Impact of eco-friendly strategies on consumer decision and satisfaction: An empirical study on selected companies

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Abstract
The world has now evolved into a global village where pollution, disasters and diseases have spread to a maximum range. In this type of turmoil, it is must to conserve the earth and all the living things that survive on it. In the quest of growth and development we are harming the whole ecosystem and creating an imbalance. Pollution is the universal problem which we face. The main causes for pollution are smoke emitted from the automobiles, factories and industries. There are three types of pollution that is water, air and land pollution. We are the victim of all three. In response to this the companies are now focusing more on eco-friendly strategies and thus showing concern of environment. The socially responsible companies are moving towards eco-friendly practices like water treatment and recycling, plastic free, chemical free products, organic products, less polluting automobiles to list a few. The customers are also influenced by these company strategies. This study aims to identify the effect of these strategies on consumer’s satisfaction in Hubli city. Data will be elicited from consumers of reputed companies like Pepsi, Coke, Mc Donald’s, and Dominos. The study will elicit the significance of consumer satisfaction with the help of statistical tools and tests. The major findings are the customers feel proud on the products they buy from eco friendly companies. The customers also show loyalty for those products were the companies are involved in green practices. The concern for green practices and green products there is no gender bias.

Key words: Eco friendly strategies, eco friendly products, organic products, social responsibility, customer satisfaction, Green marketing.

Introduction
In the present day world, consumption of products has augmented worldwide dramatically, and leading to depletion of natural resources, loss of biodiversity and swift ecological turn down. There are various forms of pollution like air, water, land etc. The prime reason being this is the irresponsible behavior of the society. Endless needs and wants of the consumers and mass production is the key reason for environmental harms. Mankind has limited resources on the earth to cater these unlimited needs. Environmental deterioration and global problems have together paved the way for the emergence of green marketing, resulting in huge influx of eco friendly products. The concept of green was neither prominent in 1980’s nor was the concept of green marketing globally popular earlier 1990’s. The American Marketing Association (AMA) held the first workshop on "Ecological Marketing" in 1975. The proceedings of this workshop resulted in one of the first books on green marketing entitled "Ecological Marketing".

As society becomes more concerned with the natural environment, businesses have begun to modify their behavior in an attempt to address society's new concerns. Some businesses have been quick to accept eco friendly products, green products, organic products etc. Green Marketing strategies have gained greater social significance. For the modern marketer, green products have become the matter of prime importance. In the business world, the companies are using the concept of green marketing for social responsibility.

Companies are moving from non-green products to green products, from conventional technology to green technology, from unsafe production to safe and green production, from excessive...
and toxic packaging to minimal and bio-degradable packaging. These efforts of companies will go un-
accounted, unless there is awareness about such products to all segments of consumers. It is also
important that such savvy consumers also show affinities to consume eco friendly products. The
customer may not be willing to pay premium for eco friendly products in price sensitive markets like
India; it’s a major road block and a big challenge for companies. The companies must be efficient to
cope with this challenge by not passing much heat of price for eco products to its customers.

Responsible marketing, however, is destined to dominate twenty-first century business. Rising
energy prices, growing pollution and huge resource consumption and political pressures to address
pollution level and climate change are driving innovation toward healthier, more-efficient, high-
performance eco products. Customers must also show matured behavior by accepting the eco friendly
or so called green products. The customers who embrace eco friendly products may also tend to have
esteem feelings as they are also doing a bit to save environment. The customers who are convinced
of green products will also show repeat behavior and there can be a sense of satisfaction among the users.

Objectives

This study is aimed to find the consumers awareness on eco-friendly practices, also how customer
perceives or believes that the company is following the green practices and to establish the impact of
ecological strategies on consumer purchase decision making. The concept of green marketing is yet to
gain recognition, popularity and acceptance in the Indian market. In view of growing concern over the
environmental issues across the world the marketers are attempting to address the green issues by way
of increased attention on green products. However is not clear how the consumers response for green
strategies.

