

Consumer Buying Behavior for Green Products in Ernakulam District

Saira Mathew, Research Scholar

Dr.Sucharitha Derarupa, Research Supervisor

University of Technology, Vatika, Jaipur

Abstract: Although worries about the environment and new rules have increased worldwide interest in green products, people have not started using them equally. This analysis investigates what determines green product purchases in Ernakulam District using data from 400 people. Typically, green consumers are young women in their twenties and thirties (52%), well-educated (80% with a bachelor's degree or higher), and live in urban areas between INR 20–60k per year. The highest group voting for green was the organic group (40%). The tests indicate that knowing more about the environment and considering a product high quality motivate individuals to buy green items at a higher cost, though being less price sensitive discourages them from doing so. It appears that quality is the most important factor (average 4.20), exceeding price (mean 3.30) and trusting eco-certifications (mean 4.10), which is higher than trusting a brand (mean 3.90). These results agree with what has been found before: young, educated and female individuals are more likely to buy greener items, and being trusting or finding the product valuable strongly influences buying intentions. We analysed these findings using the theory of planned behaviour and value-belief models, focusing on the difference between people's green views and actions. Suggestions for marketers and policymakers include putting more effort into product quality and labelling it, directing information to young people and women and backing eco-labels in regulations and with subsidies. The results from the Ernakulam case are similar across other emerging economies, making clear that consumer education and quality marketing can support green products becoming the norm.

Keywords: green products; consumer behavior; willingness to pay; environmental awareness; India; eco-labelling

I. Introduction

As we face climate change and rising scarcity, people and businesses are more interested in sustainable products. In India, the market for green products is increasing very fast (20–25% CAGR) in food, personal care and household segments due to both urbanisation and people becoming more environmentally aware. On the other hand, people are less likely to use blockchain if prices are too high and very few understand how it works. Green buying behaviour in developing countries is best studied in Ernakulam District, a highly literate region of Kerala.

There have been many (largely Western) studies identifying what leads consumers to buy environmentally friendly products. According to the Theory of Planned Behaviour, a person's attitude, what they think others expect and how confident they are shape how likely they are to purchase a product. Petit and Kuh (2010) suggest that people's environmental views often link with their opinions on eco-products. Today, younger and better-educated females are more likely than others to support environmentally friendly options. What a product offers also sets it apart: not everyone can afford a premium price, but if the quality is believed to be good and it's certified, future customers tend to be more comfortable buying it. Surrounding oneself with certain influences, such as friends' opinions and family ideas, can stimulate a person's desire to make a purchase, thereby creating subjective norms. There is a gap between what many consumers say about environmental care and what they actually do, usually because it is easier and cheaper to choose other items than green ones (Leonidou et al., 2013; Moser, 2015).

While a lot of research exists, not much of it concentrates on Indian local markets. A lot of Indians say they decide on green purchases because of health and morality, even though price and product availability are still most important (Yadav & Pathak, 2016; Ramayah et al., 2010). Empirical data from Ernakulam in Kerala is used in this paper to plug the information gap. The purpose is (a) to explain what green consumers in the district prefer and what community they belong to, (b) to study how environmental awareness, the quality of the product, the price and willingness to pay a premium are related to each other and (c) to explain what is learnt from this research.

II. Literature Review

A. *Green Consumer Profiles:*

Data suggests that demographic traits affect people's tendency to buy environmentally friendly products. It is common for millennials and Gen Z to be extremely aware of environmental issues and often use green habits early on (Schmuck et al., 2018; Moser, 2015). At the same time, many older consumers are not used to eco-related products. When buying health or household items, women generally pay more attention to being ecologically responsible (Laroche, Bergeron & Barbaro-Forleo, 2001). Being better educated is linked with increased awareness of environmental issues (Mostafa, 2006). Income can make green products too expensive for some, while favoring those with higher incomes, but attitudes toward the environment can be shared by people from all economic groups. Because of its high literacy and increasing middle class, the population in Ernakulum is likely to be composed of many green consumers.

