

Consumers Awareness, Attitude And Influence Of Purchase On Green Products In Chennai

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Abstract

Green products are normally durable non-toxic made of recycle materials and used recycle packaging material. Knowing the fact that the numbers of green consumer is quickly increasing in the market place. It becomes imperative to study the consumption and attributes of green products. Hence the study aimed to analyse consumer awareness attitude and influence of purchase on green products in Chennai. Hence, descriptive cross sectional type of research has been applied. Based on the past literature the independent variable and dependent variable have been identified the researcher. Awareness, attitude, eco-friendly and attributes are independent variable, purchase intention is a dependent variable. On the basis of above said variable questionnaire has been construct as a research tool to collect the primary data from the consumers. Using convenience sampling method 240 consumers data have been collected. Further, the data are analysed with Friedman multiple comparison test, correlation analysis and regression analysis are employed. The result indicates that consumer awareness, attitude factors contributing towards purchase of green products significantly varied among the consumers. Further, it is also found that eco-friendly products attribution have highly influence the consumers purchase intention.

Keywords: Consumer Behaviour, Awareness, Attitude, Eco-friendly, Attributes and Purchase Intention.

Introduction

Green products unite green concepts in the production, usage and disposal of these products, while allowing the products to meet the same manufacturing regulations. According to a renowned author in the field of green marketing J.A. (Ottman (1998), “Green products are normally durable, non-toxic, made of recycled materials, or minimally packaged. Of course, there are no absolute green products, for that all use up energy and recourses and create by-products and emissions during their manufacture, transfer to warehouses and stores, usage and eventual removal. So green is relative, telling products with less impact on the surroundings than their alternatives.”

In the increasing number of green consumers, marketers are particularly targeting green consumers by positioning the products based on their environmental features. Most common definitions of green consumer are given below to understand the notion of green consumer. Elkington (1994) characterized green consumer as “Green Consumer is one who avoids products that are likely to endanger the health of the consumer or others; cause significant damage to the environment during manufacture, use or removal, consume a uneven amount of energy; cause unnecessary waste; use materials derived from threatened species or environments; involve needless use of or cruelty to animals; adversely affect other countries” (Jain and Kaur, 2004).

Changing consumer attitudes, consideration for environmental issues and willingness to bear social responsibilities are frequently observed tendencies dominating the market place. The literature of social psychology in the area of behavioural research has successfully established the relationship between attitude, behavioural intentions and explanatory factors and individual behavior (Mustafa, 2017). The underlying theory of reasoned action and theory of planned behavior also established the relationship between attitude and behavior, where attitude serves the role of predictor of consumer behavior (Han and Kim, 2010). Consumers’ attitude affects their thoughts and feelings and thereby influence their purchase behavior (Pickett-Baker and Ozaki, 2008).

Review of Literature

Andreea Barbu, et. al., (2022) aimed to conduct a systematic literature review on consumer behavior, as well as identifying the main factors that interfere with consumer behavior toward green products. A total of 37 studies were found and systematized using inclusion and exclusion criteria. As a result, various factors that influence consumer behavior toward green products were identified, such as social norms, natural environmental orientation, the company’s perceived green image, green product characteristics, perceived risks and inconvenience of buying green products, perceived benefits of buying green products, institutional trust, socio-demographic characteristics, and consumer confidence.

Wencan Zhuang, et. al., (2021) made a meta-analysis of 54 empirical papers was conducted using Comprehensive Meta-Analysis 3.0 software to quantitatively assess these relationships. The results revealed that green perceived value, attitude, and green trust have a significant positive influence on green purchase intention. Perceived behavior control, perceived consumer effectiveness, and subjective norm also has a strong positive impact on green purchase intention. Collectivism has a positive effect on green purchase intention. Green perceived risk has a significant negative impact on green purchase intention.

Kamyar Kianpour, et. al., (2012) investigated the intention of buyers for buying ecological product in comparison with non-environmentally friendly products with regard to price. For such a reason products have been categorized in three different categories such as: Short term, Middle term and Long-term products. The respondents were asked to answer whether they are interested to buy environmentally friendly products when the normal products exist in the market or they have no intention to buy these kinds of products. More over it has been tried to explore that how much the buyers will accept to pay more for environmentally friendly products rather than nonecological products in each category (short term, middle term and long term). Consequently, each category has been divided to six different percentage levels of price to indicate the percentage of acceptance by customers to pay more for the specified categories of eco-friendly products in comparison to non-environmentally friendly products.

