

A Study on the Role of Green Cosmetics in Harnessing Consumer Perception

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Abstract

Amidst the ever-evolving beauty landscape, a remarkable shift towards sustainability and environmental consciousness has propelled green cosmetics to the forefront of eco-friendly beauty solutions. With their ardent devotion to ethical sourcing, sustainable procedures, and health-sensitive formulations, green cosmetics have won over the hearts of environmentally conscious consumers all over the world. This study embarks on a captivating exploration of the alluring role of green cosmetics in harnessing consumer perception, enchantingly centered in the cultural tapestry of Lucknow, a city adorned with timeless elegance in North India. Data was gathered from a sample of 300 Consumers, and descriptive analysis and SPSS were used to analyse the results. This study discovered that consumers' perception of green cosmetics had not changed, regardless of their gender or age, despite the fact that there was a substantial association between age and awareness of green cosmetics as well as gender and awareness of green cosmetics. Despite the many advantages of green cosmetics, consumers continue to shun them due to inability to use them, rising costs and quality issues. The findings have ramifications for businesses and marketers in this sector and provide new information about consumers' attitudes towards green cosmetics in the region. The results can help with the development of strategies to promote consumer acceptability and adoption of eco-friendly cosmetics in the area.

Keywords: Green cosmetics, Consumer Perception, Green cosmetic Brands, Organic cosmetics, Eco-friendly Cosmetics, Green marketing, Environmentally friendly Products, Green consumer.

INTRODUCTION

Consumer perception plays a vital role in shaping consumer behavior and decision-making processes, particularly in the context of green cosmetic products. Consumers are becoming more environmentally conscious of the products they use and their effects on the environment as concerns over environmental sustainability and personal wellbeing grow. As a result, there is rising interest in green cosmetics, which are thought to be sustainable, safe for individual use, and friendly to the environment. Health and cleanliness are becoming increasingly important in today's environment and everyone wants to provide the best care possible for their family (Patnaik, Tripathy, & Dash, 2021), and when it comes to caring for their families, many people are becoming increasingly aware of the possible hazards linked to conventional cosmetics. Today, the consumer reigns supreme. There are many environmentally friendly and non-ecofriendly cosmetic items on the market, and it all depends on the attitudes and purchases of the consumers (Singhal & Malik, 2018), thus driving the success of these items. Green cosmetics are becoming more and more popular among customers as environmental consciousness across cultures rises. Compared to other green cosmetic items, the market for green skincare products is expanding at the fastest rate (Chin, Jiang, Ilma, Persada, & Noer, 2018), attracting consumers to provide a safer alternative for their skin. In order to protect the environment and the welfare of animal species, green cosmetics, also known as natural and organic cosmetics, are made from organic and natural materials including fruit-based substances (Shimul, *et al.*, 2022), preserving the environment and offering a more useful and sustainable Product. Green Cosmetics include a wide variety of personal care items, such as eco-friendly lotions, makeup, and beauty products (Limbu, *et al.*, 2022), thereby expanding the market and drawing more and more consumers towards it making it more important to study their attitudes and behavior.

Green or environmentally friendly products are those "that will not pollute the earth or deplete natural resources, and can be recycled or conserved." (D&B Reports 1990). These products are ones that are produced with non-

toxic, organic, recyclable components and environmentally friendly packaging. (Ottman and Books, 1998; Nekmahmud *et al.*, 2022). As a result, promoting and publicizing these products more widely can contribute to the protection of habitat and natural resources., The way of sponsoring green products is known as “Green marketing” or “Ecological Marketing”. Green marketing refers to customer satisfaction through the sale of goods and services while taking environmental considerations into account. Green marketing, also known as environmental marketing, refers to all actions created to generate and enable any exchanges meant to satisfy human needs or wants in a way that has the least possible negative effects on the environment. (Polonsky, 1994b, p. 2)

The term "green consumer" refers to someone who chooses green products over conventional ones and/or implements ecologically beneficial activities. (Shamdasani, *et al.*, 1993), And When companies promote green marketing ideas, consumers are more likely to make an extra effort to behave in an environmentally responsible manner. (Kumar and Polonsky, 2017). Understanding customer behavior, attitudes, and perceptions is essential since it influences the environment both directly and indirectly. This study aims to clarify the role that green cosmetics have in shaping customer opinion in light of this. By examining the significance that green cosmetics play in comprehending consumers' attitudes toward and intentions for green purchases, this study makes significant theoretical and practical advances.