1) To identify the consumer awareness on ecological practices of companies
2) To find the impact on consumer decision making of green products
3) To identify the ecological concern among the customers

Green practices by selected companies

Environmental pressures present both challenges and opportunities for the future of the planet.
As a company and brand with large global footprints, they have a responsibility for protecting the
nature. Green marketing is not just promotional activities done by companies like advertising of
products with environmental characteristics like Recyclable, Refillable, Chemical free, Plastic free,
Ozone Friendly etc; Unfortunately customers think so, thus green marketing incorporates a broad
range of activities; including product change, modification in production process, packaging as well as
modifying advertising. AMA defines green marketing as the marketing of products that are presumed
to be environmentally safe; it incorporates several activities such as product modification, changes to
production processes, packaging, advertising strategies and also increases awareness on compliance
marketing amongst industries.

PepsiCo and Coca-Cola, as manufacturers of many of the world's most popular soft drinks,
have been fierce competitors for decades. It's only natural that this rivalry would extend to establishing
their eco-credentials with customers and investors. Both companies have ploughed significant
resources into developing and launching environmentally friendly bottles, and this investment looks
set to continue as each company tries to prove its superior approach to tackling waste and improving
renewability. These industry titans, aware of consumers' growing attention to sustainability issues in
the products they choose, are now introducing their latest generation of environmentally friendly
bottles. These new packaging concepts are designed to improve environmental performance,
minimizing or eliminating the need for petroleum and incorporating more renewable materials.
Coca-Cola is certainly a commercial pioneer in the field, introducing the “Plant Bottle”, a recyclable PET (polyethylene terephthalate) bottle made from renewable plant-based material. Studies indicate the new bottle would reduce carbon emissions by 25% compared to traditional petroleum-based PET. “Plant Bottle” packaging is the result of many years of research and investment in packaging design and technology and the specific formulation, using bio-ethanol from sugarcane. Coca-Cola might have drawn first blood on the green bottling battlefield, but PepsiCo unveiled its own contribution to the field of eco-friendly PET bottles - the world's first PET plastic bottle made entirely from renewable, plant-based materials to improve environmental sustainability. So Coca-Cola snags the honor for early innovation, getting their eco-friendly bottles out to millions of consumers in more than 20 markets before many companies have even made their first steps. Meanwhile, PepsiCo is gaining appreciation for going a step further than its rival, working out the complex chemistry behind the manufacture of 100% plant-based bottles while sourcing materials from its own agricultural waste.

McDonald’s USA has efforts in place to help continually reduce energy requirements in its buildings and restaurants and to find technical innovations to minimize energy consumption. An opportunity to augment these efforts is by supporting the development of renewable energy through renewable energy. Rising energy costs, concern for the environment and quickly depleting fossil-fuel sources prompted McDonald’s India to review conventional practices and develop sustainable and eco-friendly ways to meet the needs of its restaurants. While it is necessary to comply with regulations for prevention and control of pollution, McDonald’s India believes it is imperative to go beyond compliance by adopting clean technologies and improvements in management practices. McDonald’s India has undertaken various initiatives that have had positive impacts on the environment, as well as the industry at large. Energy-saving technologies used at McDonald’s India restaurants include, LED lighting technology, Super heat recovery systems: This initiative helps to collect hot water from air conditioning waste heat, which results in significant energy savings at the restaurant level.

The Domino’s Pizza supply chain transportation fleet became SmartWay certified, which is awarded to companies implementing procedures that reduce fuel consumption. The domestic and international markets are also utilizing energy efficient vehicles, including electric cars and bicycles. Dominos stores buy Energy Star rated washers, which use 35% less water and about 20% less energy than regular washers. Dominos supply chain centers are very active in locally recycling cardboard that is used to ship materials. The pizza box suppliers are also engaged in providing more sustainable cardboard for the boxes. International Paper, vendor of Dominos has a program to plant three trees to replace each one they cut down. The pizza boxes contain up to 41% recycled paper content. Recycled products are also used in the making of aprons, napkins, Heat wave bags and cups.

Earlirer studies

Ken Peattie (1999), “Trappings versus substance in the greening of marketing Planning”, this article discusses the degree to which the companies have moved closer to real sustainability appears minimal. It also focuses on the degree to which this lack of change stems from the fundamental incompatibilities between the philosophy of sustainability and the strategic marketing planning processes that companies use in practice. The fresh wave of environmental concern which existed at the start of the 1990s saw a change in the extent and nature of the environment’s influence on marketing strategy. It is only in recent years that the environmental marketing agenda has expanded to discuss the concept of sustainable marketing and getting the concept of accepted by the firms. Creating marketing strategies which take meaningful steps towards sustainability has proved very difficult for companies.

