# A Study on Consumer Perception Towards Eco Friendly Laundry Detergent with Reference to Coimbatore City

**HARSHA VARTHINI A S,** Department of Management Studies**,** Dr. N.G.P Arts and Science college, Coimbatore

**Dr. M SOFIA,** Assistant Professor, Department of Management Studies**,** Dr. N.G.P Arts and Science College**,** Coimbatore

**ABSTRACT:**

Consumer perception towards eco friendly laundry detergent shows the cleaning effectiveness compared to traditional options, Traditional laundry detergents often contain synthetic chemicals such as phosphates, artificial fragrances, and surfactants that can be detrimental to both the environment and personal health. nowadays many consumers prefer using natural products in their day-to-day life. One of the key characteristics of eco-friendly laundry detergents is their use of non-toxic, biodegradable ingredients that break down naturally without harming ecosystems. One of the primary reasons consumers opt for eco-friendly laundry detergents is the growing awareness of the harmful effects of conventional cleaning products. Ultimately, this study aims to empower consumers, inform businesses, and influence policymakers in creating a more sustainable future. This study explores the level of awareness, product availability level and primary concerns while choosing eco friendly laundry detergent. Structured survey was conducted among this population to analyse their perception related to eco-friendly laundry detergent. The findings indicate that the majority of the respondent are aware of eco-friendly laundry detergent, Aswell majority of the respondent showing the less product availability level.

## INTRODUCTION

Eco-friendly laundry detergents are cleaning products designed with the environment and human health in mind. Unlike traditional laundry detergents that often contain harsh chemicals, artificial fragrances, and non-biodegradable ingredients, eco-friendly alternatives use natural, plant-based ingredients that are biodegradable and free from harmful substances. These detergents are formulated to be gentle on both the skin and the planet, providing a safer option Packaging is another important factor in eco-friendly laundry detergents. Many of these products are packaged in recyclable or biodegradable containers, reducing plastic waste and promoting a circular economy. Some brands even offer concentrated formulas, which require less packaging and reduce the amount of water used in production and transportation for households looking to reduce their environmental impact. Common ingredients in eco-friendly detergents include plant-based surfactants, essential oils for fragrance, and biodegradable enzymes for effective stain removal. These products are typically free from phosphates, bleach, synthetic fragrances, and dyes, which are common in conventional detergents but can contribute to water pollution and skin irritation.

The rise of eco-friendly laundry detergents is a response to growing consumer awareness about environmental sustainability and the harmful effects of chemicals on both human health and the planet. With increasing concerns about water pollution, climate change, and the toxic residue left behind by conventional cleaning products, more consumers are choosing eco-friendly alternatives that align with their values of sustainability, health, and environmental responsibility

Overall, eco-friendly laundry detergents represent a shift towards more sustainable and health-conscious choices in everyday household products, and their growing popularity signals an increasing demand for products that prioritize both environmental and personal well-being.

## REVIEW OF LITERATURE

- **Bourne et al. (2015)** pointed out that there is a growing tendency among consumers to switch from conventional laundry detergents to eco-friendly options, particularly in markets where environmental concerns are more pronounced, such as Europe and North America. Consumers who are already committed to sustainable living, such as those who buy organic food or use energy-efficient appliances, are more likely to adopt eco-friendly detergents.

- **Suki (2016)** highlighted several barriers that hinder broader consumer adoption. These include a lack of clear and consistent eco-labelling, scepticism about the effectiveness of eco-friendly products, and the perception that sustainable products are often more expensive.

- **Dangelico and Vocal Elli (2017)** found that price is a critical factor influencing consumer adoption of eco-friendly products. While many consumers express a desire to purchase environmentally responsible products, they are often unwilling to pay a premium unless they perceive the product offers equivalent or superior benefits to conventional alternatives.

- **Conversely, Smith et al. (2019)** showed that consumers from higher-income groups or those with a stronger environmental consciousness were more willing to pay a premium for eco-friendly products, as they viewed the environmental benefits as a worthwhile investment.

- **Choi and Lee (2019),** brands that effectively communicate their commitment to sustainability through transparent labelling, certifications, and eco-friendly packaging are more likely to gain consumer trust. This trust, in turn, significantly influences purchasing decisions. Marketing strategies that emphasize the benefits of eco-friendly products, including reduced environmental impact and safety for users, can significantly sway consumer perception.

- **Pereira et al. (2020)** noted that advancements in eco-friendly detergent formulations, such as the use of plant-based surfactants and enzymes, have improved the cleaning performance of these products. However, the perceived efficacy of these detergents still needs stronger marketing and proof to overcome the performance gap in consumers' minds. Environmentally friendly products, habit and convenience often prevent them from switching to eco-friendly detergents. Traditional products, especially those from well-known, established brands, are deeply ingrained in consumer routines.

- **Murray and Gollner (2020)** pointed out that while many consumers express interest in environmentally friendly products, habit and convenience often prevent them from switching to eco-friendly detergents. Traditional products, especially those from well-known, established brands, are deeply ingrained in consumer routines.