This study examines how green cosmetics affect customer perception, paying particular attention to Lucknow, a busy metropolis. Lucknow, an Indian city, has seen tremendous population expansion and urbanization, as well as a rise in environmental consciousness among its citizens. Consumers in Lucknow have shown a growing interest in eco-friendly options as the city embraces modernity, looking for beauty items that support their desire to make conscientious decisions for both themselves and the earth. The study's findings will have important ramifications for many parties involved in the sustainability and beauty industries. These findings will help green cosmetics companies improve their marketing tactics and product formulations to meet Lucknow City's growing demand for eco-friendly beauty products from environmentally concerned customers.

REVIEW OF LITERATURE

Green cosmetic product attitudes have a favorable and large impact on purchase intentions, and they also moderate some of the impact of environmental information on buy intentions. (Putri, *et al.*, 2021). Female consumers of various ages and education levels do not have distinct attitudes about green cosmetic products, but income level does. Women of various income levels have varying attitudes toward the pricing and endorsement of green cosmetic goods. (Singhal & Malik, 2018). Women are pleased with and loyal to the usage of herbal cosmetics. (Anawarmiya, 2020). Green cosmetic items have an impact on female consumer purchasing, and there is also a negative association between female consumer mindset and purchase of green cosmetic products. (Singhal & Malik, 2018). Green skincare companies should manufacture more green skincare products and sell them by enlisting public figures and emphasizing the green features. (Chin, *et al.*, 2018). Companies must boost potential consumers' willingness to transition to green cosmetics goods by emphasizing the added benefit of green product usage. (Putri, *et al.*, 2021). To enhance customer interest in green skincare products, green skincare enterprises must produce quality and sustainable products utilizing quality procedures, as well as engage in pro-environmental activity. (Chin, *et al.*, 2018). According to the study conducted by (Khan & Salim, 2021) it was found that educated working women in Saudi Arabia are more informed and conscious of purchasing green cosmetic goods. Their proclivity to acquire and repurchase personal care items demonstrates their concern for eco-friendly products, which has become a prominent priority in recent years. It was also found that the women customers are less aware of the long-term benefits of using green cosmetics. As per data collected by (Sharma, *et al.*, 2021) from 141 respondents It was discovered that there is a positive association between green cosmetics awareness and purchasing intention. Environmental sustainability and health concern are elements that encourage customers to buy organic cosmetics, however questionable company claims and scary pricing demotivate consumers to buy organic cosmetics. As per the research conducted by (Pratiwi, 2020) on 100 people in Indonesia it was found that the environmental concern factor showed a significant positive influence on green purchasing intention, whereas the personal norms factor had no beneficial effect on green buy intention. Green buying intention influenced green purchase behavior positively. According to study done by (Lin, *et al.*, 2018) on 30 British females it was

discovered that when it comes to cosmetics, the majority of respondents said price and performance were more important than green elements. However, given the increased awareness of natural and organic components, as well as green manufacturing, most respondents admitted that their current neutral opinions could shift to be more favorable in the future. According to the data collected from 275 respondents from Indonesia by (Askadilla & Krisjanti, 2017) it was founded that the Multiple linear regression revealed a favorable association and effect between consumers' attitudes regarding the purchasing intention of environmentally friendly products.

While the role of green cosmetics in influencing customer perception has been explored on a national and international scale, there is a research deficit when looking at this phenomenon from a Lucknow viewpoint. As a key city in North India, Lucknow has distinct cultural, economic, and environmental aspects that may influence consumer attitudes and preferences toward green cosmetics. There is currently little empirical study that explicitly investigates the acceptance of green cosmetics among Lucknow consumers. Existing studies primarily focus on metropolitan areas, failing to capture the intricacies of consumer behavior in a city like Lucknow, which may have a unique set of motivations and hurdles to embracing eco-friendly cosmetic goods.

RESEARCH METHODOLOGY

The study's sample technique was simple random sampling. As the main method for gathering data, closed-ended questionnaires were employed. And information was gathered from 300 responders.

