

# ASSESSING THE IMPACT OF GREEN MARKETING ON FMCG SALES IN ERNAKULUM

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## Abstract

Green marketing has gained prominence as consumers become increasingly conscious of environmental sustainability. This study assesses the impact of green marketing strategies on the sales performance of Fast-Moving Consumer Goods (FMCG) in Ernakulam. The research examines how eco-friendly packaging, sustainable sourcing, green branding, and consumer awareness influence purchasing decisions and overall sales growth. Through a mixed-method approach, data is collected from FMCG companies and consumers in Ernakulam to analyze the effectiveness of green marketing initiatives. The findings highlight that consumers are more inclined to purchase eco-friendly products when they perceive them as beneficial to the environment and their well-being. Additionally, companies that adopt green marketing strategies experience improved brand loyalty and market competitiveness. However, challenges such as higher production costs and consumer skepticism regarding green claims are also explored. The study contributes to understanding the role of green marketing in shaping consumer behavior and provides insights for FMCG companies to enhance their sustainability-driven marketing efforts.

## Keywords

Green Marketing, FMCG Sales, Eco-Friendly Products, Sustainable Consumer Behavior, Green Branding, Environmental Awareness.

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## Introduction

Green marketing has emerged as a significant business strategy in response to growing environmental concerns and consumer demand for sustainable products. Companies across industries, particularly in the Fast-Moving Consumer Goods (FMCG) sector, are increasingly incorporating green marketing initiatives to align with the evolving preferences of eco-conscious consumers. Green marketing involves the promotion of products that are environmentally friendly, sustainable, and ethically produced. This includes practices such as eco-friendly packaging, reduced carbon footprint in production, sustainable sourcing of raw materials, and transparent communication about the environmental benefits of the products. The FMCG sector, which includes essential products such as food, beverages, personal care items, and household goods, has seen a paradigm shift in marketing strategies due to the rising importance of sustainability.

In Ernakulam, a major commercial hub in Kerala, consumer awareness regarding environmental issues has been steadily increasing. This has led to a shift in

purchasing behavior, with more consumers opting for eco-friendly FMCG products. Companies have responded by incorporating green branding strategies, emphasizing their commitment to sustainability through certifications, recyclable packaging, and organic product lines. However, despite the growing interest in green products, challenges such as price sensitivity, skepticism regarding green claims, and the availability of sustainable alternatives continue to impact consumer decision-making. Understanding the impact of green marketing on FMCG sales in Ernakulam is crucial for businesses to optimize their marketing strategies and drive consumer engagement. This study aims to assess the effectiveness of green marketing strategies in influencing FMCG sales in Ernakulam. It examines key factors such as consumer perception, brand trust, and market competitiveness that play a role in the success of green marketing efforts. Additionally, it explores the challenges faced by FMCG companies in implementing sustainable practices and the potential long-term benefits of adopting environmentally responsible marketing approaches. By analyzing consumer responses and

industry trends, this research seeks to provide insights into how businesses can enhance their green marketing initiatives to achieve both economic growth and environmental sustainability.

### Literature Review

Recent research indicates that green marketing strategies significantly influence consumer purchasing behavior in the FMCG sector. Tariq et al. (2023) conducted a bibliometric analysis of green marketing trends, highlighting the growing consumer demand for sustainable products. Their study emphasizes that businesses adopting eco-friendly product designs, packaging, and promotional strategies experience an increase in consumer trust and loyalty (Tariq, Ahmad, & Chitnis, 2023).

A study in Malaysia analyzed consumer purchase behavior during the COVID-19 pandemic and found that green marketing mix strategies played a significant role in influencing FMCG sales. The research revealed that green packaging, eco-labeling, and sustainable sourcing were key determinants of consumer preferences for FMCG brands (Brundtland, 2022).

The FMCG industry has witnessed a transformation as companies adopt sustainable practices to meet consumer expectations. Green packaging, sustainable sourcing, and carbon footprint reduction are among the key strategies employed by FMCG brands (Peattie & Crane, 2016). Research has shown that eco-friendly packaging not only reduces environmental impact but also positively influences consumer purchase intentions (Kumar & Ghodeswar, 2019). Moreover, companies that integrate sustainability into their supply chain operations tend to experience improved brand loyalty and competitive advantage (D'Souza et al., 2020).

Despite its benefits, green marketing presents several challenges for businesses. One major challenge is the higher cost associated with sustainable production and eco-friendly packaging, which often leads to increased product prices (Delmas & Burbano, 2011). This can be a barrier to consumer adoption, particularly in price-sensitive markets. Another challenge is consumer skepticism, as some buyers remain doubtful about the authenticity of green claims made by brands (Goh & Balaji, 2016). Companies must therefore ensure transparency and authenticity in their green marketing strategies to gain consumer trust and loyalty.