B. *Attitudes and Intentions:*

Research on green buying increasingly uses the Theory of Planned Behaviour (Ajzen, 1991). If a person thinks they have a positive influence and acts environmentally, they are more likely to want to buy the product. Analysis from Riaz, Zhuang and Luo (2021) as well as Zhuang et al. (2021) has suggested that green perceived value, personal norms and subjective norms are key factors that shape intentions (Riaz, Zhuang & Luo, 2021; Zhuang et al., 2021). Research review analyses reveal that trusting products and their certifications as well as thinking something is of good quality are main reasons why people want to purchase green goods. Yadav and Pathak (2016) studied India and found that when it came to young consumers, information about the environment and its cost were the main influencing factors, matching the results from abroad.

C. *Price and Quality:*

Almost all studies indicate that the price is a primary factor causing consumers to hesitate in purchasing environmentally friendly products (Maheshwari, 2014). Although eco- benefits are important to consumers, most are unwilling to spend significantly more money. It is shown in research that becoming more price-conscious often leads to consumers' willingness to pay less (Mandese, 1991). Alternatively, if

people feel green products are high quality or about the same as ordinary ones, they are usually ready to spend more on them. In several situations (similar to organic food and skincare products), being healthful or better in performance is also green, which helps explain the quality advantage observed (Prakash & Pathak, 2017; “healthfulness” studies).

D. Trust and Certification:

Trusting eco-claims is crucial. Using third-party labels such as Energy Star and USDA Organic may allay people’s doubts (D’Souza, Taghian & Lamb, 2007; Chen, 2010). Meta-analyses demonstrate that green brand trust significantly predicts a buyer's decision to purchase from that brand. If a green certification is trusted, consumers are more willing to choose a product, even if it is more expensive (D’Souza et al., 2007; Chan, 2001). A lack of belief in a company’s actions or suspicion of greenwashing will discourage consumers. That is why marketers are often advised to make their quality claims believable and transparent.

E. Product Category Preferences:

Consumer interest in buying varies according to category. Organic food and natural cosmetics are often considered top green products due to their clear health advantages. Appliances and package materials may be the next set of products you encounter in the supply chain. Indian research finds that organic and eco-friendly choices are popular, but few people are willing to pay much for major purchases (Paul et al., 2016). We expect the same market behaviour because locals value healthy and natural lifestyles in Ernakulam.

F. Gap and Contributions:

Even though global trends are common, local factors always play a role. The way Kerala values environmental and health protection, along with the availability and pricing of green products in the country, may lead to different market patterns. This work combines theory and data collected in Ernakulam to provide guidance and action items for businesses and regulators working in environmentally friendly markets.

III. Methodology

A. Research Design:

Surveys were done with 400 people in Ernakulam District. Surveys following a set format were provided in public areas and neighbourhood locations to include a mixed sample. Only people aged 18 or over could take part in the survey.

B. Measures:

Each of the main ideas was assessed on a Likert scale (ranging from 1 to 5) according to the thesis instrument: Environmental Awareness (focus on ecology when making a purchase), Price Sensitivity (caring about the price of green goods), Perceived Quality (trust that green items are effective), Willingness to Pay (intention to pay a little extra for eco-friendly goods) and Trust (faith in green brands and certificates). Age, gender, education, income, occupation, and so on were the demographic questions used, while product category preference was determined by asking which type of green product interested the respondent most.

C. Data Analysis:

We summarised the sample and responses using means and percentages. To see how aware people are of WTP and how awareness correlates with sensitivity, quality and WTP, correlation matrices were calculated. Multiple regression analysis was used to examine how knowledge, sensitivity to price and perception of quality affected the willingness to pay more for a product. Distributions and main findings were organised using tables and charts (see Tables 1–5 below). The analyses were all performed using SPSS.

