A Study on the Impact of Green Marketing on Consumer Buying Behaviour within the Personal Care Industry

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ABSTRACT: The study aims to understand the impact of various factors that could potentially affect the consumer buying behaviour and decision-making regarding green products to be able to deduce a managerial implication of creating marketing campaigns and product lines based on this concept of sustainability and environmentally friendly products. It is also important to understand the influence of factors like premium pricing, levels of awareness and overall satisfaction during the purchase process.

The purpose of this study is to understand if these factors play an important role in influencing consumer buying behaviour and purchase decisions.

Keywords: Green Marketing, Purchase Intention, Consumer Buying Behaviour, Sustainability

1. INTRODUCTION

Living in the 21st century has come with a lot of advancements and perks but at the same time has seen an adverse impact on the environment due to human negligence. Issues such as global warming, increased carbon emission, ozone depletion, loss of flora and fauna and other such ecological effects have been heightened over time.

Consumers have slowly begun to realise the impact of their actions on the environment and are trying to understand and find ways on how to reduce their carbon footprint in order to make a change in the way things are currently progressing. These are now aware about the ill impacts of their purchases, the impact of large-scale manufacturing and urbanization as well as the issues that emerge from the lack of using non-green products on a day-to-day basis.

Consumers are now more conscious towards the environmental problems that are being faced and seem to be making a conscious choice to change the route and work towards more sustainable practices.

Brands are also actively trying to shift their products and procedures towards being more sustainable and better for the environment. They are also using this as a promotional tool to increase consumer awareness towards their products. These efforts are being made to make consumers realise the array of choices that they must purchase green products and restore the ecological balance by reducing their environmental footprint.

Due to the increase in these concerns, the emphasis on the term sustainable has grown by leaps and bounds. This growing important has created a lot of awareness regarding recyclable, non-harmful, and green products. This change in behaviour and needs has resulted in the growth of organic food, clothes, electronic equipment, electric cars, and other recyclable products. The ‘Think Green movement’ that has been brought along has a lot of scope in terms being able to understands processes and procedures better that help in practices sustainability. For instance, item modification, changing the manufacturing process, changing promotions to show alternatives, and other such alterations that help in reducing the undesirable effect of these items has drastically helped brands and consumers move towards going green.

This entire concept of green marketing began in the late 1980’s or the early 1990 and it became a trend as it marked the increased consumer awareness towards the adverse impact on the environment.

It turned into a new marketing mantra for companies and brands to sell their products by convincing their target markets about the benefits and impact of shipping of buying the specific product. The first part of the shift is promoting the usage of such products where the consumers believe that the unadulterated and good quality items can help in improving their environment and reduce the adverse impact of their actions.

Cost wise, these green products were retailing at a higher price than the regular products which made them seem to be elite in comparison to the other options that were available in the market. Brands have taken it upon themselves to change the face of their promotions and activities by turning their products, inventory chains, manufacturing prices and retailing methods—all green. They are also claiming to practice and maximize their participation in environmentally safe measures to help and improve the society on a whole.

1.1 Need and Rationale of the Study

The basic goal of green products is to reduce waste and maximize the efficiency of the resources used. Companies and brands are using ingredients that are free of toxins and are considered environmentally friendly along with using procedures and manufacturing methods that also follow the same principles and are certified by recognised organisations as well.

Brands are using green marketing to showcase their propositions to the market as well as focus on the need or trend of the market. There has been a sudden rise in the number of cosmetic and skincare brands who believe in creating and building their marketing campaigns based on the notion of the brand or product being sustainable or green.
The main area of concern within this sector is that most brands are not able to focus on the factors that can help them be seen as or identified as a green product or sustainable brand in the market due to the level of clutter and saturation within the industry. Marketers need to understand the visual and psychological cues that are picked up by the customers and highlight upon them while trying to advertise the product. They also need to keep in mind the sensitivities of their customer base and produce genuine content that will be able to lead to positive results and relationship building between the consumer and the brand.

2. LITERATURE REVIEW

Over the years there have been many changes in the purchase pattern of consumers as they are now aware about the various ecological concerns that are often attributed towards your buying behaviours. The rise of biological concerns has created a lot of confusion between the brand’s reality and aspiration. There are several elements that need to be looked upon as the concept of green products does not solely include the product or service itself. It also includes the elements that go along with it, such as, the packing, the production or manufacturing process, the advertisements, the other adjustments, and modifications and so on. It is the process of creating a product that is not only of good quality but is also able to care for the environment without compromising on customer satisfaction and comfort. Even though the market has seen many consumers turn to be more conscious of their buying, there are still many people who are not interested in such purchases because of the premium price that they must pay for it. (Anchal Arora, H.S. Chahal, 2017)

