AN ANALYSIS OF REACTION TO GREEN PRODUCT INITIATIVES

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ABSTRACT

The purpose of this paper is to investigate the reaction of consumer towards green product initiatives of the companies and impact of Household Income on Consumer's Green consumption decision. The study conducted is exploratory in nature with four levels of income. The survey of 300 respondents has been conducted and responses gathered have been analyzed on the basis of descriptive statistics. It was found from the study that the consumers in the region have high awareness about recycle, organic and energy efficient product but their utility is limited due to higher pricing by companies. The study is one of the first to focus on the consumption decision of females in relation to the green products offered by the companies.

Keywords: Sustainable Development, Green Marketing, Environmental, Ecological, Green Product, Green Products.

I INTRODUCTION

Sustainability has become the mantra for companies seekingto create a competitive advantage in the global marketplace.Recent interviews with over 750 CEOs from around the worldrevealed that 93 percent feel that implementing sustainabilityprograms that mesh with their corebusinesses would becritical to the future success of those businesses (UN GlobalCompact, 2010). These programs range from developingtotally new green products, developing recycled orrefurbished products to engaging in greener processes.

Thenewly produced goods that result are made of reclaimed/recycled/refurbished components. We propose that consumersevaluate these types of products differently than new greenproducts. Third, strategies for developing green processes canbe developed from firms' everyday business activities. Thesemethods may include reducing water usage, plant/manufacturing emissions, energy consumption, solid wastes,and acid rain emissions (sulfur dioxide, nitrogen oxide, and ammonia).

The challenge of healthier communities begins with environmental concern and collective adoption of Green behaviors, because the choices consumers make with regard to the environment influence thehealth and quality of

life for both current and future generations. Ingeneral terms, environmental concern is a "concept that can refer tofeelings [consumers have] about many different green issues" (Zimmer,Stafford, and Stafford 1994, p. 64). The topic became an important one in1962 when Rachel Carson's Silent Spring was published and has recentlybecome even more critical with today's concerns about creating a sustainableand healthy environment.

Economic world is now thinking in favor of the fairer sex. Now-a-days women are not only playing role of hardcore 'housewives', they are also playing a different role of 'chief purchasing officer' & controlling 85% of buying decisions. In today's world, they are working as multi-tasker by playing a role of house maker as well as professional women with their hard work. With their new role as a professional, there has been a gradual evolution in the status of women & now they are called as marketers. As a professional India, women hold 25% of jobs in different sectors, although in 1980 it was only 10%. An Indian woman today has a greater sense of empowerment and economic freedom, which indicates that their consumption pattern has changed.

Gender has been studied as a predictor of attitudes for many years based on the notion that males and females possess distinct characteristics, and green research has suggested that females might be more environmentally concerned than males (Lee 2009; Mostafa 2007; Schwartz and Miller 1991).

II REVIEW OF LITERATURE

Pacific Gas and Electric has admitted that CompactFlorescent Light bulbs are not as long lasting as hadoriginally claimed and their green advantages in terms ofenergy and hazardous waste may not be as significant asanticipated (Smith, 2011). Nissan's electric car, the Leaf, willonly achieve its promised 100-mile range under idealconditions; any use of heater, air conditioner, or otherenergy-drawing device can significantly reduce the Leaf'srange (Ramsey, 2010).

MiglaniSurinder (1997) has investigated the buying behavior of Indian women by using a well-structured questionnaire with 500 respondents fromDelhi-NCR region. His findings were that there is change in the role of Indian women and they now fit in the role of a facilitator than purchasing on family needs and wants. She also considers the importance of corporate social responsibility while making a buying decision.

Irawan Ronnie (1998) has investigated the factors influencing green purchasing behavior of university students in Jakarta. The findings of the research were Environmental Concern, Perceived Seriousness of Environmental Problems, and Perceived Environmental Responsibility-were significantly affecting green purchasing behavior and there was no gender differences on these significant variables. The researcher concluded that there are different variable that can influence the green purchasing behavior but independently only three variable environmental concerns, perceived seriousness of environmental problem and perceived environmental responsibility had the significant influence.

Dennis Charles (2000) has researched on shoppers, particularly women, and factors influencing them. The researcher has used comparison experiment, semi-structured questionnaire and focus group to compare a traditional e-shopping website with a social e-shopping one. The findings of the research were young women prefer social e-shopping sites. Both utilitarian and hedonic young adult female shoppers found social e-shopping enjoyable and

useful. However, although many participants found the social e-shopping site more difficult to use, this was outweighed by their enjoyment of the site and its usefulness. The study demonstrated the potential value of the concept of social e-shopping for future research. The researcher concluded social e-shopping can be a valuable strategy for e-retailers wanting to gain competitive advantage and to positively increase the e-shopping behavior intentions of young women.

