CONSUMER AWARENESS AND WILLINGNESS TO PAY FOR GREEN SUPPLY CHAIN PRACTICES IN THE INDIAN COSMETIC INDUSTRY

Submitted to the School of Maritime Management,

Indian Maritime University

in partial fulfilment for the requirements for the award of degree

of MBA in International Transportation and Logistics Management

by

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May 2025

DECLARATION

I, Tejasvi R, bearing Register Number: 2303305032, student of MBA in International Transportation and Logistics Management, at School of Maritime Management, Indian Maritime University, Chennai Campus, hereby declare that the project report titled "**CONSUMER AWARENESS AND WILLINGNESS TO PAY FOR GREEN SUPPLY CHAIN PRACTICES IN THE INDIAN COSMETIC INDUSTRY"** is my original work. This report is being submitted in partial fulfilment of the requirement for the award of the degree of Master of Business Administration (MBA) In International Transportation and Logistics Management (ITLM). The project report is the output of my learnings and observations of my research under the guidance of Dr. Emil Mathew, Assistant Professor, School of Maritime Management, Indian Maritime University, Chennai Campus. I declare that the information submitted is true and original to the best of my knowledge.

Signature:

Place: Chennai

Date:

CERTIFICATE

This is to certify that the project report titled "Consumer Awareness and Willingness to Pay for Green Supply Chain Practices in the Indian Cosmetic Industry" is a Bonafide work done by Tejasvi R (Reg. No: - 2303305032) in partial fulfilment of the requirement for the award of the degree of Master of Business Administration in Indian Maritime University, Chennai.

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Place: Chennai

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ACKNOWLEDGEMENT

I extend my hearty thanks to Dr. Swaminathan, Head of the Department, SMM, Chennai Campus for providing me with the facilities to carry out the project successfully.

With great pleasure, I express my sincere gratitude to Dr. Emil Mathew, Assistant Professor, School of Maritime Management, Indian Maritime University, Chennai Campus for the valuable guidance and suggestions that enabled me to complete this report successfully.

I also extend a huge thanks to my parents, friends and the almighty for having supported me in doing this project.

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1.1 INTRODUCTION TO COSMETIC INDUSTRY

The Indian cosmetics business has seen significant change over the past 20 years, moving away from its historical reliance on herbal and Ayurvedic formulas and towards becoming a vibrant, innovation-driven industry. Rising urbanisation, shifting lifestyles, increased disposable incomes, and Indian consumers' growing knowledge of personal grooming have all contributed to this change. The industry's impressive development trajectory has also been aided by exposure to international beauty trends and the growth of e-commerce. The Indian cosmetics business is expected to reach a valuation of USD 20 billion by 2025, according to Statista (2023), demonstrating its popularity both domestically and abroad.

Despite this encouraging outlook, there are serious environmental challenges associated with the industry's rapid scale-up. Significant environmental damage is caused by the manufacture and distribution of cosmetic products through a number of channels, including excessive plastic packaging, high energy consumption during manufacturing, excessive water use, and greenhouse gas emissions throughout the supply chain. Due to these worries, the cosmetics business is now being closely examined by a wide range of stakeholders, including socially conscious investors, regulatory bodies, and ecologically conscious customers.

Many businesses in the industry are being urged—and in certain situations forced—to implement Green Supply Chain Management (GSCM) techniques in response to this mounting pressure. All phases of a product's life cycle—design, material selection, manufacture, logistics, consumption, and post-consumer waste management—must incorporate environmental considerations, according to GSCM. In addition to addressing environmental issues, it offers strategic benefits such enhanced stakeholder engagement, cost effectiveness, brand differentiation, and regulatory compliance.

This chapter explores the relationship between the Indian cosmetics sector and GSCM. It starts by evaluating how the sector's present practices affect the environment. It

then emphasises how urgently sustainable change is required in front of growing environmental threats and changing consumer demands. The chapter concludes by laying the groundwork for a thorough analysis of the behavioural dynamics, facilitators, and obstacles that influence the adoption of green practices in supply chains for cosmetics.

1.2 BACKGROUND

The Indian cosmetics market includes a broad range of goods, such as makeup, skincare, hair care, and fragrances. Organic, vegan, and sustainable product lines have become more and more popular in recent years, reflecting a discernible shift in consumer behaviour towards more ecologically friendly options. The post-COVID-19 environment has greatly accelerated this shift, as increased consumer consciousness of sustainability, hygiene, and health has led to a rise in demand for "clean beauty" products—those that are cruelty-free, free of harmful ingredients, and packaged in eco-friendly or minimalistic materials.

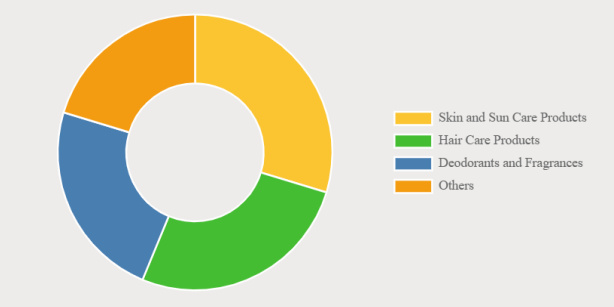

Figure 1 Indian Cosmetics Market 2023-2032(Source – Custom Market Figure)

Notwithstanding this apparent shift in the direction of sustainability, the majority of the industry's initiatives are still restricted to superficial branding tactics rather than significant operational adjustments. Green marketing strategies frequently take precedence over real green practices, as businesses advertise eco-friendly catchphrases without completely reorganising their supply chain operations. Environmentally harmful practices like the overuse of single-use plastics, manufacturing processes that rely heavily on fossil fuels, and antiquated logistical models that greatly increase waste and carbon emissions are still used in conventional cosmetic supply chains.

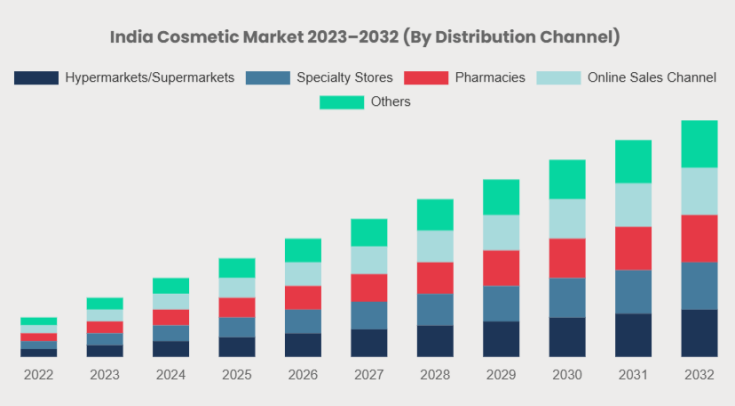

Figure 2 India Cosmetic Market By Distribution Channel 2023-2032 (Source – Statistica)

The cosmetics industry has a startling impact on the environment on a global scale. Over 120 billion units of waste are produced each year by cosmetic packaging alone, according to Zero Waste Europe. Because it is not recyclable, a large portion of this waste ends up in landfills. Less than 10% of beauty product containers are recycled successfully, according to the Ellen MacArthur Foundation (2022). This is mostly because the packaging materials used are multi-layered and composite, making recycling more difficult. Furthermore, water consumption is still a major issue in this sector because enormous volumes are utilised for cleaning, cooling, and maintenance throughout the production process in addition to product formulation. This is especially important in water-stressed areas like India, where industrial water use threatens the sustainability of resources over the long run.