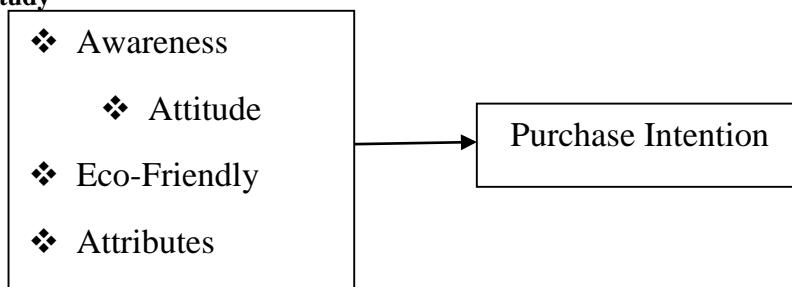
Mensah (2021) assessed the effect of university students' awareness of green products on their green purchasing intentions. The specific objectives were to identify whether awareness, price, availability, value and quality influence university students' intention to purchase green products, and to investigate how awareness, price, availability, value and quality predict university students' intention to purchase green products. Results show that green perceived quality has the utmost significant positive impact on university students' green purchase intentions; however, green perceived availability had the slightest impact on university students' intention to purchase green products. The study is the foremost to conclude that green product awareness impact on university students green purchase intentions is greatly driven by price, high value and extraordinary quality. However, availability is not a critical influencing factor when it comes to green purchase intentions of university students.

Research Problem

Today more and more customers prefer green products and services that fulfill their green needs and are also willing to pay higher for the same (Han and Kim, 2010). Forbes, et. al. (2009) in a study on consumer attitude regarding sustainable wine found that consumers were willing to pay extra for sustainable wine. Similarly, a study in China by Shen & Saijo (2009) came up with the conclusion that consumers in Shanghai were willing to pay extra for energy efficiency. In contrast to these studies, Manaktola and Jauhari (2007) found that positive attitude and behavior of consumers was not translated into willingness to pay extra. Some other researchers endeavoured to explore consumers' willingness to pay premium price for green products / services and came up with mixed results. Loncaric, et. al., (2009) discovered that 15% of consumers were willing to pay more for organic food. In a study aimed to investigate consumers' willingness to pay mark up price for green electricity, Gerpott and Mahmud Ova (2010) stated that 53.4% of consumers were willing to pay mark up, where 26.1% were willing to pay 5-10% increase in electricity bill, whereas Niinimaki (2010) added that 94.6% consumers were willing to pay more for eco-clothing. The GfK Roper Yale (2018) survey on environmental issues, a comparative survey of American and Canadian consumers reported that for clothes' detergents, 51% US consumers and 65% Canadian consumers, for automobile, 50% US consumers and 51% Canadian consumers, for computer printer paper, 40% US consumers and 56% Canadian consumers, for wood furniture, 39% US consumers and 65% Canadian consumers were ready to pay 15% or more for eco-friendly products.

It shows that the majority of customers agree to pay certain percentage more to buy environmentally friendly products with eco labels and ecological characteristics rather than non-environmentally products when these green products are available in the market.

Framework of this Study



Objectives

- To analyse the consumer awareness about the eco-friendly products.
- To examine the consumer attitude towards purchase of eco-friendly products.
- To know the influence factors of awareness, attitude and eco-friendly products attributes on purchase intention.

Hypothesis

- Consumer awareness towards the eco-friendly products has been varied among the consumers.
- Consumers attitude towards the purchase of eco-friendly products has been varied among the consumers.
- The factors of awareness, attitude eco-friendly products, attributes have been influencing the purchase intention.

Methodology

Research Design

This study followed a descriptive cross-sectional design for answer this research objective.

Variable Considered for this Study

Consumers product attributes, price benefits and promotion has been considered. Further, purchase intention is considered as independent variables.

Research Tool

Questionnaire has been considered as a research tool for collecting secondary data for this study.