Fowler (2002) reported that 42 percent of people will not buy green products, fearing that the products will not work as well as conventional products. A 2007 Gfk Roper study found that 61 percent of consumers believe that green products performed less effectively than non-green (Gfk Custom Research North America, 2009). More recently, however, Manget et al., 2009 discovered that almost half of the respondents in a multi-country survey indicated that green products offer comparable or superior quality over conventional alternatives.

Collins M. Christy (2007) has investigated customer's values, beliefs on sustainable corporate performance and their buying behavior. To achieve the research objectives a well-structured questionnaire was used where in total 300 respondents from Aldi and Albert Heijn supermarkets in the city of Groningen, Netherlands. The research explored values, beliefs about the importance of SCP, and buying behaviors of supermarket customers from within a stakeholder framework. Beliefs about the importance of SCP (both social and environmental, but not economic) were found to be related to values. Also, it was found that customers' environmentally responsible buying behaviors were related to their beliefs about the importance of environmental SCP. However their socially responsible buying was not related to their beliefs about the importance of social SCP. The researcher concluded that Marketing professionals have a central role to play in moving towards a greater level of corporate transparency and sustainability.

Veisten (2007) determined that willingness to pay forecologically labeled tables ranged from 2-16 percent abovethose of unlabeled products. Laroche et al. (2001) found that13.1 percent of respondents were willing to pay a higher pricefor green products. Sammer and Wustenhagen (2006) foundthat consumers were willing to pay a 50 percent pricepremium for a washing machine labeled as energy efficient.Vlosky et al. (1999) analyzed the effects of environmentalattitudes on a consumer's willingness to pay, concluding thatconsumers with higher levels of environmental consciousnessare willing to pay more for environmentally friendly products,and D'Souza et al. (2006) found that quality is moreimportant than price to consumers.

Laroche Michel (2008) has investigated aboutconsumers' willingness to pay more for environmentally friendly products. Awell-structured questionnaire was used where in total 500 respondents were sampled. Concerns related to the environment are evident in the increasingly ecologically conscious marketplace. Using various statistical analyses, investigated the demographic, psychological and behavioral profiles of consumers who are willing to pay more for environmentally friendly products. The findings of the research were that this segment of consumers were more likely to be females, married and with at least one child living at home. They reported that today's ecological problems are severe, that corporations do not act responsibly toward the environment and that behaving in an ecologically favorable fashion is important and not inconvenient. The researcher concluded They place a high

importance on security and warm relationships with others, and they often consider ecological issues when making a purchase.

Chatterjee (2009) examined consumer reaction to green category (or line) extensions of well-known brands. Their primary findings relevant to the current project are that consumers have significantly positive reactions to green extensions if the category has high environmental impact (e.g. paper towels, detergents), and that for existing customers, line extensions are preferred over category extensions.

Essoussi and Linton (2010) investigated consumers' willingness to pay for recycled products. They found that though consumers were willing to pay a price premium, this premium narrowed as the functional risk of the product category rose. The price premium represented the additional value consumers place on recycled versus non-recycled products. Extending this line of thought presents the possibility that, for certain product categories, recycled products may be perceived less positively than new green products.

Flannery Tim (2010) has investigated the gap between the consumer attitude and purchase behavior of green products.He surveyeda total of 2000 Australian consumers completed an online survey using structured questionnaire for one of four product categories, namely: televisions, digital cameras, air conditioners and washing machines. The findings were Respondents who cared about the environment tended to be guided by self-transcendence values of equality, helpfulness, forgiveness and loving. Unexpectedly, even those respondents who were more concerned about how their purchases affected their own individual situation still had positive attitudes towards purchasing green products.

Gan Christopher (2010) has investigated Consumers' purchasing behavior towards green products in New Zealand. A survey of total 500 respondents were done using structured questionnaire. He found thatpeople engage in environmental behavior as a result of their desire to solve environmental problem, to become role models and a belief that they can help to preserve the environment. However, consumers' indications of positive attitude towards environmental issues do not necessarily lead to actual environmentally friendly purchasing behavior. Majority of consumers do not purchase products based on the environmental concern alone and there will not trade-off other product attributes for a better environment.