Most consumers believe that brands that promote their products with key words such as recyclable, biodegradable, sulphate free, toxic chemical free, cruelty free, refillable, and so on. This does mean that the product is green but at the same time it is a very narrow view of a broad subject. Green products include a variety of processes, procedures and methods that makes the product one that can be labelled as a green product. (Polonsky, M. J.,1994)

Brands need to begin with a green design where all the concepts align with the principles of sustainability. The waste reduction, production facilities, source reductions, supply chain and other such areas need to be investigated right from the beginning as it is often a cumbersome task for a company to switch its design once it is already established. (Bhat, V. N., 1993). The concept of life cycle technology is one of the many considerations that would be taken while trying to enter the green product market. Companies are trying to create a sustainable production and value addition chain that can make sure the product is green from start to finish. (Ottman, J., & Books, N. B.,1998)

This business proactive of marketing green products is a concept that advocates the idea of sustainable products and practices. It has risen to popularity in recent times where consumers are becoming more conscious and accountable for their actions. (Jeevarathnam P. Govender, Tushya L. Govender, 2016). A company that has a strong sense of environmental concepts within their marketing mix will tend to have a significant impact on the purchase behaviour of a consumer. (Kartawinata, Budi Rustandi, et al, 2020)

Brands also need to understand why they are moving towards green marketing for them to be a success in that respect. Many brands are switching over to such products because of the trends or because a competitor brand is doing so. This creates a lot of confusion between the brand’s reality and aspiration. (Polonsky, M. J., & Rosenberger III, P. J.,2001). Green marketing can also be used as a great competitive advantage. Their market is often saturated with products and services within the same categories, providing similar benefits and so on. Brands can create a unique position in the minds of the customer. (Arsucerlatne, D., & Yazdanifard, R., 2014) There are several elements that need to be looked at during the strategy making process. This includes the target markets, the product, the pricing model, the distribution channels and the promotions as well. These are then regulated by external moderators like the industry dynamics and internal moderators like the organisation's size and abilities. (Ghoshal, M., 2008) Even though many people are trying to move towards purchasing eco-friendly products, many of them still do not know what constitutes these green products. There seems to be a lot of grey area in this case to be able to differentiate brands and products that can be termed as sustainable. (Sanjeev Kumar, Radha Garg, Anita Makkar, 2012)

Amongst the younger generation of shoppers, the trend of green marketing arises from a social dynamic. There is a significant level of concern towards their social image and actions that are influenced by their interactions with other people. (Lee, K., 2008) The biggest barrier in the purchase of green products happens to be the higher price points. In order to create sustainable products and services, companies need to change a lot of their processes which results in the final products being much costlier. Consumers often compare products with the other alternatives available before deciding and the higher price acts as a demotivating factor. This is where the demographic profiles and segments of the consumers come into play while determining the strategies that need to be used by companies. (Dr. Meghna Sharma, Prachi Trivedi, 2016)

The general population of people who are turning towards green brands or natural items are expanding. Buyers today are continually “thinking green” and willing to pay more for these eco-friendly products. The buying interaction is dependent upon the expanding number of customers who like and want to purchase these items. Buyers have distinctive buying propensities, and those practices are constantly changing because of the best choices being accessible. (Divyapriyadharshini, et al., 2019). They need to be convinced that the additional cost will have a significant benefit in one way or another. If there is no benefit that is obtained from the shift or the specific product, the customer will no longer be loyal to the brand. (Dangelico, R. M., & Vocatelli, D., 2017)

Market trends and changes are heavily dependent upon the level of consumer awareness and interest. In the case of green products, it is seen that there is a clear demarcation between the consumers who are environmentally conscious and those who are not which
in turn has an impact on their motivation towards purchasing green products. Another aspect to consider is the feeling that comes along with buying such a product. Many consumers are seen to be purchasing green products as it makes them feel good about themselves which can contribute highly towards increasing satisfaction. (Ekta Rastogi, Dr M.S. Khan, 2015)

Another area that needs to be highlighted upon is the customer value proposition. It is the brand’s duty to make sure that they can provide more sustainable or eco-friendly products that are able to work as a ready and effective alternative to an existing product in the market that is not an eco-friendly product. As soon as a customer sees that they are able to get the same or better result alongside being able to use green products that are less harmful to the environment, they will voluntarily make the switch. It is also important to deliver such information and messages to the right target markets. (Mishra, P., & Sharma, P., 2010)

There are a number of challenges that companies face when they try to shift or enter into this market. It is comparatively a newer concept that is not grasped by a significant section of society and this narrows down the brand’s audience by a drastic level. Shifting to the green market is also expensive for the company as they raw material that needs to be procured, the skill set required for production, the machinery or production facilities and all of these items that are a part of the chain will cost much more than the elements that do not practice sustainability. Green marketing myopia is another obstacle that most marketers come across within this industry. (Shrikanth, R., & Raju, D. S. N., 2012)

