies who are turning into the green energy can reap the financial and social benefits in future because Green marketing has long term impact in consumers in the energy market.

This results shows that the Swedish peoples particular female respondents are more environmentally conscious and there interest in paying a more for the green energy and they understand the environment impact of other conventional energy resources. Analysis is support the argue of [69] willingness to pay more for the electricity of the consumers indicates the pro-environmental attitude is exists in the Swedish consumers.

Price and other factors are the other main hindrance in making contract with the electric supplier is non

availability of electric supplier. It is also noted from the analysis of the data that responsibility towards environmental issue is also not predominant factor in making decision of choosing the electricity supplier. The survey result also shows that the consumers are using the green energy but their level of knowledge on energy is low. However, there are a large number of consumers who are not using the green energy but they show the tendency of using the green energy if they provided with low prices.

In an effort to promote the green energy the electric supplier must build all efforts in increasing the awareness of the consumers and need to provide necessary knowledge about the environment. Our main focused was on the consumer behavior, this survey analysis shows that consumer behavior is developed in the individuals to some extent from the social networks. However trend shows that Swedish consumers support the low price company but on the same side a majority of the consumers trend also supports the social responsibility and services of a company providing.

8 Implications and Limitations

This research study provides a path way for the both theoretical and for the management. This research supports the previous research that consumer's shows strong concern for their environment. In addition, this research provides a basis of understanding the important factors affect on the consumers in making the purchasing decision and factors which motivate and are barriers in purchasing the green products. In past a number of studies focused has been given on measuring environmental awareness behavior, this research provides a profile of Sweden green consumers and identify the gap that exit among the consumers green supporting behavior. Further suggest that the Consumer knowledge and beliefs about the environment issues is a powerful tool for segmenting the market.

For the managerial implication the consumer profile of supporting the environment and purchasing the green product is an indication for the green marketers to target and segment the consumers according to their profile basis. In order to satisfy the green consumers, marketer can develop and make sure that the product contains visible environmental benefit and offered a comparative price with similar to the other energy companies. The marketer can use a green marketing mix approach in their communications in order to change the consumer attitude towards green purchasing behavior.

The sample in the study is limited to Vasteras and Eskilstuna and Stockholm only due to the limited time, the findings will be drawn from the analysis. The research findings of this work should not be considered generalized for the whole population, since Sweden is a ethnic and multi-cultural society.

The one major limitation is that we cannot hire the staff from the different cities of Sweden for this research because in our questionnaire some terms are required to elaborate to the respondent, this could bring problems in our data analysis if they missed the specific question in the questionnaire. The other main hindrance is that budget. Due to financial resources the population from different cities could not be sampled, future studies should use population from other cities and must conduct the cross cultural studies of different ethnic groups lived in Sweden.

8.1 Future Research

This academic paper is preliminary study of some factors that affect consumer's choice for an electricity supplier. The future researches can continue this study by comparing the effect of demographics on consumer's choice. This will help electricity companies in preparing marketing strategies for green electricity on demographic basis. With the help of this research energy companies will be able to target and approach their potential consumers more accurately.

Sample size for this research was smaller in future with bigger sample size and more factors can be added to study the consumer behavior. Moreover, further study can identify the potential green segment for the energy market based on Demographic, Psychographics segmentation. Future research can also be taken to see how consumers make decision with respect to gender, age group, occupation and incomes, so researchers have a broader field to invest and come with fruitful results in future.

9. References

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