

Effectiveness and Perception of 4P's on Green Products in FMCG

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Abstract

Schultz *et al*, (2004) defined environmental attitude as “the collection of beliefs, affect, and behavioral intentions a person holds regarding environmentally related activities or issues”. Customer satisfaction and relationship are primary objectives of firms today but they have to recognize the advantages and opportunities to be gained from green products. This study explores the effect of four P's (product, price, place, promotion) on attitude and purchase intentions of consumers on green products in FMCG sector. For primary data collection a detailed questionnaire was administered with use of convenience sampling and the sample employed 150 respondents from Bangalore that included students, office workers, housewives, academic staff and business people. Descriptive statistical tests and percentage values were used to analyze data and identifying contributions of variables. Central tendency values utilized to find attitude towards green products and hypothesis testing measures the difference in consumer's attitude towards green products. Correlation analysis provides degree of relationship between variables (Independent variables: Product, price, Place, Promotion and Package, Dependent Variables: Attitude, purchase intention). Findings reveal that there exists a significant positive relationship between promotion and attitudes towards green products. Green products and packages make significant impact on consumer's purchase intention. Willingness to pay an extra price for green products is positively correlated with purchase intention.

Keywords: Green Products, Consumer Behavior, Attitude, marketing mix, purchase intention

Introduction

These days all companies are focusing towards environment friendliness and working on cost effectiveness and quality management of the products. Now business organizations have understood that meeting necessary requirements is not sufficient, they have to make their own competitive edge in the market and it is the only way to sustain in future. Consumers are more aware about society and companies have to serve as well as satisfy all individual wants and need and serve best for their consumers and it will help business organizations in long run. In very simple words green marketing can be defined as marketing of the products and services that are concerned about the safety of environment.

FMCG is a very large sector in the Indian economy and it is very necessary for this sector that it should open its eyes for environment friendliness and should focus on selling of green products. Green marketing is a very vast field which covers many activities like modifications in products, changes in the process of production, changes in packaging, advertising to motivate towards eco friendliness and many more. This study focuses on the effectiveness as well as perception of 4 P's (product, place, price, promotion) and packaging on green products in particularly FMCG sector.

Review of literature

Increased awareness about the environmental problems has caused a shift in consumer's attitude and they are moving towards the green life style. Business organizations have noticed this shift in consumer's attitude and trying to make their position in competitive market and exploring the industry of green marketing. Some researchers claim that green

products and services are profitable for business organizations, going green can reduce the cost, green marketers can form future regulations and can gain first mover advantages (Porter and Vanderlinde 1995) ^[9] and (Rugman and Verbeke 2004) ^[10]. Now for green marketers there is an opportunity to influence the consumers and green behavior without changing their existing attitudes (Thøgersen and Olander 2002) ^[11].

Reviews on Green Marketing

In the late 1980s and early 1990s green marketing came into prominence. (Polonsky, 1994) people are concerned about environment worldwide and trying to change their behavior so that they can reduce the impact on environment. Soonthonsmai (2007) ^[12] said that green marketing are those activities which is taken by firms who are concern about the environment and green problems and deliver environmental friendly goods and services and create satisfaction for consumers as well as society. Peattie (1995) and Welford (2000) ^[5] explained green marketing in terms of management process that is responsible for identification, anticipation and satisfaction of the desires of the customers as well as society in a sustainable and profitable manner. In the field of consumer research, these are the barriers defined for motivational as well as practical problems of green consumption (Hackett, 2000). In today's world, companies which are following environmental practices are facing many challenges like validity of demand, higher costs and unfavorable perception of consumers (Gurau and Ranchhod, 2005). The main concern understands green consumers and their requirements and characteristics and it will help firms in developing new targets and strategic segmentation (D'Souza *et al.*, 2007).

Reviews on Green Products and Consumers

Shamdasami *et al.*, (1993) wrote that green product is a product that will not harm or pollute the earth and it is not harmful for natural resources and it can be recycled as well as conserved. This product is more environmentally strong and it has ecofriendly packaging and content that will reduce the bad impact on environment (Elkington and Makower, 1988; Wasik, 1996) [2]. Krause (1993) [3] has found that now consumers are more concerned about their habits as well as their impact on environment. Now finally as an outcome more consumers are turning into green consumers and actively purchasing green products and helping in protecting the environment (Martin and Simintiras, 1995) [7]. Consumers interested in environmental issues and are aware known as green consumers (Soonthonsmai, 2007) [12]. Ottman (1992) [4] said that consumers purchased green products when their primary need for performance, quality, convenience and affordability were met and when they knew that how green products are helpful in solving environmental problems.