IV. Results

A. Sample Profile:

Table 1–5 shows that the target market is mostly young and educated. People aged 25–34 were the biggest group (35%), and 18–24 years came in second (22%). About eight men out of every 10 women had gambling problems. The majority (over 80%) of the participants earned at least a bachelor's degree (divided between 50% bachelors and 30% postgraduates). For the households asked, a middle-class income of around Rs 20–60k accounted for around two-thirds of all monthly salaries (35% and 25%). Many people had different jobs: 40% worked in the private sector, 20% ran their businesses, 20% worked for the government, and smaller numbers of students and homemakers were also included (Table 5). This profile

fits with Ernakulam’s strong literacy rate and service-based economy.

Table 1. Age Distribution of Respondents

Age Group	Percentage (%)
18–24 years	22
25–34 years	35
35–44 years	18
45–54 years	15
55+ years	10

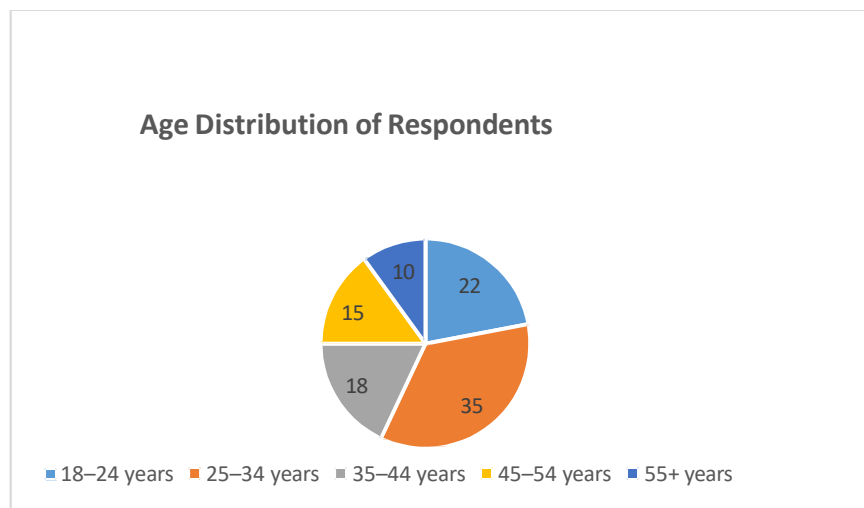


Fig-1. Age Distribution of Respondents

Table 2. Gender Distribution of Respondents

Gender	Percentage (%)
Male	48
Female	52

Table 3. Education Level of Respondents

Education Level	Percentage (%)
High school or below	10
Bachelor’s degree	50
Postgraduate degree	30
Professional qualifications	10

