

## ECO-FRIENDLY SHOPPING TRENDS: A STUDY ON THE FACTORS INFLUENCING GREEN FMCG PRODUCT CHOICES IN WARANGAL

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### **Abstract:**

The primary objective of this research was to delve into the determinants shaping purchasing behavior towards green products within the Fast-Moving Consumer Goods (FMCG) sector. The identified influencing factors encompassed considerations such as the product's status as a symbol, its potential harm to society and individual health, pricing, and overall availability in the market. The study was conducted across three taluks in the Warangal District, namely Warangal, and Hanamkonda. "A total of 384 respondents participated in the survey, providing insights through a structured questionnaire. The questionnaire was meticulously crafted to gauge consumers' attitudes and purchasing behaviors concerning environmentally friendly FMCG products. The research methodology involved soliciting responses from participants who were residents of the specified taluks. The collected primary data complemented the study with insights into consumers' preferences, motivations, and decision-making processes. Additionally, secondary data were procured from pertinent journals, books, and other published sources, enriching the research with a broader understanding of the subject. The findings of the study illuminated a significant influence of green products on consumer purchasing behavior. Various factors emerged as pivotal in shaping these behaviors, indicating a nuanced interplay between consumer choices and environmental consciousness. Notably, respondents exhibited a heightened awareness of eco-friendly considerations, reflecting a collective consciousness toward preserving the environment and mitigating pollution. In conclusion, this research underscores the substantial impact of green products on consumer choices within the FMCG sector. By elucidating the influencing factors, the study contributes valuable insights that can inform businesses, policymakers, and marketers in fostering sustainable practices and aligning products with the evolving preferences of environmentally conscious consumers.

**Keywords:** FMCG, Green Products, Consumer Attitude, Purchase Behaviour.

### **Introduction:**

The Fast-Moving Consumer Goods (FMCG) industry in India plays a pivotal role in the country's economic development. Not only does it supply a vast array of consumer goods essential for everyday life, but it also significantly contributes to employment generation. The industry has witnessed noteworthy shifts in income and consumption patterns among the Indian populace, particularly in the post-liberalization era marked by governmental measures. FMCG companies, in response to these changes, have adapted their business policies, including the incorporation of Green marketing in the promotion of FMCG products. In the contemporary landscape, consumers

are increasingly favoring products that are not only efficient but also environmentally friendly. The FMCG sector, encompassing goods such as food and beverage, personal care items, pharmaceuticals, plastics, paper, stationery, and household products, has witnessed a notable shift in consumer preferences toward eco-conscious choices. With a broad spectrum of functions, including sales, supply chain, finance, marketing, operations, purchasing, human resources, product development, and general management, the FMCG industry offers diverse employment opportunities. In response to society's growing environmental concerns, businesses, including those in the FMCG sector, are adjusting their practices to address these "new" societal priorities. Concepts such as environmental management systems and waste minimization have been embraced, with some businesses integrating environmental considerations into all facets of their operations. The rise of journals like "Business Strategy and the Environment" and "Greener Management International" reflects the increasing importance of disseminating research on businesses' environmental behavior. The FMCG sector is increasingly recognizing the significance of green marketing as a powerful tool for consumer engagement. The escalating global concerns related to warming and climate change have fueled public awareness and demand for environmentally friendly products. Consumers are now actively seeking eco-friendly options, showing a heightened concern for the environment, well-being, and health. In response, companies are adopting green marketing practices as part of their social responsibility initiatives, aiming to communicate their environmentally conscious messages to consumers. This trend not only aligns with changing consumer preferences but also reflects a commitment to sustainable and responsible business practices in the FMCG industry.

## **Operational Definition**

### **FMCG**

Fast-moving consumer goods are products that sell quickly at relatively low cost. These goods are also called consumer package goods. FMCGs have a short shelf life because of high consumer demand (e.g., soft drinks and confections) or because they are perishable (e.g., meat, dairy products, and baked goods). These goods are purchased frequently, are consumed rapidly, are priced low, and are sold in large quantities. They also have a high turnover when they're on the shelf at the store.

### **Environmental Attitude**

Environmental attitude is the customer's value for the judgment of environmental protection which taps the individual's cognitive assessment of the value of environmental protection. The customer's attitude towards green purchase can influence green purchase intention and affects their green purchase behaviour.

## **Green Purchasing Behaviour**

Green purchasing behaviour or environment-friendly buying behaviour is the consumption or use of products that are benevolent or beneficial to the environment, sensitive or responsive to ecological concerns.

### **Consumer awareness**

Consumer awareness towards eco-friendly products refers to a buyer's knowledge of an eco-friendly product or organization, allows the consumer to get the most from what he buys.