Bjork Peter (2013) has investigated the value of green labels- consumers perceptive.A survey of 200 respondents was done. The value-attitude-behavior model was tested in this study, and the effects of greenlabels on the consumer decision making processes were assessed. The findings of the research were that Finnish consumers have a positive attitude toward green labels and are willing to pay a higher price for productsmarked with a green label. Attitudes have a direct effect on consumer behavior, but values correlate only with the variable willingness- to-pay.

Past research has found that a company and its products areconsidered as non-separate entities (Brown and Dacin, 1997),and therefore the image of a company's practices can have asignificant impact on consumers. Research also shows that 79percent of US consumers feel that a company's environmentalpractices influence decisions about

which products andservices they recommend to others (Gfk Custom ResearchNorth America, 2009). Of the consumers, 53 percent preferto purchase products and services from a company with astrong environmental reputation. D'Souza et al. (2006) statethat "consumer's perception of the firm's corporate strategiestoward environmental issues is expected to contribute to theformation of the overall perception about green products."Brown and Dacin (1997) reported that a company's corporatesocial responsibility (CSR) activities have a positive impact onproduct preference, though the impact is not direct. PositiveCSR activities have a positive impact on the evaluation of thecompany, which, in turn, has a positive impact on theproduct.

An attempt has been made to examine the different elements of buying behavior of females towardsgreen product in Delhi and NCR and are they willing to pay more for an green product.

To examine the different elements of environmental concern, we utilize different dimensions identified by Zimmer, Stafford, and Stafford (1994). This allowed us to determine whether the level of importance of certain types of environmental concern is significantly related to the willingness to spend more on an green product.

Thus we test the following hypothesis:

H1: There is a significance difference between the attitudes of respondent of different house hold income towards different environmental friendly practices.

III RESEARCH METHODOLOGY

The present study conducted is exploratory in nature and survey method has been used for data collection. The data is collected from 300 females from across Delhi and NCR from November 2014 to December 2014. The sampling of population is done on the basis of females pursuing their graduation and post-graduation, working women, professionals, entrepreneur & housewives and Convenience samplinghas been used for the study.The data collected has been tabulated and analyzed systematically with the help of Descriptive Statistics.Cron batch Alpha has been applied to test the reliability of the questionnaire.

The questionnaire has 10 questions with multiple choice options and 5 point likert scale. The result of Cron batch Alpha is .80 (Table 1) which is greater than 0.7, therefore the data is considered to be reliable.

The demographic profile of 300 females who has completed the survey is 63% of females are single; 43% of females are graduate, 39% are postgraduate and 12 % are Doctorate; 28% of females are organizational employees, 14% are students, 11% are housewives and 8% are entrepreneur and 3% are retired females.The age group of females in survey is 57% of females are of age group 20 to less than 30, 30% of females are of the age group30 to less than 40, 7% of the age group of 40 to less than 50, 5% of the age group more than 50.

The females of different income group is 27% females have total household income of 5 to less than 10 lakhs, 17% are of 15 to less than 20 lakhs and 24% are of 10 to less than 15 and 24% are of the income group of 20 lakhs and above.

In our survey we have also tried to identify the area of origin of our respondents as Delhi being a cosmopolitan city. 41% of our respondents have originated from North India, 18% are from South India, 17% are from East India, 11% from Central India.

IV DATA ANALYSIS

In our survey of green products 63% of the females are single, 43% are post graduate, 28% are organizational employees. From the survey we can conclude that 90% of the respondents in our survey are energy efficient including the respondents who sometimes act energy efficient. And also around 50% of the respondents consider them environmental friendly including the respondents who sometimes act environmental friendly. Also from the survey it is clear that only 45% female consider buying products which are labeled as green. Also the survey showed that 40% out of the sample population is affected by friends/relatives/colleagues opinion while making decision when they are shopping for green products, 29% is affected by T.V, newspaper and magazine ads and 19% are affected by point of purchase.

The data of females from Delhi & NCRshows that 45% of total females consider themselves energy efficient (chart 1), 50% considers themselves as environmental friendly (Chart 2), 45% buy the product which are labeledas environmentally safe (Chart 3). 42% of the respondent's mentions relative or friends' influence the decision to buy green product (Chart 4).

Chart 5 shows that about 60% of the women respondents have heard about organic products and 30% of them have actually used it. This shows that there is enough awareness about ecofriendly products among females as their responses have been collected from different demographics. Chat 6 no shows that 29% of the female respondents have heard about recycled product and 19% have actually used it.