### Statement of the Problem

In recent years, environmental concerns and sustainable business practices have gained significant attention in the Fast-Moving Consumer Goods (FMCG) sector. Companies are increasingly adopting **green marketing strategies** to meet consumer

expectations for eco-friendly products. However, despite these efforts, the impact of green marketing on **FMCG sales in Ernakulum** remains **largely unexplored**. This study seeks to assess the **actual impact of green marketing initiatives on FMCG sales in Ernakulum**, examining consumer responses, purchase behavior, and the effectiveness of various green marketing strategies. The findings will help businesses **optimize their sustainability efforts** while ensuring profitability and consumer trust.

### Objectives of the study

- To know the consumer profiles and their perceptions of **green marketing in FMCG sales in Ernakulum**.
- To test the association between awareness of green marketing and willingness to pay more for green FMCG products

### Hypotheses of the study

- H<sub>0</sub>: There is no significant association between awareness of green marketing and willingness to pay more for green FMCG products.
- H<sub>1</sub>: There is a significant association between awareness of green marketing and willingness to pay more for green FMCG products.

### Methods

#### Research Design

This study adopts a **descriptive research design** to examine the impact of green marketing on FMCG sales in Ernakulum. A **quantitative research approach** will be employed to systematically gather and analyze data related to consumer perceptions, attitudes, and purchasing behavior regarding eco-friendly FMCG products. The rationale for selecting a descriptive design is its ability to **identify patterns, relationships, and consumer preferences** in a structured manner. Additionally, this study will utilize a **survey-based approach** to obtain insights from consumers about their awareness of green marketing initiatives and their impact on purchasing decisions.

#### Sampling Frame

The sampling frame for this study includes **consumers residing in Ernakulam who purchase FMCG products**. The target population consists of individuals aged **18 years and above**, as they are responsible for personal or household purchasing decisions. The study will cover respondents who buy FMCG products from various **retail outlets, supermarkets, online platforms, and local stores**. To ensure diversity in consumer representation, the sample will include individuals from different **demographic segments**, including age, income levels, educational backgrounds, and environmental

consciousness levels. This diverse approach will help in assessing **varying attitudes toward green marketing strategies and their influence on purchasing behavior.**

Sampling Method

A **probability sampling method** will be employed to ensure unbiased and generalizable results. Specifically, a **stratified random sampling technique** will be used to categorize respondents based on factors such as age, income level, and frequency of purchasing green FMCG products. Within each stratum, **simple random sampling** will be applied to select participants, ensuring fair representation across different consumer groups. This method helps in capturing diverse consumer insights and **reduces sampling bias.**

To determine the **sample size**, the study will use **Krejcie & Morgan's (1970) formula**, ensuring a **95% confidence level** and a **5% margin of error**. The expected sample size will be around **250-400 respondents**, depending on the final calculations and data collection feasibility. The survey will be conducted using both **online questionnaires and face-to-face interviews** in retail outlets to enhance response rates and data reliability.

### Analysis and Interpretations

#### Percentage Analysis (n=127)

| Demographic Variable | Categories          | Frequency (n) | Percentage (%) |
|----------------------|---------------------|---------------|----------------|
| Gender               | Male                | 65            | 51.2%          |
|                      | Female              | 60            | 47.2%          |
|                      | Others              | 2             | 1.6%           |
| Age Group            | 18 - 25 years       | 30            | 23.6%          |
|                      | 26 - 35 years       | 40            | 31.5%          |
|                      | 36 - 45 years       | 28            | 22.0%          |
|                      | 46 - 55 years       | 18            | 14.2%          |
|                      | Above 55 years      | 11            | 8.7%           |
| Education            | High School         | 15            | 11.8%          |
|                      | Undergraduate       | 45            | 35.4%          |
|                      | Postgraduate        | 50            | 39.4%          |
|                      | Professional Degree | 17            | 13.4%          |
| Monthly Income (INR) | Below 20,000        | 20            | 15.7%          |
|                      | 20,000 - 40,000     | 40            | 31.5%          |

| Demographic Variable                       | Categories      | Frequency (n) | Percentage (%) |
|--------------------------------------------|-----------------|---------------|----------------|
|                                            | 40,001 - 60,000 | 35            | 27.6%          |
|                                            | Above 60,000    | 32            | 25.2%          |
|                                            |                 |               |                |
| FMCG Purchase Frequency                    | Weekly          | 45            | 35.4%          |
|                                            | Bi-weekly       | 40            | 31.5%          |
|                                            | Monthly         | 42            | 33.1%          |
| Awareness of Green Marketing               | Aware           | 85            | 66.9%          |
|                                            | Somewhat Aware  | 30            | 23.6%          |
|                                            | Not Aware       | 12            | 9.5%           |
| Willingness to Pay More for Green Products | Yes             | 75            | 59.1%          |
|                                            | No              | 52            | 40.9%          |

The demographic analysis of **127 respondents** provides key insights into consumer profiles and their perceptions of **green marketing in FMCG sales in Ernakulam.**

The **gender distribution** shows a relatively balanced representation, with **51.2% males and 47.2% females**, ensuring diverse perspectives on purchasing behavior. The **age group analysis** indicates that the majority of respondents fall within the **26-35 years category (31.5%)**, followed by **18-25 years (23.6%)** and **36-45 years (22%)**. This suggests that younger consumers, particularly **millennials and Gen Z**, form a significant segment of FMCG buyers and are likely to be more influenced by **green marketing initiatives**. In terms of **educational qualifications**, the majority of respondents hold either an **undergraduate degree (35.4%)** or a **postgraduate degree (39.4%)**, highlighting that a well-educated consumer base may have a higher awareness of **sustainability and eco-friendly products**. This aligns with previous studies suggesting that **higher education levels are positively correlated with environmental consciousness** (Tariq et al., 2023).