OBJECTIVES OF THE STUDY

- 1) To analyse the association between respondent's age and awareness towards the green cosmetics.
- 2) To analyse the association between respondent's gender and awareness towards the green cosmetics
- 3) To analyse the impact of age on the total perception of green cosmetics.
- 4) To analyse the impact of gender on the total perception of green cosmetics.

HYPOTHESES OF THE STUDY

H0₁- There is no significant association between respondent's age and awareness of green cosmetics.

H0₂- There is no significant association between respondent's gender and awareness of green cosmetics.

H0₃- There is no significant impact of age on the total perception of green cosmetics.

H0₄- There is no significant impact of gender on the total perception of green cosmetics.

ANALYSIS AND INTERPRETATION

The major factors that were taken into consideration for the purpose of analysis are-

- 1- Environmental Friendliness
- 2- Pricing
- 3- Availability
- 4- Health and Safety

Table-1 Factors and their Measurement Statements

ENVIRONMENTAL FRIENDLINESS	<ol style="list-style-type: none">1. Prefer to use green cosmetics because they are animal and environmentally friendly. (E1)2. Prefer using environmentally friendly cosmetics since they protect the environment for future generations. (E2)
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	<ol style="list-style-type: none"> 3. Be willing to switch brands for more environmentally friendly options. (E3) 4. I'd be willing to contribute a minor tax increase to help the government manage the environment (E4).
PRICING	<ol style="list-style-type: none"> 1. The price of green cosmetics is very high. (P1) 2. Will prefer to pay more for green cosmetics if brand increases the price. (P2) 3. Will switch more towards green cosmetics if they are available at a price of common products. (P3)
AVAILABILITY	<ol style="list-style-type: none"> 1. Green cosmetics are not easily available in the market. (A1) 2. It is difficult to find the product of particular brand in Market which I use. (A2) 3. Will switch more towards green cosmetics if they are easily available in the market. (A3)
HEALTH AND SAFETY	<ol style="list-style-type: none"> 1. Preferred to use green cosmetics because they have no negative effects on skin. (HS1) 2. Prefer to use green cosmetics since they are mild, healthful, and made entirely of natural ingredients. (HS2) 3. Green Cosmetics are preferred because they are authentic. (HS3)

(Source: Factors- (Majumdar, 2015)

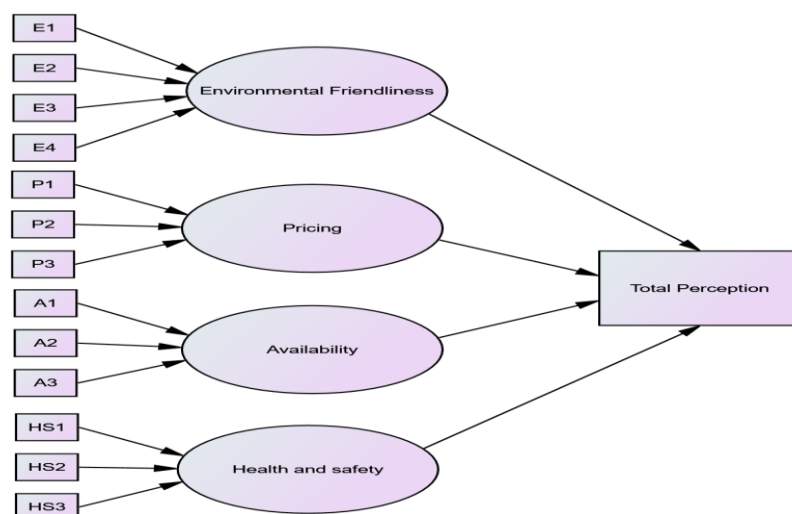


Figure- 1 Proposed Research Model

(Source: Enumerated)

The proposed research model is shown in Figure 1 above. It specifies a sequence of inputs used to measure factors, and then the total mean score of all the inputs is computed to get the total perception for the purpose of this study.

- **RELIABILITY ANALYSIS-** Reliability of the questionnaire is tested using the Cronbach’s alpha.

Cronbach’s Alpha	N of Items
.822	13

(Source: Enumerated)

George and Mallery (2003) provide the following rules of thumb for Cronbach’s Alpha:

“_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and _ < .5 – Unacceptable” (p. 231)

The sample falls into the category of good and is dependable for study, according to the values obtained from Cronbach's Alpha in Table 2 above, which are .822.