Michael Jay Polonsky (2001), “Strategic Bridging within Firm-Environmental Group Alliances: Opportunities and Pitfalls”, this paper discusses the theoretical foundations of bridging. The benefits and pitfalls of strategic bridging are demonstrated through case study. The author opined that.
If the alliance will be done with mismatch of objective the alliance will be shorter. The effective strategic bridging relationships need to be carefully managed if they are to achieve the firm's desired outcomes. Firms that wish to have an environmental partner act as a bridging agent need to evaluate the potential partners' political power prior to entering into the alliance.

Kaman Lee, (2008)."Opportunities for green marketing: young consumers", Marketing Intelligence & Planning, this paper attempts to identify crucial factors that affect Hong Kong adolescent consumers in regards to green purchasing behavior. Author took a total of 6,010 (2,975 males and 3,035 females) adolescents in Hong Kong. They were surveyed with the following parameters: on their green purchasing behavior, environmental attitude, environmental concern, perceived seriousness of environmental problems, perceived environmental responsibility, perceived effectiveness of environmental behavior, social influence and concern for self-image in environmental protection. A hierarchical multiple regression analysis was conducted by entering control variables (age, sex, educational level, membership in environmental clubs). The survey result showed that social influence was the top predictor of Hong Kong adolescents green purchasing behavior, followed by environmental concern as the second, concern for self-image in environmental protection as the third, and perceived environmental responsibility as the fourth top predictor. This article gives an excellent insight on what actually appealing and not appealing for young customers in Hong Kong for green marketers.

Prashant Kumar Bhimrao M Ghodeswar (2015)," Factors affecting consumers’ green product purchase decisions ", this article is pivoted on studying the factors affecting consumers’ green product purchase decisions in India. This study is a survey-based method to test a theoretically grounded set of hypotheses. The authors have used 38-item questionnaire and snowball sampling method. The data was elicited from 403 working Indian respondents in Mumbai. The data were analyzed using exploratory and confirmatory factor analyses. The results witnessed that the respondents possess willingness to support environmental protection, realization of environmental responsibilities, and inclination towards searching green product-related information and learning about green products.

Yatish Joshi Zillur Rahman, (2016)," Predictors of young consumer’s green purchase behavior ", this paper aims to determine the factors that predict green purchase behavior of young educated consumers in Delhi. A survey was carried out on a sample of 1,502 young educated consumers by using structural equation modeling. The assessment was done for the predictive power towards green purchasing on seven parameters. Results indicated that the variables under study predicted consumers’ green purchase behavior in the following descending order: social influence; attitude towards green purchasing; perceived environmental knowledge; recycling participation; eco-labeling; and exposure to environmental messages through the media. The study has useful marketing implications. It informs about the main predictors of green purchasing which can be helpful for marketers in designing suitable marketing strategies for promoting green purchase behavior among young educated consumers in Delhi.

Methodology

In this study seven eco practices were identified namely, 1) Water harvesting, 2) Water Recycling, 3) Plastic or paper recycling, 4) Water treatment 5) Organic ingredients 6) Non chemical or eco colors and 7) Green buildings. These were chosen as this was more relevant to selected companies namely Coke, Pepsi, Dominos and Mc Donald’s. To identify the customer’s impact to green practices the following five parameters were chosen, 1) Extend of purchase influence due to eco practices, 2) Loyalty behavior or high frequency purchase, 3) Impact on company due to green practices, 4) Sense of esteem feelings due to concern for environment and Impact on satisfaction level. The study was based on the primary data captured through a questionnaire. The content of the questionnaire is as
follows; 1) The respondent’s age, sex and education. 2) The respondent’s awareness regarding the green strategies 3) The purchase influence by companies green practices 4) The frequency of purchase of green products 5) The impact of eco friendly practices on image of the company 6) Respondents esteem feeling by use of green products and 7) Sense of satisfaction by use of eco friendly products.

Analysis was done by administering spearman’s co-relation for identifying the consumer perception regarding the eco friendly practices. This test is a nonparametric measure of the strength and direction of association that exists between two variables. It was more suitable to find association of various eco practices that customers perceive. Descriptive statistics was used to find the summary of data given by the respondents. Finally one way anova was used to find the difference of opinion between different companies and gender on selected five parameters.

