

GREEN MARKETING IN FOOD INDUSTRY

Anusha Sri Chintala¹, Raj Shraavanthi Andukuri² and Dr. N Ajjan³

¹Student (2nd MBA), Tamil Nadu Agricultural University, Coimbatore, India
Email: swarnadolz@gmail.com

²Research Scholar, Tamil Nadu Agricultural University, Coimbatore, India
Email: rajshraavanthi@gmail.com

³Director, CARDS, Tamil Nadu Agricultural University, Coimbatore, India
Email: ajjan@rediffmail.com

ABSTRACT

The specific objectives of the study are to find out the awareness of micro , small, medium and large scale entrepreneurs on green marketing and eco labels in food industry, consumer perceptions about green marketing and to identify the constraints in practicing green marketing in case of micro , small, medium and large entrepreneurs in food industry in the study area.

The present study was conducted to know the awareness levels of Entrepreneurs and Consumers on Green marketing and Eco-labeling. This study was conducted in Coimbatore city. Primary data was collected from the respondents (Customers and Entrepreneurs) through a separate well structured and pre-tested interview schedule. The data required for the study was gathered by personal interview with the selected respondents. The data collected from the sample customers included general particulars like age, educational status, occupation, Type of family, family size, factors.

General profile of respondent revealed that most of the young and middle aged people had more awareness towards green marketing. News papers were the major source of awareness to the respondents followed by the television. Most the people preferring green products often read the nutritional and ingredients section of food labels before buying the new food products. Most of the Respondents agreed that the green foods are safe for human consumption. They also opined that by implementing green marketing strategy the companies are able to gain competitive advantage over others. It was observed that more than half of the respondents surveyed were willing to buy green foods even if they were costly. More than half of the respondents perceive that Green Marketing strengthens company's image in the mind of consumers and thereby persuade consumers to buy their products. The consumers purchase decision was mostly influenced by quality of the product followed by availability of the product.

Keywords: Green marketing, environmental marketing, ozone friendly and ecological marketing.

INTRODUCTION

The promotion of environmentally safe or beneficial products, green marketing began in Europe in the early 1980s when specific products were identified as being harmful to the earth's atmosphere. As a result, new "green" products were introduced that were less damaging to the environment. The concept caught on in the United States and has been gaining steadily ever since.

Many people believe that green marketing refers solely to the promotion or advertising of products with environmental characteristics. Generally terms like Phosphate Free, Recyclable, Refillable, Ozone Friendly, and Environmentally Friendly are some of the things consumers most often associate with green marketing. In general green marketing is a much broader concept, one that can be applied to consumer goods, industrial goods and even services. For example, around the world there are resorts that are beginning to promote themselves as "ecotourism" facilities, i.e., facilities that specialize in experiencing nature or operating in a fashion that minimizes their environmental impact. Thus green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising. But to define green marketing is not a simple task. The terminology used in this area has varied, it includes: Green Marketing, Environmental Marketing and Ecological Marketing. The American Marketing Association (AMA) held the first workshop on "Ecological Marketing" in 1975. The proceedings of this workshop resulted in one of the first books on green marketing entitled "Ecological Marketing". Green marketing is defined as "Green or Environmental Marketing consists of all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment."

Green Marketing

(Posonsky,2007), has defined it as " green or environmental marketing consist of all activities designed to generate and facilitate any exchange intended to satisfy human need or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment ."

Green marketing refers to the process of selling products and/or services based on their environmental benefits. Such a product or service may be environmentally friendly in it or produced and/or packaged in an environmentally friendly way.

Why Green Marketing?

As today's consumers become more conscious of the natural environment, businesses are beginning to modify their own thoughts and behavior in an attempt to address the concerns of consumers. Green marketing is becoming more important to businesses because of the consumer's genuine concerns about our limited resources on the earth. As resources are limited and human wants are unlimited, it is important for the marketers to utilize the resources efficiently without waste as well as to achieve the organization's objective. So green marketing is inevitable. There is growing interest among the consumers all over the world regarding protection of environment. Worldwide evidence indicates people are concerned about the environment and are changing their behavior. As a result of this, green marketing has emerged which speaks for growing market for sustainable and socially

responsible products and services. By implementing green marketing measures to save the earth's resources in production, packaging, and operations, businesses are showing consumers they too share the same concerns, boosting their credibility.

