An analysis of factors influencing the purchase of eco-friendly FMCG products in Coimbatore city- Factor analysis

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ABSTRACT

The corporate social responsibility is one of the main factors which may influence the market performance of the company business. Environmental issues are very common now-a-day that should be addressed by the companies through offers in terms of eco-friendly products. Now-a-days, there is an increasing trend among the marketer and consumer to switchover eco-friendly products and many companies have accepted their responsibility not to harm the environment and not to waste the natural resources. Hence, the present study aims to know about how the consumers care for their health and also their interest in protecting the environment. Coimbatore city were purposively selected for the study. Totally 100 consumers were selected by proportionate random sampling method. Both primary and secondary data were collected and utilized for the study.

INTRODUCTION

The environmental issues such as global warming, ozone depletion, water and air pollution, loss of species, and farmland erosion have led to the current alarming environmental crisis that threaten the environment as well as human life. There is more risk than ever before that earth is warming under "human influence", according to a year 2007 report compiled by the UN's Intergovernmental Panel on Climate Change (IPCC), warning that only "substantial and sustained reduction" of greenhouse gas emissions will limit the disaster of climate change. Thus, human behaviour is a key source as well as the main solution to the environmental problems.

Due to increase in global warming and climate change the public concern for environmental issues is gradually increased over the past decades. The customers

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Table A : Eco-friendly products producing firms in India			
Sr. No.	Company	Category	Eco-friendly
1.	Organic	FMCG	Hazard Analysis Critical Control Points, Green Manufacturing Practices, ISO 9001 Certifications
	India	(Grocery)	Organic Certifications from control union
2.	Himalayas	FMCG	ISO 14001 certification excellence for Environmental management
		(Personal care Products)	Green manufacturing practices certification
			ISO 9001 certification for excellence and quality
3.	Amway	FMCG	ISO 14001 Environmental management certification
		(Personal care and	United earth honor
		Household products)	Recycling coalition certification
4.	Biotique	FMCG	Ecofriendly and recyclable packaging
		(Personal care Products)	100% natural botanicals, No chemicals and preservatives
5.	Dabur	FMCG	Green Manufacturing Practices Certifications
		(Personal care Products)	ISO 14001 Certifications excellence in Environment Management system
			Larger Natural consumer products manufacturer

are started demanding eco-friendly products and they pay more attention to the environment, wealth and health. Eco-friendly products are those products that will not pollute the earth or deplore natural resources, product which can be recycled or conserved, products with natural ingredients, products containing organic elements and products contents under approved chemical. Eco-friendly products has no or the least possible impact on the environment. Eco-friendly products usually contain material that's been recycled, material that's easily recycled, or material gathered from a natural source. Environmentally friendly products avoid toxic chemicals known to cause harm. Eco-friendly is a term used to refer to goods and services, laws, guidelines and policies claimed to inflict minimal or no harm on the environment.

Fast Moving Consumer Goods (FMCG) is considerably a large sector in the Indian economy. FMCG also known as Consumer Packaged Goods are products that are sold quickly at relatively low cost. Though the absolute profit made on FMCG products is relatively small, they generally sell in large quantities, so the cumulative profit on such products can be large. In India the FMCG sector has to open their eyes on eco-friendliness. Fast Moving Consumer Goods refer to items that are purchased and consumed frequently by consumers. These are non durable items which have relatively low prices. Some FMCG'S such as meat, fruits and vegetables, dairy products and baked fruits are highly perishable. Other goods such as pre-packaged foods, soft drinks, chocolates, candies, toiletries and cleaning products have high turnover rates. The details of eco-

friendly product producing companies are given in Table A.

Table A showed that the companies which producing eco-friendly FMCG Products with their certification for eco-friendliness. Most of the companies are producing personal care products. Consumer Perception is defined as the way that customers usually view or feel about certain services and products. It can also be related to customer satisfaction which is the expectation of the customer towards the products. Review of the similar work was collected and presented below.

Mostafa (2007) defined green purchase behaviour refers to the consumption of products that are benevolent or beneficial to the environment, recyclable or conservable and sensitive or responsive to ecological concerns.

Mangali and Francis (2012) indicated that Consumers Attitudes Towards Eco-Friendly Products and Purchase Intension in the Fast Moving Consumer Goods (FMCG) Sector. Consumers are becoming more interested in environmentally friendly products, raising the demand against a limited supply.

Nathan and Mathi (2012) suggested that awareness should be created for natural personal care products and shows there is market opportunity for natural personal care products if introduced by commercial or normal manufacturers of personal care products.

Mahapatra (2013) indicated that Perceptions represent the formation of an individual state of mental awareness that is affected by internal and external environmental stimuli such as economic, social and

cultural factors.

Prakash and Pathak (2014) found that price, brand name, quality, availability, packaging were the important factors influencing the rural consumers' purchase decisions in FMCGs.

Nadaf and Nadaf (2014) stated that Green products require renewable and recyclable material, which is costly and it requires a technology, which requires huge investment in R & D. They also observed that majority of the people are not aware of green products and their uses and found that majority of the consumers are not willing to pay a premium for green products

Gogoi (2015) stated that consumers who are concerned about the environment wellness, take active participation in green activities, concerned about energy and resource saving shows willingness to purchase green products and services.