**Discussions**

When the respondents were asked on the awareness of eco-friendly practices they exhibited the awareness level with following details.

**Figure 1: Awareness rating on eco friendly practices**

Respondents were aware for plastic or paper recycling at the highest level. It was followed by water treatment and recycling, use of chemical free colors, water harvesting, organic ingredients and least awareness parameter was of green buildings.

**Table 1 Spearman’s Correlations for Eco Practices**

<table>
<thead>
<tr>
<th>Water Harvesting Correlation Coefficient</th>
<th>.1000</th>
<th>.341**</th>
<th>.092</th>
<th>.108</th>
<th>-.259*</th>
<th>.026</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed) N</td>
<td>.002</td>
<td>.421</td>
<td>.345</td>
<td>.021</td>
<td>.823</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>79</td>
<td>79</td>
<td>79</td>
<td>79</td>
<td>79</td>
<td>79</td>
</tr>
</tbody>
</table>
To establish the relationship or association of eco practices the spearman’s co-relation was administered and two striking concerns were indentified. Customers perceive that if companies follow water harvesting then they also go for water treatment but not necessarily they use organic ingredients. The soft drinks companies are known for water recycling and customers of these companies believe that the products are made by use of chemical based colors. But, if companies recycled, customers believe that they do not use chemical based ingredients. Food companies are known for recycling and users of these companies also believe that the companies will use natural or eco colors in the food products.

**Table 2 - Descriptives of selected parameters**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purchase Intention</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pepsi</td>
<td>3.2000</td>
<td>.77460</td>
<td>2.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Coke</td>
<td>3.3500</td>
<td>.67082</td>
<td>2.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Domino's</td>
<td>3.3000</td>
<td>.97872</td>
<td>1.00</td>
<td>5.00</td>
</tr>
<tr>
<td>McDonald</td>
<td>3.6522</td>
<td>.71406</td>
<td>2.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Total</td>
<td>3.3974</td>
<td>.79511</td>
<td>1.00</td>
<td>5.00</td>
</tr>
<tr>
<td><strong>Frequency of Purchase</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pepsi</td>
<td>4.0667</td>
<td>1.03280</td>
<td>2.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Coke</td>
<td>4.3500</td>
<td>.58714</td>
<td>3.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Domino's</td>
<td>4.4000</td>
<td>.75394</td>
<td>3.00</td>
<td>5.00</td>
</tr>
<tr>
<td>McDonald</td>
<td>3.8261</td>
<td>.83406</td>
<td>2.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Total</td>
<td>4.1538</td>
<td>.82300</td>
<td>2.00</td>
<td>5.00</td>
</tr>
<tr>
<td><strong>Effect on Image</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pepsi</td>
<td>3.8667</td>
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<tr>
<td>Coke</td>
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<td>.81273</td>
<td>2.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Domino's</td>
<td>4.0000</td>
<td>.56195</td>
<td>3.00</td>
<td>5.00</td>
</tr>
<tr>
<td>McDonald</td>
<td>4.0000</td>
<td>.67420</td>
<td>3.00</td>
<td>5.00</td>
</tr>
</tbody>
</table>
Table 2 provides good insights on customer behavior for selected parameters on green products. On purchase intention of the green products the mean score values score is around 3.3, this indicates that the customers has got the inclination for green products in their purchase intentions. The customers are influenced by the company’s eco friendly practices. The Mc Donald’s customers have rated high in their influence at 3.6 mean values. In next parameter on frequency of purchase the value scored is average around 4.15; this indicates the customers are highly loyal as they are influenced by eco friendly practices. In loyalty parameter Dominos customers rated high at 4.4. This indicates customers like green products to buy frequently.

On impact of companies image boot because of eco friendly practices the customers have rated high at 4.01. This indicates that customers strongly feel that the company image will definitely boost by their eco friendly practices. On esteem feelings by use of eco friendly products at the customer level the respondents rated at 4.2. Coke customers have rated very high at 4.5 mean. The coke customers exhibited elevated levels of esteem feelings. On satisfaction level on green practices and green products the respondents have rated good at total mean value of 3.8. This again indicates that there will be an impact of satisfaction on customers by eco friendly.