The **income distribution** reveals that **31.5% of respondents earn between ₹20,000-40,000**, while **27.6% fall within the ₹40,001-60,000 range**, and **25.2% earn above ₹60,000**. This indicates that a large segment of the consumer base has **moderate to high purchasing power**, making them more likely

to afford green FMCG products, despite their often-premium pricing.

Regarding **FMCG purchase frequency**, **35.4% of respondents shop weekly**, followed by **31.5% bi-weekly**, and **33.1% monthly**. The high frequency of purchases suggests that **green marketing strategies can have a strong impact on consumer buying behavior**, as repeated exposure to eco-friendly branding and sustainable packaging may **influence long-term purchasing decisions**.

The **awareness of green marketing** is significantly high, with **66.9% of respondents being aware of eco-friendly marketing practices**, while **only 9.5% are not aware**. This indicates a growing consumer consciousness towards **sustainable products and environmentally responsible brands**.

A crucial finding is the **willingness to pay more for green products**, where **59.1% of respondents express readiness to spend extra on eco-friendly FMCG items**. This confirms that a majority of consumers in Ernakulam value **sustainability and ethical consumption**, reinforcing the potential success of **green marketing strategies in the FMCG sector**. However, a notable **40.9% of respondents remain hesitant to pay a premium price**, indicating that brands must balance **cost-effectiveness with sustainability** to appeal to price-sensitive consumers.

#### Chi-Square Test Results

Observed Frequency Table

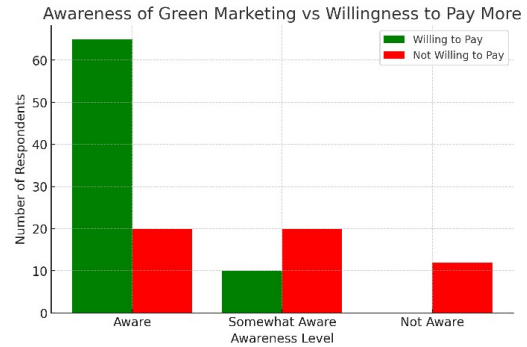
| Awareness Level | Willing to Pay | Not Willing to Pay |
|-----------------|----------------|--------------------|
| Aware           | 65             | 20                 |
| Somewhat Aware  | 10             | 20                 |
| Not Aware       | 0              | 12                 |

Expected Frequency Table

| Awareness Level | Willing to Pay | Not Willing to Pay |
|-----------------|----------------|--------------------|
| Aware           | 50.20          | 34.80              |
| Somewhat Aware  | 17.72          | 12.28              |
| Not Aware       | 7.09           | 4.91               |

Chi-Square Test Statistics

- **Chi-Square Value ( $\chi^2$ ) = 36.18**
- **Degrees of Freedom (df) = 2**
- **p-value =  $1.39 \times 10^{-8}$  (very small)**



Since the **p-value is much smaller than the standard significance level (0.05)**, we **reject the null hypothesis ( $H_0$ )**. This indicates a **significant association between awareness of green marketing and willingness to pay more for green FMCG products**. Consumers who are aware of green marketing are **more likely to be willing to pay a premium for eco-friendly products**.

The **"Aware" group has the highest willingness to pay for green products**, with **65 respondents** supporting eco-friendly FMCG purchases. Among those who are **"Somewhat Aware"**, willingness to pay is **relatively low**, with an **equal split (10 vs. 20)** between willing and not willing respondents. The **"Not Aware" group has no willingness to pay**, reinforcing the need for **awareness campaigns to influence consumer decisions**.

#### Conclusion

This study assessed the impact of **green marketing on FMCG sales in Ernakulam**, focusing on consumer awareness, willingness to pay for eco-friendly products, and demographic influences. The findings reveal that **a significant proportion of consumers (66.9%) are aware of green marketing strategies**, indicating growing environmental consciousness in the region. Moreover, **59.1% of respondents expressed willingness to pay a premium for green FMCG products**, highlighting a strong potential market for sustainable goods. However, **40.9% of consumers remain hesitant**, suggesting that price sensitivity and perceived value remain critical factors influencing purchasing decisions.

The **Chi-Square test results confirmed a statistically significant relationship between awareness of green marketing and willingness to pay more for green FMCG products** ( $\chi^2=36.18, p<0.05$ ;  $\chi^2=36.18, p<0.05$ ). This indicates that **higher awareness leads to greater consumer acceptance and willingness to invest in sustainable products**. Younger, educated, and higher-income consumers were found to be more inclined toward eco-friendly purchases, reinforcing the need for targeted marketing strategies.

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