Sampling Procedure

Consumers awareness, attitude and influence of purchase on eco-friendly products has been taken as the population of the study. From the population limited member of eco-friendly products has been considered as a sample unit. A sample of 240 eco-friendly products customers has been taken as sample size. From the 480 sample consumers perception has been analysed with regard to awareness, attitude, influencing factors and purchase intention.

Statistical Tools Used

In order to answer the objective and hypothesis descriptive statistics, Friedman multiple comparison test of variance, Pearson correlation and regression analysis have been applied.

Results and Discussion

Table – 1 : Awareness about the eco-friendly products

Sl. No.	Statements	Mean	Std. Deviation	Mean Rank	Friedman Multiple Comparison Test	Chi-square value	P-value
1	I am aware of the societal benefits of eco-friendly Products.	3.82	1.102	7.24	6 8, 2, 9, 10, 1, 12, 7,11 3, 13 4 5	534.807	0.001
2	I am aware of the health benefits of eco-friendly Products.	3.95	0.994	7.77			
3	I am aware of the characteristics and features of different eco-friendly product purchases.	3.74	0.961	6.80			
4	I am aware of the different brands that provide eco-friendly Products.	3.38	0.952	5.39			
5	I am aware of many emblems, certificates, and other identifiers that indicate a product is a eco-friendly Product.	3.23	1.023	4.90			
6	I am aware that usage of eco-friendly products preserves the environment.	4.04	0.975	8.07			
7	By using eco-friendly products, I can show others that I care for the environment	3.82	1.075	7.28			
8	Eco-friendly products use recyclable or reusable material/packaging	4.01	0.973	7.91			
9	I am aware that usage of eco-friendly products results in energy efficiency/energy saving	3.94	1.034	7.63			
10	Eco-friendly products are often consist of natural / organic ingredients	3.89	1.019	7.46			
11	Eco-friendly products are non-toxic(non-poisonous) in nature	3.81	1.081	7.18			
12	Usage of eco-friendly products results in lower greenhouse gas emissions	3.85	0.970	7.26			
13	I am aware that eco-friendly products are manufactured by a socially responsible company	3.58	1.029	6.12			

Table – 1 shows the consumers opinion about the awareness of eco-friendly products. The calculated mean value is ranging between 3.23 and 4.04. Friedman’s test is applied to test whether the awareness vary about the consumers. From

the test it is inferred that there is a significant difference at one percent level. It is clear that there is a significant variation from the consumers opinion about the awareness of eco-friendly products. Further, Friedman’s multiple comparison test is used to identify the opinion about, which are most significant. After computing, all the thirteen awareness statements they are grouped into five categories.

Consumers aware the usage of eco-friendly products preserves the environment fall in the first category. Eco-friendly products use recyclable or reusable material/packaging, consumers aware of the health benefits of eco-friendly products, consumers aware that usage of eco-friendly products results in energy efficiency/energy saving, eco-friendly products are often consist of natural / organic ingredients, consumers aware of the societal benefits of eco-friendly products, usage of eco-friendly products results in lower greenhouse gas emissions, by using eco-friendly products, consumers can show others that they care for the environment and eco-friendly products are non-toxic(non-poisonous) in nature fall in the second category. Consumers aware of the characteristics and features of different eco-friendly product purchases and consumer aware that eco-friendly products are manufactured by a socially responsible company fall in the third category. Consumers aware of the different brands that provide eco-friendly products fall in the fourth category and consumers aware of many emblems, certificates, and other identifiers that indicate a product is a eco-friendly product fall in the fifth category.