Char 7 highlights the reasons of less usage of organic products. Our respondent's awareness of organic products is quite high. It is about 60% and usability rate among respondents is 30%. They highlighted various factors for less usage of these products. Survey shows that 35% of respondents feel that organic products are not used as it does not fulfill the respondents' expected performance level and 17% considers that the appearance of the organic product unattractive and 12% find organic products expensive.Chart 8 shows 23% of Respondents with medium awareness level of recyclable products feels that reason for less usage of recyclable products is product appearance not appealing and 15% feels that product is too expensive to buy.

Chat 9 shows that 70% of respondents says that it is very important for a product to be energy efficient. Whereas 47% of the respondents say it is important to be environmental friendly. While almost the same majority also consider products possessing the trait of being environment friendly is not that important.Chart 10 shows 60% of Respondents said that they consider Ozone depletion and greenhouse effect of the product on environment very important while buying the product. Internet based advertisement and out-door ads has very less impact.In case of organic products out of the total sample 60% of the respondents have heard about the product and 32% have actually used the product. The major reason for not using the organic product is reduced performance possibility according to

the survey. While In case of recyclable products out of the total sample 10% of the respondents have heard about the product and 19% have actually used the product. In case of energy efficient products out of the total sample only 1% of the respondents have heard about the product and 16% have actually used the product. On the other hand in case of wastage reduction products out of the total sample only 5% of the respondents have heard about the product and 10% have actually used the product. In case of solar power products out of the total sample only 3% of the respondents have heard about the product and 6% have actually used the product. In case of green construction material out of the total sample only 1% of the respondents have heard about the product and 4% have actually used the product. The major reason for not using the wastage reduction product, solar power product and green construction material is that it too expensive and the reason for not using the recyclable product and energy efficient products is that the product appearance is not appealing according to the survey.The level of the importance the respondents attach with the energy efficient product is very high than the other aspects in the survey and on the other hand wastage reduction product are not considered important related to environment protection.According to the survey generally 40% of the people think that green products are of same quality versus similar products but not green and 39% of the respondents think that green products are of higher quality versus similar products but not green and 10% consider the quality as inferior. If a product is available for Rs.100 then the maximum amount the respondent is ready to pay is Rs.131 for another product which is almost similar except that it is also green. This shows the willingness of people who are ready to pay more for green products.Also there is no significance difference between the attitudes of respondent of different house hold income towards different environmental friendly practices. In this case we can say that female respondents with different house hold income have similar attitude and buying behavior towards different green products and they try to convince friends, relatives and colleagues not to buy products which are harmful to the environment.

V CONCLUSION & SUGGESTIONS

Our findings do offer insight into perceptions of environmental concern and willingness to pay forgreen product. These findings suggest that educational messages should be targeted toward people to encourage purchase of such products. The findings also suggest that respondents who are particularly concerned with waste may be more likely to spend more money on an environmentally friendly product. Therefore, a reduced usage of energy via simpler packaging and recycling innovations may be supported by a group of consumers. Educating consumers on why green products cost more as well as the benefits of using green products, particularly where health benefits are concerned (i.e., reduced factory emissions, pesticide-free agriculture, reduce ozone depletion), may be helpful in closing the gap between consumers merely possessing a pro-environmental attitude and extending that attitude to intentions to adopt pro-environmental behaviors—in the case here, spending more money on an environmentally friendly product. However, because our research only examined willingness to pay forgreen product and not behavior, this speculation needs to be examined in future research.Although a movement toward reducing the costs of these environmentally friendly products might be helpful, it may not be realistic. Another alternative is increased

government subsidies for companies developing green products so that the cost to the consumer can be reduced. If the ultimate universal goal is a sustainable environment with long-term health benefits for all consumers, then collective effort among consumers and businesses is critical.In short, the research begins to understand who is willing to pay more for an environmentally friendly product and it showed that one should allow for the development of effective communications to different groups of consumers to educate them on the benefits of purchasing these products. Addressing salient needs is critical in moving from environmental concern to action, and consumers need to play an active role in maintaining their environment to protect their own community and personal health.

VI LIMITATIONS

- Sample size of the study was 300, we can increase the sample size and replicate the research for more accurate results.
- Environment concern is huge issue nowadays so many more sections and issues can be targeted and the report can be replicated to get the result.
- Time was one of the limitations.
- The questionnaire can be replicated by involving many other factors of buying behavior and attitude.
- The study is focused only on female consumer; male consumer can be also targeted to get more effective result.