### **Consumer's attitude**

Attitudes of ecological concern are established in a person's concept of self and the degree to which an individual sees himself or herself to be an essential part of the regular habitat. Green attitudes represent what consumer like and dislike and consumers product buying decisions are often biased on their ecological attitudes.

### **Eco-friendly product**

An eco-friendly product is essentially a product that is environmentally friendly. It does not pollute the earth or deplete natural resources. Eco-friendly products are healthy, disease free, without harmful residuals and process an adjusted substance of bioactive and mineral substances.

## **Literature Reviews**

**Prof V.Lalitha** (2023) study entitled on "Green Marketing and its Impact on Consumer Buying Behaviour on Green Products with Special Reference to Selected District of Telangana" studied that the consumers were more attention to the environment and thereby becoming more eco friendly. Therefore the companies are also exploring the various ways for communicating with the customer and retained as loyal for long by adopting green marketing. The main intention of the study was how consumer buying behaviour is affecting by the green marketing. The data were collected to be well structured questionnaire to used multistage sampling techniques to determine the sample size. The study was found that the positively increases their level of awareness towards green products. Hence, that prices of the green products should be kept at an affordable level of an average income earner can also avail the green products.

**Dr.Naveen Prasadula** (2022) in their study on " An empirical study on green marketing strategies for market sustainability with respect to organic products" the green marketing strategies were taken for achieving competitive advantages. Therefore there are focuses to carry out an empirical study of the green marketing with respect of organic product for sustainable market. The main object of the study was to identify the existing green marketing practices adopted to organic product and relationship between marketing mix strategies and their impact of market sustainability. This survey has been collected through primary data by questionnaire from the sample size of 259 respondents to the organic form visitors. Finally the study resulted to consumers were increase the aware and agree that in future more consumer prefer the organic product. Further, it is should be need of mass awareness on the usage of the organic products.

**Dr.V.Lalitha** (2021) conducted “ A study on consumers preference towards green marketing products” analyzed the consumer awareness, satisfaction of green products examined the factors influencing consumer’s green purchasing intention towards eco friendly products. The study were framed structured questionnaire and distributed to 100 respondents in Coimbatore city using convenient sampling techniques and found that the design, price, quality, quantity, durability, unpolluted environment and availability are the aspects of eco-friendly products will have influence on the choice and preference of customers. Further, the researcher concluded that the consumers have to use green products in future which are usually biodegradable/recyclable resources for safe that environment.

### **Object of the study:**

The primary objectives of this research are to identify and analyze the key factors shaping consumers' purchasing behavior concerning select green FMCG products in Warangal District. Through a systematic exploration of these factors, the study aims to provide a nuanced understanding of how environmental considerations, societal impacts, health-related concerns, pricing structures, and product availability collectively influence consumer choices.

### **Methodology:**

To achieve these objectives, a quantitative approach will be adopted, involving the administration of structured questionnaires to a representative sample of 384 respondents in Warangal District. The survey will be designed to capture consumers' attitudes, awareness levels, and purchasing behaviors regarding green FMCG products. Additionally, secondary data from relevant journals, books, and published sources will complement the primary data, enriching the analysis and providing a comprehensive perspective.

### **Significance:**

This research holds significance for businesses, policymakers, and marketers seeking to align their strategies with the evolving preferences of consumers in the FMCG sector within the specific socio-economic and cultural context of Warangal District. By shedding light on the factors influencing purchasing behavior, the study aims to contribute valuable insights to the broader discourse on sustainable consumption and environmentally conscious decision-making.

### **Need and Important of the Study:**

The scenario of changing consumer preference and heightened consumers awareness for the environmental issues has given rise to an emerging green market where consumers with their favourable attitude towards green products are willing to shift their choices from brown counterpart to green products. They are becoming more responsible in terms of their life style, consumption habits and purchasing behaviour. With the strong intent to consume green products, consumers are now willing to sacrifice their choice, switch to green brands and are also willing to pay more for green products.

### **Hypothesis of the Study:**

H01: Factors do not differ in consumers purchasing behaviour towards selected greenFMCG products.

**Research Methodology:**

The study is based on both primary and secondary data.

**Primary Data:** A well structure questionnaire with both open and close ended questionnaire questions. This was circulated them the adult population from Warangal city. Total of 384 respondents have filled the questionnaire and it was the sample size under the study.

**Secondary Data:** The data was collected from different sources of online, research article, journals, books and websites.

