

An Empirical Study on Consumers Behavior towards Green Products Consumption in India

P N Vijayasree¹, Dr. Mahesh Pavan Sathavalli², Mr. C. Prakash³

¹Assistant Professor, Department of management studies, Siddharth Institute of Engineering & technology, Puttur, Vijayasree101@gmail.com

²Rural Researcher, Bangalore, Karnataka, maresh.sastri@gmail.com

³Assistant Professor, School of Management, Guru Nanak Institutions Technical Campus
chokkamprakashreddy@gmail.com

Abstract

The spread of Novel Corona virus (COVID-19) has had far-reaching effects on the supply chain, from raw materials to final goods. Consequences for public health, hygiene, and diet have resulted from these shifts. Concerns about food safety have contributed to a growth in consumers' preference for buying and eating locally produced foods. During the COVID-19 pandemic, consumers considered green goods as safer and healthier, which might have long-term effects on their diets and healthcare spending. Concern for the environment has gone global. Marketers are aware of the need to embrace green marketing tactics in response to the World Health Organization's Sustainable Development Goals (SDGs). In addition, these days shoppers know a little more about green advertising than they did a year ago. As a result, several Indian factories are adopting eco-friendly advertising strategies. Using a self-administered survey, primary data was gathered for this investigation. In all, 400 replies met the criteria for further examination. Therefore, a new model is being presented to the marketers in order to increase their market share and profit among the rivals in the business.

Keywords: Consumption Pattern; Consumer Perception; Covid 19; Green Product

Introduction

There has been a shift in the public's perspective and understanding of environmental challenges during the last several decades. However, despite this shift in perspective, there are still points of contention when it comes to environmental concerns, which continue to be a focal point for modern social movements. Numerous studies show that people's interest in environmental and sustainable concerns has grown steadily over time (Roper, 2002; Deb Roy & Barua, 2016). Improved public support for government measures for environmental subsistence concerns is found between the pre- and post-covid pandemic scenarios (Gallup& Newport, 1990 and Dev Rroy, PhD thesis 2021).

As per the American Marketing Association's definition, green showcasing is thought to be environment responsive marketing since it encompasses numerous activities including renovating the product, altering the product packaging, and updating commercials. To create eco-friendly products, "green marketing" involves incorporating eco-friendly practises throughout the manufacturing process (Johri & Sahasakmontri, 1998).

To be considered "green," a product must be made in an environmentally responsible manner, whether it means using renewable energy sources, sourcing local ingredients, or utilising only post-consumer waste in the production phase. Production of these goods does not result in the release of any greenhouse gases or other toxic byproducts. When we talk about "green" items, we're talking about things like their ability to be reused several times, their lack of harmful chemicals, their low impact on the environment, their low risk to human health, etc.

Many businesses are beginning to include environmentally friendly practises into their operations, if not making the transition altogether (like Gap Inc). However, only a select few businesses really promote their eco-friendly initiatives. The answer to this question is context-specific, including factors such as the company's industry, values, and goals. Coca-Cola, for instance, recycles glass bottles but does not highlight this practise in its marketing as part of its efforts to develop a "green" brand. Brands like Patagonia and Body Shop take pride in their eco-friendliness and actively market it to customers. The power business, assembling and designing cycle, and modern item area (barring agribusiness) are the most elevated polluters in India,

accounting for seven percent of global emissions according to the GHG Platform India report, 2021.

What's more, during the Corona infection scourge, India's extent of environmentally renewable energy (RE) increased by 6 percentage points (from 17% to 24%) while the amount of coal-fired electricity decreased by 10% (from 66% to 64%). Considering current policies and the goal of full electrification by 2030 in order to reach India's SDG Targets, the country's energy demand might grow by a factor of three by 2040 due to rising appliance usage and associated increases in cooling demands.