Another issue that crops up in the world of green marketing products is the crossover between the environmental ethics and the aesthetic appeal of the products. Many companies are now using this terminology to brainwash the consumers into believing that the products are sustainable when it really is not. Eco-marketers know how to position their product in such a way that it seems to lure the environmentally conscious customers through its aesthetics more than its actual value and this is something that customers need to be aware of. The concept of company ethics comes into play here where they need to be transparent with their consumers and not play eco-labelling as a marketing gimmick. (Todd, A. M. 2004)

There is a radical change in the purchase behaviour of consumers because of the increased knowledge about the impact of their actions on the environment. This is causing both thought changes as well as changes in their lifestyle. There are many challenges being faced by brands in order to make the switch from traditional marketing to green marketing but at the same time it is the perfect opportunity for brands to step in and make their presence felt through smart and meaningful marketing communications. (Singh, P. B., & Pandey, K. K., 2012)

3. RESEARCH METHODOLOGY

3.1. Statement of Problem

As the world economy is growing and developing at a fast rate, the global environment is also evolving. Usage and production of sustainable products has been in the limelight as of late as these products promote environmentally friendly practices and products that do not have an adverse impact on the environment.

The number of consumers moving towards purchasing green and more environmentally friendly products has grown by leaps and bounds. Brands have found the need to adapt with the recent trends and turn their business practices more sustainable as a result of the overall increase in consumer awareness. The concept of green products is seen a lot in the cosmetic and personal care industry. This has led to a green revolution in the industry where all brands are trying to tag themselves using terms such as clean personal care, sustainable, eco-friendly, and so on.

Hence, it is important for brands to understand the various factors that are considered while trying to make the shift towards green products as well as the elements required to convey this. It is also necessary to understand the importance of designing the marketing mix and target segments based on the price sensitivity factor. The purpose of this study is to explore how consumers perceive green products and advertising in the skincare industry and what aspects affect their buying behaviour.

3.2. Research Objectives

- To understand the impact of demographic variables such as age, gender, education level, income level on purchase intention of green personal care products
- To investigate how consumers’ level of environmental awareness affects their decision to purchase green personal care products.
- To assess the impact of premium pricing on the purchase of green personal care products by consumers.
- To determine the level of customer satisfaction towards green personal care products

3.3. Research Design

A quantitative research approach is used in this study with a cross-sectional survey and an analysis of the data received through it. The sample will include respondents who are avid shoppers of personal care and cosmetic products.

Further, the online questionnaire will be circulated to those who are aware of green or sustainable personal care products in order to understand the factors that include their purchase behaviour in a better manner.
3.4. Population and Sample

The data for this study has been gathered from primary data sources through a questionnaire. The questionnaire was developed with five sections, and 18 questions. It is a self-administered questionnaire where the respondent is not assisted or aided by an interviewer. The number of valid responses for this study was 400.

The survey followed a Likert scale with one as 'Strongly Disagree' as the highest level of disbelieve and five as 'Strongly Agree' dictating the highest level of believe.

- **Section 1:** This section includes demographic variables such as educational qualification, income, the age to analyse the impact of these variables on awareness level of respondents towards the concept of green marketing.
- **Section 2:** This section analysis whether consumers have a low, moderate, or high level of awareness towards green products and whether they purchase green products and the frequency of purchasing green products.
- **Section 3:** This section analyses the level of awareness and medium used by consumers to obtain information on green marketing.
- **Section 4:** This section analyses the category of the green product pricing to understand the impact of premium pricing or green pricing on consumer behaviour and purchase decisions.
- **Section 5:** This section examines whether consumers are satisfied with their purchases of green products and if this contributes to their frequency of purchase or recommendations.

3.5. Data Sources

The data has been collected in the primary data form through a questionnaire and has been analysed by using the SPSS software of version 21, developed by IBM. In order to demonstrate the internal consistency and reliability of the survey instrument, the calculated Cronbach's alpha values are presented in the paper's results section. The responses to each question on the questionnaire are summarized using descriptive statistics, such as frequency distributions, means, and standard deviations.

The hypotheses are tested by using inferential statistics, such as correlation analysis and multiple regression analysis. The impact of demographic factors such as gender, age, education level and income are analysed using independent sample t-test and one-way anova.

To ensure representativeness of the sample, a stratified random sampling technique is used to select respondents based on their age, gender, and geographic location.