**Data Analysis:**

**Consumers Purchasing Behaviour of selected Green FMCG Products**

Table 1: Over all Purchase Frequency of selected Green FMCG Products

Green FMCG players										
Segments of FMCG	ITC		HUL		P&G		Nestle		Dabur	
	P	NP	P	NP	P	NP	P	NP	P	NP
<b>PersonalCare Products</b>	111 (29)	273 (71)	358 (93)	26 (7)	296 (77)	88 (23)	-	-	189 (49)	195 (51)
<b>Household Care Products</b>	-	-	224 (58)	160 (42)	210 (55)	174 (45)	-	-	168 (44)	216 (56)
<b>Food &amp; Beverages</b>	171 (45)	213 (55)	213 (55)	171 (45)	-	-	379 (99)	5 (1)	131 (34)	253 (66)

**Source:** Calculated & Computed from Primary Data

**Note:** P- Purchased, NP-Not Purchased & Respondents in nos. (Respondents in Percent)

It is inferred from table 1 and Figure 5.11 that describe the overall purchase frequency of selected Green FMCG Products with the three segments. In the first segment of “Personal Care Products” out of 384 respondents, 111 respondents (29 per cent) have purchased ITC products; 358 respondents (93 per cent) have purchased HUL products; 296 respondents (77 per cent) have purchased P&G products; 189 respondents (49 per cent) have purchased Dabur products. It is followed by the second segments “Household Care Products”, 224 respondents (58 per cent) have purchased HUL products; 210 respondents (55 per cent) have purchased P&G products; 168 respondents (44 per cent) have purchased Dabur products. It is followed by the third segments

“Food & Beverages”, 171 respondents (45 per cent) have purchased ITC products; 213 respondents (55 per cent) have purchased HUL Products; 379 respondents (99 per cent) have purchased Nestle products; 131 respondents (34 per cent) have purchased Dabur products.

**5.3.4 Factors Influencing the Purchasing Behaviour of selected Green FMCG Products.**

H0: Factors do not differ in consumer purchasing behaviour of selected Green FMCG Products.

H1: Factors do differ in consumer purchasing behaviour of selected Green FMCG Products.

**KMO and Bartlett’s Test**

Factor analysis has been applied to identify the factors influencing the consumer purchasing behaviour about Green FMCG Products in Warangal District. Factor analysis has been done with the two statistical tests of Bartlett’s test and KMO test. The KMO(Kaiser- Meyer-Olkin) and Bartlett’s test is used to find the suitability of the factor analysis for data reduction. KMO test is to measure the sampling adequacy and also examine the appropriateness of the factor analysis. The KMO value is 0.741 which is greater than 0.5 and Bartlett’s test value is 0.000 which is less than 0.05; therefore, it is concluded that the data are significant at the 5 per cent shown in table 2.

Table 2: KMO and Bartlett’s Test - Factors Influencing the Purchasing Behaviour

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		<b>.741</b>
Bartlett's Test of Sphericity	Approx. Chi-Square	571.706
	Df	45
	Sig.	<b>.000</b>

<b>Table 3: Communalities</b>		
	Initial	Extraction
Green Product Attribute (FIG)	1.000	.542
Trust about green products in FMCG (FIT)	1.000	.572
Availability of the Product (FIA)	1.000	.452
Environmental Concern (FIE)	1.000	.347
Cost of Product (FICP)	1.000	.558
Brand Image (FIB)	1.000	.611
Discount & Offer/ Free Sample (FID)	1.000	.718
Eco-labeling & Packaging (FIE)	1.000	.584
Durability / Certificate Product (FID)	1.000	.342

Convenience to use (FIC)	1.000	.447
Extraction Method: Principal Component Analysis.		

The table3 communalities which shows how much of the variance in the variables has been accounted for by the extracted factors. For instance, over 72% of the variance in Discount & Offer/ Free Sample is accounted for while 34% of the variance in Durability and Certificateof Product.

