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A Study on Customer Attitude Towards Eco-Friendly Products and the Factors Influencing It

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Abstract---This study investigates the moderating effects of customers' attitudinal qualities on the link between major demographical indicators and purchase intention for environmentally friendly items. Several possibilities have been offered. In Tamil Nadu, a questionnaire was created and circulated through an internet survey. There were a total of 545 valid replies received. This impact is consistent among consumers of various income levels. The knowledge and skill elements have no influence on customers' purchasing intentions. Factor analysis has been carried out on the variables of the Consumers attitude on Eco-friendly Product buying behaviour. One-Sample T-Test and Ranking Analysis are used to analyse Consumer Preference to buy an Environmental – Friendly Products. Cronbach's alpha is used in order to assess the construct reliability of the scale. This research adds to a better knowledge of the elements that influence eco-friendly products consumption intentions in Tamil Nadu, as well as consumer behaviour in developing nations. Furthermore, the findings give insight on the relevance of current situation in emerging economies and a specific industrial settings.

Keywords---customer attitude, eco-friendly products, green consumers, demographic factors, green brands, consumer intention.

Introduction

Environmentally friendly goods and materials are those that do not harm the environment. In summary, eco-friendly items benefit the environment rather than harming it. Consumers choose this product because it helps to safeguard the environment throughout its creation, usage, and disposal. Green products are often organic, environmentally friendly, recyclable, and energy-efficient. Products that are green are Energy-efficient, long-lasting, and frequently low-maintenance. There are no ozone-depleting chemicals, hazardous compounds, or harmful by-products produced. Frequently constructed using recycled materials or content, as well as renewable and sustainable sources.

Eco-friendly things are valuable since they are both safe for us and for the environment. It may not be fashionable to use environmentally friendly items, but it is necessary to combat climate change and pollution in the environment. It aids in the conservation of natural resources. Make your life a little bit healthier. There are different objectives are using eco-friendly products that are (i) Pollutants in the environment are being reduced, (ii) Conservation of natural resources and energy, (iii) Natural resource management that is sustainable, (iv) Recycled materials are used (promoting the 4Rs), (v) Waste treatment and disposal has been simplified, (vi) The need of being aware of one's surroundings is emphasised and (vii) Product labels offer environmental and safety information. There are several methods to lessen environmental pollution caused by your house simply by purchasing environmentally friendly items.

- Certified Compostable Bin Liners
- Recycled Toilet Tissue
- Recycled Plastic Toothbrush
- Recycled Sari Table Linen Collection
- Recycled Plastic Rugs
- Recycled Water Bottle Ballpoint Pens.

Green purchasing behaviour

Green Purchasing Practices Purchasing and consuming things that are not detrimental to the environment is referred to as green buying. Consumers typically value environmental attributes over traditional product factors such as price and quality. According to several study findings, the majority of selected respondents are conscious of environmentally friendly items and are informed about environmental concerns. Customers have heard of eco-friendly things and were familiar with them. Also they were aware that buying environmentally friendly items helps to ensure a more sustainable future.

Ideas for getting customers to go green

- Introduce them to some of your favourite eco-friendly products and services.
- Sharing relevant material on your blog and social media platforms is a good way to start.
- Volunteering as a group to accomplish something environmentally friendly...

- Making it easy for people to recycle.

Simple and easy ways to go green

- Replace your light bulbs.
- Switch off your computers at night.
- When you're not using a light in your house, turn it off.
- For as long as you can, don't switch on any lights.
- Before you put the dishes in the dishwasher, stop rinsing them.
- Disposable bags should be avoided.

The pros and cons of environmentally friendly products

We are undoubtedly aware of eco-friendly items that can aid in the reduction of hazardous waste and the prevention of pollution. When you consider the benefits of utilising such goods, you might come up with a long list of reasons to do so. The major advantages are cost and energy savings, as well as a reduction in dangerous substances.

- Pollution reduction - This is, without a doubt, the most well-known and significant benefit of employing such items. They assist you in reducing harmful waste and non-biodegradable chemicals on the globe, resulting in reduced pollution. Imagine all those non-biodegradable plastic bottles and similar products being wiped off the face of the planet. Using a filter on your tap water and cloth diapers instead of disposables are two methods to help with this.
- Personal health - The chemicals contained in plastics and other goods we use, from the time of creation to the time they become a finished product, can cause a variety of health problems. Switching to eco-friendly things will help you overcome this phobia and live a greener life.
- Long-term savings - If you want to save money in the long run, buying eco-friendly items is a fantastic option. Solar panels and electric or hybrid automobiles can help you save a lot of money on your energy bills. Simply replacing your incandescent bulbs with CFL or LED bulbs can help you save money by reducing energy usage and reducing the number of times you have to replace them.