Additionally, consumer behaviour is changing. According to a NielsenIQ survey, about 73% of customers worldwide are open to changing their buying patterns in order to lessen environmental harm. This development indicates a rising consumer desire for genuinely sustainable goods, which puts pressure on businesses to implement more significant adjustments as opposed to merely cosmetic ones.

Given this, Green Supply Chain Management (GSCM) becomes a holistic approach that can handle these operational and environmental issues. GSCM promotes circularity, reduces waste, and boosts overall process efficiency by integrating sustainability into every link in the supply chain, from responsible disposal to eco-efficient production, low-

emission transportation, sustainable packaging, and ethical ingredient procurement. In addition to lessening the environmental impact of cosmetic production, this holistic strategy increases stakeholder trust, brand value, and long-term profitability. Adopting GSCM is not only morally required, but also strategically necessary for Indian cosmetic enterprises, particularly those navigating a competitive and sustainability-conscious market.

1.3 RESEARCH PROBLEM

The Indian cosmetics sector is going through a period of transformation as a result of mounting demand from customers, authorities, and environmentalists to integrate sustainability into its business practices. Although environmental responsibility is becoming more widely discussed, the industry's actual application of Green Supply Chain Management (GSCM) is still dispersed and undeveloped. The majority of businesses have not yet integrated green practices throughout their entire supply chain activities, frequently as a result of unclear strategic direction, inadequate infrastructure, or a lack of transparency.

> The goal of this study is to examine how the Indian cosmetics industry's adoption of GSCM differs in implementation from intention. The main study question is: "***The goal of this study is to examine the level of consumer awareness regarding green supply chain practices in the Indian cosmetic industry, assess how this awareness varies across occupational groups, and explore the relationship between occupational status and the willingness to pay a premium for eco-friendly cosmetic products.”***

Through answering this question, the study hopes to shed light on the structural and psychological obstacles that sustainability initiatives face, as well as pinpoint workable solutions and industry best practices that could hasten the green transformation of the sector.

1.4 RESEARCH STATEMENT

Investigating the implementation and operationalisation of Green Supply Chain Management (GSCM) in the Indian cosmetics sector is the aim of this study. It focusses on identifying the external pressures, such as market rivalry, consumer expectations, and regulatory needs, as well as the internal challenges, such as cost limitations, a lack of technical competence, and opposition to change. Additionally, the study assesses the success of current green initiatives and explores how leadership, employee behaviour, and organisational culture affect the incorporation of eco-friendly practices into supply chain operations.

Research Statement :This study aims to investigate consumer awareness of green supply chain practices in the Indian cosmetic industry and examine how this awareness and the willingness to pay for eco-friendly products vary across different occupational groups. By employing statistical tools such as One-Way ANOVA and Chi-Square tests, the study seeks to identify significant occupational differences in sustainable consumption behavior, providing insights into how demographic factors influence the adoption of green cosmetic products

1.5 RESEARCH GAPS

Even while sustainability in the cosmetics business is becoming more and more important both domestically and internationally, there is still a clear lack of academic research and real-world case-based insights tailored to the Indian setting. The literature now in publication highlights a number of important gaps that demand careful examination:

1. Lack of Empirical Data on Implementation Elements: Data-driven research examining the interactions between external pressures, such as supplier capabilities, changing consumer preferences, and regulatory compliance, and internal organisational variables, such as leadership style, communication structures, and supply chain integration, is conspicuously lacking. This disparity makes it more difficult to comprehend how these

elements either support or impede the successful application of Green Supply Chain Management (GSCM) techniques in the cosmetics industry.

2. Poor Relationship Between Business Performance and GSCM: The majority of recent research fails to demonstrate a clear link between company success indicators and green supply chain strategies. More thorough research is required to examine how GSCM affects economic outcomes such operational cost reduction, market competitiveness, customer retention, and brand equity in addition to environmental performance.

3. Limited Knowledge of the Behavioural and Human Aspects: Research on GSCM has yet to adequately examine the human element. In cosmetic industries, factors like organisational readiness for change, top management commitment, staff attitudes towards sustainability, and cultural resistance are rarely thoroughly studied. It is essential to comprehend these behavioural and psychological factors when developing strategies that support a long-term supply chain change.

1.6 RESEARCH AIM

The principal objective of this research is to examine the degree to which the Indian cosmetics industry is implementing Green Supply Chain Management (GSCM) methods. This entails a thorough examination of the main obstacles to sustainable change, a critical assessment of current eco-friendly supply chain projects, and a study of the ways in which organisational conduct, leadership philosophies, and employee involvement influence the sector's transition to ecologically responsible operations.

1.7 RESEARCH OBJECTIVES

The following objectives will guide the study:

- To test whether the mean awareness of eco-friendly practices (Q6) differs significantly among different occupations.
- To test whether different occupations groups are willing to pay a premium price for the eco friendly cosmetic products

1.8 NEED FOR THE RESEARCH

The cosmetics sector in India is ideally situated to welcome a long-term change. The increasing impact of Gen Z and millennial consumers, who place a higher value on ethical sourcing, eco-friendly production, and transparency, has created a compelling commercial case for integrating sustainability into core operations in addition to a moral one.

A major obstacle still exists in spite of this momentum: many businesses struggle to discern between true Green Supply Chain Management (GSCM) initiatives and flimsy "greenwashing" strategies that provide minimal environmental value. Given this, the current study's significance becomes clear because it seeks to:

- Provide useful advice and well-defined green supply chain tactics that may be applied at different stages of the supply chain for cosmetics.
- In order to promote regulatory adherence and responsibility, help cosmetic makers and suppliers fulfil their obligations under India's Extended Producer Responsibility (EPR) framework, as required by the Ministry of Environment, Forests, and Climate Change (MoEFCC).
- Give manufacturers, retailers, investors, and consumers the resources and advice they need to balance corporate profitability with environmental stewardship, ultimately facilitating the transition to a low-impact, circular cosmetic supply chain.

1.9 ORIGINALITY AND CONTRIBUTION OF THE RESEARCH

To the best of the author's knowledge, this study is a groundbreaking attempt to examine Green Supply Chain Management (GSCM) in the context of the Indian cosmetics sector while taking operational difficulties, regulatory frameworks, and behavioural impacts into account. The study makes a number of significant contributions:

- A unique conceptual model created especially for cosmetic companies to assess and compare their degree of GSCM preparedness and usage.

- Examination of sustainability trends influenced by consumers, emphasising how changes in consumer tastes for ethical and environmentally friendly goods can act as stimulants for supply chain innovation and change.
- Practical suggestions for businesses and legislators that provide a way to implement eco-friendly practices without compromising efficiency or competitiveness while striking a balance between environmental sustainability and corporate performance.

1.10 CHAPTER OVERVIEW

This chapter provided a thorough overview of the study, outlining its goals, importance, and scope. It brought attention to the environmental issues that the cosmetics industry faces and shown how important GSCM is to solving them. A solid basis for later chapters that will explore literature review, methodology, data analysis, and useful suggestions for green transformation in Indian cosmetics was laid by the chapter's framing of the research topic, gaps, and objectives.