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APPENDIX

Table 1 Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.704	.800	10

Chart 1

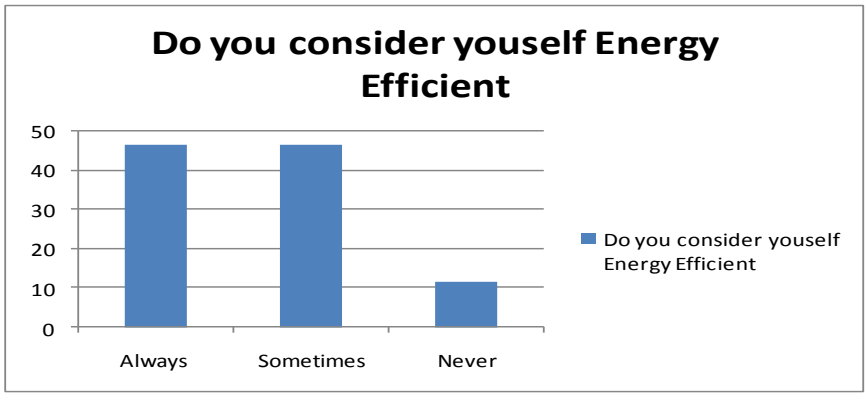


Chart 2

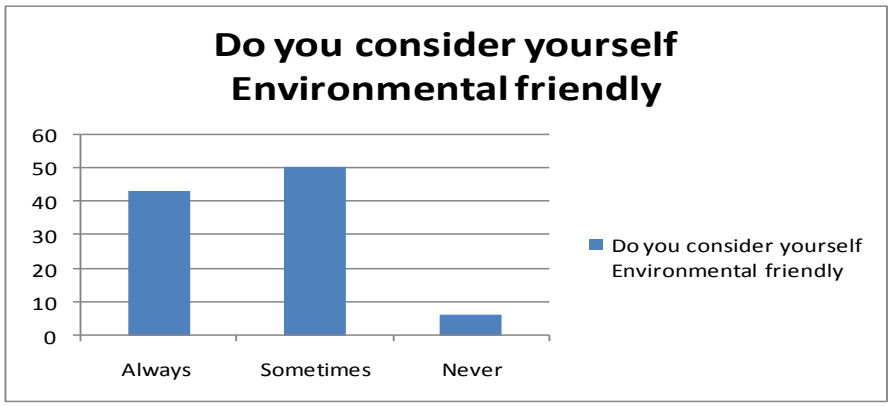


Chart 3

Chart 4

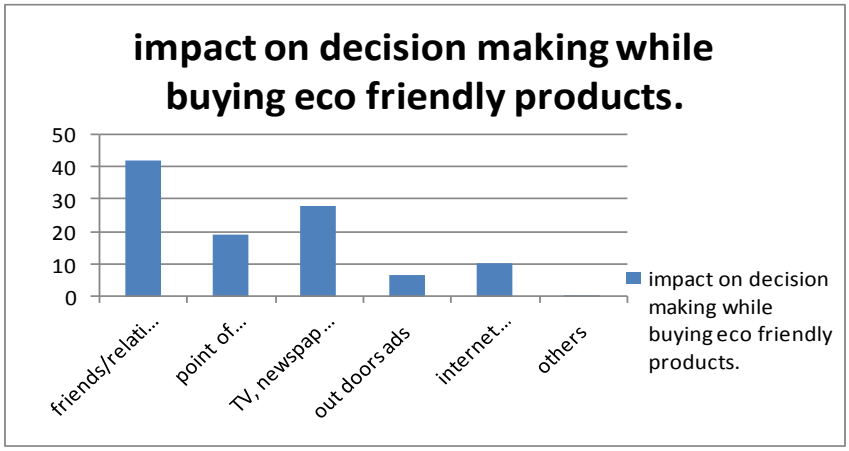
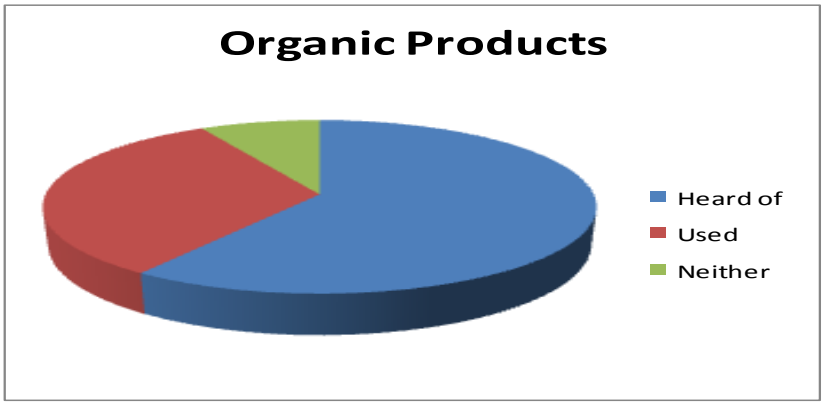