A rapid evaluation of local customers' attitudes toward the adoption of environmentally friendly goods is essential under these circumstances. For this purpose, a literature search revealed:

1. A consumer's motivation to buy a green product is based on their concern for the environment and their own sense of ethics, whereas issues such as a lack of knowledge about the product, its high price, and its complexity in installation and use are likely to discourage them (Shamsi et al, 2010).
2. Second, there are a variety of perspectives from which to describe and display a green product: the academic, industry, and consumer viewpoints, respectively grounded on descriptive meta-analysis, a bibliographic strategy, and a consumer survey (Durif et al., 2010).
3. Third, customers' attitudes on the idea of "green" were shown to vary widely depending on factors such as their level of education, income, age, and marital status. As stated by the authors (Rezai et al., 2013),
4. There is a great connection between's eco-marks, the worth of green items, the opinions of consumers, and the opinions of green businesses. (Kong et al., 2014)
5. Businesses are increasingly relying on a wide range of promotional methods to encourage consumers to adopt the usage of green goods. However, there is a low level of acceptability (Hundal, et al., 2015).
6. Organic food consumers' intent to buy was shown to be affected by their own outlooks, the amount of societal pressure they felt they were under, and how much control they felt they had over their own lives. As stated by (Tumin et al., 2020).

7. Concerns over the future of the global food system, trade policy, and public trust have arisen in the wake of COVID-19 (and Brexit) (Armstrong et al, 2020).
8. Expense decrease, essential necessities fulfillment, primary changes in customer container, expanded digitalization, expanded interest for home conveyance, reorientation towards neighborhood shopping, omnichannel benefits, and expanding of the significance of the green substance are the fundamental patterns that impact purchaser conduct and utilization patterns. (Danciu et al., 2021)
9. Depreciation of machinery, organic fertiliser, vegetable pesticides, labour costs, acreage, and DCovid-19 (the covid-19 dummy variable) are only few of the production variables that impact farmers' organic vegetable profits (Timisela et al , 2021).
10. Greener consumption habits are influenced by the wonder of COVID-19. And those who have a negative reaction to COVID-19 tend to focus on their personal well-being and security, as well as the interests of the larger community, which makes them more receptive to environmentally friendly purchasing practises (Sun, et al. 2021).

Objectives

1. To identify the factors influencing consumer perception of green product consumption.
2. To examine the relation between the factors.

Research Methodology

Sampling Design

Four hundred people were contacted using Google forms for an in-depth interview after a pretested structured questionnaire was employed.

Method of Data Collection

Four hundred individuals from different parts of India were surveyed to acquire primary data. It was between December 2020 and March 2022 that the survey was done. The majority of responders (54%) are between the ages of 20 and 40, and almost half (46%) of the total are female. Most responders have college degrees and are now involved in volunteer work.

Research Tools

Five-point Likert scales, encompassing the range from "strongly agree" to "strongly disagree," were utilised in the research. Factor analysis, Correlation analysis, and Regression analysis were

used to look at the data and see how people in the area feel about buying eco-friendly goods. The data was analysed and interpreted using SPSS (Statistical Package for the Social Sciences, version 28).

Data Analysis and Major Findings Reliability Test

For this examination, the Cronbach's alpha was 0.786, showing great interior consistency (Nunnally, 1978 measures recommend the alpha worth ought to be above 0.7 to be OK).

The Test of KMO and Bartlett

According to Kaiser, a KMO number higher than .5 is regarded to be normal (1974).

Factor analysis may be performed on the samples that were obtained since their KMO value is 0.692 and their significance value in Bartlett's test of sphericity is less than 0.5.

Factor Analysis, Exploratory

Since these components all had Eigen values greater than 1, we were able to isolate a total of three distinct factors. Factors 1 and 2 have eigenvalues of 3.556, whereas factor 3's eigenvalue is 2.019. Factor 1 accounted for 44.455 percent of the variance before the rotation, factor 2 for 25.232 percent, and factor 3 for 12.541 percent; after the rotation, factor 1 accounted for 33.554 percent of the variance, factor 2 for 24.806 percent of the variance, and factor 3 for 23.868 percent of the variance. After the rotation, the cumulative percentages of components 1, 2, and 3 are 33.554, 58.359, and 82.227, respectively (Table 1).

Table 1

Rotated Component Matrix

	Component		
	1	2	3
I always check the ingredients present while buying products	0.624	-.117	0.183
I can segregate green products and non-green products	0.937	0.347	0.360
I am familiar with green products	0.349	0.230	0.389
I often buy green products even if it is expensive	0.658	0.111	0.464
I recommend others to buy green products	0.847	0.606	0.511

Table 1**Rotated Component Matrix**

	Component		
	1	2	3
I always prefer green products than non green products	0.116	0.543	0.698
I buy organic products because it's a green product	0.873	0.689	0.231
I buy ayurvedic products because it's a green product	0.736	0.693	0.113

The Varimax rotation of the component matrix showed how the three factors loaded onto the eight elements. Factor 1 explains the most portion of the variation (33.554 percent). The first factor is heavily laden with options like "I always examine the components present when purchasing items," "I am acquainted with green products," and "I can distinguish between green and non-green products." The amount of client interest in green goods is reflected in the items in this section, which is why it is called "Awareness."