CHAPTER 2 – LITERATURE REVIEW

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2.1 INTRODUCTION

The Indian cosmetic industry, known for its resilience, has a rich history that stretches back to 3000 BC. Beginning with traditional methods and later evolving with modern techniques during British Colonial Rule, the industry has adapted to numerous changes over time. Today, it stands as a significant contributor to India's economy, providing employment to millions and playing a key role in export revenues. However, this growth has also brought forth challenges, particularly environmental issues related to pollution from chemicals and waste. Despite positive steps taken to address these concerns, the need for sustainable practices remains pressing.

Green Supply Chain Management (GSCM) incorporates environmental considerations at each stage of the supply chain, from sourcing raw materials to the disposal of end products. While GSCM offers advantages such as cost reduction and increased competitiveness, its adoption is not without obstacles. These include internal challenges like resistance to change, lack of awareness, limited resources, and the need to address human behavior, including reluctance to adopt new practices and insufficient environmental consciousness.

Building on the previous chapter, which explored the historical development and current landscape of India's cosmetic industry, this chapter takes a closer look at the implementation of Green Supply Chain Management (GSCM) within the sector. By conducting a thorough review of global literature and engaging with industry experts, this chapter aims to pinpoint specific challenges such as the high costs associated with sustainable practices (e.g., the use of eco-friendly dyes), performance metrics like reductions in water and energy usage, and behavioral factors, including the critical role of leadership in advancing sustainability initiatives, all of which impact the adoption of GSCM in India's cosmetic sector. Additionally, by drawing lessons from studies across various global industries, such as automotive, textiles, and electronics, this chapter offers a holistic view of the hurdles and opportunities related to adopting sustainable practices in the Indian cosmetic industry. The goal is to establish a foundation for creating customized

solutions that promote environmental responsibility and contribute to a more sustainable future for the industry.

2.2 EVOLUTION OF GREEN SUPPLY CHAIN MANAGEMENT

Green Supply Chain Management is defined as incorporating environmental concerns into supply chain activities, from product design to material sourcing and end–of–life disposal (Srivastava, 2007). Fortes (2009) strengthens this by saying that Green Supply Chain management transforms traditional supply chains into closed-loop systems, integrating reverse logistics and sustainable resource use.

Sarkis(2012) invents a new concept called “boundaries and flows” perspective in Green Supply Chain Management, stressing upon the importance of understanding the physical, informational and organizational boundaries involved in green practices. This new view allowed the firms to identify specific areas of intervention for sustainability.

Nikbakhsh (2009) and Amemba et al. (2013) concluded that the core elements of green supply chain management as green procurement, green manufacturing, green distribution and reverse logistics. Zhu, Sarkis and Lai (2007) added that Green Supply Chain Management is driven by external pressures such as regulations and internal motivations like cost savings and brand differentiation.

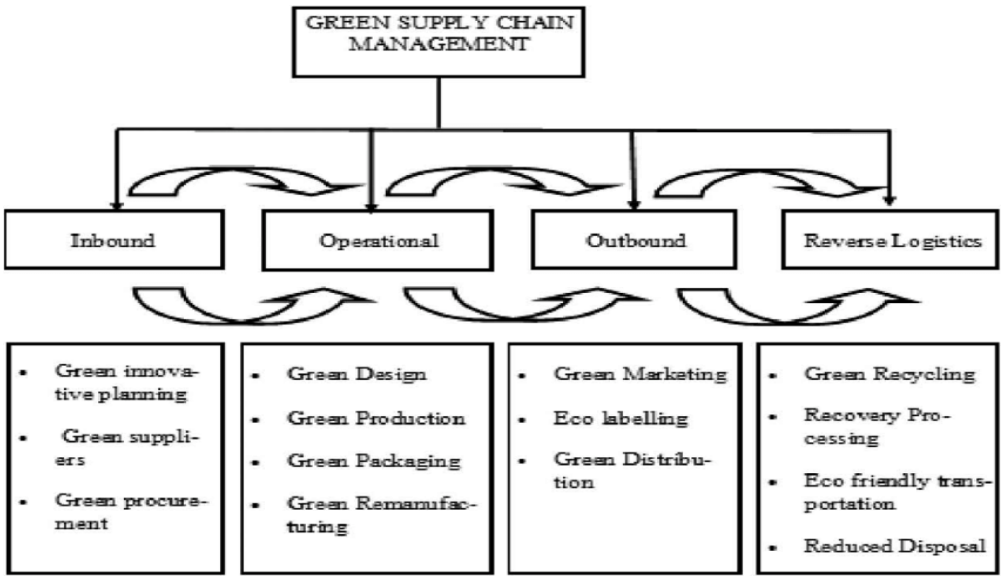

Figure 3 Green Supply Chain Management Components (Source : ResearchGate)

2.3 STRATEGIC IMPORTANCE AND DRIVERS OF GREEN SUPPLY CHAIN MANAGEMENT

GSCM adoption gives long-term competitive advantages in addition to compliance. Opportunities in cost reduction, brand reputation, and market expansion have been identified by Ho et al. (2009). According to Singh and Trivedi (2016), companies that implement proactive environmental initiatives benefit from increased regulatory goodwill and stakeholder participation.

According to Zhu, Sarkis, and Lai (2008), who validate a measurement model for GSCM implementation, businesses are better equipped to track and improve their green practices when they have clear metrics and performance indicators.

A framework outlining key drivers is presented by Diabat and Govindan (2011). These factors include cost benefits, customer pressure, government regulation, and corporate social responsibility. Their research supports that of Achillas et al. (2018), who contend that stakeholder cooperation and resource-based capabilities are essential to GSCM implementation.

2.4 BARRIERS TO GREEN SUPPLY CHAIN MANAGEMENT

Many organisations face major obstacles in spite of strategic drivers, particularly in developing economies. Tseng et al. (2019) enumerate external difficulties such supplier resistance and policy uncertainty in addition to internal obstacles like a lack of cash, technology, and experience.

These are separated into strategic and operational barriers by Jaggernath and Khan (2015). High implementation costs, the challenge of measuring green gains, and inexperienced labour are examples of operational hurdles. Low top management commitment and disjointed regulatory frameworks are examples of strategic impediments.

An Indian-specific perspective is offered by Dheeraj and Vishal (1992), who point out that the main obstacles in the Indian market are limited consumer knowledge, cultural inertia, and infrastructure shortages. Product safety regulations and packaging aesthetics add another layer of complication to the cosmetics sector.

2.5 GREEN SUPPLY CHAIN MANAGEMENT AND CUSTOMER SATISFACTION

As consumers' awareness of sustainability grows, so does their demand that brands implement environmentally responsible practices. According to Zhu et al. (2008) and Green et al. (2012), good GSCM can raise customer satisfaction by enhancing brand perception, product quality, and safety.

Through product innovation and ecological responsiveness, Guang Shi et al. (2012) use the Natural Resource-Based View (NRBV) to connect green practices with customer happiness. Purchase decisions are directly influenced by obvious green credentials like eco-labels and sustainable packaging, according to Tseng et al. (2019) and Singh & Trivedi (2016).

Nonetheless, there is still a disconnect in India between awareness and real behaviour. Businesses find it challenging to invest in GSCM without sacrificing cost, even when customers show interest in sustainable cosmetics. This is because many consumers are still price-sensitive (Zhu et al., 2007).