Kapoor and Chaundary (2017) observed that product quality, brand image and trust are the most important factors influencing consumers' decision making in selecting Patanjali products

Jagat and Arya (2017) revealed that the rural customers also think about quality, performance, reliability, brand and other critical aspects, it is recommended to promote FMCG in lines of rationality rather than just making low price appeals. It is recommended to offer FMCG that lasts long.

MATERIAL AND METHODS

Coimbatore city was purposively selected to know about the factor influencing eco-friendly products. The sampling technique involved is proportionate random sampling. The Coimbatore city five regions were selected. Each region consists of 20 samples and made the sample size equal to 100. From each region, ten samples from shopping areas and the remaining from household size were selected. Both Primary and Secondary data were collected for the study. Primary data was collected by using well structured interview schedule and it was pretested. The secondary data related to product details were collected from various websites, reports etc., the data were collected from the respondents based on recall bias. Factors influencing the purchase of eco-friendly were analyzed by factor analysis using SPSS software.

OBSERVATIONS AND ANALYSIS

The results obtained from the present investigation as well as relevant discussion have been summarized under following heads :

Demographic details of the sample respondents :

It could be concluded that the respondents were classified based on different demographic features. Major share (38 %) of the sample respondents were male followed by 62 per cent of them female respondents and they are educated people. It was observed that majority of the sample respondents are below 30 years (52 %) followed by 31-40 years (33 %) and 41-50 years (15 %). Since, major share of the sample respondents are youngsters, there should be a wider scope for the eco-friendly products. From the results it was identified that most of the respondents are graduates and their family income ranges from 2-3 lakh per annum.

Awareness level :

It was observed that 73 per cent of the sample respondents aware about eco-friendly FMCG. Remaining 27 per cent were not aware about eco-friendly FMCG because they were not known about eco-friendly terms, products and environmental issues.

Factor analysis :

Factor analysis is a multivariate statistical technique used to condense and simplify the set of large number of variables to smaller number of variables called factors. Principal component analysis and rotation method of varimax was used for extracting factors. Among the 15 statements 7 statements were retained depending on component matrix, Eigen values and communalities.

The data were analyzed with the help of SPSS and factor analysis of the scale was done and the scale was

Table 1 : KMO measure and bartlett's test	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.518
Bartlett's Test of Sphericity App. Chi-Square	649.595
Df	231
Sig	.000

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Table 2 : Communalities

Sr. No.	Variables	Extraction
1.	Quality of the product	.806
2.	Product availability in multiple size	.678
3.	Easy availability in nearby stores	.798
4.	Price of the product	.712
5.	Promotion offered by the firms (free offers/ sales promotion)	.735
6.	Advertisement by the firms	.762
7.	Use of Brand ambassadors	.698
8.	Distribution strategy followed by the companies	.800
9.	Attractiveness in display of the product	.880
10	Colour of the product	.724
11	Health conscious statements, tag line	.514
12	Attractive Package and logo	.892
13	Prior image	.634
14	Brand Name	.847
15	Because of health conscious /only for health conscious	.818

Table 3 : Total variance explained

Component	Initial eigen values			Extraction sums of squared loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	3.375	15.341	15.341	3.375	15.341	15.341
2	2.914	13.245	28.587	2.914	13.245	28.587
3	2.490	11.319	39.906	2.490	11.319	39.906
4	2.127	9.669	49.574	2.127	9.669	49.574
5	1.742	7.919	57.494	1.742	7.919	57.494
6	1.301	5.913	63.407	1.301	5.913	63.407
7	1.141	5.187	68.594	1.141	5.187	68.594

Extraction method: Principal component analysis

found significant on KMO Bartlett's test. The factor loadings are categorized into eight factors. These factors were named quality of the product, availability in multiple size, easy availability in nearby stores, price of the product, promotions offered by the companies, advertisements, attractiveness in display of the product, attractive package, logo, tagline, purchasing because of health conscious, prior image and brand image.

Most of the communalities are above 0.5 indicating that good percentage of the variance in variables was explained by the factors (Table 2). So it can be concluded that these 7 factors extracted from the 15 variables are explaining more than 68 per cent of the variance in the study. The seven factors were retained based on the communalities and the eco-friendly product producing firms should concentrate on the influencing factors which are given below.
– Attractive package and eco-friendly logo
– Attractiveness in display of the products
– Brand image
– Quality of the product
– Health conscious
– Easy availability of the products in nearby areas
– Distribution strategy followed by the firms

Summary and conclusion :

Though consumers are willing to purchase green products, many business organizations still in behind the need of the eco friendly society. Most of the sample respondents are aware about the eco-friendly FMCG products and they have more concern for eco-friendly products. The government, the organization and the customers has to put hands together in creating awareness of eco-friendly products. The eco-friendly producing firms also must focus on the influencing aspects of attractiveness package, eco-friendly logo, quality of the products and availability in nearby stores of eco-friendly FMCG products.

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