3.6. Research Hypothesis

To understand the impact of demographic variables such as age, gender, education level, income level on purchase intention of green personal care products —

- **Null hypothesis (H0)** - There is no significant relationship between age and purchasing behaviour of green products.
- **Alternative hypothesis (H1)** - There is a significant relationship between age and purchasing behaviour of green products.
- **Null hypothesis (H0)** - There is no significant relationship between gender and purchasing behaviour of green products.
- **Alternative hypothesis (H2)** - There is a significant relationship between gender and purchasing behaviour of green products.
- **Null hypothesis (H0)** - There is no significant relationship between level of education and purchasing behaviour of green products.
- **Alternative hypothesis (H3)** - There is a significant relationship between level of education and purchasing behaviour of green products.
- **Null hypothesis (H0)** - There is no significant relationship between level of income and purchasing behaviour of green products.
- **Alternative hypothesis (H4)** - There is a significant relationship between level of income and purchasing behaviour of green products.

To determine the extent to which knowledge and awareness about environmental impact of products affects a consumer's purchasing behaviour for personal care products —

- **Null hypothesis (H0)** - There is no significant relationship between environmental awareness and purchasing behaviour of green products.
- **Alternative hypothesis (H5)** - There is a significant relationship between environmental awareness and purchasing behaviour of green products.
To investigate the role of premium price and its impact on purchasing behaviour of a customer in the personal care industry –

- **Null hypothesis (H0)** - There is no significant impact of premium price on frequency of purchase of green products.
- **Alternative hypothesis (H6)** - There is a significant impact of premium price on frequency of purchase of green products.

To assess the impact of green products on customer satisfaction upon purchasing green personal care products –

- **Null hypothesis (H0)** - There is no significant relationship between usage of green product and satisfaction derived from the features of green products.
- **Alternative hypothesis (H7)** - There is a significant relationship between usage of green product and satisfaction derived from the features of green products.

### 3.7. Variables

- **Dependent** – Purchasing Behaviour
- **Independent** – Environmental Awareness, Pricing, Customer Satisfaction

### 4. RESULTS AND DISCUSSION

#### 4.1. Reliability Test

**Case Processing Summary**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases Valid</td>
<td>45</td>
<td>100.0</td>
</tr>
<tr>
<td>Excluded²</td>
<td>0</td>
<td>.0</td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>100.0</td>
</tr>
</tbody>
</table>

For a. Listwise deletion based on all variables in the procedure.

**Table 4.1.1**

**Reliability Statistics**

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>Cronbach’s Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.01</td>
<td>7.62</td>
<td>17</td>
</tr>
</tbody>
</table>

**Table 4.1.2** – Reliability Statistics

**Inference** –

This test is mainly used for internal consistency. It shows us how closely related the items are in order to measure its reliability. A higher value of alpha shows that the measure is uni-dimensional and hence, it is internally consistent.

In this case, we have taken a sample of 45 responses to check the reliability. The data is reliable since the Cronbach’s Alpha value is .801. This gives an 80.1% reliability of the items chosen and hence we can proceed with the tests.

#### 4.2. Frequency Statistics and Impact of Demographics

**4.2.1. IMPACT OF GENDER PURCHASING BEHAVIOUR WITH REGARD TO GREEN PRODUCTS**

**Gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>1</td>
<td>189</td>
<td>47.3</td>
<td>47.3</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>211</td>
<td>52.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Table 4.2.1 (a)** – Gender Frequency
Inference –

The frequency tables for the gender variable show the number of responses within each category. The labelled category 1 represents the male section of the respondents which is 189 in number followed by the category labelled 2 which stands for the female population which is 211 in number. There were no responses under the gender category option - other.

INDEPENDENT SAMPLE T-TEST

The test is used to compare means of groups with two sub-groups, in this instance the gender of the respondents. The questionnaire had three options but out of the 400 responses, all the recorded answers were only based on the three groups - male, female or other. The responses were found to be solely in 2 categories, either male or female. Hence, the test is relevant and valid.

**Group Statistics**

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Behaviour 1</td>
<td>189</td>
<td>2.551146384</td>
<td>806381159</td>
<td>.0566742693</td>
</tr>
<tr>
<td>Purchase Behaviour 2</td>
<td>210</td>
<td>2.383730159</td>
<td>7663726648</td>
<td>.0528847382</td>
</tr>
</tbody>
</table>

**Table 4.2.1 (b) – Gender Group Statistics**

**Independent Samples Test**

<table>
<thead>
<tr>
<th>Levene’s Test for Equality of Variances</th>
<th>t</th>
<th>df</th>
<th>Sig</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Behaviour</td>
<td>.653</td>
<td>419</td>
<td>.419</td>
<td>.06448257</td>
<td>.076773519</td>
<td>.012943056 – 322291459</td>
</tr>
</tbody>
</table>

**Table 4.2.1 (c) – Independent Sample T-Test**

Inference –

As per Levene’s test for equality of variances, based on the above-mentioned values recorded in the table, the p-value for is .419 which is more than 0.05, therefore, the null hypothesis is rejected. There is no significant difference between the means of purchase intention and gender of the respondents who have participated in the study.