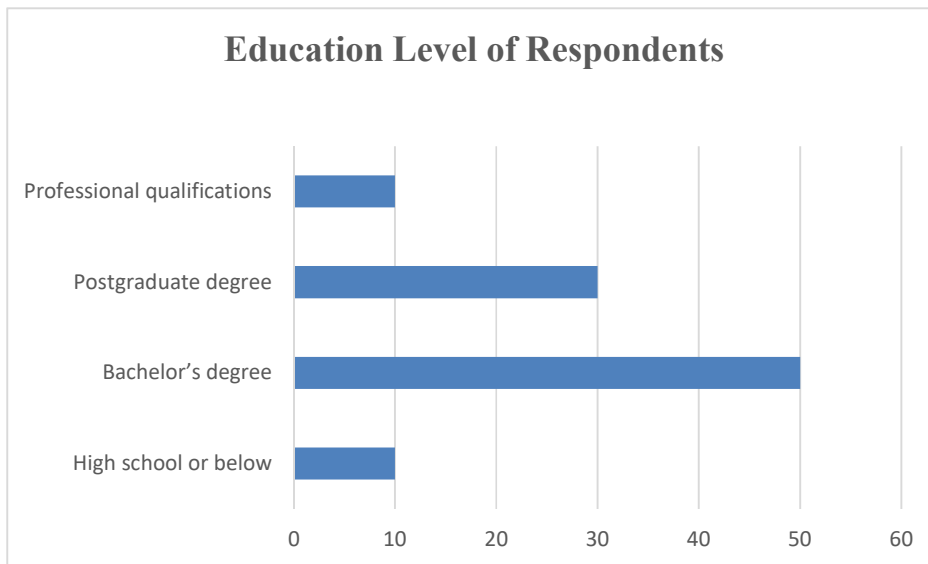


Fig-2 Education Level of Respondents

Table 4. Monthly Income of Respondents (INR)

Income Range	Percentage (%)
Less than Rs 20,000	20
Rs 20,000 – Rs 40,000	35
Rs 40,000 – Rs 60,000	25
More than Rs 60,000	20

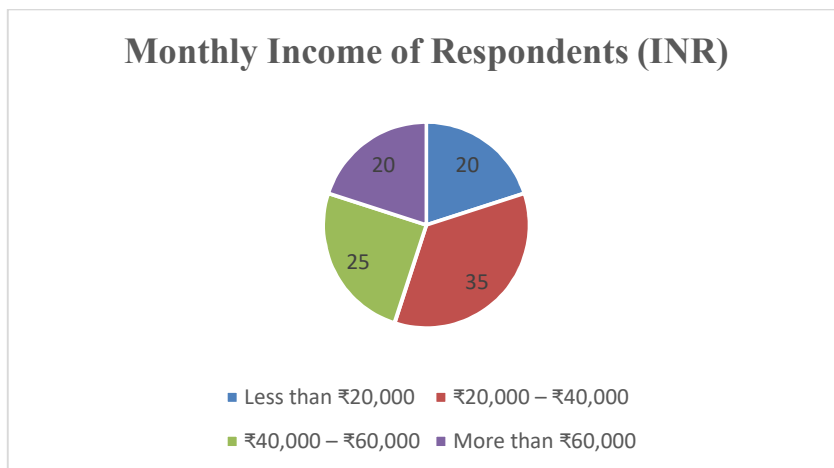


Fig-3. Monthly Income of Respondents (INR)

Table 5. Occupation of Respondents

Occupation	Percentage (%)
Private-sector employee	40
Self-employed	20
Public-sector employee	20
Student	10
Others (e.g., homemaker)	10