## OBJECTIVES OF THE STUDY

1. To study the awareness about eco-friendly laundry detergent.
2. To analyse the factor that influence to purchase eco-friendly laundry detergent.
3. To study the level of product availability
4. To study the level of satisfaction towards using eco-friendly laundry detergent.
5. To assess the importance towards environmental and performance benefits.

## SCOPE OF THE STUDY

- Investigate how aware consumers are of eco-friendly laundry detergents, including their ingredients and environmental benefits.
- Analyse the role of product performance, particularly effectiveness in stain removal and cleaning power.
- Examine how demographic factors (e.g., age, income, education, geographical location) influence consumer perceptions and purchasing behaviour.

- Assess how the price of eco-friendly laundry detergents impacts consumer purchasing decisions.

## RESEARCH METHODOLOGY

The research design is arrangement of condition and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.

- Descriptive research means it includes surveys and facts finding enquiries. The major purpose of descriptive research is descriptive of affairs as it exists at present.
- The sampling frame may be identical to the population, or it may be only part of it and is therefore subject to come under coverage, or it may have an indirect relationship to the population.
- Non probability convenience sampling has been adapted in this study.

## STATISTICAL TOOLS USED FOR DATA ANALYSIS

- **Simple Percentage Analysis**

Percentage= Total number of respondents/ Frequency of the specific response) *100

- **Chi-square test**

$\chi 2 = \sum (O-E)^2 / E$
Where:
O= Observed frequency (the actual data you collected)

E= Expected frequency (the frequency you would expect based on the null hypothesis)

$\sum$ = Summation across all categories or cells

| Age group | Aware(yes) | Aware(no) | Total |
|-----------|-----------|-----------|-------|
| Below 18  | 0         | 0         | 0     |
| 18-24     | 55        | 0         | 55    |
| 25-40     | 52        | 14        | 66    |
| Above 40  | 0         | 4         | 0     |
| Total     | 107       | 18        | 125   |

VALUE CALCULATION

| O  | E     | O-E  | $(O-E)^2$ | $(O-E)^2/E$ |
|----|-------|------|-----------|-------------|
| 0  | 0     | 0    | 0         | 0           |
| 0  | 0     | 0    | 0         | 0           |
| 55 | 47.16 | 7.84 | 61.47     | 1.30        |

| | | | | |
|---|---|---|---|---|
| 0 | 7.92 | -7.92 | 62.73 | 7.92 |
| 52 | 56.50 | -4.5 | 20.25 | 0.36 |
| 14 | 9.50 | 4.49 | 20.16 | 2.12 |
| 0 | 3.42 | -3.42 | 11.70 | 3.42 |
| 4 | 0.57 | 3.42 | 11.70 | 20.52 |
| TOTAL | | | | 35.64 |

Level of Significant =5%

Degree of freedom = (R-1) (C-1)

$\qquad$ (4-1) (2-1) = 3

$\qquad$ Table value at 5% level of significance and df = 3 ($X^2_{0.05}$ = 7.815)

$\qquad$ Calculated value = 35.64

Table value = 7.815

**Null hypothesis:** There is a significant relationship between age and awareness on eco-friendly laundry detergent.

**Alternative Hypothesis ($H_1$):** There is no significant relationship between age and awareness on eco-friendly laundry detergent.

**INTERPRETATION:**

The calculated Chi-square value of **35.64** significantly exceeds the table value of **7.815** at the 5% level of significance with 3 degrees of freedom. This indicates a strong association between age group and awareness of eco-friendly laundry detergent, we accept the alternative hypothesis and there is a rejection of the null hypothesis.

**FINDINGS**

- There is a strong association between age group and awareness of eco-friendly laundry detergent, we accept the alternative hypothesis and there is a rejection of the null hypothesis.

Tabulated Value < Calculated Value

There is a significant relationship between age and awareness on eco-friendly laundry detergent.

**SUGGESSTION**

1. There Is a Need of advertisement regarding eco-friendly laundry detergent.

2. The awareness should be initiated in Rural areas

3. Eco friendly laundry detergent manufacturer should provide the product in affordable cost.

4. There is a less product availability and it should be increase in high availability in market.

5. The fragrance should be improved to attract the customers

6.      High quality packaging should be provided for eco-friendly laundry detergent.

**CONCLUSION**

Eco-friendly laundry detergent is addressing the current challenges surrounding eco-friendly laundry detergents is essential for enhancing consumer awareness and market presence. There is a clear need for targeted advertising campaigns, particularly in rural areas, to educate potential customers about the benefits of these products. Additionally, manufacturers should focus on making eco-friendly detergents more affordable and widely available to encourage adoption. Improving product fragrance and ensuring high-quality packaging can further attract customers and enhance their overall experience. By implementing these strategies, the eco-friendly laundry detergent market can expand, ultimately promoting sustainable practices and benefiting both consumers and the environment.

Eco-friendly laundry detergents represent a significant step towards sustainable living, offering consumers a way to clean their clothes while minimizing environmental impact. By prioritizing natural ingredients and biodegradable packaging, these products not only reduce harmful chemicals in waterways but also support a healthier planet. As awareness grows and accessibility improves, eco-friendly laundry detergents have the potential to become a mainstream choice, aligning consumer preferences with ecological responsibility.

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