Chart 5



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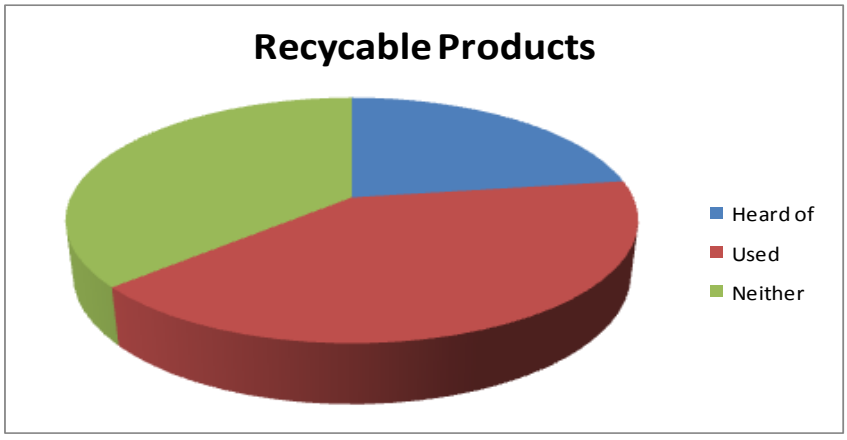

Chart 7

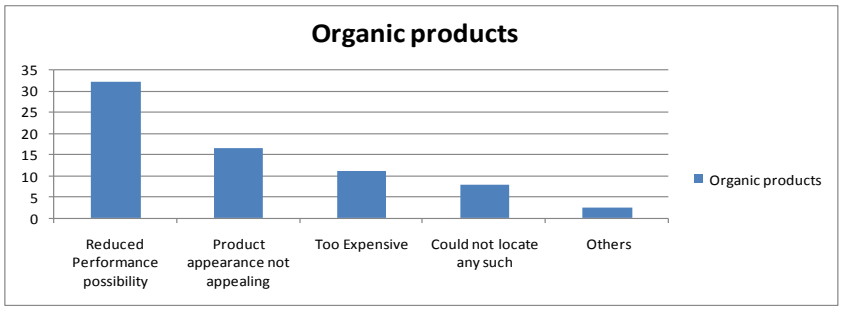

Chart 8

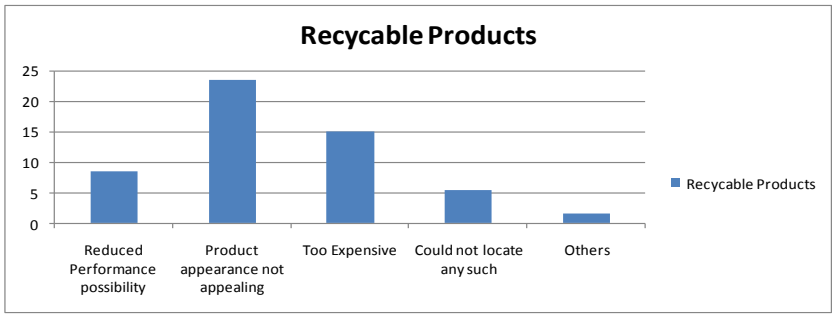

Chart 9

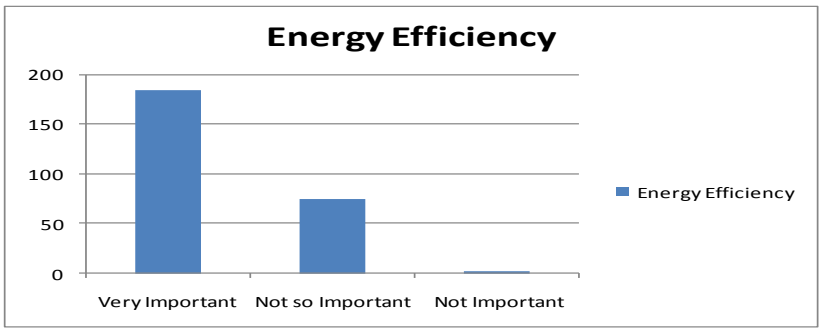

Chart 10