Table 4: Total Variance Explained – Factors influencing the Purchase Behaviour

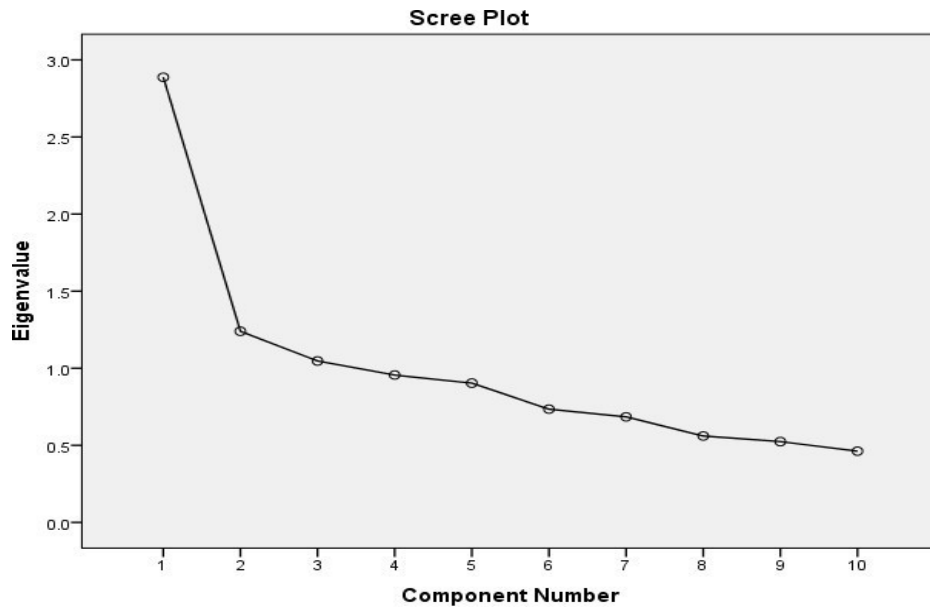
Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.888	28.875	28.875	2.888	28.875	28.875
2	1.240	12.399	41.275	1.240	12.399	41.275
3	1.047	10.472	51.746	1.047	10.472	<b>51.746</b>
4	.956	9.559	61.305			
5	.903	9.033	70.339			
6	.735	7.347	77.685			
7	.685	6.846	84.531			
8	.561	5.606	90.137			
9	.524	5.241	95.378			
10	.462	4.622	100.000			
Extraction Method: Principal Component Analysis.						

The table 4 shows that the total variance item shows all the factors extractable from the analysis along with their eigenvalues, the percent of variance attributes to each factor, and the cumulative variance of the factor and the previous factors. Notice that the fist factor accounts for 28.875% of the variance, the second 12.399% and the third 10.472%. All the remaining factors are not significant.

#### Scree Plot – Factors Influencing the Purchasing Behaviour

The scree plot is a graph of the eigenvalues against all the factors. The graph is useful for determining how many factors to retain. The point of interest is where the curve starts to flatten.

It can be seen that the curve begins to flatten between factors 3 and 4. Note also factor4 has an eigenvalue of less than 1, so only three factors have been retained.



The table 4 below shows the loadings of the eigen variable on the three factors extracted. The higher the absolute value of the loading, the more the factor contribute to the variable. The gap on the table represents loadings that are less than 0.5, this makes reading the table easier. Hence, the variance is suppressed all loading than 0.5.

Table 5: Component (Factor) Matrix – Factor Influencing the Purchasing Behaviour

Component Matrix <sup>a</sup>			
	Component		
	1	2	3
Green Product Attribute (FIG)	.609	-.020	-.414
Trust about green products in FMCG (FIT)	.632	-.179	-.375
Availability of the Product (FIA)	.597	-.232	-.206
Environmental Concern (FIE)	.567	-.159	-.002
Cost of Product (FICP)	.463	-.203	.550
Brand Image (FIB)	.454	.321	.549
Discount & Offer/ Free Sample (FID)	.367	.757	-.103
Eco-labeling & Packaging (FIE)	.542	.537	-.047
Durability / Certificate Product (FID)	.542	-.215	.045



Convenience to use (FIC)	.544	-.278	.271
Extraction Method: Principal Component Analysis.			
a. 3 components extracted.			

### Consumer Buying Behaviour of Green FMCG Products

Table 6: Buying Behaviour of Green FMCG Products

S. No	Particulars	Frequency	Percentage
1.	Grocery Shop	57	14.8
<b>2.</b>	<b>Super Markets</b>	<b>118</b>	<b>30.7</b>
3.	Town Retailer Outlet	41	10.7
4.	Local Wholesale Market	41	10.7
5.	Malls	41	10.7
6.	Online Shopping	44	11.5
7.	Others	42	10.9
	<b>Total</b>	<b>384</b>	<b>100.0</b>

Source: Primary Data

It is observed from the table 6 that the 57 respondents (14.8%) are buy the product at grocery shop, 118 respondents (30.7%) bough goods in super markets, 41 respondents (10.7%) buy the product at town retailer outlet and local wholesale market as same as malls, 44respondents (11.5%) are using online shopping for bough the product, 42 respondents (10.9%) are using other options.

Most (30.7%) of the respondents are buy green FMCG product in super markets.