Purpose of study

This study is aimed for better understanding of attitudes and perceptions of consumers towards green products and has collected primary data on demographic profile of consumers. The main purpose of this study is to measure the effect of marketing mix elements (product, place, price, promotion) and packaging on consumer's attitude for green marketing. It was aimed to find out the relationship between marketing mix elements and consumer purchase intentions. Relationship between attitude and perception of consumers and their buying behavior was also studied. The study has explored why consumers purchase green products and the main factors which affect and motivate their decision making process for buying green products and saving environment. This research might have vital impact on readers and consumers of green products and can help in protecting the environment.

Research objective

The main objective of the study is to find the effectiveness and perception of 4 P's (product, place, price and promotion) on green products.

Specific objectives

1. To compare demographic variables with the attitude towards green products.
2. To study buying behavior of green consumers.
3. To measure the effect of packaging on consumer decision making process in purchasing green products.
4. To investigate the consumer attitude and perception for purchasing green products in FMCG sector with respect to 4 P's (product, place, price, promotion)

Hypothesis

H1: The correlation of variables related to marketing mix elements have no significant impact on consumer's buying decisions.

Methodology

Data collection

This is an empirical study and uses collection of primary data. A detailed close ended questionnaire was administered for this. This sample includes 150 respondents (students, housewives,

business related people, private company employees, academicians and others) from Bangalore.

Statistical tools

This research study uses descriptive statistical techniques for analyzing data with SPSS. Central tendency (mean, variance), percentage analysis, testing of hypothesis, correlation, factor analysis were used as major statistical tools in this paper. Correlation analysis was applied for measuring correlation between marketing mix elements and consumer perception. Factor analysis was done for extracting main factors responsible behind the purchase of green products and effectiveness of product, place, price, promotion and packaging on consumer's decision making process.

Analysis and Discussions

Descriptive analysis

A total of 150 respondents participated in the survey which has been represented in Table 1. Majority of respondents were male and lies between 18-24 age group. It is evident that, larger percentages of respondents were undergraduates. Majority was employed as private job workers and 32% candidates belonged to 20001-29999 income groups. 17.3% female, who were house wives participated in this survey.

Table 1: Descriptive analysis of the respondents

Demographic variable	Frequency	Average percentage
Gender		
Male	90	60
Female	60	40
Total	150	100
Age		
18-24	45	30
25-34	45	30
35-44	18	12
45-54	27	18
Above 55	15	10
Total	150	100
Education		
SSLC	15	10
HSC	35	23.3
UG	66	44
PG	34	22.7
Total	150	100
Occupation		
Student	22	14.7
House wife	26	17.3
Academician	27	18
Business	23	15.3
Private job	37	24.7
Others	15	10
Total	150	100
Income		
below 10000	25	16.7
10001 to 20000	23	15.3
20001 to 29999	48	32
30000 to 40000	44	29.3
above 40000	10	6.7
Total	150	100

Purchase intention towards green products

In this study, results show television is the biggest source to spread awareness about use of green products and motivating people towards using ecofriendly products and it can help effectively in saving environment.

Table 2: Purchase intention towards green products

	Frequency	Average percentage
Awareness		
TV	39	26
Magazine	33	22
Class lecture	13	8.7
News	28	18.7
Friends	23	15.3
Others	14	9.3
Total	150	100
Frequency per month		
Once	19	12.7
Twice	42	28.0
Thrice	53	35.3
More than 5 times	36	24.0
Total	150	100.0

Consumer Perception towards green products

Table 3 represents Consumer perception towards green products. Result shows that consumers use green products because they believe green products are healthy. Descriptive statistics reveals that reasonable price, promotion of green products, availability in supermarkets, better performance than conventional products also plays major role in forming consumer perception for green products.

Table 3: Consumer perception towards green products

	Mean	Std. Deviation	t value	Sig. (2-tailed)
Are good for the environment	3.89	1.05	45.19	0.00
Are healthy	4.05	3.41	14.416	0.00
Have a good quality/performance	3.51	1.104	38.99	0.00
Have a better quality/performance than conventional products	3.49	1.163	36.723	0.00
Have a good taste and/or good smell	3.89	1.018	46.858	0.00
Have reasonable price	3.66	0.933	48.053	0.00
Are well promoted	3.58	1.057	35.852	0.00
Are accessible/available in the supermarket	3.52	1.202	41.473	0.00

Correlation between product features and buying intentions

Table 4 represents correlation between marketing elements (product, place, price, and promotion), packaging and consumer purchase intentions. A significant positive correlation exists between availability of product in store and acceptable price. Packaging has a positive relationship with acceptable price and availability of product in super market. A significant correlation was analyzed between advertising and availability of product in the market. Hence the hypothesis 1 is rejected and there exists a significant relationship between marketing mix elements and consumer's buying decisions.