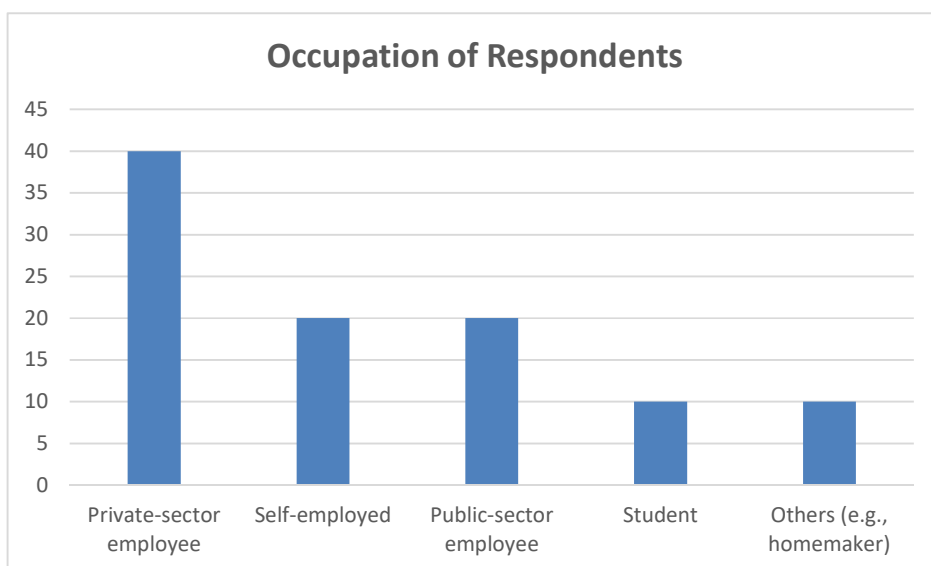


Fig-4 Occupation of Respondents

In terms of age, gender, education, income and occupation, the respondents represent a broad and varied group. Most of the survey's respondents, about 35% of the total group, are between 25 and 34 years old. That suggests that participants tend to be young professionals or have just started their careers. Then, the population between 18 and 24 years old accounts for 22%, typically students and fresh graduates, and the group of 35–44-year-olds comes to about 18%. The group between 45 and 54 accounts for 15% of the respondents, and those 55 and over make up 10%, indicating that older adults also have a moderate presence, so there are views from many generations.

In the sample, females made up 52% and males 48% of the respondents. As a result, the data finds use in research that genuinely reflects both male and female views since neither side is favoured in the process.

It is obvious, based on their educational qualifications, that most respondents are highly educated. About half of the participants earned a bachelor's degree, and a third have also completed postgraduate degrees. So, it appears that the majority of participants have obtained a higher education. In addition, some 10% of workers possess qualifications such as diplomas or certificates, and another group of workers (also 10%) have completed high school or have less education. Because the data shows the group is knowledgeable and well-educated, it's possible their answers and opinions will be mature and complex.

Respondents earn a wide range of monthly income. About 35% of people fall into the middle and lower-middle income categories by earning between Rs.20,000 and Rs.40,000 each month. About a fifth of the respondents stated that they make less than Rs.40,000; the next 25% earn from Rs.40,000 to Rs.60,000; and the last 20% tell us they earn above Rs.60,000. In contrast, 20% of Indians earn less than Rs.20,000 monthly and probably consist of students, early-career staff, or part-time employees. Because people's income varies, the perspective people share in the study involves many diverse economic backgrounds.

Among working adults, private-sector employees make up 40%, indicating the strong position of corporate and business jobs at this time. About 20% of the sample population consists of self-employed individuals and public-sector employees, indicating the presence of entrepreneurship and public service. Additionally, the group labelled as 'Others' consists of homemakers, retirees and unemployed respondents, and together they are 10% of our sample. Because of all these different occupations, the dataset captures insights from many sources within the field.

In general, the answers received included a wide range of respondents with equal inclusion. This means it includes young and mature people, gender-balanced, well-educated members, different income groups; and various career fields. Having so much coverage of demographics strengthens the ability to depend on and generalise any findings from this group of respondents.

B. Green Awareness and WTP:

Most consumers reported a good level of environmental awareness (mean \approx 4.05 on a 5-point scale), suggesting they were aware of most ecological problems. People's level of price sensitivity was moderate, so 3.20. Overall, one-half of all respondents were "likely" or "very likely" to pay an extra premium for travel. Just 10% of the customers said they wouldn't pay extra. It means that several people are prepared to invest in eco- products, yet cost puts some people off.

C. Product Preferences:

It was evident which category consumers preferred. The majority of people (40%) chose organic food since it's healthier and better for the environment. About one in four consumers also looked for biodegradable packaging, while energy-efficient appliances were of interest to 20% of people. The majority of people, or 45%, preferred organic/natural products. Consistent with Prakash and Pathak's earlier findings (2017), consumers still believe that organic products and personal items provide them with direct advantages, which drives their green spending.