#### Findings:

**Significant Impact of Status Symbol:** The study reveals a substantial influence of the perceived status symbol associated with green FMCG products on consumers' purchasing behavior. The inclination towards these products is often driven by the desire to align with a socially responsible and environmentally conscious image. **Heightened Awareness of Societal and Environmental Impacts:** Consumers in Warangal District showcase a heightened awareness of the societal and environmental impacts of their purchasing choices. The study indicates that individuals are more inclined to opt for green FMCG products when they perceive positive contributions to society and the environment. **Health-conscious Motives as a Driving Factor:** Health-related considerations emerge as a pivotal factor influencing consumers' preferences for green FMCG products. The findings suggest that consumers are increasingly associating these products with personal well-being and are more likely to make purchasing decisions based on health-conscious motives. **Price Sensitivity and Its Influence:** Price remains a significant determinant in consumers' decision-

making processes. The study indicates that while there is a growing interest in green FMCG products, price sensitivity plays a crucial role, with consumers seeking a balance between environmental consciousness and affordability.

**Product Availability Shapes Choices:** The accessibility of green FMCG products significantly impacts consumer choices. The findings suggest that increased availability and visibility of these products in the market positively influence consumers to opt for environmentally friendly alternatives.”

### **Suggestions:**

**Strategic Communication:** FMCG companies should strategically communicate the societal and environmental benefits of their green products to enhance consumer awareness. This could involve targeted marketing campaigns emphasizing the positive impact of purchasing these products.

**Balancing Affordability and Sustainability:** To address price sensitivity, companies should explore strategies to make green FMCG products more affordable without compromising on sustainability. This may involve optimizing production processes, exploring eco-friendly packaging solutions, or leveraging economies of scale.

**Education and Awareness Programs:** Initiatives aimed at educating consumers about the health benefits of green FMCG products can be implemented. Companies can collaborate with local health organizations and conduct awareness programs to highlight the positive impact on personal well-being.

**Supply Chain Enhancement:** To improve product availability, FMCG companies can work on enhancing their supply chains. This involves collaborating with distributors, retailers, and logistics partners to ensure a consistent and widespread presence of green FMCG products in Warangal District.

**Community Engagement:** Companies could engage with local communities in Warangal District to understand specific preferences and concerns related to green products. This community-centric approach can aid in tailoring marketing strategies and product offerings to better align with local values and preferences. In conclusion, the findings suggest that while there is a positive inclination towards green FMCG products in Warangal District, strategic measures should be implemented to address specific factors influencing purchasing behavior. By aligning with consumer values and optimizing business strategies, FMCG companies can foster a more sustainable and environmentally conscious consumer culture in the region.

### **Conclusion:**

In conclusion, the study on Factors Influencing Purchasing Behavior towards Select Green FMCG Products in Warangal District provides valuable insights into the dynamics shaping consumer choices in the context of environmentally friendly products. The findings underscore the multi-faceted nature of factors influencing purchasing behavior, reflecting a complex interplay of

societal, environmental, health-related, economic, and availability considerations. The research indicates a significant influence of environmental consciousness on consumers' decisions to opt for green FMCG products. The perceived status symbol associated with these products contributes to the appeal, reflecting a growing trend of consumers aligning their purchasing behavior with a desire for sustainable and eco-friendly choices. The heightened awareness of societal and environmental impacts suggests that consumers in Warangal District are increasingly factoring in the broader consequences of their purchasing decisions. Additionally, the study reveals the emerging importance of health-conscious motives, indicating a shift towards products perceived to contribute positively to personal well-being. While there is a positive inclination towards green FMCG products, price sensitivity remains a crucial factor. Consumers are seeking a balance between environmental consciousness and affordability, suggesting that strategies to make these products more economically accessible would likely contribute to increased adoption. The study highlights the pivotal role of product availability in influencing consumer choices. Increased visibility and accessibility of green FMCG products positively impact purchasing behavior, emphasizing the need for companies to optimize their supply chains and distribution networks. For FMCG companies operating in Warangal District, the findings carry important implications for business strategies. Strategic communication that emphasizes the societal, environmental, and health benefits of green products can enhance consumer awareness. Additionally, efforts to balance affordability with sustainability and optimize product availability can contribute to capturing a larger market share.

### **Limitations and Areas for Future Research:**

It is essential to acknowledge the limitations of the study, such as its focus on a specific geographic area. Future research could expand the scope to include a more diverse range of regions and demographics. Furthermore, exploring the long-term impact of consumer education initiatives and the effectiveness of different marketing strategies could provide deeper insights. Overall, the study contributes to the growing body of knowledge on consumer behavior in the FMCG sector, offering practical implications for businesses aiming to navigate the evolving landscape of sustainable and environmentally conscious consumption in Warangal District.

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