- **DEMOGRAPHIC PROFILE ANALYSIS**

Table-3 Demographic profile

<u>PARTICULARS</u>	<u>CATEGORY</u>	<u>NUMBER OF PEOPLE</u>	<u>PERCENTAGE</u>
AGE	16-22	127	42.3
	23-30	97	32.3
	31-38	41	13.7
	Above 38 years	35	11.7
	<u>TOTAL</u>	300	100.0
GENDER	FEMALE	179	59.7
	MALE	121	40.3
	<u>TOTAL</u>	300	100.0
EMPLOYMENT TYPE	SALARIED	100	33.3
	STUDENT	165	55.0
	HOMEMAKER	30	10.0
	SELF-EMPLOYED/ BUSINESS	5	1.7
	<u>TOTAL</u>	300	100.0

(Source: Enumerated)

The demographic profile of the research participants was displayed in table 3. There were 300 total respondents that took part in the study; the number of respondents is broken down into the various age groups in table 3. The respondents' age distribution is as follows: the 16–22 age group includes 127 respondents, or 42.3%; the 23–30 age group includes 97 respondents, or 32.3%; the 31–38 age group includes 41 respondents, or 13.7%; and the

over 38 age group includes 35 respondents, or 11.7%. The categorisation is then carried out according to gender. 40.3% of people in the male group and 59.7% in the female category. The classification is then carried out according to employment type, as shown in table 3, where 100 respondents fall under the salaried employment type, 165 fall under the student category, 30 fall under the homemaker category, and 5 fall under the self-employed/business category.

• **CHI SQUARE TEST OF INDEPENDENCE**

Researchers must undertake a test of significance known as the Chi-Square Test to ascertain whether the Association between two variables is statistically significant. **Moore, D. S., Notz, W. I, & Flinger, M. A. (2013).**

Hypotheses Testing

H0₁- There is no significant association between respondent’s age and awareness of green cosmetics.

H1₁- There is significant association between respondent’s age and awareness of green cosmetics.

Table- 1 AGE *Are you aware with the concept of Green Product? Crosstabulation

Count

		Are you aware with the concept of Green Product?			Total
		Maybe	No	Yes	
AGE	16 - 22	8	10	109	127
	23 - 30	12	8	77	97
	31 - 38	5	12	24	41
	Above 38 Years	7	4	24	35
Total		32	34	234	300

(Source: Enumerated)

Table-2 Chi-Square Tests			
	Value	df	Asymptotic Significance(2-sided)
Pearson Chi-Square	22.688 ^a	6	.001
Likelihood Ratio	19.325	6	.004
N of Valid cases	300		

(Source: Enumerated)

Here, the significance level has been taken as .05. (If, the $p > .05$ the null hypothesis will be accepted and if the $p < .05$ the null hypothesis will be rejected). (Kothari, 2007)

Interpretation- Consequently, because p is smaller than .05 in this instance, The Null hypothesis (There is a no significant association between respondent's age and awareness of green cosmetic products) is rejected, Finding a substantial and significant association between respondents' age and Awareness about green cosmetics.

H0₂- There is no significant association between respondent’s gender and awareness of green cosmetics.

H1₂- There is significant association between respondent’s gender and awareness of green cosmetics.

Table – 3 GEN * Are you aware with the concept of Green Product? Crosstabulation

Count

		Are you aware with the concept of Green Product?			Total
		Maybe	No	Yes	
GEN	Female	10	19	150	179
	Male	22	15	84	121
Total		32	34	234	300

(Source: Enumerated)

Table-4 Chi-Square Tests			
	Value	df	Asymptotic Significance(2-sided)
Pearson Chi-Square	12.853 ^a	2	.002
Likelihood Ratio	12.670	2	.002
N of Valid cases	300		

(Source: Enumerated)

Interpretation- Consequently, because p is smaller than .05 in this instance, The Null hypothesis (There is a no significant association between respondent's gender and awareness of green cosmetic products) is rejected. Thus, concluding that there is significant and substantial Association between respondent's gender and awareness for green cosmetics.

- **ONE-WAY ANOVA (Age and its impact)**

The total perception scores were roughly normally distributed across all age groups, according to a Shapiro-Wilks test ($p > .05$) SHAPIRO, S. S., & WILK, M. B. (1965) and a visual inspection of their Normal Q-Q Plots, Detrended normal Q-Q Plots, Boxplot, and Spread-versus-level Plots.