4.2.2 IMPACT OF AGE PURCHASING BEHAVIOUR WITH REGARD TO GREEN PRODUCTS

**Age**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>1.44</td>
<td>36.0</td>
<td>36.0</td>
</tr>
<tr>
<td>2</td>
<td>55</td>
<td>13.8</td>
<td>49.8</td>
</tr>
<tr>
<td>3</td>
<td>76</td>
<td>19.0</td>
<td>68.8</td>
</tr>
<tr>
<td>4</td>
<td>90</td>
<td>24.5</td>
<td>93.3</td>
</tr>
<tr>
<td>5</td>
<td>27</td>
<td>6.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Table 4.2.2 (a) – Age Frequency**
Inference –

The frequency tables for the age variable show the number of responses within each category. The slab labelled 1 belong to the respondents below the age of 25, slab 2 represents the respondents between the ages of 26 and 35 followed by slab 3 with between 35 and 45, followed by slab 4 with age groups between 46 and 55 and lastly slab 5 depicts the respondents who are 55 years old and above.

ONE WAY ANOVA TEST

This test determines if a significant mean difference between the two variables exists. If p-value or the significance value from the table is below 0.05, then there is a difference between the two categories is statistically significant of variables.

<table>
<thead>
<tr>
<th>Purchase Behaviour</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>144</td>
<td>2.759269259</td>
<td>.7630994092</td>
<td>2.633663069</td>
<td>2.894965461</td>
<td>1.000000000</td>
<td>4.750900000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>55</td>
<td>2.371212121</td>
<td>.624654423</td>
<td>2.106718575</td>
<td>2.555706669</td>
<td>1.000000000</td>
<td>4.083333333</td>
</tr>
<tr>
<td></td>
<td></td>
<td>76</td>
<td>2.178556089</td>
<td>.842697746</td>
<td>2.024736772</td>
<td>2.328334030</td>
<td>1.000000000</td>
<td>4.083333333</td>
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<td></td>
<td></td>
<td>60</td>
<td>2.349388779</td>
<td>.891551371</td>
<td>2.174247363</td>
<td>2.519903159</td>
<td>1.000000000</td>
<td>4.416666667</td>
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<td></td>
<td></td>
<td>27</td>
<td>2.277777778</td>
<td>.797459619</td>
<td>1.997011939</td>
<td>2.558548925</td>
<td>1.333333333</td>
<td>5.000000000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>400</td>
<td>2.461966667</td>
<td>.798144969</td>
<td>2.394125760</td>
<td>2.539107573</td>
<td>1.000000000</td>
<td>5.000000000</td>
</tr>
</tbody>
</table>

Table 4.2.2 (b) – Age Descriptive Statistics

**ANOVA**

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>21.595</td>
<td>4</td>
<td>5.306</td>
<td>9.407</td>
</tr>
<tr>
<td>Within Groups</td>
<td>228.579</td>
<td>395</td>
<td>.574</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>248.162</td>
<td>399</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.2.2 (c) – Anova test for age

Inference –

From the above given table, we observe that the p-value is recorded as .000, which is less than 0.05, and hence, the null hypothesis is rejected and alternate hypothesis is accepted.

Therefore, there is significant difference between the means of age and purchase intention of green personal care products, which essentially means that there are statistically significant differences between the means of two or more independent groups of age.
4.2.3 IMPACT OF LEVEL OF EDUCATION ON PURCHASING BEHAVIOUR WITH REGARD TO GREEN PRODUCTS – WITH ONE WAY ANOVA

The slab labelled 1 belongs to the respondent’s education level up to high school, slab 2 represents the respondents with an undergrad degree followed by slab 3 with a graduate or master’s degree and lastly, slab 5 for those with a doctorate or higher.

Inference –

From the above given table, we observe that the p-value is recorded as 0.543 which is more than 0.05, and hence, the null hypothesis is accepted and alternate hypothesis is rejected.

Therefore, there is no significant difference between the means of education level and purchase intention of green personal care products, which essentially means that there are statistically no significant differences between the means of two or more independent groups of education level.

4.2.4 IMPACT OF INCOME ON PURCHASING BEHAVIOUR WITH REGARD TO GREEN PRODUCTS – WITH ONE WAY ANOVA

The slab labelled 1 belongs to the respondent’s education level up to high school, slab 2 represents the respondents with an undergrad degree followed by slab 3 with a graduate or master’s degree and lastly, slab 5 for those with a doctorate or higher.

Inference –

From the above given table, we observe that the p-value is recorded as 0.543 which is more than 0.05, and hence, the null hypothesis is accepted and alternate hypothesis is rejected.

Therefore, there is no significant difference between the means of education level and purchase intention of green personal care products, which essentially means that there are statistically no significant differences between the means of two or more independent groups of education level.
The slabs 1, 2 and 3 represent the low, mid and high levels of income respectively.

