A STUDY ON INFLUENCE OF ECO-LABELS ON CONSUMER PURCHASE INTENTION OF ECO-FRIENDLY PRODUCTS

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ABSTRACT
Eco-Labels are becoming more and more relevant as a means of communication and among the consumers they are more visible. Eco-Labels to a great extent will alleviate, if not entirely eliminate, consumers' doubt about the sustainability of a product, allowing, thus, consumers to make informed, responsible, and sustainable choices in the market. The present study aims at analysing the influence of Eco-Labelled products on consumer purchase intention of Eco-friendly products. The study has adopted experimental research by collecting primary data from respondent residing in Mumbai. The findings reveals strong positive correlation between perception of consumers about Eco-Labelled products and their purchase intention. The research highlighted the need to create awareness about Eco-Labels.

Keywords: Eco-Labels, Environmentally Friendly Products, Purchase Intention, Awareness of Eco-Labels, Trust on Eco-Labels.

I. INTRODUCTION

In the recent year, the issue of sustainability has been mainly discussed by consumers and companies due to the increasing global concern about the deteriorating environment and climate change. People in general, no longer the environmentalists only, are worried about the impact their consumption habits have on the planet.

In this regard, Eco-Labels are becoming more and more relevant as a means of communication and among the consumers they are more visible. Eco-Labels to a great extent will alleviate, if not entirely eliminate, consumers' doubt about the sustainability of a product, allowing, thus, consumers to make informed, responsible, and sustainable choices in the market. Moreover, Eco-Labels act not only as proof of environmental protection but are also very much instrumental in the process of the formation of brand credibility and consumer trust.

For the companies, acquiring eco-certifications can do quite a lot to improve their reputation and also help them to stand out in the competitive realm. However, despite the fact that Eco-Labels are designed to sway consumers towards buying green products, the question of how effective they really are; where the exact point of their influence is, still remains unanswered. It cannot be denied that consumer awareness, perception, trust, and demographics are the primary factors that are decisive in turning Eco-Labels into actual purchase behaviour.

Hence, the current research is primarily concerned with investigating the role that Eco-Labels play in guiding consumers to select one product over another. It aspires to uncover how much consumers know about and what their perception is of Eco-Labels and certifications, study their part in trust-building of green products, and determine their degree of influence in real purchasing behaviour.
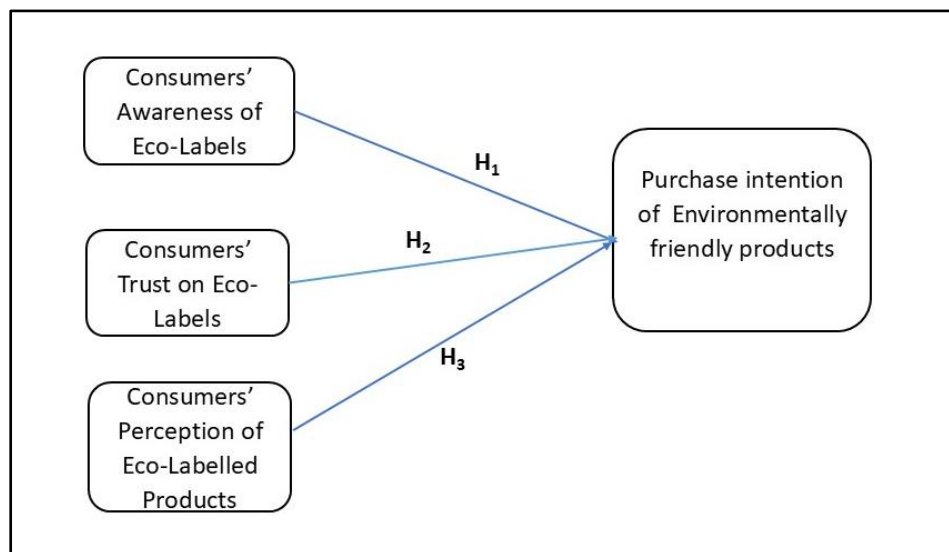
II. LITERATURE REVIEW

1. **Rajinder Pal Saini and Dr. Rashmi Gujrati (2021) -**This study demonstrates how many companies are using eco labelling to make their operations more sustainable. According to the research, there is lack of knowledge about sustainable products. The study concentrated on how consumers' purchasing decisions are impacted by eco-labelling.