**Figure 2 - Rank of selected parameters**
Among all the selected parameters the feeling of esteem by using the products of eco friendly companies got the highest ranking followed by loyalty, Company Image, Satisfaction and least scorer was purchase intention itself. It would indicate that customers are inclined towards the green practices and green products however their purchase intention they have some ambiguity. The customers are exhibiting average purchase intention for green practices and products.

Table 3: One way Anova Difference between the companies

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Intention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2.312</td>
<td>3</td>
<td>.771</td>
<td>1.23</td>
<td>.305</td>
</tr>
<tr>
<td>Within Groups</td>
<td>46.367</td>
<td>74</td>
<td>.627</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48.679</td>
<td>77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of Purchase</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>4.566</td>
<td>3</td>
<td>1.522</td>
<td>2.36</td>
<td>.078</td>
</tr>
<tr>
<td>Within Groups</td>
<td>47.588</td>
<td>74</td>
<td>.643</td>
<td></td>
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<tr>
<td>Total</td>
<td>52.154</td>
<td>77</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Effect on Image</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>.704</td>
<td>3</td>
<td>.235</td>
<td></td>
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<tr>
<td>Within Groups</td>
<td>46.283</td>
<td>74</td>
<td>.625</td>
<td></td>
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<tr>
<td>Total</td>
<td>46.987</td>
<td>77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Esteem boost</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2.584</td>
<td>3</td>
<td>.861</td>
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<tr>
<td>Within Groups</td>
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<td>74</td>
<td>.727</td>
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<tr>
<td>Total</td>
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<td>77</td>
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<td></td>
<td></td>
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<tr>
<td>Effect on Satisfaction</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Between Groups</td>
<td>1.228</td>
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<td>.409</td>
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<tr>
<td>Within Groups</td>
<td>55.490</td>
<td>74</td>
<td>.750</td>
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<tr>
<td>Total</td>
<td>56.718</td>
<td>77</td>
<td></td>
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</table>

Anova was administered to find the respondents’ opinion in regard to difference between the selected companies on chosen five parameters. On the first parameter i.e. purchase intentions, if we look at data (F=1.23 & P=0.30) it indicates there is no difference between the selected companies. Customers are equally having good intentions for buying from all the companies. In next parameter (frequency of purchase) it is noticed from the data (F=2.3 & P=0.78) which clearly states there is significant difference in selected company customers. Customers are not showing equal loyalty for selected companies, this might be product preference or loyalty for one company is high compared to other companies. In mean values Dominos customers exhibited more loyalty. The other three parameters namely Impact of company image, Esteem feeling and Satisfaction the data reveals (refer table 4) that again there is no significant difference among the selected company users.

Table 4 – One way Anova-Difference of opinion between the gender

<table>
<thead>
<tr>
<th>Parameters</th>
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<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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<tr>
<td>Purchase Intention</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>.041</td>
<td>1</td>
<td>.041</td>
<td>.064</td>
<td>.801</td>
</tr>
<tr>
<td>Within Groups</td>
<td>48.638</td>
<td>76</td>
<td>.640</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48.679</td>
<td>77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of Purchase</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1.497</td>
<td>1</td>
<td>1.497</td>
<td>.732</td>
<td>.395</td>
</tr>
</tbody>
</table>
Within Groups
Total

Effect on Image
Between Groups
.009
46.978
1
76
.009
.015
.902
Within Groups
46.987
77
Total

Customer Esteem boost
Between Groups
.057
56.315
1
76
.057
.076
.783
Within Groups
56.372
77
Total

Effect on Satisfaction
Between Groups
.403
56.315
1
76
.403
.544
.463
Within Groups
56.718
77
Total

When anova was administered for the difference of opinion on selected parameters for gender, it is clearly visible that (refer table 5) views were gender neutral on any of the parameters. Both the genders gave similar opinions. This shows that the concern for green practices and green products there is no gender bias, both the sexes share similar concern in this study.

Conclusion

The customers are inclined towards the green practices and green products however their purchase intention they have some ambiguity they are not confident enough to rate high for purchase intensions. The customers still have some confusion or not convinced in preferring them. The customers are exhibiting average purchase intention for green practices and products. The customers do feel proud by consumption of green products as they exhibit concern for environment. The respondents also believe that the company image will boost by the green practices.

References