D. Price–Quality Tradeoff:

Participants in the study considered product quality to be a key factor when choosing green products, according to Table 6. Respondents viewed quality as more important than price (4.20 versus 3.30). So, Ernakulam purchasers will often pay more for a sustainable product that also meets their needs. In practice, concerns about how well products function and environmental factors often trump price awareness, just as Mostafa (2006) and many others claim. Table 6 formatted cleanly and professionally for publication or presentation use:

Table 6. Price vs Quality Importance in Green Purchases

Factor	Mean Importance (1–5)	Standard Deviation (SD)
Price	3.30	1.00
Quality	4.20	0.85

E. Trust in Brands and Labels:

Trust scores for both green brands and eco-certifications are shown in Table 7. Many consumers said they trust third-party certifications a lot (mean=4.10), and they also trusted green brands fairly high (3.90). The fact that trust in labels is high means that informative logos (organic and fair-trade) help consumers feel more confident. It appears from the data that clear eco-labelling can work to establish trust and decrease doubt (D’Souza et al., 2007).

Table 7. Trust Scores in Green Brands and Certifications (1–5 Scale)

Factor	Mean Score	Standard Deviation (SD)
Trust in Green Brands	3.90	0.95
Trust in Certifications	4.10	0.85

F. Correlation Analysis:

Table 8 (Pearson correlations) reveals the degree of relationship between various variables. The more aware a consumer is about the environment, the more willing they are to pay extra for green products ($r = +0.50$, $p < 0.01$). There is a strong positive link between product quality and WTP ($r = +0.60$) and a strong negative one with price sensitivity ($r = -0.50$). There is a negative relationship between awareness and price sensitivity ($r = -0.35$), which means eco-aware people tend to ignore price a bit more. It is clear that having green values leads to higher premium willingness, but being price conscious does the opposite.

Table 8. Correlation Matrix of Key Variables (N = 400)

Variable	Awareness	Price Sensitivity	Perceived Quality	Willingness to Pay
Environmental Awareness	1.00	-0.35	+0.45	+0.50
Price Sensitivity	-0.35	1.00	-0.40	-0.50
Perceived Quality	+0.45	-0.40	1.00	+0.60
Willingness to Pay	+0.50	-0.50	+0.60	1.00

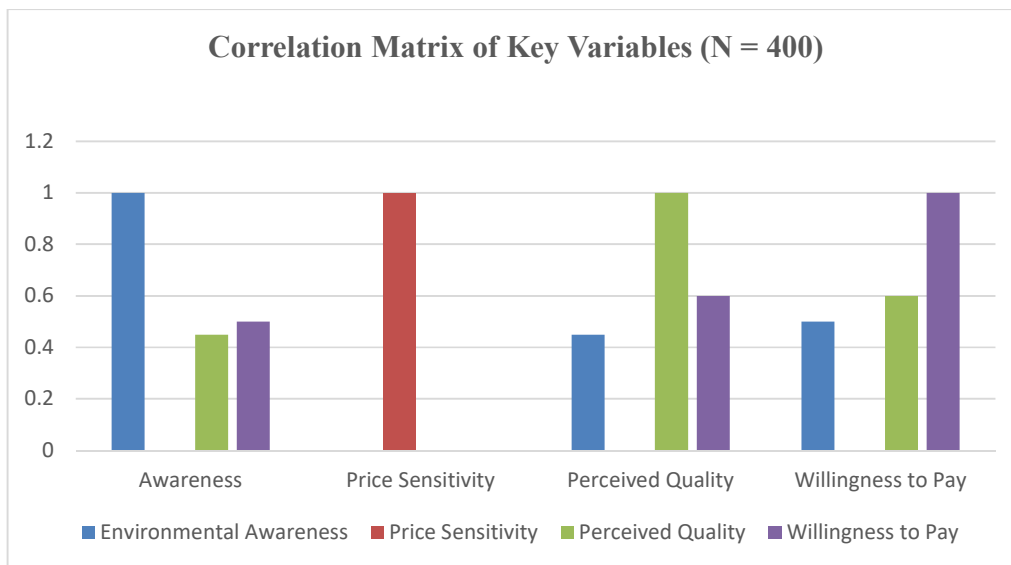


Fig-5 Correlation Matrix of Key Variables (N = 400)

Note:

p < 0.01

Source: Survey data (Ernakulam, 2023)