**Inference**

From the above given table, we observe that the p-value is recorded as .000, which is less than 0.05, and hence, the null hypothesis is rejected and alternate hypothesis is accepted. Therefore, there is significant difference between the means of income and purchase intention of green personal care products, which essentially means that there are statistically significant differences between the means of two or more independent groups of income.

### 4.3. Descriptive Statistics

This includes Standard deviation, Mean, Mode, Skewness and Kurtosis.

<table>
<thead>
<tr>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
<th>Skewness</th>
<th>Std. Error</th>
<th>Kurtosis</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>400</td>
<td>2</td>
<td>1.53</td>
<td>.250</td>
<td>.625</td>
<td>-.111</td>
<td>.122</td>
<td>-1.998</td>
<td>.248</td>
</tr>
<tr>
<td>Q2</td>
<td>400</td>
<td>5</td>
<td>1.95</td>
<td>.183</td>
<td>.331</td>
<td>.122</td>
<td>.122</td>
<td>-1.733</td>
<td>.248</td>
</tr>
<tr>
<td>Q3</td>
<td>400</td>
<td>3</td>
<td>1.57</td>
<td>.207</td>
<td>.429</td>
<td>.122</td>
<td>.122</td>
<td>-1.042</td>
<td>.248</td>
</tr>
<tr>
<td>Q4</td>
<td>400</td>
<td>1</td>
<td>1.26</td>
<td>.104</td>
<td>.108</td>
<td>.122</td>
<td>.122</td>
<td>-.164</td>
<td>.243</td>
</tr>
<tr>
<td>Q5</td>
<td>400</td>
<td>5</td>
<td>2.59</td>
<td>.140</td>
<td>.216</td>
<td>.122</td>
<td>.122</td>
<td>.961</td>
<td>.243</td>
</tr>
<tr>
<td>Q6</td>
<td>400</td>
<td>5</td>
<td>2.02</td>
<td>.134</td>
<td>.174</td>
<td>.122</td>
<td>.122</td>
<td>-1.082</td>
<td>.243</td>
</tr>
<tr>
<td>Q7</td>
<td>400</td>
<td>5</td>
<td>1.55</td>
<td>.150</td>
<td>.225</td>
<td>.122</td>
<td>.122</td>
<td>-1.021</td>
<td>.243</td>
</tr>
<tr>
<td>Q8</td>
<td>400</td>
<td>5</td>
<td>2.55</td>
<td>.132</td>
<td>.216</td>
<td>.122</td>
<td>.122</td>
<td>-1.192</td>
<td>.243</td>
</tr>
<tr>
<td>Q9</td>
<td>400</td>
<td>5</td>
<td>2.28</td>
<td>.181</td>
<td>.324</td>
<td>.122</td>
<td>.122</td>
<td>-1.851</td>
<td>.243</td>
</tr>
<tr>
<td>Q10</td>
<td>400</td>
<td>5</td>
<td>2.24</td>
<td>.152</td>
<td>.324</td>
<td>.122</td>
<td>.122</td>
<td>-1.875</td>
<td>.243</td>
</tr>
<tr>
<td>Q11</td>
<td>400</td>
<td>5</td>
<td>2.57</td>
<td>.194</td>
<td>.421</td>
<td>.122</td>
<td>.122</td>
<td>-1.168</td>
<td>.243</td>
</tr>
<tr>
<td>Q12</td>
<td>400</td>
<td>5</td>
<td>2.55</td>
<td>.132</td>
<td>.262</td>
<td>.122</td>
<td>.122</td>
<td>-1.187</td>
<td>.243</td>
</tr>
<tr>
<td>Valid N (Listwise)</td>
<td>400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 4.3.1 – Descriptive Statistics**

**Inference –**

- The N statistics shows that all the 400 responses have been recorded for each of the items picked in the scale.
- The minimum and maximum values range between 1 to 5 as the Likert scale is used for the questions.
- The mean value shows the average response to each of the questions. A majority of the questions range between the value of 2 which stands for a positive reaction or the scale for ‘agree’.
- Majority of the Skewness values are positively aligned and lay between +1 and -1.
- Majority of the kurtosis values are negative which shows that the values are lighter on the tails when compared to the normal distribution – hence, this distribution has more peaks and is a platykurtic distribution.

### 4.4. Correlation Study

Pearson’s correlation, a statistical tool that identifies the direction and strength of the association between variables. The R value ranges between the +1 and -1 range and this determines the strength of the relations. This correlation coefficient is also known as Pearson’s R.
The $P$ value must be lesser than 0.05 and if the $R$ value is 0, it shows that there is no correlation between the two variables.