2. **Ms Khushbu Sharma and Dr Kulvinder Kaur Gujral (2020)-**According to the study, more businesses are considering green issues as a primary source of strategic change as a result of growing environmental concerns. These days, brands use eco-labelling to tell customers about their sustainability performance. The researcher discovered that although eco-friendly products are now more readily available and more popular, there is still a lack of knowledge about sustainable products.

3. **Sudhadhara K Samal (2023).-**The researcher has shared their opinions on how consumers' purchasing decisions are impacted by eco-labelled products. The study attempted to examine consumer awareness of eco-labelled products and the variables influencing consumer behaviour. According to the study's findings, the majority of respondents knew a lot about eco labels.

4. **Shruti Jain and Manisha Raj Verma (2019)-**The most crucial instruments for advancing environmental sustainability, according to this paper, are eco-labels. It primarily focuses on how Indian consumers view and feel about the use of eco-labels. The researcher discovered that people prefer to purchase inexpensive goods over environmentally friendly ones because they are not very motivated by environmental issues.

5. **Abel et.al. (2024)-**Their review has focused on the importance of eco-labelling in encouraging sustainable consumer behaviour and how eco-labelling helps in giving clear information about a product's environmental impact. The researchers focused on the awareness and understanding of Eco-Labels among consumers and how those labels influence buying among consumers. According to the research finding, the young consumers have a moderate to high level of awareness of different eco-labels.

6. **Irfan Hameed and Idrees Waris (2018) -**The study researched the relationship between eco labels and eco conscious consumers behaviour. The study found out that consumers get influenced by eco-labels. As per the finding the Eco-Labels have positive effects on consumers.

7. **Md. Mustafin Ahmed and Makakmayum Baadshah (2025) -**This study looks at how urban consumers' purchasing decisions may be impacted by green marketing. It also discusses green marketing's advantages and disadvantages. According to the study, small cities hardly ever use green marketing techniques, whereas developed markets and metropolitan areas do.

8. **Prof. Sagar Bhadange et.al. (2024) -**The study emphasizes how critical it is to comprehend the variables influencing consumers' purchasing decisions. According to the study, product label clarity and brand trust are the two main factors influencing purchasing behaviour. Customers may support eco-friendly products that impact their health, lifestyle, etc.

9. **Anastasios Panopoulos et.al. (2022) -**This survey had the primary purpose of ascertaining how eco-labelling affects Generation Z's purchase decisions. The study established that Generation Z are concerned about the environment and that the concern has a significant positive impact on them. The study highlights the importance of influencers in impacting the purchase behaviour of the new generation.

10. **Siri Boe-Lillegraven and Joris Demmers (2024) -**According to the research findings, Eco-Labels help in informing the consumers about the environmental impact of their purchasing decision but however awareness about these Eco-Labels are very poor. The study found that Eco-Labels are nowadays widely used by the companies in order to communicate with the consumers about firms' corporate social responsibility.

11. **Ms. Harsh Tullani and Dr. Richa Dahiya (2017)-**This research investigates the emergence of Eco-Labels as an increasingly popular selected strategy of attracting consumers. The various aspects such as awareness, trust and knowledge of eco-labelling play a role in influencing customers choice. The study concluded that the phenomenon of eco-labelling does have an impact on the green purchasing behaviours of customers, giving marketers the opportunity to distinguish themselves from their competitors.

12. **Dongqin Li (2025)-**According to the research, consumer attitudes have shifted dramatically in favour of environmentally-sustainable products. Today, green advertising and Eco-Labels are an effective tool used for impacting consumer purchase intention. This study aims to investigate the influence of green advertising and Eco-Labels on consumer purchase behaviour. The results of the study indicate Eco- eco-branding play a role in consumers' green buying behaviour.