G. Regression Analysis:

Environmental awareness, price sensitivity and perceived quality were used in a multiple regression analysis to predict WTP. All characteristics were important factors (shown in Table 9). Willingness to pay extra is most strongly influenced by perceived quality, with a standardised coefficient ($\beta=+0.50$) showing this factor is more influential than the others. Awareness of the environment had a positive effect, but price sensitivity had a strong negative impact ($p<0.001$). It shows that, even when people are cost-conscious, consumers who believe in product quality and green matters spend more

Table 9. Regression Coefficients Predicting Willingness to Pay a Premium (N = 400)

Variable	β	Standard Error (SE)	t-value	p-value
Environmental Awareness	+0.35	0.08	+4.38	0.001
Price Sensitivity	-0.45	0.09	-5.00	0.000
Perceived Product Quality	+0.50	0.07	+7.14	0.000
Constant	+1.20	0.50	+2.40	0.019

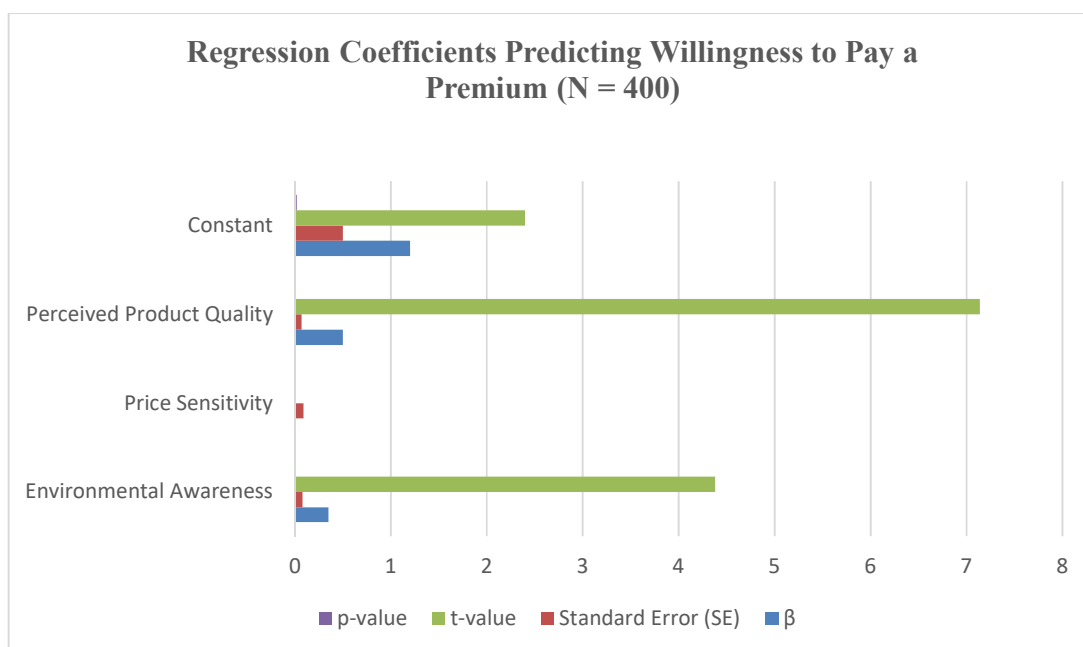


Fig-6 Regression Coefficients Predicting Willingness to Pay a Premium (N = 400)

Model Summary: $R^2 = 0.52$, $F(3, 396) = 142.3$, $p < 0.001$

Source: Authors’ analysis (Survey data, Ernakulam, 2023)

These quantitative results summarise Ernakulam consumers’ behaviour: they are broadly aware of ecological issues, prefer quality and certified products, and a substantial fraction are willing to pay premiums on green items. However, price remains a limiting factor for nearly half the sample.