2.6 GREEN SUPPLY CHAIN MANAGEMENT PERFORMANCE

Strong performance measuring systems are necessary for efficient GSCM. A methodology comprising operational, financial, and environmental performance metrics is put out by Hervani et al. (2005). Organisations that track their green performance are more adaptable and successful in long-term sustainability, according to Laosirihongthong et al. (2013).

In order to improve performance, Zhu, Sarkis, and Lai (2008) emphasise how crucial it is to incorporate "closing-the-loop" methods like recycling and remanufacturing into the supply chain. In the cosmetics business, where packaging waste is a major problem, this is particularly pertinent.

2.7 THEORITICAL FRAMEWORKS SUPPORTING GREEN SUPPLY CHAIN MANAGEMENT

Adoption of GSCM is supported by several theoretical models:

- **Resource-Based View (RBV):** Businesses use their own resources to gain a long-term edge (Guang Shi et al., 2012).
- **Institutional Theory:** GSCM is driven by external forces such as laws and customer expectations (Sarkis et al., 2011).
- **Stakeholder Theory:** Effective GSCM requires cooperative interaction with suppliers, consumers, and regulators (Diabat & Govindan, 2011).

These frameworks help to explain why certain Indian cosmetic companies embrace GSCM early on, while others fall behind because of perception and capacity gaps.

2.8 RESEARCH GAPS

Although Green Supply Chain Management is becoming more and more popular across industries, there isn't much study that focusses on the Indian cosmetics industry particularly. The majority of research is either focused on manufacturing or has a global reach. Additionally, there aren't many empirical research that examine the relationship between customer satisfaction and adoption obstacles in the Indian setting.

By incorporating data from supply chain players and consumers, this study attempts to close that gap by investigating the obstacles to GSCM adoption and customer satisfaction in the Indian cosmetics business.

2.9 CONCLUSION

A mix of operational obstacles, market expectations, and strategic drivers affect the adoption of GSCM. Although GSCM can improve economic and environmental performance, its success hinges on resolving adoption issues and bringing practices into line with client demands. The research approach used to empirically examine these dynamics in the Indian cosmetics business will be described in the following chapter.

CHAPTER 3 – RESEARCH METHODOLOGY

CHAPTER 3- RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter presents a detailed overview of the research methodology adopted for the study, including the research framework, data gathering techniques, sampling strategy, and the analytical instruments used to explore the challenges hindering the implementation of Green Supply Chain Management (GSCM) practices in India's cosmetic sector. It further investigates how these practices influence customer satisfaction and organizational performance. In addition, this chapter critically evaluates the constraints and limitations inherent in the selected methodological approach and offers a rationale for the choices made throughout the research process, ensuring the validity and reliability of the study's findings.

3.2 RESEARCH DESIGN

In order to methodically investigate the statistical relationship between the difficulties encountered when putting Green Supply Chain Management (GSCM) methods into practice and their ensuing impact on consumer satisfaction in the Indian cosmetics industry, the study used a quantitative research technique. The ability of this approach to produce numerical data, validate hypotheses, and identify patterns or correlations among variables—all crucial components in assessing the impact of different adoption obstacles on customer attitudes and satisfaction levels—led to its selection.

Standardised questionnaires like google form and other structured data collecting tools were used to get reliable and quantifiable answers. This method made it easier to spot patterns, which allowed researchers to make unbiased, broadly applicable findings. The results are intended to both enhance scholarly discussions and provide practical advice to players in the cosmetics sector who are trying to strike a balance between customer-centric tactics and environmental responsibility.

3.3 DATA COLLECTION METHODS

A systematic survey with 19 essential questions was created for the purpose of gathering data. These questions focused on two primary topics: (1) the perceived difficulties and barriers to implementing green supply chain processes, and (2) customer expectations with regard to sustainability in the cosmetics sector. The purpose of the study was to collect opinions from cosmetic brand users residents who frequently purchase cosmetic products.

To reach a large audience, the poll was disseminated online through social media and email. Within a certain geographic area, this method made data collection more effective and economical. Confidentiality was ensured for participants, and all ethical guidelines for administering the survey were followed.

3.4 SAMPLING FRAMEWORK

The study concentrated on a particular demographic group of southern Indian men and women who regularly use cosmetic items and are at least 18 years old. This specific market niche was picked because it comprises a significant and powerful portion of the urban customer base, whose purchase decisions are frequently influenced by brand consciousness, lifestyle trends, and growing sustainability awareness.

A non-probability convenience sampling method was used to find survey respondents. Time, financial, and logistical constraints led to the decision that this sample strategy was suitable. Convenience sampling worked well for getting timely and pertinent responses from a specific group, even though it would lessen the findings' overall representativeness. Without the need for intricate randomisation procedures, the method allowed the researcher to quickly obtain insights.

For the final analysis, 77 valid survey responses in all were gathered. The sample size was sufficient to perform statistical tests, spot new trends, and draw first conclusions that support the goals of the study, even though it might not be large enough to permit generalisations that apply to the whole Indian cosmetics market.

3.5 PROFILE OF RESPONDENTS

Understanding the demographic and socio-economic background of respondents is crucial for interpreting their perceptions and responses in the context of this research study titled *"*Consumer Awareness And Willingness To Pay For Green Supply Chain Practices In The Indian Cosmetic Industry: An Occupational Analysis.*"* The profile of the respondents provides meaningful insights into the characteristics of the sample population and forms the basis for analyzing their awareness, attitudes, and behaviors regarding sustainable supply chain practices in the cosmetics sector.

The data collected through a structured questionnaire has been categorized and analyzed under the following parameters: gender, age, educational qualification, occupation, and monthly income.

3.5.1 GENDER OF THE RESPONDENTS

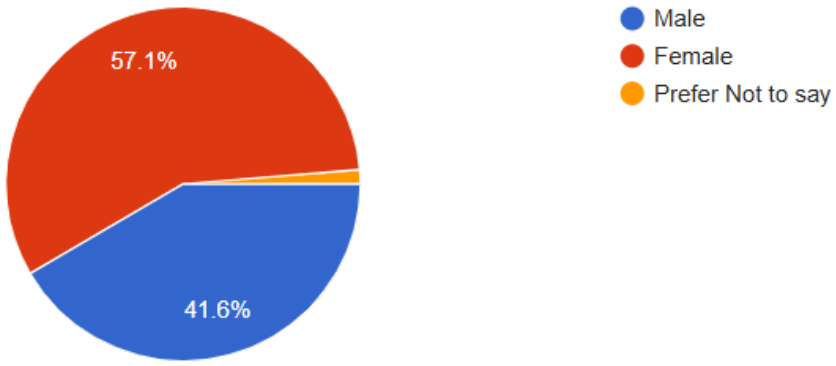

Figure 4 Gender of respondents(Source- Survey)

A total of 57% of the respondents were female, while 41% were male. This indicates a higher participation of female consumers in the survey, which is consistent with the consumer demographics of the cosmetic industry, where women are generally more engaged in cosmetic product usage and purchases. Their opinions are particularly significant for evaluating the acceptance and demand for green supply chain practices in the sector.

3.5.2 AGE GROUP OF RESPONDENTS

The age-wise distribution shows that 32.5% of the respondents belong to the age group of 21-30 years, followed by 23.4% from 31-40 years, 20.8% from 41-50 years, and the remaining 20% are below 20 years of age. This highlights that the younger population constitutes the majority of the sample, suggesting that younger consumers are more likely to engage with the topic of sustainability and are potentially more aware and supportive of eco-friendly initiatives in supply chains.