Indicators like "I often purchase green items even if they are costly," "I suggest people to buy green products," and "I always prefer green products over non green products" all fall within the purview of "Factor 2," which accounts for 24.806% of the total variance. This component, Buying Behaviour, is called for the reason that the products in this category indicated consumers' purchasing habits.

The third factor, which includes such variables as "I purchase organic goods because it's a green product" and "I buy ayurvedic products because it's a green product," explains 23.868% of the variance. The third element, titled "Green Product Purchases," was comprised of items that highlighted customers' awareness of and interest in eco-friendly goods.

Model of the Study

The research concluded with three components: awareness, purchasing behaviour, and the purchase of environmentally friendly products; these factors were derived using exploratory factor analysis. People's knowledge of what constitutes a "green" product has been shown to have a beneficial effect on buying behaviour, whereas consumers' actual purchases have been shown to have a negative effect on the purchase of environmentally friendly goods.

Therefore, this knowledge serves as a crucial factor in the consumers' choice to purchase. Getting customers to change their purchasing habits so that they prioritise eco-friendly goods. However, consumers have a skewed understanding of the term "green product," believing that it refers only to natural remedies such as organic foods, ayurvedic medicines, and herbal remedies. As a result, people are becoming more informed about green goods and their advantages, but this information isn't being put to good use since its full meaning hasn't sunk in. The created model is very important now. Because it will shed light on why there hasn't been a rise in the purchasing of green goods despite widespread knowledge of the benefits these items provide for the environment and the general public. This research adds credence to the idea that educating consumers on the fundamental distinctions between the numerous components of the phrase "green product" is a more efficient use of limited resources than other methods of awareness building.

Awareness, purchasing behaviour, and the procurement of environmentally friendly products were all shown to be statistically and practically interrelated. Results from a series of correlation tests showed a positive and statistically significant relationship between awareness and both the purchase of environmentally friendly products ($r=0.120$, $p0.05$) and the act of making such a purchase ($r=0.592$, $p0.01$) (Table 2).

Hypotheses	Values	Result
H1: There is a significant relationship between awareness and buying behaviour	0.120	Accepted
H2: There is a significant relationship between awareness and buying behaviour.	0.592	Accepted
H3: There is a significant relationship between buying behaviour and green product purchases.	-.010	Rejected

H1: There is a significant positive relationship between awareness and buying behaviour is accepted

and

H2: There is a significant relationship between awareness and buying behaviour is also accepted.

Moreover, buying behaviour is not significantly related to green product purchases.

H3: There is a significant relationship between buying behaviour and green product purchases is rejected.

Regression Analysis of Awareness and Buying Behaviour

The following is the outcome of a regression study performed on the relationship between knowledge and consumer behaviour. The model's modified R Square is 34.9%, and its R Square = 0.350 indicates that 35% of the observed variance in the dependent variable "purchasing behaviour" can be attributed to differences in levels of awareness. That means that knowledge influences consumer behaviour in a 35% capacity.

It may be safely believed that there is a linear connection between awareness and purchasing behaviour since the F-test is extremely significant. In addition, we discovered that the unstandardized coefficient, B, for awareness was 0.808 at the 95% confidence level. This suggests that for every 0.808 rise in publicity, there is a 0.808 increase in purchasing activity. An awareness beta value of 0.592 indicates a very favourable impact on consumer behaviour.

Regression Analysis of Awareness and Green Product Purchases

The following are the findings from a regression study of environmental consciousness and the acquisition of environmentally friendly goods.

R Square = 0.014, after being corrected for the model's fit, indicates that 1 percentage point of the observed variance in consumers' demand for eco-friendly goods may be attributed to differences in their level of knowledge about such goods. Awareness is having a 1% effect on sales of environmentally friendly products.