Importance of Green Marketing

Man has limited resources on the earth, with which she/he must attempt to provide for the worlds' unlimited wants. There is extensive debate as to whether the earth is a resource at man's disposal. In market societies where there is "freedom of choice", it has generally been accepted that individuals and organizations have the right to attempt to have their wants satisfied. As firms face limited natural resources, they must develop new or alternative ways of satisfying these unlimited wants. Ultimately green marketing looks at how marketing activities utilize these limited resources, while satisfying consumers wants, both of individuals and industry, as well as achieving the selling organization's objectives.

When looking through the literature there are several suggested reasons for firms increased use of Green Marketing. Five possible reasons are as follows:

- Organizations perceive environmental marketing to be an opportunity that can be used to achieve its objectives.
- Organizations believe they have a moral obligation to be more socially responsible. Governmental bodies are forcing firms to become more responsible.
- Competitors' environmental activities pressure firms to change their environmental marketing activities.
- Cost factors associated with waste disposal, or reductions in material usage forces firms to modify their behavior.

Goals of Green Marketing

1. Eliminate the concept of waste.
2. Reinvent the concept of product.
3. Make prices reflect actual and environmental costs.
4. Make environmentalism profitable.
5. Bringing out product modifications.
6. Changing in production processes.
7. Packaging changes.
8. Modifying advertising.

Eco Label

Eco label is an environmental claim that appears on the packaging of a product .It is awarded to a manufacturer by an appropriate authority. ISO 14020 is a guide to the award of Eco-labels.

Eco-Labeling Initiatives

Eco-label provides information regarding the environmental performance of products. The objective of eco-labeling is to provide authentication to genuine claims regarding the environmental impact of products and processes by manufacturers. In India the government has introduced the eco-mark scheme since 1981. The objectives of the Scheme are:

- To provide incentives to manufacturers and importers to reduce the adverse environmental impact of products.
- To reward genuine initiatives by companies to reduce adverse impact of environmental impact of products.
- To assist consumers to become environmentally responsible in their daily lives by providing them information to take account of environmental factors in their daily lives.
- To encourage citizens to purchase products having less environmental impact.

OBJECTIVES

1. To find out the awareness of micro , small, medium and large scale entrepreneurs on green marketing and eco labels in food industry
2. To identify the constraints in practicing green marketing in case of micro , small, medium and large entrepreneurs in food industry
3. To identify the consumer perceptions about green marketing.

LITERATURE REVIEW

To support and enrich the theoretical orientation of the present study, concepts and past studies relevant to the present study were reviewed and presented.

Marketing

Kotler (2006) has defined marketing as “a societal process by which individuals and groups obtain what they need and want through creating, offering, and freely exchanging products and services value with others”. As the concerns enhanced, environment, sustainability, and green marketing became more popular terms.

According to Armstrong and Kotler (2007), marketing is managing profitable customer relationships with the goal to attract new customers by promising superior value and to maintain current customers by delivering satisfaction.

Green Marketing

According to Ottman (2006) the green marketing satisfies two objectives i.e improved environmental quality and customer satisfaction.

Grant, J. (2007) has suggested that green marketing objective is to educate and make people willing to go green, because it influences on changing the life style and behavior of the people. There are steady movements in public interest and concern about the environmental issues.

Simula, Lehtimark, and Salo (2009) stated that the word “Green” is widely used today for new technologies and new products which have more sustainable impact on the environment. “Green”, “Pro-environmental”, ”Sustainability”, “Environmentally Friendly” and “Ecology” are the terms commonly used to describes that the firms’ processes and products consume less energy; are recyclable; lessen waste and pollution; and preserve natural resources.

All over the world, the demand in green products is growing and as such there is a concern for understanding how green is a green product. One of the most important restrains to the development of green products is the lack of consumer trust and the lack of information (Cervellon et al. 2010; Yiridoe et al., 2005).

Eco-label

Eco-label is an environmental claim that appears on the packaging of a product. It is awarded to a manufacturer by an appropriate authority. ISO 14020 is a guide to the award of Eco-labels. (Grant, 2007)

Awareness

Rezai et.al,(2012) in their study concluded that Consumers who have higher education levels are more intent on purchasing green foods. This is due to the fact that they are more aware of the advantages of consuming green foods such as the health and nutrition aspects as well as the fact that there is little or no use of chemicals, they are safer, environmentally friendly and are concerned about animal welfare issues.