Table – 2 : Attitudes about the eco-friendly products

Sl. No.	Statements	Mean	Std. Deviation	Mean Rank	Fridman Multiple Comparison Test	Chi-square value	P-value
1	Usage of Eco-friendly Products are good for the environment	4.07	1.023	9.76	10 1, 7, 3, 9, 16 8, 11, 15, 2 13, 14, 12, 6, 5 4	623.684	0.001
2	Eco-friendly Products have better quality when compared to conventional products	3.79	0.993	8.40			
3	Eco-friendly Products are priced higher than conventional products	4.01	1.013	9.46			
4	Eco-friendly Products are well promoted	3.22	1.041	5.87			
5	It is easy to differentiate between Eco-friendly Products and conventional products	3.49	1.022	7.01			
6	I like the package/design of Eco-friendly Products	3.61	0.949	7.33			
7	Eco-friendly Products are good for health	4.05	0.999	9.71			
8	Usage of Eco-friendly Products results in conservation of energy, water, etc.	3.92	0.966	8.99			
9	Eco-friendly Products are recyclable / reusable	3.98	0.964	9.23			
10	Eco-friendly Products are essential for better future	4.12	0.958	10.01			
11	There is a lack of awareness toward Eco-friendly Products among public	3.90	1.064	8.96			
12	There is lack of demand for Eco-friendly Products	3.62	1.053	7.68			
13	Eco-friendly Products are made of eco-friendly material	3.74	0.946	7.95			
14	Manufacturing/Production of Eco-friendly Products is done in an environmental friendly manner	3.71	0.997	7.90			
15	Using Eco-friendly Products gives a feeling of satisfaction	3.86	0.963	8.51			
16	I want to be a part of the green movement by using Eco-friendly Product	3.96	1.032	9.23			

Table – 2 shows the consumers opinion about the attitudes of eco-friendly products. The calculated mean value is ranging between 3.22 and 4.12. Friedman’s test is applied to test whether the attitude vary about the consumers. From the test it is inferred that there is a significant difference at one percent level. It is clear that there is a significant variation from the consumers opinion about the attitude of eco-friendly products. Further, Friedman’s multiple comparison test is used to identify the opinion about, which are most significant. After computing, all the sixteen attitude statements they are grouped into five categories.

Eco-friendly products are essential for better future fall in the first category. Usage of eco-friendly products are good for the environment, eco-friendly products are good for health, eco-friendly products are priced higher than conventional products, eco-friendly products are recyclable / reusable and consumers want to be a part of the green movement by using Eco-friendly product fall in the second category. Usage of eco-friendly products results in conservation of energy, water, etc., there is a lack of awareness toward eco-friendly products among public, using eco-friendly products gives a feeling of satisfaction and eco-friendly products have better quality when compared to conventional products fall in the third category. Eco-friendly products are made of eco-friendly material, manufacturing / production of eco-friendly products is done in an environmental friendly manner, there is lack of demand for eco-friendly products, consumers like the package / design of eco-friendly products and It is easy to differentiate between eco-friendly products and conventional products fall in the fourth category and eco-friendly products are well promoted fall in the fifth category.

Table – 3 : Influencing factors of purchasing about the eco-friendly products

Sl. No.	Statements	Mean	Std. Deviation	Mean Rank	Fridman Multiple Comparison Test	Chi-square value	P-value
1	Environmental advantage of the Eco-friendly Products when compared with conventional products	3.72	1.035	4.84	8, 4 1, 3, 6, 5, 7 2	385.508	0.001
2	Price of the product	3.10	1.017	3.39			
3	Green attribute of the products	3.68	.878	4.69			
4	Awareness about the need to protect environment	3.88	.941	5.20			
5	Promotional Activity	3.40	1.061	4.11			
6	Influence of friends and relatives	3.50	1.026	4.31			
7	Packaging & Labelling	3.39	1.028	4.05			
8	Benefits of Eco-friendly Products	3.97	.956	5.43			

Table – 3 shows the consumers opinion about the influencing factors of purchasing for eco-friendly products. The calculated mean value is ranging between 3.10 and 3.97. Friedman’s test is applied to test whether the influencing factors of purchasing vary about the consumers. From the test it is inferred that there is a significant difference at one percent level. It is clear that there is a significant variation from the consumers opinion about the influencing factors of purchasing for eco-friendly products. Further, Friedman’s multiple comparison test is used to identify the opinion about, which are most significant. After computing, all the sixteen influencing factors of purchasing statements they are grouped into three categories.

Benefits of eco-friendly products and awareness about the need to protect environment fall in the first category. Environmental advantage of the eco-friendly Products when compared with conventional products, green attribute of the products, Influence of friends and relatives, promotional activity and packaging and labelling fall in the second category and price of the product fall in the third category.