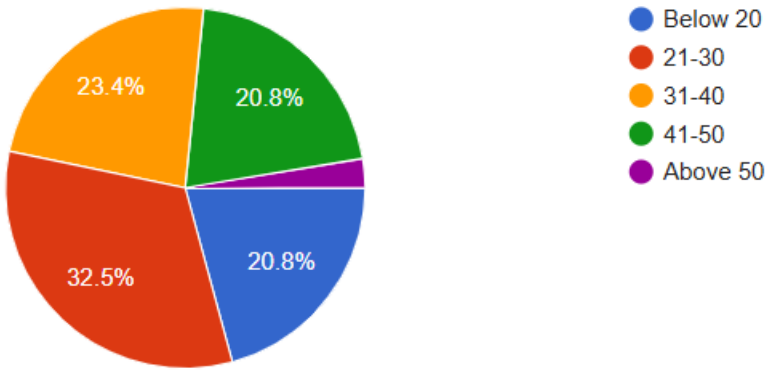

Figure 5 Age Group of respondents(Source – Survey)

3.5.3 OCCUPATION OF RESPONDENTS

The survey collected data from 37.7% working professionals, 29.9% students , followed by 16.9% self-employed people. This shows that working professionals are more likely to spend on cosmetics than the people who are dependent on others.

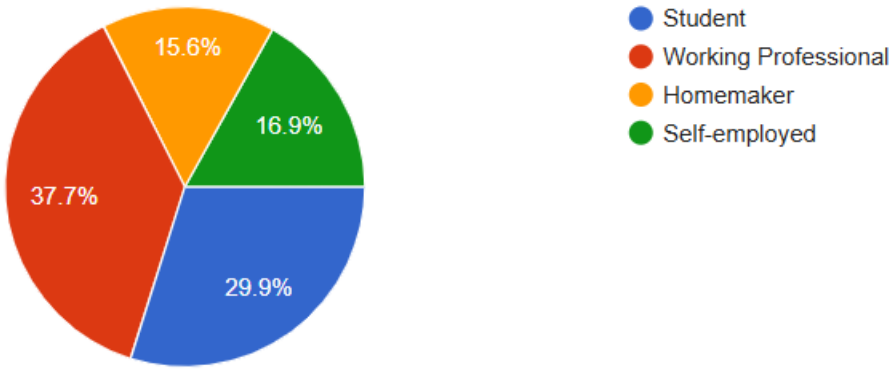

Figure 6 Occupation of respondents(Source- Survey)

3.5.4 FREQUENCY OF PURCHASE

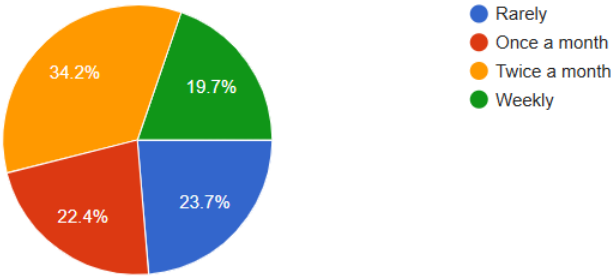

Figure 7 Frequency of Purchase(Source- Survey)

The overall distribution shows a diverse pattern of cosmetic purchasing behavior:

- Over **half (56.6%)** of the respondents purchase cosmetics either once or twice a month, indicating a relatively regular consumer base.
- Only **19.7%** of the sample exhibits high-frequency (weekly) purchases, suggesting that while daily or high-usage consumers exist, they are fewer.

- The significant **23.7%** who purchase rarely reflect a potentially untapped or low-engagement market segment.

3.6 DATA ANALYSIS

To evaluate the awareness of eco-friendly practices across different occupational groups, a One-Way Analysis of Variance (ANOVA) was employed. This statistical method is suitable for determining whether there are any statistically significant differences between the means of three or more independent (unrelated) groups.

The independent variable in this study is occupation, categorized into various groups such as students, professionals, homemakers, business persons, and others. The dependent variable is the level of awareness of eco-friendly practices, which was measured using a structured questionnaire and quantified on a Likert scale.Before proceeding with the ANOVA, the data was checked for assumptions, including:

- Normality: The distribution of awareness scores within each occupational group was assessed using visual plots and the Shapiro-Wilk test. The data showed approximate normality.
- Homogeneity of Variances: Levene's Test was conducted to verify the assumption of equal variances across the groups. The results indicated that the assumption was met, justifying the use of One-Way ANOVA.

The ANOVA test was then applied to compare the mean awareness scores among the occupational groups. The test produced an F-statistic and corresponding p-value to determine statistical significance. A significance level of $\alpha = 0.05$ was used as the threshold.

If the ANOVA revealed a statistically significant difference ($p < 0.05$), a post-hoc analysis (Tukey's HSD) was conducted to identify which specific occupational groups differed from each other in terms of awareness levels.

All data analysis was performed using Excel and the findings are presented in the subsequent section.

3.7 VARIABLES

This study investigates the level of awareness regarding eco-friendly practices among individuals belonging to different occupational groups. The variables in this research are classified into two categories: **independent** and **dependent**.

3.7.1 Independent Variable

- **Occupation**:
  This is the categorical independent variable, representing the different professional backgrounds of the respondents. For the purpose of analysis, occupations were grouped into the following categories:
    - Students
    - Working professionals
    - Homemakers
    - Businesspersons
    - Others (including retirees, freelancers, etc.)

These groups serve as the basis for comparing the level of eco-awareness.

3.7.2 Dependent Variable

- **Awareness of Eco-Friendly Practices**:
  This is the continuous dependent variable, measured using a structured questionnaire designed to assess respondents' awareness of environmentally sustainable practices. The questionnaire includes items related to recycling, waste reduction, sustainable consumption, use of eco-friendly products, and general environmental consciousness.
  Responses were recorded using a 5-point Likert scale ranging from:
  - 1 = Very Low Awareness
  - 2 = Low Awareness
  - 3 = Moderate Awareness
  - 4 = High Awareness
  - 5 = Very High Awareness

An aggregate awareness score was calculated for each respondent by averaging the responses to the relevant items. This score represents the individual's level of eco-awareness and was used in the ANOVA analysis.

3.8 ETHICAL CONSIDERATIONS

Strict ethical guidelines were adhered to during the entire study to safeguard the participants' rights and welfare. Before taking part, participants received a thorough explanation of the study's goals, the fact that participation was entirely voluntary, and their freedom to withdraw at any time without incurring any extra costs. Participants were given the assurance that all answers would be kept private and that no personally identifying information would be shared or recorded in order to uphold transparency and integrity. By not collecting names, contact information, or other sensitive identifiers, anonymity was maintained. Furthermore, official ethical clearance was obtained from the appropriate

institutional ethics committee, guaranteeing compliance with globally and domestically accepted ethical guidelines pertaining to research involving human participants.

3.9 LIMITATIONS OF THE STUDY

Despite using a methodical and structured approach, the study has some drawbacks that should be noted:

1. Since the sample might not accurately reflect the variety of consumer profiles, the use of non-probability convenience sampling may limit the extent to which the findings may be extrapolated to the larger population of Indian consumers of cosmetic products.

2. Self-administered questionnaires were used to collect data, and these can be prone to response bias in a number of ways, such as respondents' propensity to present themselves favourably or misinterpret specific questions, which could impair the accuracy and objectivity of the findings.