(Abdul, 2009) Consumers now have stronger purchasing power and more choice when purchasing and consuming food. Therefore, more people demand healthier, safer, hygienic, environmentally friendly and higher quality foods .

Consumer Perception

Morgan Polls (2006) also found that a majority of consumers, including New Zealanders, perceived green products to be overpriced.

Constraints

Bukhari (2011),Green marketing is still in its infancy and a lot of research is to be done on green marketing to fully explore its potential.

Higher price has a negative effect on the probability of consumers purchasing green products. Consumers are less likely to purchase green products if the products are more expensive. This is consistent with D’Souza et al. (2006)

Maheshwari and Malhotra(2011) Result of the survey conducted showed that, consumers are not overly committed to improving their environment and may be looking to lay too much responsibility on industry and government. Ultimately green marketing requires that consumers "Think Green, Think clean, Think Eco friendly" i.e. they want a cleaner environment and are willing to "pay" for it, possibly through higher priced goods, modified individual lifestyles, or even governmental intervention. Until this occurs it will be difficult for firms alone to lead the green marketing revolution.

METHODOLOGY

Any meaningful research initiative requires a carefully prepared research design. It enables to analyze the research problems systematically and to find solutions for the same. It also helps in arriving at unbiased estimates of facts and figures. Therefore, a brief description of the research methodology adopted in selection of study area, selection of sample respondents, method of collection of data and various tools of analysis used are presented and discussed.

Sampling Design

The present study was conducted to know the awareness levels of Entrepreneurs and Consumers on Green marketing and Eco-labeling. This study was conducted in Coimbatore city. Coimbatore city has a huge population with diversified cultures, wide social and economic classes and highly sophisticated lifestyles.

Collection of data

For collection of primary data from respondents (Customers and Entrepreneurs) separate well structured interview schedule was prepared based on the objectives of the study and pretested. The data required for the study were gathered by personal interview with the selected respondents. The data collected from the sample customers included general particulars like age, educational status, occupation, Type of family, family size, factors.

TOOLS OF ANALYSIS

The collected data were analyzed with reference to the objectives set forth in the study. Tools of analysis used for the purpose are explained.

Percentage Analysis

Percentage analysis was done to study the general characteristics of customers which include age, education, occupation, income level, etc. Percentages were worked out for understanding the consumer awareness, attitude, preference and behaviour.

$$\text{Percentage analysis} = \frac{\text{Number of respondents}}{\text{Total sample size}} \times 100$$

Factor Analysis

In Factor Analysis, correlated continuous variables are modeled as conditionally independent given hidden (latent) variables that are termed factors. Factor Analysis serves as a tool for dimension-reduction; the possibly many observed variables are summarized by fewer factors (Drton *et al.*, 2004)

It is a statistical approach that is used to analyze interrelationships among a large number of variables and to explain the variables in terms of their common underlying dimensions (factors). The statistical approach involves finding a way of condensing the information contained in a number of original variables into a smaller set of dimensions (factors) with a minimum loss of information (Hair *et al.*, 1998)

To identify the underlying constructs and investigate the relationship among the variables that influence and determine the customer's perception and expectation regarding retail service and quality delivered at Spencer's, factor analysis was applied.

A list of statements were prepared and the customers were asked to indicate on a 5 point scale whether they are highly satisfied, satisfied, neutral, not satisfied and highly dissatisfied. The responses of the customers were recorded and score was given to each factor, then the scores in turn were added to obtain the total score. To test the sampling adequacy, Kaiser-Meyer-Olkin measure of sampling adequacy was calculated. Principal component analysis was employed for extracting factors. Orthogonal varimax rotation was also applied. Variables, whose communalities are greater than 0.50 were retained,. The factors with Eigenvalues greater than 1.0 were considered and the analysis was done.

Multi Dimensional Scaling Technique

The multi dimensional scaling technique was used to measure the satisfaction level of customers with respect to various reasons like availability , arrangement and display of products; offers, customer service, infrastructure and parking facility at Spencer's hypermarket. A five point continuum (highly satisfied, satisfied, neutral, dissatisfied, and highly dissatisfied) was used in this study.

Garrett Ranking Technique

Garrett ranking technique was used to analyze the reasons for switching stores by customers. The sample respondents were usually asked to rank each factor and the data was analyzed.