Hypothesis Testing

H0₃- There is no significant impact of age on the total perception of green cosmetics.

H1₃- There is significant impact of age on the total perception of green cosmetics.

Table-5 ANOVA table

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.382	3	.461	1.178	.318
Within Groups	115.760	296	.391		
Total	117.142	299			

(Source: Enumerated)

Interpretation- If, the $p > .05$ the null hypothesis will be accepted and if the $p < .05$ the null hypothesis will be rejected (Ostertagová & Ostertag, 2013) From the above table-5, it is concluded that as p value (.318) is greater than significance level ($p > .05$) therefore, the Null hypothesis(There is no significant impact of age on the total perception of green cosmetics) is accepted. Concluding that researcher doesn't find enough evidence to reject Null hypothesis.

- **t-test (Gender and its impact)**

The total perception scores were roughly normally distributed for both male and female, according to a Shapiro-Wilks test ($p > .05$) SHAPIRO, S. S., & WILK, M. B. (1965) and a visual inspection of their Normal Q-Q Plots, Detrended normal Q-Q Plots, Boxplot, and Spread-versus-level Plots.

Hypothesis Testing

H04- There is no significant impact of gender on the total perception of green cosmetics.

H14- There is significant impact of gender on the total perception of green cosmetics.

Table-6 t-test table

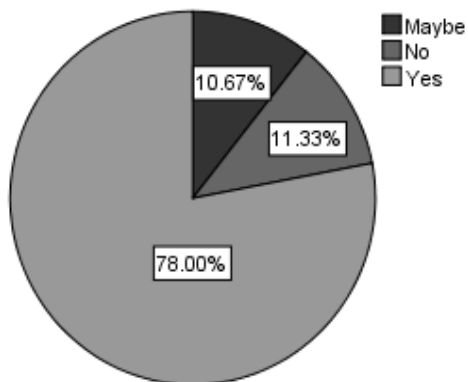
Group Statistics				Independent sample test			
Gender		N	Mean	Standard deviation	t value	df	Sig.(2-tailed)
Total Perception score	Male	121	3.8703	.68946	-.753	298	.452
	Female	179	3.8148	.57999			

(Source: Enumerated)

Interpretation- According to table 6 above, male have a mean overall view of green cosmetic products of 3.8703 (SD =.68946), while female have a mean overall perception of green cosmetic products of 3.8148 (SD =.57999). A t-test concluded that as the p-value (.452) is more than standard significance level of 0.05. Thus, Null hypothesis is accepted and alternate hypothesis is rejected (Kothari, 2007) Finding that there is insufficient evidence to reject the null hypothesis and that there is no significant impact of gender on the total perception of green cosmetics.

- **GRAPHICAL REPRESENTATION**

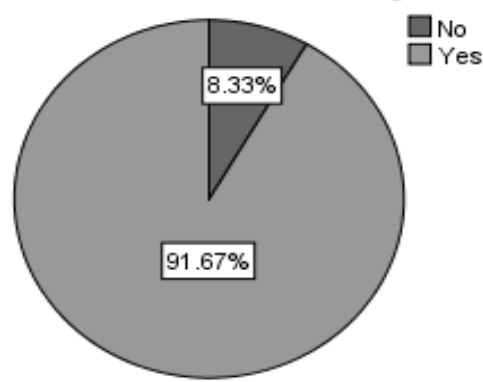
Awareness About Green Cosmetics



(Source: Enumerated)

FIGURE-2

Consideration for Eco-Friendly Product

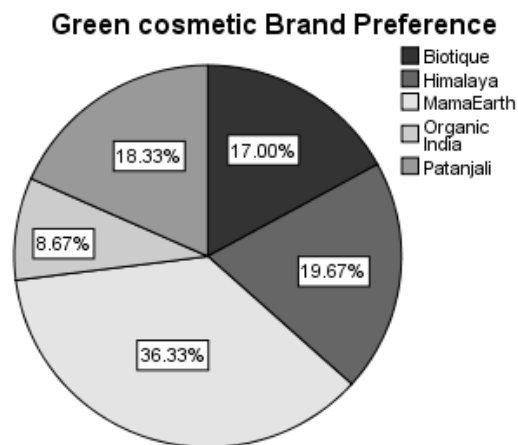


(Source: Enumerated)