13. **John Thøgersen et.al. (2009) -**The study aimed to understand consumers' feedback and response to eco-labels. It focuses on the development of a framework that helps in understanding the awareness of Eco-Labels among consumers. The study found out that the consumers consider Eco-Labels as a tool that supports their decisions while purchasing any environmentally significant products.

III. RESEARCH METHODOLOGY

3.1 Proposed Research Model

3.2 Objectives of the Study

1. To understand Consumer's awareness of Eco-Labels.

2. To analyze the Trust of Consumers on Eco-Labels.

3. To study the perception of consumers about Eco-Labelled Products

3.3 Hypotheses of the Study

Hypothesis 1

Null Hypothesis ($H0_1$):: There is no significant relationship between consumer awareness of Eco-Labels and their intention to purchase environmentally friendly products.

Alternate Hypothesis ($H1_1$): There is significant relationship between consumer awareness of Eco-Labels and their intention to purchase environmentally friendly products.

Hypothesis 2

Null Hypothesis ($H0_2$): Consumers' Trust on Eco-Labelshave no significant influence on their intention to purchase environmentally friendly products.

Alternative Hypothesis($H1_2$): Consumers' Trust on Eco-Labels have no significant influence on their intention to purchase environmentally friendly products.

Hypothesis 3

Null Hypothesis ($H0_3$): Consumers' Perception about Eco-Labelled products have no significant influence on their intention to purchase environmentally friendly products.

Alternative Hypothesis($H1_3$): Consumers' Perception about Eco-Labelled products have significant influence on their intention to purchase environmentally friendly products.

3.4 Research Design – The study has adopted Causal Research Design using Experimentation method to analyse the influence of perception of consumers about Eco-Labelled products on their purchase intention to buy Environmentally Friendly products. Two Products – Shampoo and Salt from FMCG category were selected. Two different brands of Salt – Tata Salt having Eco-label of Recycled packaging and Aashirvaad Salt not having Eco-Label were selected. In case of Shampoo Garnier Fructis having Eco-Label of 100% Recycled plastic bottle and Dove Shampoo not having Eco-Label were selected. Images of all the four products were shown to respondents and data on their perception of Eco-Labelled products and their intention to purchase Eco-Labelled products was collected from respondents.

3.5 Data Collection

- **Primary Data** - A well-structured Questionnaire was used to collect insights from different age groups.

- **Secondary Data** - It was gathered through various relevant sources such as Journals, Online Academic Database, Websites, Published Research Paper and AI tools.

3.6 Sample Size – Primary Data was collected from 153 respondents residing in Mumbai Suburban region.

3.7 Statistical Techniques – The primary data was analysed using statistical tools – mean and percentage. Co-efficient of Correlation (r) was used to test the hypotheses. Microsoft Excel was used for applying statistical techniques.

IV. DATA ANALYSIS, INTERPRETATION AND FINDINGS
The Primary data was edited, coded and analysed using Microsoft Excel.
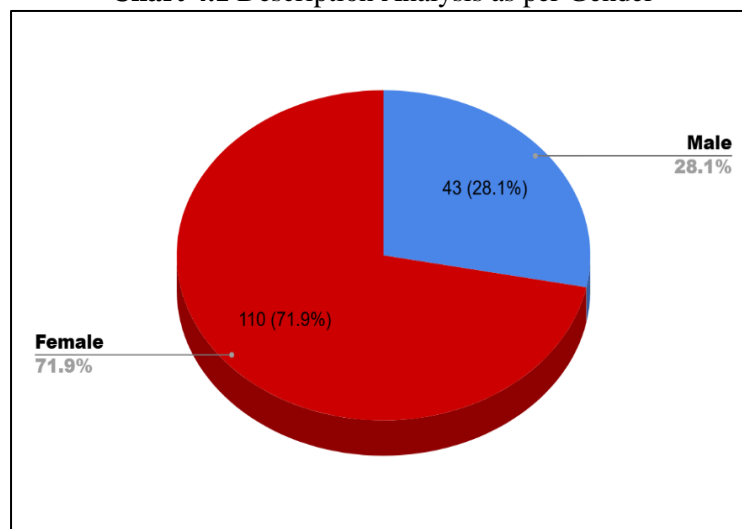
4.1 Demographic Profile of Respondents