3. Due to the study's restricted geographic focus to South India, it may have failed to account for regional variations in consumer understanding, attitudes, and behaviours with regard to environmentally sustainable supply chain methods in other regions of the nation.

4. The findings' wider applicability and cross-industry significance may be limited because the research was solely focused on the cosmetics industry, meaning that the insights gained might not be directly applicable to other industries.

3.10 JUSTIFICATION FOR METHODOLOGY

The chosen research approach successfully matched the goals of the study and offered a thorough way to investigate the barriers to the adoption of green supply chain techniques in the Indian cosmetics sector. By using a quantitative method, it was possible to gather actual, data-driven insights and conduct a systematic analysis of these obstacles and their effects on customer satisfaction. One way ANOVA and the structured survey design provided a clear framework for determining and assessing the degree of correlations between important variables. Despite the methodology's inherent limitations, it provided a

strong analytical foundation for identifying the barriers to and possible facilitators of the adoption of green supply chains in this rapidly changing sector.

3.11 CONCLUSION

This chapter gave an extensive overview of the study's methodology, including the research design, data gathering methods, sample plan, and analytical instruments utilised. In the context of India's cosmetic industry, it described the systematic technique used to look into the challenges faced in implementing green supply chain procedures and how these difficulties affect customer satisfaction. The results of the analysis will be discussed in the following chapter, together with important conclusions drawn from the data gathered.

CHAPTER 4 – DATA ANALYSIS AND INTERPRETATION

CHAPTER 4 - DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

This study employs a quantitative research methodology to examine whether there are statistically significant differences in the level of awareness regarding eco-friendly practices across various occupational groups. Also, another primary objective was to determine whether awareness levels differ significantly across gender groups and how different occupation people are willing to pay a premium price for green cosmetic products. To achieve this objective, the following statistical approach was adopted:

4.1.1 DESCRIPTIVE STATISTICS

Initially, descriptive statistics were computed to summarize the demographic characteristics of the sample and the awareness scores. This includes the calculation of:

- Mean and standard deviation of awareness scores within each occupational group.
- Frequencies and percentages for categorical demographic variables (e.g., age, gender, education level, occupation).

This step provides a foundational understanding of the data distribution and general trends in eco-awareness.

4.1.2 TESTING ASSUMPTIONS FOR ANOVA

Before conducting the One-Way Analysis of Variance (ANOVA), the following assumptions were evaluated to ensure the validity of the test:

- **Independence of observations:** It was ensured through proper sampling design that responses from individuals were independent of one another.

- **Normality:** The normal distribution of awareness scores within each occupational group was assessed using visual methods (histograms and Q-Q plots) and the Shapiro-Wilk test. This was to confirm that the data did not deviate significantly from a normal distribution.
- **Homogeneity of variances**: Levene's Test for Equality of Variances was used to examine whether the variance of awareness scores was equal across all occupational categories. A non-significant result ($p > 0.05$) was considered as meeting this assumption.

4.1.3 ONE-WAY ANOVA

The primary inferential statistical tool used was the One-Way Analysis of Variance (ANOVA). This method is appropriate for comparing the means of more than two independent groups. In this context, ANOVA was applied to determine whether the mean awareness scores significantly differed among the occupational groups.

The ANOVA model can be expressed as:

$$Y_{ij} = \mu + \tau_i + \epsilon_{ij}$$

Where:

- Y_{ij} = Awareness score of the j-th respondent in the i-th occupational group
- μ = Overall mean awareness score
- τ_i = Effect of the i-th occupational group
- ϵ_{ij} = Random error associated with each observation

A significance level of **α = 0.05** was used. If the p-value from the ANOVA F-test was less than 0.05, the null hypothesis (that there is no difference in awareness across occupations) was rejected.

4.1.4 POST-HOC ANALYSIS

In the event that the ANOVA yielded a statistically significant result, a **post-hoc multiple comparison test** was conducted to identify specific group differences. The **Tukey's Honestly Significant Difference (HSD)** test was chosen for this purpose, as it controls the family-wise error rate and is appropriate for pairwise comparisons across multiple groups.

4.1.5 SOFTWARE TOOLS

All statistical analyses were conducted using Microsoft Excel, which facilitated both the descriptive and inferential statistical procedures. Graphical representations such as box plots and bar charts were used to visually interpret the differences in awareness levels across occupational groups.

4.2HYPOTHESIS TESTING OVERVIEW

To investigate the impact of occupation on the scores, the following hypotheses were established:

- **Null Hypothesis (H_0):**
  There is no significant difference in the mean scores among the four occupational groups.
  Mathematically, H_0: $\mu_1 = \mu_2 = \mu_3 = \mu_4$
- **Alternate Hypothesis (H_1):**
  At least one group has a mean score that significantly differs from the others.
  That is, H_1: $\mu_i \neq \mu_j$ for some $i \neq j$

 Independent Variable:

The independent variable is the **type of occupation**, categorized into four groups:

Student, Homemaker, Self-employed, and Working Professional.

 Dependent Variable:

The dependent variable is the **score or average score** obtained by individuals from each group in awareness.

4.3DESCRIPTIVE STUDY SUMMARY

A summary table was created to display the number of participants (count), the total sum of scores, the mean score, and the variance for each occupational group. These descriptive statistics are outlined below:

Table 1 Summary Table for ANOVA- Occupation wise

Group	Count	Sum	Average	Variance
Student	23	73	3.17	1.88
Homemaker	12	29	2.42	1.90
Self-employed	13	28	2.15	1.47
Working Professional	29	78	2.69	2.01

These statistics show minor variations in mean scores across groups, but statistical testing is required to determine if such variations are significant.

4.4ANOVA TEST RESULTS

The ANOVA test was conducted to determine if the observed differences in average scores across the groups are statistically significant.

Table 2 ANOVA Table-Occupation wise

Source of Variation	SS (Sum of Squares)	df (Degrees of Freedom)	MS (Mean Squares)	F-value	P-value	F crit (Critical Value)
Between Groups	10.0096	3	3.3366	1.7894	0.1567	2.7300
Within Groups	136.1202	73	1.8647			
Total	146.1299	76				

4.5 GENDER WISE STUDY- HYPOTHESIS FORMULATION

- **Null Hypothesis (H_0):** There is no significant difference in awareness of green practices among the different gender groups.

- **Alternative Hypothesis (H_1):** There is a significant difference in awareness of green practices among the different gender groups.

4.6 GENDER WISE STUDY – ANOVA RESULTS

Table 3 ANOVA Summary - Gender wise

SUMMARY				
Groups	*Count*	*Sum*	*Average*	*Variance*
Male	32	80	2.5	1.870968
Female	44	127	2.886364	1.917019
Prefer not to say	1	1	1	insignificant

Table 4 ANOVA TABLE - Gender Wise

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	5.698052	2	2.849026	1.501283	0.229552	3.120349
Within Groups	140.4318	74	1.897727			
Total	146.1299	76				

4.7CHI SQUARE TEST

Following the one-way ANOVA conducted to examine awareness of eco-friendly cosmetic products across occupational groups, a Chi-Square test was employed to determine whether **occupation influences the willingness to pay more** for such products.

The test was applied to categorical data collected from 77 respondents across four occupational categories: homemakers, self-employed individuals, students, and working professionals. The participants were categorized based on their response to willingness to pay extra for eco-friendly products as **High**, **Low**, or **Neutral**.