FIGURE-3

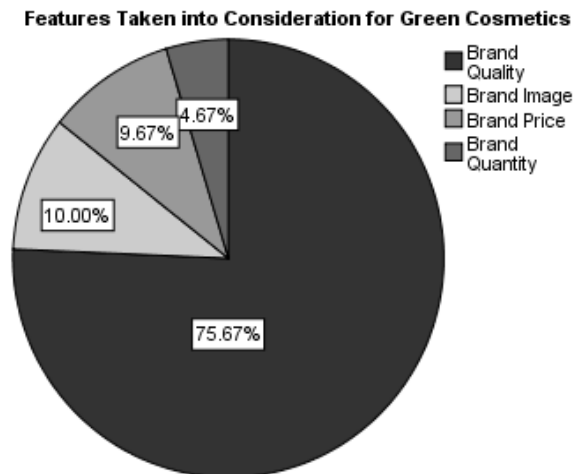
Figure 2 above shows that while 11.33% of individuals are unaware of green cosmetics, 78% of people are aware of them.

The above-mentioned figure-3 shows that 91.67% of individuals think about eco-friendly items while making a purchase decision, whereas 8.33% do not.



(Source: Enumerated)

FIGURE-4

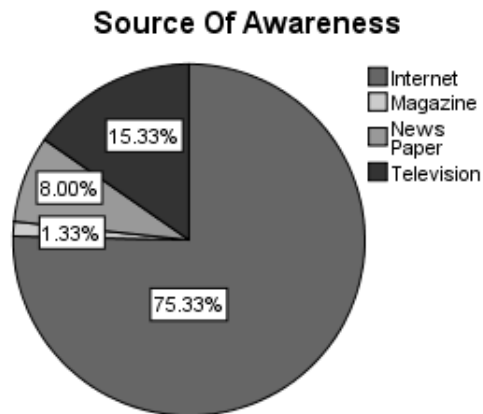


(Source: Enumerated)

FIGURE-5

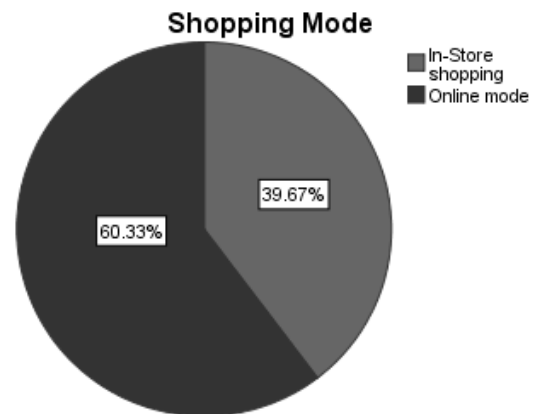
In accordance with Figure 4, 36.33% of people Prefer Mamaearth, 17% use Biotique, 18.33% Prefer Patanjali, 19.67% Prefer Himalaya, and 8.67% Prefer Organic India.

Figure 5 shows the characteristics that consumers seek in a product, including 75.67% who look for brand quality, 9.67% who look for brand pricing, 10% who look for brand image, and 4.67% who look for brand quantity.



(Source: Enumerated)

FIGURE-6

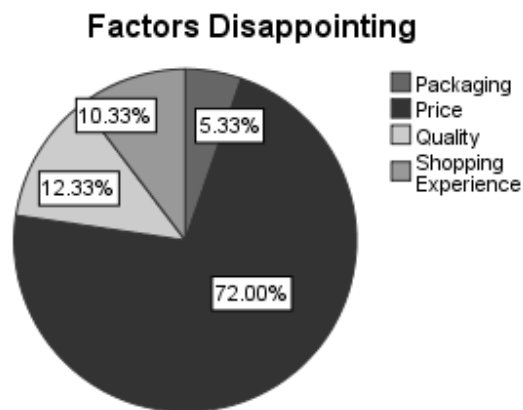


(Source: Enumerated)

FIGURE-7

As we can see in figure 6 above, 75.33% of people believe that the internet is a good source of information, 15.33% think that television is, 8% think that newspapers are, and 1.33% think that magazines are good source of awareness.

Figure 7 shows that 39.67% of individuals prefer in-store purchasing while 60.33% prefer internet shopping.