However, adopting a green lifestyle isn't without its drawbacks. Let's look at some of the benefits and drawbacks of adopting environmentally friendly items in our daily lives. Environmentally friendly products have the following other advantages: It conserves energy, Solar panels, for example (environmentally friendly goods that produce electricity from the sun), Low Maintenance, Low Costs. Improves environment, Conserves Water, Strengthens the immune system and Enhances mental health. The cons of using eco-friendly items are:

- Limited availability – The first and foremost problem you may face when looking for eco-friendly products is where to find them. To obtain eco-friendly items, you may need to look in smaller stores or go online.

- Initial Cost - When it comes to larger environmentally friendly things like solar panels or electric or hybrid autos, the initial cost to purchase them may be significantly more than a typical mass market product.
- Implementation - It may be challenging to make changes to your routine. It's lot simpler to say you want to become green than it is to really do it. It's preferable to start small, such as replacing light bulbs or buying using reusable bags rather than plastic bags. Also, many individuals are beginning to see the financial benefits of being green in various parts of their lives, and as more eco-friendly items enter the market, it will become easier and less expensive. Buying eco-friendly items can be a little shift in lifestyle if you are willing to go the additional mile to leave a green planet for your children, even if you are aware of the disadvantages.

Review of literature

Environmental concern, according to some academics, indicates an individual's desire to purchase environmentally friendly items, so contributing considerably to improving the environmental quality [2]. Consumers' degree of knowledge, attitudes, beliefs, and behaviours have a significant impact on environmental quality [1]. As a result, environmental awareness is an activity, or a behaviour. In their study, Mamun, A. A., et al. (2018) discovered that normative views influenced willingness to pay for green items. Furthermore, the study found a lot of beneficial results. Mauritius. According to Veluri (2012), green businesses were unable to build customer excitement.

According to Rahman (2017), price, availability, quality, and utility all have a substantial and positive impact on consumer satisfaction with environmentally friendly items. Shaw (2008) concluded that sense of achievement from behaviours such as recycling, which was more likely to be a characterisation of society directly inspired by the extent of the social convention or peer pressure, and the position of those connections were positive in nature and eco-friendly products. Pathak (2017) described the surge in interest among India's youthful customers in purchasing environmentally friendly packaged goods. Consumers had a good attitude and favourable view of green products or eco-friendly items, according to Yusuf and Fatima (2015), and they were favourably and substantially associated to each other. Consumer attitudes toward eco-friendly items were revealed to be a major influence in repeat purchase intentions by Dubihlela and Ngxukumeshe (2016). Different client groups, including the hotel industry, adopted solid waste management, waste management methods, water, and energy-saving measures, according to Das et al (2020). According to Zhu and Sarkis (2016), the purchase of environmentally friendly items has grown, and the green shopping strategy has improved customer awareness of the need to safeguard the environment.

Objectives of the study

- To study the Demographic Profile of the consumers
- To be aware of the elements that influence the development of environmentally friendly products
- To determine the elements that influence customer attitudes toward environmentally friendly products.

Hypothesis testing

- There are no substantial differences between eco-friendly and non-eco-friendly items.
- There are no differences in customer attitudes toward environmentally friendly items.

Methodology

A systematic approach for collecting information and data for the intention to know the demographic Profile of the consumers and to know the influencing factors of Eco-friendly Products. Conducting survey and collecting past information are included in the research methodology.

Sampling Areas Covered for the Study	Tamil Nadu
Data Source	Primary and secondary data
Sample size	545
S Sampling Method	Stratified random sampling
D Data Instrument	Well-structured questionnaire
D Data collection process	questionnaire through Google forms

Sample size



Limitation of the study

- The Research Area was confined to Tamil Nadu Only.
- Sample size was only 545.
- Consumer's behaviour changes from time to time.

Reliability statistics

Cronbach's alpha is used to evaluate the scale's construct reliability. In order to evaluate the same, Cronbach's alpha calculated for each variable of consumer attitude on Eco- friendly products. The table below displays all of the generated alpha values. The measurement shows good reliability.