Table 4: Correlation between product features and buying intentions

		Impact of product to environment	Acceptable price	Availability of product in retail store	Advertising	Packaging
Impact of product to environment	Pearson Correlation	1	-.069	-.064	-.057	-.069
	Sig. (2-tailed)		.299	.336	.395	.299
	N	228	228	228	228	228
Acceptable price	Pearson Correlation		1	.198**	.109	1.000**
	Sig. (2-tailed)			.003	.101	0.000
	N		228	228	228	228
Availability of product in retail store	Pearson Correlation			1	.148*	.198**
	Sig. (2-tailed)				.025	.003
	N			228	228	228
Advertising	Pearson Correlation				1	.109
	Sig. (2-tailed)					.101
	N				228	228
Packaging	Pearson Correlation					1
	Sig. (2-tailed)					
	N					228

Factor Analysis

Factor analysis has been performed for identifying most

Important factors responsible for purchase intentions of consumers for green products.

Table 5: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.511
Bartlett's Test of Sphericity	Approx. Chi-Square	842.739
	Df	300
	Sig.	0

Table 5 shows the results of KMO and Barlett's test and the value of KMO measure of sampling adequacy is. 511 it is above 0.5 which means this sample is suitable for factor analysis.

Table 7: Component details

S.N.	Component	TVE (%)
1.	Consumer Attraction	12.977
2.	Advertising impact	9.433
3.	Impact of place and packaging	8.128
4.	Higher price because of ecofriendly packaging	7.555
5.	Price Vs. Features of products	6.348
6.	Cost and familiarity with products	5.982
7.	Reusable packaging and satisfaction	5.194
8.	Good product performance and peer reviews	4.895
9.	Attractive and ecofriendly packaging	4.558
10.	Ready to pay more price	4.326

Table 7 represents 10 factors that have been extracted and responsible for consumer's perception and effectiveness towards green products. Component 1 indicates attraction for green products and contributes to 12.977% of total variance. This includes attraction level of consumers towards green products that they do not mind go far for buying green products and consumers like packaging of the green products. Component 2 explains consumer's attention towards green products advertisements and consumers get inspired to buy green products. This component suggests that green marketers should focus on green advertising. Component 3 contributes 8.128 % and represents easy availability of product and its ecofriendly packaging. Consumers believe on the information given on packaging of green products and they decide to go for purchasing. Component 4 contributes 7.555% and according to this component Eco-friendly packaging of green products adds the price and green products become costlier. Green packaging and environmental friendly features are the main reasons for higher prices of green products and consumers are ready to pay more to avail these benefits from green products. According to component 5, consumers get information about the ingredients of the products from the green product advertisements and they are ready to pay more for those ingredients available in the product. Component 6 has 5.982% contribution and shows consumers refer green products to their friends and family and they are aware of the green products displays in their local supermarket. Component 7 presents 5.194 % and focuses on reusability feature of green product packaging and due to reusability feature of green product it gives a good image consumers and consumers get more satisfaction and believe that they are contributing towards environmental problems. Component 8 reveals that people often listen to friends and family regarding green products and ask for feedback. If they receive good feedback related to product performance they also go for purchasing green products. Component 9 identifies that consumers buy green products because of attractive packaging. Component 10 indicates that consumers are willing to pay more for green products provided that the product should have good reviews

Conclusion

To fulfill the needs and wants of the individuals, satisfaction and quality of products is needed to be ensured by marketers. Hence, consumers always seek for innovative products that can

offer those benefits. Therefore, marketers have to understand relevance of green marketing for protecting the environment, improved quality of life and conservation of natural resources. In order to expand the business, marketing managers should pay more attention towards satisfaction, purchase intentions and product involvement. In this context, the study highlights the importance of packaging as a part of product strategy which is crucial. Hence the results of the study reveal that the consumers are moving towards the purchase of environmental friendly products.

Limitations

The sample size is small as only 150 respondents participated in survey and it is not sufficient to get more relevant data and it creates lack of reliability. Also the survey was done only in Bangalore city, so this study does not cover perception and attitude of other consumers.

Recommendations for Future Research

This study will provide some valuable dimensions for practitioners and researchers, those who are interested in understanding individuals who are conscious for environment and use green products and its impact on green marketing. It is true that success of FMCG green products purely depends on how a consumer adopts or changes his buying behavior for these green products. And it is necessary to identify the important factors which can encourage the use of green products. That is why the study will surely benefit marketers who are interested in making strategies for green marketing and can motivate consumers to think for collective gains above than their self-interests. The future success of green product and services will only depend on effective communication and delivery of consumer's desired needs in market place, and after that only this business will move towards sustainable growth.

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