(Source: Enumerated)

FIGURE-8

According to the figure-8, price is the most dissatisfying factors for 72% of respondents, other dissatisfying include quality for 12.33%, shopping experience for 10.33%, and packing for 5.33%.

FINDINGS

The major findings are-

1. The result of chi square test revealed that there is significant association between age and awareness of green cosmetic products.
2. It was also revealed that there is significant association between gender and awareness of green cosmetic products.
3. According to the ANOVA table's findings, age has no discernible effect on how green cosmetics are perceived overall.
4. The results of the t test showed that gender has no appreciable influence on how green cosmetics are viewed overall.
5. 78% of respondents said they were familiar with green cosmetics, while 11.3% said they weren't.
6. Organic India was the least popular brand, while Mamaearth was the most popular.
7. Compared to in-store purchasing, respondents valued doing their shopping online more.
8. For 75.33% of respondents, the Internet emerged as the most important source of awareness.
9. According to 72% of respondents, the most disappointing aspect of the green cosmetics they purchased was the price.

CONCLUSION

This study has shed light on the expanding importance of eco-friendly beauty goods in the regional market. Lucknow's residents are become more aware of the effects their cosmetic choices have on the environment and their health as consumer knowledge of environmental and health issues rises. This study has clarified a number of important issues that affect how consumers in Lucknow City perceive green cosmetics.

Firstly, the study found that Lucknow customers are embracing green cosmetics more frequently as a result of their dedication to environmental concern. Consumers in Lucknow are looking for environmentally friendly solutions since they are becoming more concerned about climate change and environmental deterioration. With its use of natural and organic ingredients and eco-friendly packaging, green cosmetics have found a following among customers who value responsible consumption.

Secondly, the study emphasized how crucial health and safety factors are in influencing consumer opinion in Lucknow City. Consumers are turning to green cosmetics as a safer and healthier alternative as they become more aware of the potentially dangerous ingredients present in conventional cosmetics. Customers in Lucknow have come to trust and respect green cosmetics firms because of their focus on using natural and non-toxic components.

Furthermore, the study showed that, regardless of gender, customer impression of green cosmetics is same. The majority of people are aware of green cosmetic products, and many still are unaware. The prices of green/ecological products disappoint those who are aware of them. The second reason why consumers don't buy these things is that they aren't readily available in stores; they are primarily sold through online retailers. Therefore, individuals who are knowledgeable with online buying and are aware of its benefits can buy it more easily than those who are unaware of either green/eco-friendly products or online shopping.

In Conclusion By using the findings of this study as a foundation, green cosmetics businesses can better understand the Lucknow market and develop marketing plans that are tailored to the unique wants and needs of Lucknow customers. Businesses in Lucknow can take advantage of the favorable customer impression of green cosmetics to create brand loyalty and propel their success in the competitive beauty sector as the demand for eco-friendly products rises.

SUGGESTIONS

The various suggestions and recommendations based on the research are-

1. The majority of respondents to the poll said that it was difficult to find green items on the market. They must place their orders online as a result of this rationale. In order to increase availability, marketers should concentrate on their distribution route.
2. After examining consumer preferences, it was shown that customers are significantly turned off by green cosmetics' higher pricing when compared to those of conventional cosmetics. Therefore, in order to increase the demand for green cosmetic products, producers should work to lower the pricing of these products.
3. Green cosmetics companies can actively take part in or support regional environmental activities. Brands may strengthen their ties to the community and promote a sense of shared responsibility by supporting issues that appeal to consumers.
4. A big part of how consumers perceive green cosmetics is the packaging. To appeal to consumers who are environmentally sensitive, brands might investigate sustainable packaging choices like recyclable or biodegradable materials.
5. By establishing and upholding legislation that support eco-friendly practices, the government may play a significant role in assisting the green cosmetics business. Standards for eco-friendly ingredient sourcing, packaging, and production can encourage businesses to embrace green procedures and boost customer trust in eco-friendly cosmetics.
6. Sustainable practices can be promoted by offering financial incentives and subsidies to green cosmetics enterprises. Innovation in the sector can be facilitated by tax incentives or grants for the creation of environmentally friendly products or packaging.
7. Brands and researchers must continue to keep an eye on attitudes and trends towards green cosmetics because customer perceptions and actions might change over time. Studies that are frequently updated can detect shifting consumer preferences and assist firms and regulators in making strategic decisions.

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