A. GENDER

Table 4.1 Description analysis as per Gender

Gender	Number of Respondents (Frequency)	Number of Respondents (Percentage)
Male	43	28.1%
Female	110	71.9%
Total	153	100%

(*Source:* **Primary Data**)

Chart 4.1 Description Analysis as per Gender
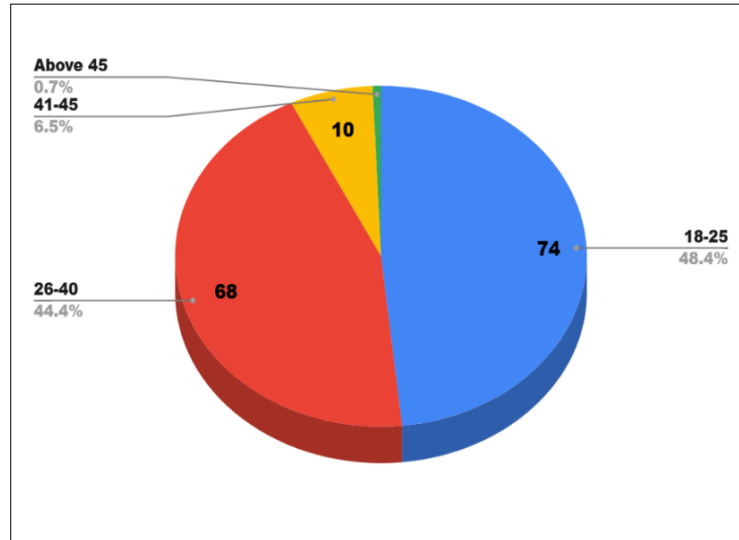

Source: Primary data

Interpretation - Descriptive analysis reveals, as seen in Table 4.1 and Chart 4.1, that the total number of respondents 153, consisted of 43 males which is 28.1% and 110 females which is 71.9%. So, it is clear that the female participants were the main contributors to the study.

AGE

Table 4.2 Description analysis as per Age

Age	Number of Respondents (Frequency)	Number of Respondents (Percentage)
18-25	74	48.37%
26-40	68	44.44%
41-45	10	6.54%
Above 45	1	0.65%
Total	153	100%