OBSERVED AND EXPECTED FREQUENCIES

The observed frequencies varied among occupations. Notably, working professionals had the highest proportion of respondents willing to pay more (27), whereas the number of neutral responses was zero in this group. The expected frequencies were calculated based on the assumption of independence between occupation and willingness.

Table 5 Observed Values of Chi Square Test

OCCUPATION	High	Low	Neutral	Grand total
Home maker	7	2	3	12
Self employed	7	2	4	13
Student	14	5	4	23
Working Professional	27	2	0	29
Total	55	11	11	77

Table 6 Expected Values of Chi Square Test

OCCUPATION	**High**	**low**	**neutral**	**total**
Home maker	8.571429	1.714286	1.714286	12
Self employed	9.285714	1.857143	1.857143	13
Student	16.42857	3.285714	3.285714	23
Working Professional	20.71429	4.142857	4.142857	29
Grand total	55	11	11	77

Table 7 Chi Square Component Table

Occupation	**High Component**	**Low Component**	**Neutral Component**	**Row Total**
Home maker	$(7–8.571)^2$ / 8.571 = 0.288	$(2–1.714)^2$ / 1.714 = 0.045	$(3–1.714)^2$ / 1.714 = 0.967	**1.3**
Self-employed	$(7–9.286)^2$ / 9.286 = 0.563	$(2–1.857)^2$ / 1.857 = 0.011	$(4–1.857)^2$ / 1.857 = 2.466	**3.04**
Student	$(14–16.429)^2$ / 16.429 = 0.359	$(5–3.286)^2$ / 3.286 = 0.891	$(4–3.286)^2$ / 3.286 = 0.159	**1.41**

Working Prof.	$(27–20.714)^2$ / 20.714 = 1.905	$(2–4.143)^2$ / 4.143 = 1.109	$(0–4.143)^2$ / 4.143 = 4.143	**7.16**
Total χ^2				**12.91**

Table 8 Chi Square Results

Occupation	Chi-Square Components Total
Home maker	1.30
Self-employed	3.04
Student	1.41
Working Professional	7.16
Total χ^2	**12.91**

The calculated Chi-Square value is $\chi^2 = 12.91$.

- **Degrees of freedom (df):** $(4-1)(3-1) = 6$
- **Critical value at $\alpha = 0.05$:** 12.592

Since the calculated Chi-Square value **(12.91)** is **greater** than the critical value **(12.592)** at 0.05 significance level, the result is **statistically significant**.

4.8 INTERPRETATION OF RESULTS

4.8.1 ONE WAY ANOVA – OCCUPATION WISE

The primary aim of this hypothesis testing was to determine whether there is a statistically significant difference in the average scores of individuals across four occupational groups: Students, Homemakers, Self-employed, and Working Professionals.

Let us examine each element of the ANOVA output to interpret the findings comprehensively.

1. Between Groups Sum of Squares (SS = 10.0096)

This value represents the amount of variation in the scores that can be explained by the differences between the groups (occupations). A larger value here would typically indicate that group membership (i.e., occupation) is associated with larger differences in scores.

2. Within Groups Sum of Squares (SS = 136.1202)

This reflects the amount of variation that occurs within each group. In other words, it captures the natural variation in scores among individuals in the same group. A large within-group SS means that there is considerable variability in scores that cannot be explained by the group differences.

3. Total Sum of Squares (SS = 146.1299)

This is the overall variation in the data and is equal to the sum of Between Groups SS and Within Groups SS. It shows the total variability in all the observations regardless of group membership.

4. Degrees of Freedom (df)

- Between Groups df = 3: Since there are four groups, degrees of freedom = k - 1 = 4 - 1 = 3
- Within Groups df = 73: This is based on the total number of observations minus the number of groups, i.e., N - k = 77 - 4 = 73
- Total df = 76

5. Mean Square (MS)

- MS Between = 3.3366: This is calculated by dividing the Between Groups SS by its degrees of freedom (10.0096 / 3).
- MS Within = 1.8647: This is calculated by dividing the Within Groups SS by its degrees of freedom (136.1202 / 73).

These mean squares represent average variances: MS Between captures variance due to group differences, and MS Within captures random or unexplained variance.

6. F-value = 1.7894

The F-statistic is the ratio of MS Between to MS Within:

$$F = \frac{MS_{\text{Between}}}{MS_{\text{Within}}} = \frac{3.3366}{1.8647} \approx 1.7894$$

An F-value close to 1 implies that the variation between the group means is similar to the variation within the groups, which weakens the case for rejecting the null hypothesis.

7. P-value = 0.1567

This is the probability of obtaining an F-value as large as (or larger than) the one computed, assuming that the null hypothesis is true. A p-value of 0.1567 means there is a 15.67% chance that such a result could happen due to random variation.

Since this p-value is greater than the common alpha level of 0.05, we fail to reject the null hypothesis. This indicates no significant difference among the group means.

8. F Critical = 2.7300

This is the threshold F-value for rejecting the null hypothesis at a 5% significance level ($\alpha = 0.05$) with the given degrees of freedom ($df_1 = 3$, $df_2 = 73$). Since our computed F-value (1.7894) is less than the critical value (2.7300), we do not have sufficient evidence to reject the null hypothesis

- The differences in average scores among Students, Homemakers, Self-employed, and Working Professionals are not statistically significant.
- The variation within each group is much larger than the variation between the groups.
- Even though Students (mean = 3.17) scored slightly higher on average than the other groups, this difference is not large enough to conclude that occupation has a real impact on scores in the population.

4.8.2 GENDER WISE STUDY:

The F-value obtained was 1.501, and the p-value was 0.229, which is greater than the significance level of 0.05. This implies that there is no statistically significant difference in the awareness of green practices among the different gender groups.

Thus, the null hypothesis is not rejected, and it can be concluded that gender does not significantly influence awareness of green practices in the Indian cosmetic industry based on the sample data.

Despite some differences in average awareness scores (Female = 2.89, Male = 2.50), these are not statistically significant.

4.8.3 CHI SQUARE TEST:

The findings reveal a **statistically significant association** between occupation and the willingness to pay more for eco-friendly cosmetic products. This suggests that consumer attitudes and purchasing behavior related to sustainability vary notably by occupational status.

For instance, working professionals showed a higher tendency to pay extra, which may be attributed to higher disposable income, exposure to sustainability narratives, or personal values. Conversely, homemakers and self-employed individuals showed more balanced or neutral responses, potentially reflecting differences in budget priorities or awareness.

CHAPTER 5 – RECOMMENDATIONS AND CONCLUSION

CHAPTER 5: RECOMMENDATIONS AND CONCLUSION

5.1 INTERPRETATION OF KEY FINDINGS

The purpose of this study was to investigate how Indian consumers observe green supply-chain processes in the cosmetics business and whether awareness and support for eco-friendly products vary by occupational category. Based on the analysis, each group's awareness levels were comparatively similar. However, a significant difference was found in the readiness to pay more for environmentally friendly cosmetics, with working professionals showing a greater inclination than others.

These findings imply that consumers are becoming more conscious of environmental issues, but not all of them are equally driven or financially secure to take action. This is primarily because the companies do not have targeted marketing based on different genders and occupations. Since, it is also revealed by the study that working professionals are willing to pay a premium price for green initiatives, targeted marketing by the company could ensure a better reach for the customers. It highlights the disconnect between consumer behaviour and knowledge and suggests that demographic variables like income or occupation may affect a person's propensity to support sustainable projects.