Table – 4 : Relationship between the purchase intention and Eco-friendly

Eco-Friendly	Purchase Intention	
	r-value	p-value
Product Attributes	0.522**	0.001*
Price Benefits	0.372**	0.001*
Promotion	0.474**	0.001*

H₁ : Eco-friendly factors are having significant relationship with purchase intention.

Table – 4 portrays the relationship between eco-friendly factors and purchase intention. In order to check the existence of any significant relationship between eco-friendly factors and purchase intention, Pearson correlation test was executed. The calculated p-values are significant at one percent level for the eco-friendly variables with the purchase intention. Hence, it is inferred that eco-friendly factors are having significant relationship with purchase intention.

From the correlation values, it is noted that product attributes (r = 0.522) is highly correlated with purchase intention, followed by promotion (r = 0.474) and price benefits (r = 0.372). It is noted that product attributes, promotion and price benefits are the eco-friendly factors having the significant and positive relationship with purchase intention. However, price benefits are having the least level of relationship with purchase intention.

It is revealed that product attributes and promotion are having more relationship with the purchase intention. However price benefits are having the least level relationship with purchase intention.

Table – 5 : Multiple Regression analysis for eco-friendly and purchase intention

R-value	R ² -value	Adjusted R ² value	F-value	P-value
0.648	0.420	0.415	89.302	0.001*

Predictors	Unstandardized Coefficients		Standardized Coefficients	‘t’	p-value
	B	Std. Error	Beta		
(Constant)	1.402	0.123		11.375	0.001
Product Attributes	0.251	0.034	0.330	7.335	0.001
Price Benefit	0.159	0.037	0.194	4.267	0.001
Promotion	0.043	0.031	0.061	1.399	0.162
Eco-friendly	0.170	0.033	0.224	5.184	0.001

Final article-2247H₁ : Eco-friendly factors is significantly influencing the purchase intention of the consumers. Multiple linear regression test was applied to verify the above stated hypothesis. From the result of the p-value in the F-test, the model is statistically significant ($F = 89.302$; $p < 0.001$). The adjusted R-squared is 0.415, meaning that 41.5 percentage of the variability of purchase intention is accounted for by the variables in the model.

In this case, the adjusted R² indicates that about 41.5 percentage of the variability of purchase intention is accounted by the model, even after taking into account 4 predictor variables in the model. The coefficients for each of the variables indicate the amount of change, one could expect in purchase intention given a one-unit change in the value of that variable, given that all other variables in the model are held constant.

To compare the strengths of coefficient of predictor variables refer to the column of beta coefficients, also known as standardized regression co-efficients. The beta coefficients are used to compare the relative strength of the various predictors within the model because the beta coefficients are all measured in standard deviations, instead of the units of the variables, they can be compared to one another.

In this regression, product attributes has the largest beta coefficients (0.330) followed by eco-friendly (0.224), price benefit (0.194) and promotion (0.061). It is observed that product attributes, eco-friendly, price benefit and promotion are positively and significantly influencing the purchase intention of the consumers.

Findings and Recommendations

As the awareness of the different brands of eco-friendly products are at low level among the consumers they awareness of emblems, certificates and other identifies most be increased by the promotional activity of eco-friendly products.

The promotion of eco-friendly products is at low level among the consumers. They have to realize that eco-friendly products are essential for better future.

The packaging and labeling in eco-friendly products should be attractive in such a way that it influences the buying of eco-friendly products.

The price benefits are found to have least level of relationship with purchase intention so the price factor have to be considered.

It is found that product attributes, eco-friendly, price benefit and promotion are positively and significantly influencing the purchase intention of the consumers. The differentiation between eco-friendly products and other conventional products have be highlighted.

Conclusion

This paper aimed to analyse consumer behavior towards green product. The study result shows that consumers are well aware of green products. They have positive attitude towards purchase of green products. Hence it is concluded that sound understanding of the consumer behavior is essential to the long term success of any marketing programme. Consumer benefit from the investigation of their own behavior when the consumers learn many variables that affect is behavior is he gets educated and understand better how to affect his own behavior. Consumers are becoming more ecologically consciousness and desire to purchase of eco-friendly products.

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