### 4.4.1. Environmental Awareness

#### Correlations

<table>
<thead>
<tr>
<th>Awareness</th>
<th>Pearson Correlation</th>
<th>1</th>
<th>.859**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.859**</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>400</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Purchase Behaviour</td>
<td>Pearson Correlation</td>
<td>.859**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.859**</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>400</td>
<td>400</td>
<td></td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.4.1 – Correlation between purchase behaviour and awareness

**Inference** –

From the above given table, we observe that the $p$-value is .000 is less than 0.01. Therefore, the null hypothesis is rejected. This means that there is a significant relationship between the awareness of green products and the purchase intention of green personal care products. The Pearson correlation value is .859 which shows that there is a positive correlation of 85.9%. The level of correlation is very high and hence it is safe to assume that there could be an increase in the level of purchase intention with an increase in the awareness of green products.

### 4.4.2. Product Pricing

#### Correlations

<table>
<thead>
<tr>
<th>Price</th>
<th>Pearson Correlation</th>
<th>1</th>
<th>.867**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.867**</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>400</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Purchase Behaviour</td>
<td>Pearson Correlation</td>
<td>.867**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.867**</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>400</td>
<td>400</td>
<td></td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.4.2 – Correlation between purchase behaviour and product price

**Inference** –

From the above given table, we observe that the $p$-value is .000 is less than 0.01. Therefore, the null hypothesis is rejected. This means that there is a significant relationship between the premium price of a green product and the frequency of its purchase. The Pearson correlation value is .887 which shows that there is a positive correlation of 88.7%.
4.4.3. Customer Satisfaction

**Correlations**

<table>
<thead>
<tr>
<th></th>
<th>Satisfaction</th>
<th>Purchase Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.887**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Purchase Behaviour</td>
<td>.887**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>400</td>
<td>400</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).**

Table 4.4.3 – Correlation between purchase behaviour and customer satisfaction

**Inference –**

From the above given table, we observe that the $p$-value is .000 is less than 0.01. Therefore, the null hypothesis is rejected. This means that there is a significant relationship between the usage of green products and the satisfaction derived from it. The Pearson correlation value is .887 which shows that there is a positive correlation of 88.7%.

4.5. Regression Analysis

Regression analysis, is yet another key statistical technique that can aid in this research by examining the predictive values. This study uses multiple regression analysis to determine which variables have the most effects on this aspect of consumer behaviour.

4.5.1. Environmental Awareness

**Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.859*</td>
<td>73.8%</td>
<td>73.7%</td>
<td>4.84196739</td>
<td>73.8%</td>
<td>1121.102</td>
<td>1</td>
<td>399</td>
<td>.000</td>
</tr>
</tbody>
</table>

* a. Predictors (Constant), Awareness

Table 4.5.1 – Model Summary

**ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>1</td>
<td>183.144</td>
<td>1121.102</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>398</td>
<td>.163</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>248.162</td>
<td>399</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Purchase Behaviour
b. Predictors: (Constant), Awareness

Table 4.5.2 – Regression analysis between purchasing behaviour and environmental awareness

**Inference –**

From the above given table, we observe that $p$-value is .000 which is less than 0.05. Therefore, null hypothesis is rejected and alternate hypothesis is accepted. This shows that there is an impact on purchase intention based on the awareness levels when it comes to green personal care products.

As per the Model summary table, the R squared value is .859 percentage, which states that there is 85.9% impact.
4.5.2. Product Pricing

Table 4.5.3 – Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.887*</td>
<td>.787</td>
<td>.786</td>
<td>.365123112</td>
<td>.786</td>
<td>1463.474</td>
<td>1</td>
<td>399</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Price

Table 4.5.4 – Regression analysis between purchasing behaviour and product price

Inference –

From the above given table, we observe that p-value is .000 which is less than 0.05. Therefore, null hypothesis is rejected and alternate hypothesis is accepted. This shows that there is an impact on frequency of purchase based on the premium price levels when it comes to green personal care products.

As per the Model summary table, the R squared value is .887 percentage, which states that there is 88.7% impact on frequency of purchase based on the price of the product.

4.5.3. Customer Satisfaction

Table 4.5.5 – Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.887*</td>
<td>.787</td>
<td>.787</td>
<td>.364322735</td>
<td>.787</td>
<td>1471.668</td>
<td>1</td>
<td>399</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Satisfaction

Table 4.5.6 – Regression analysis between purchasing behaviour and customer satisfaction

Inference –

From the above given table, we observe that p-value is .000 which is less than 0.05. Therefore, null hypothesis is rejected and alternate hypothesis is accepted. This shows that there is an impact on frequency of purchase through the satisfaction levels when it comes to green personal care products.
As per the Model summary table, the R squared value is .887 percentage, which states that there is 88.7% impact on frequency of purchase based on the satisfaction derived from the product.

5. SUMMARY OF FINDINGS

The study investigates the extent to which various attributes of green marketing play an impact in consumer’s buying patterns and purchasing behaviour – especially in the personal care industry. It also aims to shed light on the different ways in which marketing could influence consumer preference for green personal care products.