Source: Compiled Primary data

Chart 4.2 Description Analysis as per Age

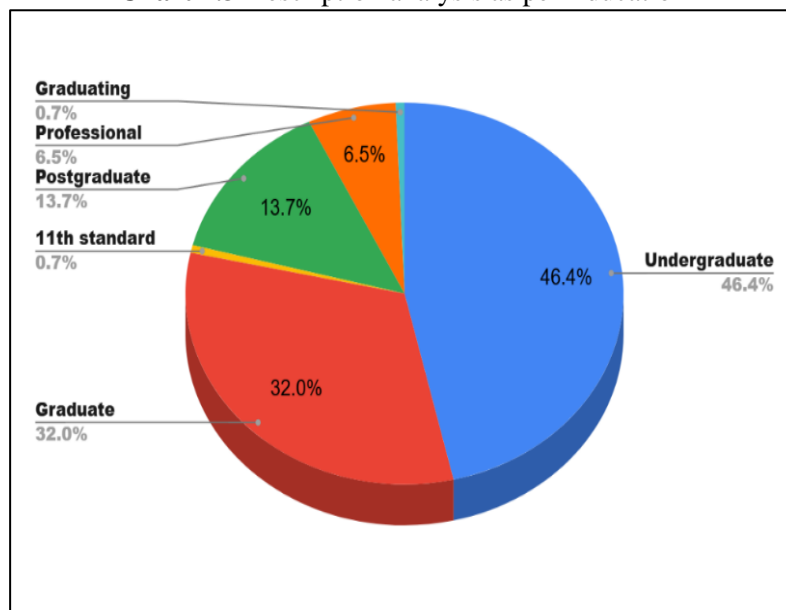*Source:* Primary data

Interpretation

As per Table 4.2 and Chart 4.2, nearly half of the respondents (48.37%) fall into the age bracket of 18 - 25 years while the next majority (44.44%) is between the ages of 26 and 40 years

Education

Table 4.3 Description analysis as per Education

Education	Number of Respondents (Frequency)	Number of Respondents (Percentage)
Undergraduate	71	46.41%
Graduate	49	32.03%
Postgraduate	21	13.73%
Professional	10	6.54%
Others	2	1.31%
Total	153	100%

Source: **Primary data**

Chart 4.3 Description analysis as per Education

Source: Primary data

Interpretation- The Table 4.3 and Chart 4.3 indicates that the largest group of respondents are undergraduates (46.41%), Out of total respondents 32.03% are graduates and 13.73% respondents are postgraduates.
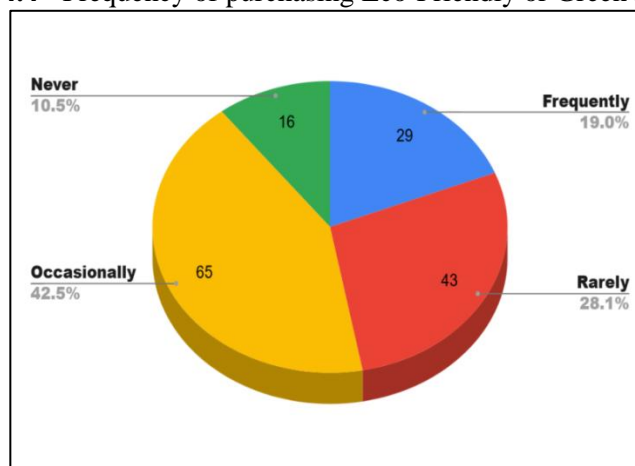
4.2 Frequency of purchasing Eco-Friendly or Green Products

Table 4.4 - Frequency of purchasing Eco-Friendly or Green Products

Frequency of Purchase	Number of Respondents (Frequency)	Number of Respondents (Percentage)
Frequently	29	18.95%
Occasionally	65	42.48%
Rarely	43	28.1%
Never	16	10.46%
Total	153	100%

Source: **Primary data**

Chart 4.4 - Frequency of purchasing Eco-Friendly or Green Products

Source: Primary data

Interpretation

The Table 4.4 and Chart 4.4 indicate that majority of the participants (42.48%) buy eco-friendly or green products from time to time, whereas just 18.95% buy them often. About 28.1% are occasional buyers of such products, and only 10.46% are not buying at all. This implies that the majority of the public is conscious about their purchase decisions.

4.3 (A) Research Objective-wise Analysis

1. To understand Consumer's awareness of Eco-Labels.

Table 4.5 - Consumer's awareness of Eco-Labels

Awareness of Eco-Labels	Mean Score
I am familiar with the term "Eco-Label"	3.12
I often notice Eco-Labels or environmental symbols on product packaging	3.01
I understand what most Eco-Labels mean.	3.13
I believe Eco-Labels indicate that a product is Environmentally friendly.	3.47

(*Source* **-Primary Data**)

Interpretation – As per table 4.5, all the statements measuring the awareness of Eco-Labels have mean score above 3. It shows that respondents are aware of Eco-Labels. The highest mean score 3.47 shows that respondents strongly believe that Eco-Labels are identifications of Environmentally friendly product. The lowest score mean 3.01 indicate that some of the respondents do not notice the Eco-Labels on product.