Since there is a strong correlation between awareness and purchases of environmentally friendly products, we may conclude that there is a linear connection between the two thanks to the F-significant test's results.

Significantly, the unstandardized coefficient B for awareness was found to be 0.113. With a higher level of knowledge comes a 0.113 percentage point boost in demand for environmentally

friendly goods. With a beta value of 0.120, knowledge is shown to have a very significant, positive effect on consumers' decisions to buy environmentally friendly goods.

Scope and Limitation of Study

Literature study findings on consumer perception and green goods in Kamrup district of Assam during pandemic time suggest just a smattering of studies have been conducted on the topic. The situation in India is changing rapidly as more and more individuals become interested in eco-friendly goods, and the country's population as a whole becomes more aware of environmental issues. The international landscape is not dissimilar to the Indian one; what sets the two apart is the role played by governments and non-government organisations. Organizations with this mission aim to educate consumers on the importance of adopting environmentally friendly products and services, while also promoting and protecting the health of the planet.

Conclusion

The current research has taken into consideration three factors—awareness, purchasing behaviour, and green product purchase—to investigate how consumers in the area feel about the consumption and use pattern of green goods since the pandemic. These three elements contributed to the correlation between consumers' purchasing of green items and their level of environmental consciousness. It turns out that consumers are aware of the issue, but only have a limited grasp of the truth when it comes to the constituents of green products. People are buying green goods, such as those made from organic ingredients, herbs, or ayurveda. People aren't well-versed in the environmental benefits of green products, thus advertisers should use infomercials to raise their level of understanding (instead of commercials only). Since infomercials often include a wealth of data pertaining to the topic at hand, businesses may use them to advertise their eco-friendly wares and educate consumers at the same time. Non-governmental organisations (NGOs) may also work with businesses to spread awareness about the need of becoming green by encouraging people to make tiny adjustments in their daily routines, such as using reusable grocery bags, using recycled materials, and selecting energy-efficient appliances. Only by making changes at the ground level (the micro level), will the

benefit of promoting green goods or making green marketing popular be realised. Individuals' contributions, albeit little, will add together to make a big difference in the future.

References

- Dr. Mohammed Khizerulla¹ Ms. Aminah Firdos² Ms. Saira Banu³ Mr. Mahabub Basha⁴ "A Study on Emotional Intelligence on the Decision Making by the Employees of Financial Institutions in India", *Journal of Science and Technology*, Vol. 07, Issue 04, June 2022
- Roy, A.D., & Barua, M. (2016). Green Marketing: Literature Review of a Few Select Sectors. *The International Journal of Business & Management*, 4(4), 175.
- Gallup Jr, G., & Newport, F. (1990). Americans strongly in tune with the purpose of Earth Day 1990. *Gallup Poll Monthly*, 295(3), 5-21.
- Johri, L. M., & Sahasakmontri, K. (1998). Green marketing of cosmetics and toiletries in Thailand. *Journal of consumer marketing*.
- Hundal, B.S., & Kumar, V. (2015). Consumer perception towards green products: A factor analytic approach. *Pacific Business Review International*, 7(10), 1-7.
- Latip, M.S.A., Newaz, F.T., Ramasamy, R., Tumin, S.A., & Noh, I. (2020). How do food safety knowledge and trust affect individual's green considerations during the covid-19 pandemic in malaysia?. *Malaysian Journal of Consumer and Family Economics*, 24, 261-285.
- Rezai, G., Teng, P.K., Mohamed, Z., & Shamsudin, M.N. (2013). Is it easy to go green? Consumer perception and green concept. *American journal of applied sciences*, 10(8), 793-800.
- Kong, W., Harun, A., Sulong, R.S., & Lily, J. (2014). The influence of consumers perception of green products on green purchase intention. *International Journal of Asian Social Science*, 4(8), 924-939.
- Durif, F., Boivin, C., & Julien, C. (2010). In search of a green product definition. *Innovative Marketing*, 6(1), 25-33.