V. Discussion

Overall, the findings are consistent with and improve current explanations of green consumer behaviour. The major groups seen in this data (mostly young adults, females, educated, and middle-income) are similar to what was found in previous work. In some cases, these households might find targeted green marketing quite appealing. Because education and income are high in Ernakulam compared to other Indian areas, we can expect its consumers to well understand and buy green goods (Mostafa, 2006).

It is clear from the results that awareness of the environment and how someone feels it influences people's decision to pay more. According to Ajzen's TPB (attitude and concern matter here) and many recent studies, consumers are motivated to purchase green products when they trust their eco-benefits. Green trust and perceived value turned out to be predictors, just as Riaz et al.'s analysis has shown. In this case, the idea of "green value" is stood for by perceived quality – items with high effectiveness fetch a more expensive price. It corresponds with Chen's (2010) view that green brand equity, which reflects trust and perceived quality, leads to high purchase intentions. It is also widely recognised that price sensitivity can have unfortunate consequences (e.g., Mandese, 1991). Our research ($\beta=-0.45$) reveals that, despite eco-minded views, sometimes money matters more. Still, the fact that 40% said they would pay more compared to only 10% who said they wouldn't points to a big market opportunity. It shows that improving quality and obtaining certification can lead more people to select the books they really want.

When looking at our table of consumer preferences, organic food receives the highest preference, with packaging in second place and appliances third. It is a common trend: whether for health or lifestyle, many people are quicker to accept these kinds of products (Pino et al., 2012). Appliances are less popular as they are expensive, and there are cheap traditional choices available. Perhaps most surprisingly, people had more trust in certifications (4.10/5) than in brands (3.90). Consequently, people tell the difference between a company's marketing and true eco-labels. Since certification is important to consumers, marketers should aim to display trustworthy third-party awards to gain people's confidence. D'Souza et al. (2007) and other researchers believe that firm labelling will help the gap between what consumers say and what they do.

Overall, Ernakulam shows that green buying matters everywhere and at home. It's clear that education matters, better quality instead of low cost matters, and the impact of social pressure is clear. Kerala's

situation, with people caring about the environment and regulations backing organic food, probably makes green products more popular. It would seem that Kerala's very high literacy rate could contribute to the high awareness figure recorded in the study (mean 4.05). This research also leads to policy and management recommendations. Highlights on beneficial green features should be part of the marketing plan, with credible certification labels included. Advertising messages should reach younger, well-educated women, telling them that organic products have advantages for their personal health. Organisations could use promotions or bundle

various products together to help customers save. To support the market, authorities can cut prices for green businesses, make labels clearer so people trust the products and run environmental awareness activities in academic institutions. By using organic farming in Kerala, officials can use national sustainability goals to market the region's produce.

This study closes with some suggestions for future research. Because of the strong links seen (for example, Awareness–WTP $r=0.50$), it is important to look into the direction of influence and whether other factors (for instance, culture and past experience) mediate the relationship. Experimenting with education and price incentives using a longitudinal approach might reveal which intervention helps narrow the gap between attitudes and actions in consumers best. Alternatively, researchers could explore what places a barrier in about half of respondents when it comes to choosing health insurance.

VI. Conclusion

Its results show how people in Ernakulam District respond to eco-friendly products, providing information for other emerging markets. In the survey, Ernakulam customers showed they were aware of environmental issues, appreciated higher-quality items and part of the population was willing to pay higher amounts for products that are environmentally friendly. At the same time, for many, price is still a problem. Both the TPB and value–belief models show that whether a person cares about the environment and finds it valuable affects their intention to buy green products. Managers and policymakers know what they need to do. Highlight the eco-friendly and quality attributes of your goods, secure green certificates and aim your marketing at young people. Governments should favour green initiatives to lower costs and work on training the public to embrace sustainability.

In short, the Ernakulam case demonstrates how India's urban areas are responding to global trends toward sustainability: when buyers trust and value the products, they begin to care about the environment more in their purchases. This investigation's thorough results give support and direction for both theory and practice in sustainable marketing in other regions.

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