2. To analyze the Trust of Consumers on Eco-Labels

Table 4.6 - Trust of Consumers on Eco-Labels

Trust of Consumers on Eco-Labels	Mean Score
I trust government-certified eco-labels	3.26
I trust eco-labels that are verified by international organizations	3.28
I am doubtful about eco-labels created by private companies.	3.24
Eco-labels increase my trust in a brand	3.28
I believe some companies misuse eco-labels to appear more sustainable than they really are.	3.52

(*Source* **-Primary Data**)

Interpretation – As per table 4.6, all the statements measuring the **Trust of Consumers on Eco-Labels** have mean score above 3. It shows that respondents have trust on Eco-Labels. The analysis shows that respondents have higher confidence on Government certified Eco-Labels and Eco-Labels verified by international organisations. as compared to Eco-Labels certified by private companies.

3. **To study the perception of consumers about Eco-Labelled Products**

Table 4.7 - Perception of consumers about Eco-Labelled Products

Perception of consumers about Eco-Labelled Products	Mean Score
The Eco-labelled product seems to be of higher quality.	3.32
The Eco-labelled product seems more trustworthy.	3.37
The Eco-labelled product seems safer for the environment.	3.55
The Eco-labelled product gives a positive brand image.	3.55
I feel more confident purchasing the Eco-labelled product.	3.57

(*Source* -Primary Data)

Interpretation – As per table 4.7, all the statements measuring the Perception of consumers about Eco-Labelled Products have mean score above 3.30. It shows that respondents have positive perception about on Eco-Labelled products. The analysis shows that respondents strongly perceive that Eco-Labelled products are safe for environment, contribute to enhance image of the company and they feel confident in buying Eco-Labelled products as compared to Non Eco-Labelled products.

4.3 (B) Results of Testing Hypotheses

Table 4.8 Results of Testing Hypotheses

Hypotheses	Co-efficient of Correlation (r value)	Findings	H1 accepted/Rejected
H11 Relationship of between consumer awareness of Eco-Labels and their intention to purchase environmentally friendly products.	0.62	Positive Moderate Correlation	H1 Accepted
H12 Relationship of Consumers' Trust on Eco-Labels and intention to purchase environmentally friendly products.	0.70	Strong Positive Correlation	H1 Accepted
H13 Relationship of Consumers' Perception about Eco-Labelled products and intention to purchase environmentally friendly products.	0.81	Strong Positive Correlation	H1 Accepted

(*Source* -Primary Data)

Interpretation – As per above table 4.8, the result of hypotheses testing shows that all alternative Hypotheses $H1_1$, $H1_2$ and $H1_3$ are accepted. The analysis shows that there is strong positive correlation between Consumers' Trust on Eco-Labels and intention to purchase environmentally friendly products and between Consumers' Perception about Eco-Labelled products and intention to purchase environmentally friendly products.

Further, it is also seen that there is positive moderate correlation between consumer awareness of Eco-Labels and their intention to purchase environmentally friendly products.

V. RECOMMENDATIONS

Based on findings of the study following recommendations are proposed
1. There is a need to create wide spread awareness of Eco-Labels to promote purchase of Eco-Friendly products.

2. As consumers rely more on Government Certified Eco-Labels, companies should go for certification of Govt. Eco-Labels

3. On product packaging, Eco-Labels should be prominently highlighted to enhance visibility of the Eco-Labels on the products.

4. Companies should focus more on manufacturing Eco-Friendly products, use sustainable sourcing, use recycled packaging and contribute for green practices.

5. Companies should refrain from Green Washing and information overload.

VI. CONCLUSIONS

The study concludes that Eco-Labels have positive influence on consumers' purchase intention by increasing awareness, trust, and perceived environmental benefits of products. Clear, credible, and easy-to-understand eco-labels help consumers make informed choices and enhance their willingness to choose eco-friendly alternatives. Overall, eco-labels serve as an important tool for guiding sustainable purchasing behaviour.

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