Table 1
Reliability Statistics

Variable	No. of Items	Cronbach's Alpha	Percentage (%)
Consumer attitude on Eco-friendly products	27	.814	81.4 %

Analysis and interpretation

Table 2
Demographic Profile of the Green Consumers

S.no	Demographic variables	Frequency	Percentage	
1	Gender	Male	284	52.1
		Female	261	47.9
		<i>Total</i>	545	100.0
2	Age	Below 30	114	20.9
		30 – 40	155	28.4
		40 – 50	142	26.1
		Above 50	134	24.6
		<i>Total</i>	545	100.0
3.	Academic qualification	Diploma	146	26.8
		Graduate	129	23.7
		Post Graduate	140	25.7
		Professional course	130	23.9
		<i>Total</i>	545	100.0
4.	Marital status	Married	275	50.5
		Unmarried	270	49.5
		<i>Total</i>	545	100.0
5.	Monthly Income	Below Rs. 25000	103	18.9
		Rs. 25000 – 35000	112	20.6
		Rs. 35000 -45000	123	22.6
		Rs. 45000-55000	103	18.9
		Above 55000	104	19.1
		<i>Total</i>	545	100.0

Source: Primary data

- 52.1% of the respondents are Male.
- 28.4 % of responders are between the ages of 30 and 40.
- 26.8% of the respondents are Diploma Holders.
- 50.5% of the respondents are Married.
- 22.6% of respondents earn between Rs.35000 and Rs.45000 each month.

Table 3
Purchase Patterns of Eco Friendly Products

S.no	Demographic variables	Frequency	Percentage	
6	Spending pattern on Eco-Friendly product (monthly)	Less than 1000	154	28.3
		1000-1500	142	26.1
		1500 -2000	129	23.7
		Above 2000	120	22.0
		Total	545	1200.0
7	Factors affecting Trustworthiness of Green Brands	Product Origin	153	28.1
		Laboratory Reports	195	35.8
		Recommendation from friends and family members	197	36.1
		Total	545	100.0
8	Source of information about Eco-Friendly products	Newspaper	138	25.3
		Word of mouth	133	24.4
		Free samples	151	27.7
		Leaflets	123	22.6
		Total	545	100.0
9	Shopping habits of Herbal Health Care Products	Shopping Malls	140	25.7
		Supermarkets	116	21.3
		Traditional shops	151	27.7
		E-Shopping	138	25.3
		Total	545	100.0

Source: Primary data

- 27 percent of respondents had a monthly spending habit of Rs. 1000 on environmentally friendly items.
- Friends and family members affect 36.1 percent of respondents' opinions on the trustworthiness of green brands.
- Free samples are used by 27.7% of respondents to learn about environmentally friendly products.
- 27.7% of the respondents have the habit of purchasing Herbal Health Care Products from traditional shops.

Table 4
One-Sample T-Test and Ranking Analysis on Consumer Preference to buy an Environmental – Friendly Products

Variables	N	Mean	Std. Deviation	Std. Error Mean	t-value	Significance (2-tailed)	Rank
Baby Products (Clothes Feeding Bottles Pacifiers etc.)	545	4.5431	2.36365	.10125	44.871	.000	3
Body Care (Shampoo Conditioner etc.)	545	4.4991	2.23206	.09561	47.056	.000	5

Cosmetics (Make-up Lio gloss Eyeliner Nail Polish etc.)	545	4.3615	2.3000 1	.09852	44.269	.000	8
Food (Organic Cereal Brown Rice etc.)	545	4.6477	2.2607 4	.09684	47.994	.000	1
Cleaning (Detergent Dishwashing Liquid etc)	545	4.5651	2.3064 6	.09880	46.207	.000	2
Apparel/Clothing House Products (Air freshener drapers tissue papers etc.)	545	4.4899	2.3145 1	.09914	45.287	.000	6
Accessories (Bags Jewelry)	545	4.4367	2.3771 5	.10183	43.571	.000	7
Stationary (Paper Crafts etc.)	545	4.5028	2.3161 2	.09921	45.385	.000	4

Source: computed data

From the above table, it can be seen that the mean value ranges between 4.6477 and 4.3615. It is apparent that customers prefer to purchase organic foods first. Cleaning, Baby Products, Stationary and Body care ranks 2nd, 3rd, 4th and 5th respectively. Apparel/Clothing House Products, Accessories and Cosmetics ranks 6th, 7th and 8th respectively. The t-test values (44.871, 47.056, 44.269, 47.994, 46.207, 45.287, 43.571, and 45.385) at the 5% level are statistically significant.

Factor analysis

The function of factor analysis is to categorise the original input variables into groups. Each component will take one or more input variables into consideration. The KMO assesses the sampling adequacy (whether the replies provided with the sample are adequate or not), and it should be close to 0.5 in order to proceed with an acceptable factor analysis. Kaiser (1974) advised a minimum of 0.5 (Value for KMO), acceptable values between 0.7 and 0.8, and excellent levels over 0.9. In this study, factor analysis has been carried out on the variables of the Consumers attitude on Eco-friendly Product buying behaviour. The KMO test was carried out, it is in satisfactory level.