Two theoretical frameworks—the Resource-Based View (RBV) and Stakeholder Theory—may help us better understand this consumer behaviour. They both provide information on how companies should match internal resources with external demands in order to gain a competitive edge and attain sustainability.

5.2 DISCUSSIONS OF THE THEORY

5.2.1 RESOURCE BASED VIEW

RBV highlights that a company's capacity to develop and leverage distinctive internal skills is the key to long-term success. Clean manufacturing techniques, eco-friendly packaging, and sustainable sourcing can all be strategic assets that give businesses a distinct competitive advantage in the context of green supply chain management.

The results of this survey indicate that some customer groups are prepared to pay more for

environmentally friendly goods. This suggests that cosmetic firms who build and enhance these capabilities are not just fulfilling environmental standards but also setting themselves up for increased distinction and brand loyalty.

5.2.2 STAKEHOLDER THEORY

According to stakeholder theory, businesses should take into account the interests of everyone who can be impacted by their operations, not only shareholders. These consist of suppliers, customers, authorities, and the general public. Brands must actively engage their stakeholders and meet their expectations as customer knowledge grows and preferences shift towards sustainable and ethical products.

According to the report, modern consumers—especially professionals and students—are starting to play a bigger role in sustainability. For companies, this entails more than merely highlighting their green credentials; it calls for sincere involvement, openness, and ethical business practices that complement customer values.

5.3 IMPLICATIONS FOR SUPPLY CHAIN PARTNERS

5.3.1 COSMETIC BRANDS

Cosmetic brands need to understand that, according to RBV, green practices may become value-creating capabilities when backed by strategic investment.

Beyond education, marketing initiatives can concentrate on fostering openness and trust through the use of eco-labels, certifications, and obvious sustainability initiatives.

5.3.2 LEADERS IN SUPPLY CHAIN

For Leaders in the Supply Chain Strengthening supplier partnerships is necessary to integrate sustainability throughout the whole value chain.

Customers should be effectively informed about supply chain enhancements, which will reaffirm the brand's dedication to environmental responsibility.

5.3.3 REGARDING POLICYMAKERS

The discrepancy between understanding and action highlights the need for supportive laws and incentives, like tax breaks, green certifications, and awareness-raising initiatives.

Green supply chains can be expanded throughout the industry with the support of government initiatives that help small and mid-sized businesses implement sustainable practices.

5.4 RECOMMENDATIONS

The following approaches are suggested in light of the study's findings and theoretical foundation:

- **Develop Internal Green Capabilities**
  Cosmetic companies should invest in internal technology and expertise to support environmentally friendly packaging and production. These ought to be regarded as long-term resources.
- **Effectively Engage Stakeholders:**
  Through education programs, transparency reports, and feedback surveys, customers should be included in the brand's sustainability journey.
- **Target and Segment:**
  Customised message and high-end green product lines can be used to target professionals and students who demonstrate understanding and a willingness to pay.
- **Work Together Throughout the Supply Chain:**
  Businesses should collaborate with logistics companies and eco-compliant suppliers to encourage sustainability accountability and consistency.

- **Look for Policy Assistance**
  Businesses should aggressively pursue government partnerships and advocate for laws that encourage ecologically conscious operations.

5.5 STUDY CONTRIBUTIONS

This study contributes to the expanding body of research on sustainable consumer behavior in emerging nations. The study provides two perspectives by concentrating on the Indian cosmetics sector and integrating both RBV and Stakeholder Theory: how businesses may build their internal strengths and how they can satisfy growing external demands.

The occupational lens used here offers useful information for strategy and segmentation, especially for marketers trying to match consumer preparedness with green initiatives.

5.6 FUTURE RESEARCH OPPORTUNITIES

Future research can:

- To uncover real-world implementation issues, broaden your scope to include supply chain managers and company executives.
- Examine how brand loyalty, trust, and values affect consumers' decisions to buy green products.
- Compare the green behaviour of mass-market and premium segments, or urban and rural consumers.
- Use a combination of quantitative and qualitative methodologies to better understand the driving forces behind sustainable consumption.

5.7 CONCLUSION

Although consumer segments are growing more aware of sustainable practices, the research shows that only some groups are ready to put that knowledge into practice, especially those with greater disposable income and exposure to sustainability narratives. It is evident from using RBV that businesses can obtain a competitive advantage by turning

green practices into core competencies. Stakeholder theory, on the other hand, emphasises that client expectations are changing and need to be proactively met.

Cosmetic firms must invest in real, transparent, and quantifiable sustainability initiatives in order to stay relevant and competitive—not just for compliance or goodwill, but also for strategic growth in a consumer market that is increasingly conscious.

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ANNEXURE

QUESTIONNAIRE

Section 1: Basic Information

Q1. Age *(Multiple choice)*

- Below 20
- 21–30
- 31–40
- 41–50
- Above 50

Q2. Gender *(Multiple choice)*

- Male
- Female
- Prefer not to say

Q3. Occupation *(Multiple choice)*

- Student
- Working Professional
- Homemaker
- Self-employed
- Others (Short answer option to specify)

Q4. Monthly Income (INR) *(Multiple choice)*

- Less than 20,000

- 20,001–40,000
- 40,001–60,000
- 60,001–80,000
- Above 80,000

Q5. How often do you purchase cosmetic products? *(Multiple choice)*

- Rarely
- Once a month
- Twice a month
- Weekly

Section 2: Awareness and Perception of Green Practices

(All questions below - "Linear scale" type: 1 to 5, where 1 = Strongly Disagree and 5 = Strongly Agree)

Q6. I am aware of eco-friendly practices followed by cosmetic brands.

Q7. I actively look for "green" certifications (e.g., cruelty-free, eco-friendly packaging) while purchasing cosmetics.

Q8. I believe that sustainable supply chain practices add value to cosmetic products.

Q9. I am willing to pay more for cosmetics that are manufactured using sustainable practices.

Section 3: Perceived Barriers to Green Supply Chain Adoption

(Linear scale: 1 = Strongly Disagree, 5 = Strongly Agree)

Q10. High cost of green supply chain implementation is a major barrier for cosmetic companies.

Q11. Lack of customer awareness discourages brands from investing in green practices.

Q12. Green supply chains are complex and difficult for cosmetic brands to manage.

Q13. Lack of government incentives affects the adoption of green supply chains.

Q14. Limited availability of eco-friendly raw materials hinders green supply chain adoption.

Section 4: Customer Expectations

(Linear scale: 1 = Strongly Disagree, 5 = Strongly Agree)

Q15. I expect cosmetic brands to adopt eco-friendly manufacturing and supply chain practices.

Q16. I expect brands to disclose their sustainability initiatives clearly.

Q17. I believe that brands should prioritize using recyclable or biodegradable packaging.

Q18. I expect brands to minimize their carbon footprint during production and transportation.

Q19. I prefer buying from brands that demonstrate responsibility towards environmental sustainability.

Section 5: Purchase Behavior (Optional)

(Linear scale: 1 to 5 as described)

Q20. How likely are you to switch brands if your preferred brand does not adopt green supply chain practices?

(1 = Very Unlikely, 5 = Very Likely)

Q21. How important is sustainability compared to price when buying cosmetics?

(1 = Not important at all, 5 = Extremely important)