- The findings suggest that the purchase intention of green personal care products is not related to the gender and education level of the consumer, but it is significantly related to their age and income level.
- There is a high correlation between purchase intention and environmental awareness, price level, and post-purchase satisfaction with green personal care products with awareness having the highest impact at 85.8%.
- Consumers’ understanding of the negative effects that personal care products have on the environment can be increased by green marketing strategies. If consumers are aware of the advantages, they might be more inclined to buy eco-friendly items. Unfortunately, customers frequently are unaware of how personal care products affect the environment, and as a result, they may not give green products priority when making purchases.
- Some consumers may be willing to pay a premium for eco-friendly personal care products, however, higher pricing may deter and discourage the larger section of the audience who are price-sensitive consumers from purchasing green products. To tackle this, companies need to try and find a balance between offering eco-friendly products at a reasonable price point and maintaining profitability.
- Customers that place an emphasis on environmental responsibility may be satisfied with green products. However, the performance of green and conventional personal care products may not be noticeably different for certain users. Businesses need to make sure that personal care products that are produced and marketed under the tag of being ‘green’ are able to meet consumer expectations in terms of quality or performance in order to maintain customer satisfaction.
- Consumers want to be associated with brands that are able to make a difference to the current environmental situation. The shift of behaviour and trends can also be attributed towards personal health or social causes as well but this can give brands an opportunity to not only make a change for the better but to also welcome the concept as an ideal marketing strategy to influence consumer buying behaviour.

6. RECOMMENDATIONS AND CONCLUSION

The consumer shift into green products is a continuous process of development and changes that requires constant feedback from manufacturers, retailers, government bodies through their laws and policies, as well as the consumers themselves. It is important for companies to note that while entering the green product market they need to build a strategy that can be matched with the target market’s needs as this will help them achieve a competitive advantage.

This green transition will require a lot of assistance throughout the process and the first step will begin with having to create awareness regarding this concept and the products and services that fall under this category. Consumer’s also need to be made aware about why these products might be sold at a premium price by allowing them a certain level of transparency throughout the processes that it entails.

Markets need to be able to identify all the pulse points of the market to be able to identify all the factors that encourage the change in the consumer buying behaviour to promote the sale of green products. The need to be able to decipher the reason for the changes in the target markets attitudes and behaviour and work accordingly to incentivize it.

Green markets need to be able to establish a strategy that brings together both the producers as well as the consumers on stage where they see a mutual benefit over self-interest.

Markets need to be able to strategize to increase the level of satisfaction to be able to convert as many people in their audience into green consumers. With greater exposure towards such concepts, the companies too will be able to benefit in terms of higher levels of sales.

Markets should work on being able to brand their products as green products through the correct use of visual cues and labelling. This is an important part of the shift as consumers would only be interested in purchasing such products if they genuinely believe that their actions could potentially contribute towards environmental protection. They also need to be able to convince the consumers into understanding the impact of their actions.

The focus of markets and brands should be to increase environmental sensitivity with knowledge towards the concept of green products to increase the level of consumer awareness and this will help them in being able to predict consumer behavioural patterns and create further strategies accordingly.

**Consumers**

From the above study we can see that consumers are willing to pay a premium price for green products as long as they believe that it is a suitable alternative with good features. The high price of green raw materials along with the green technology used to produce these products needs to be incentivized for the manufacturers by having consumers who are interested in purchasing this category of products. Consumers can make small changes that can help promote this industry and lead to a more conscious living lifestyle. They also play an important role in being able to influence the other members of the society to make the switch to green products through their recommendations.
● Manufacturers
Manufacturers should work on being able to research, understand and implement new technologies and processes to modify or update the obsolete processes that are currently being used. This would help them reduce the impact of their actions on the environment. They need to start switching out the current materials to move towards using more environmentally friendly raw materials in the production stages as well as explore the potential of recycling goods that could be used along with generating the least amount of wastage. The shift in these manufacturing steps will lead to a better outcome and turn mutually beneficial for the consumers as well as the producers.

● Retailers
One of the many reasons why many customers are unable to increase their green product consumption is because of the lack of awareness as well as the hardship in being able to look out for such products as they are not as easily available as the rest. Retailers need to promote the purchase of green products in their stores for us to see the shift in purchasing behaviour. This would in turn also motivate the manufacturers to create products and services that are more environmentally friendly.

● Government
The government plays a major role in being able to promote the use of green products through their various initiatives and policies. They need to be able to implement more stringent laws on the use of non-biodegradable materials that will automatically push manufacturers to use green raw materials and packaging. They need to be able to raise awareness about these products and processes as well as create measures to incentivize the use and production of sustainable products in order to make this shift a smoother and easier choice for all the shareholders involved in the process.

REFERENCES