Table 5
KMO and Bartlett's Test on Consumers' Eco – friendly Product buying behavior

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.518
Bartlett's Test of Sphericity	Approx. Chi-Square	82.666
	Df	105
	Sig.	.823

Source: computed data

Factor analysis

Table 6

Variables	Factor Value	Loading
Factor-1 Concern for health and environment		
Awareness of green product like fuel efficient vehicles should be spread	.824	
I'm worried about my health and that of my family.	.762	
The adoption of green products can help save the environment.	.732	
Green product use will have a good impact on the environment.	.678	
When choosing between two similar items, I always choose the one that is least hazardous to other people and the environment.	.642	
I am concerned about my environment	.608	

Source: computed data

This factor is called Concern Factor

Table 7

Variables	Factor Value	Loading
Factor-2 Eco-buying attitude		
I make every effort to buy paper products made from recycled paper	.745	
I use a low-phosphate detergent (or soap) for my laundry	.712	
I have persuaded members of my family or friends not to buy certain environmentally harmful products	.765	
try to buy only products that can be recycled	.674	
I raise environmental awareness by participating in various social campaigns.	.614	

Source: computed data

This factor is called attitudinal factor

Table 8

Variables	Factor Loading Value
Factor-3 Social Responsibility	
I try to take public transportation as often as possible to save energy.	.763
I buy energy efficient household appliances	.732
I have switched products for ecological reasons	.643

Source: computed data

This factor is called Responsibility Factor

Table 9

Variables	Factor Loading Value
Factor-4 Eco-certification	
When I buy something, I seek for an eco-friendly certification.	.721
When I'm looking for a green product, the only thing that matters to me is the quality.	.653

Source: computed data

This factor is called Certification Factor

Table 10

Variables	Factor Loading Value
Factor-5 Social awareness and value	
I get value for money while buying Green Product	.774
There are campaigns to provide awareness of saving environment	.742
Now a day's people are more environments friendly then ever	.712
Factors of Eco-friendly products	.634

Source: computed data

This factor is called awareness factor

Table 11

Variables	Factor Loading Value
Factor-6 Lifestyle	
It is prestigious to buy green products	.685
Green products are high quality products	.664

Source: computed data

This factor is called lifestyle factor

Table 12

Variables	Factor Loading Value
Factor-7 Absence of marketing	
In the market, green items are not extensively pushed.	.724
Green items are not readily available at reasonable pricing.	.714

Source: computed data

This factor is called marketing factor

Table 13

Variables	Factor Loading Value
Factor-8 Promotion and Packaging	
Packaging attracts me to buy green products	.782
I look for good offers to buy green products	.758
I look for variety while buying eco-friendly products	.618

Source: computed data

This factor is called Promotion factor

Major findings

- 52.1% of the respondents are Male.
- 28.4 % of responders are between the ages of 30 and 40.
- 50.5% of the respondents are Married.
- 27 percent of respondents had a monthly spending habit of Rs. 1000 on environmentally friendly items.
- Friends and family members affect 36.1 percent of respondents' opinions on the trustworthiness of green brands.
- Free samples are used by 27.7% of respondents to learn about environmentally friendly products.

Discussion

Married male respondents having the trustworthiness of green products through the influence of friends and family members.

Most of the respondents' prefer the Organic food products followed by Cleaning (Detergent Dishwashing Liquid etc)

Future research possibilities

- The current study examines customer attitudes toward environmentally friendly items in the state of Tamil Nadu. As a result, the study may be carried out in other states.
- A study of customer attitudes toward environmentally friendly items in both urban and rural areas of different states.

Suggestions

There is a requirement for developing a marketing communication campaign to promote green products among customers. As a result, it is the government's responsibility to monitor the credibility and trustworthiness of these campaigns, as well as to move forward and inform citizens about the meaning and availability of new green products on the market, as well as to assist consumers in understanding the environmental benefits of using them.

Results and Conclusion

Demographic parameters such as age, gender, occupation, education, and income had little effect on knowledge of environmentally friendly objects, according to the research. Environmentally friendly products and consumer awareness are positively and firmly related. Environmental product awareness and attitudes are positively and weakly connected. Demographic factors have little impact on consumer purchase behaviour when it comes to ecologically friendly things. Green goods may benefit consumers' dietary, housing, and outdoor environments. Purchasing green items has become fashionable, and it contributes to the preservation of our mother planet.

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