- Shamsi, M. S., & Siddiqui, Z. S. (2017). Green product and consumer behavior: An analytical study. *Pertanika Journal of Social Sciences and Humanities*, 25(4), 1545-1554.
- Krishnamoorthy, D. N., & Mahabub Basha, S. (2022). An empirical study on construction portfolio with reference to BSE. *Int J Finance Manage Econ*, 5(1), 110-114.
- Basha, S. M., & Ramaratnam, M. S. (2017). Construction of an Optimal Portfolio Using Sharpe's Single Index Model: A Study on Nifty Midcap 150 Scrips. *Indian Journal of Research in Capital Markets*, 4(4), 25-41.
- Basha, M., Singh, A. P., Rafi, M., Rani, M. I., & Sharma, N. M. (2020). Cointegration and Causal relationship between Pharmaceutical sector and Nifty—An empirical Study. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(6), 8835-8842.
- JagadeeshBabu, M. K., SaurabhSrivastava, S. M., & AditiPriya Singh, M. B. S. (2020). INFLUENCE OF SOCIAL MEDIA MARKETING ON BUYING BEHAVIOR OF MILLENNIAL TOWARDS SMART PHONES IN BANGALORE CITY. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(9), 4474-4485.
- Shaik, M. B., Kethan, M., Rani, I., Mahesh, U., Harsha, C. S., Navya, M. K., & Sravani, D. (2022). WHICH DETERMINANTS MATTER FOR CAPITAL STRUCTURE? AN EMPIRICAL STUDY ON NBFC'S IN INDIA. *International Journal of Entrepreneurship*, 26, 1-9.
- Agrawal, D. K. (2022). An Empirical Study On Socioeconomic Factors Affecting Producer's Participation In Commodity Markets In India. *Journal of Positive School Psychology*, 2896-2906.
- DrSanthosh Kumar, V., & Basha, S. M. (2022). A study of Emotional Intelligence and Quality of Life among Doctors in PandemicCovid 19. *International Journal of Early Childhood*, 14(02), 2080-2090.
- Shaik, M. B. ., , M. K., T. Jaggaiah, & Mohammed Khizerulla. (2022). Financial Literacy and Investment Behaviour of IT Professional in India. *East Asian Journal of Multidisciplinary Research*, 1(5), 777–788. <https://doi.org/10.55927/eajmr.v1i5.514>

- Armstrong, B., & Reynolds, C. (2020). China and the USA, a higher perceived risk for UK consumers in a post COVID-19 food system: the impact of country of origin and ethical information on consumer perceptions of food. *Emerald Open Research*, 2(35), 35.
- Danciu, V. (2021). Adapting and Modernizing the Post-Covid Marketing Policy Under the Impact of Consumption Challenges. *Romanian Economic Journal*, (79).
- Timisela, N.R., Polnaya, F.J., & Titaley, S. (2021). Farmers Perception and Income in the Development of Organic Vegetables During Pandemic Covid 19. *Annals of the Romanian Society for Cell Biology*, 4761-4770.
- Sun, X., Su, W., Guo, X., & Tian, Z. (2021). The impact of awe induced by COVID-19 pandemic on green consumption behavior in China. *International Journal of Environmental Research and Public Health*, 18(2), 543.
- Nunnally, J.C. (1978). *Psychometric Theory* (2nd ed.). New York: McGraw-Hill.
- Kumar, T. S., & Sekhar, S. (2019). Impact of e-Marketing on Influencing Consumer Purchase decision. *International Journal of Scientific Development and Research*, 4(11).
- Sekhar, S. C., & Radha, N. (2019). Impact of globalization on msme: prospects, challenges and policy implementation on economic growth. *International Journal of Trend in Scientific Research and Development*, 3(6), 536-541.
- Rana, S. (2022). Consumer Awareness And Perception Towards Green Marketing: An Empirical Study In Bangalore City. *Journal of Positive School Psychology* <http://journalppw.com>, 6(5), 4240-4245.
- Sekhar, M. S. C., Ashalatha, D., & Gorkhe, M. (2022). Corporate Governance-Impact on Financial Performance of Selected ITCompanies in Bengaluru City. *Journal of Contemporary Issues in Business and Government Vol*, 28(03).
- Murthy, B. S. R., Manyam, K., & Manjunatha, M. (2018). A Study on Comparative Financial Statement of Hatsun Agro Product Ltd (With Reference Last Five Financial Year 2013 To 2017). *International Journal for Science and Advance Research In Technology JSART*, 4, 2395-1052.
- Prakash, M., & Manyam, K. (2018). Effectiveness and Efficiency of E-Governance in Andhra Pradesh. *International Journal of Advanced Scientific Research & Development*, 5(01).