The Garrett's ranking technique is as follows:

$$\text{Percent Position} = \frac{100(R_{ij} - 0.5)}{N_j}$$

Where,

R_{ij} = Rank given for the i^{th} factor by j^{th} individual

N_j = Number of factors ranked by j^{th} individual

Garrett's ranking was used to analyze the rank given by the customers for various reasons for switching stores by customers. The reasons given by the respondents were converted into percent position by using the formula.

The per cent position of each reason obtained was converted into scores by referring to the table given by Garrett. Mean score was estimated for each reasons. These mean scores for all the reasons were arranged in descending order and the reasons with the highest mean score were given first rank. Thus the important reasons were identified.

Chi-Square Test

In the present study, Chi Square (χ^2) test was used to analyze the association between various factors that might influence the purchase decision of the sample consumers. The formula used for the Chi-Square test is presented below,

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

Where, O = Observed frequency;

E = Expected frequency.

Expected frequency of any cell = $\frac{\text{CRT} \times \text{CCT}}{\text{Grand total}}$

Where, CRT = Corresponding row total,

CCT = Corresponding column total

The χ^2 distribution with (r-1) (c-1) degree of freedom, where 'c' means number of columns and 'r' means number of rows was followed. The test of significance was carried out at five per cent level of probability. If the calculated value was greater than the table value, it was concluded that there was a significant association between the attributes.

RESULTS AND DISCUSSION

The data collected during the study were subjected to statistical analysis taking into consideration the objectives of the study so as to draw meaningful inferences. The results are discussed in this chapter under the following sections;

1. General Characteristics of the Sample Customers
2. Distribution of Respondents with respect to Source of Awareness
3. Attitude of respondents towards green marketing
4. Consumer perception towards green marketing
5. Factors which influence consumer purchase decision
6. Entrepreneur Awareness towards Green products and eco labels
7. Entrepreneur attitude towards Green marketing

General Characteristics of the Sample Customers

The general profile of the respondents comprises of basic details such as age, gender, marital status, educational qualification, occupational status, household size. The profile of the customers influences their awareness towards green marketing.

- Age:- Pearson Chi-Square value: 5.322 (p value = 0.070)
- Gender:- Pearson Chi-Square value: 0.446
- Marital status:- Pearson Chi-Square value : 1.502
- Education qualification:- Pearson Chi-Square value : 6.560
- Type of family:- Pearson Chi-Square value : 1.241

The chi square test shows that there is no association between

- Gender and Awareness

- Marital status and Awareness
- Family type and Awareness

The chi-square test results showed that there is association between;

- Age and awareness
- Educational qualification and awareness

Awareness			
Age	N	Subset for alpha = 0.05	
		1	2
1	13	1.0000	
2	28	1.0357	
3	9		1.2222

Distribution of Respondents with respect to Source of Awareness

S. no	Source of awareness	No. of. Respondents	% of total no. of. Respondents
1	Newspaper	26	38.235
2	Television	23	33.823
3	Family	13	19.117
4	Radio	2	2.941
5	Friends	4	5.882

From the above table it is evident that News papers are the major source of awareness of the respondents (38.25per cent) followed by television (33.82 per cent) followed by family (19.11 per cent).

Statements for measurement on Awareness:

A five point continuum (Always, Often, Sometimes, Rarely, Never) was used in this study. Mean score for each attribute response was calculated and presented in the Table

S.No	Factors	Mean score
1	To what extent do you buy green products	3.34
2	Nutritional section of food labels – Familiar products	3.2
3	Ingredients section of food labels – Familiar products	3
4	Nutritional section of food labels – New food product	4.5
5	Ingredients section of food labels – New food product	4

From the above table it could be inferred that the consumers often went through the nutritional section and ingredient section of food labels for new products and therefore preferred new products based on these two above mentioned criteria.

Attitude of respondents towards green marketing

A five point continuum (highly agree, agree, neutral, disagree, and highly disagree) was used in this study. Mean score for each attribute response was calculated and presented in the Table

S. No	Factors	Mean score
1	Green foods are reasonably safe for human consumption	4.16
2	I consider environmental aspects of the products before buying them	3.84
3	With a “green” label, consumers think that the product is overpriced, that it’s not going to work , or doesn’t taste good	3.2
4	Do you think that by implementing green marketing strategy the companies are able to gain competitive advantage over others	3.72

From the above table it can be concluded that the respondents had favourable attitude towards green products since on an average the respondents agreed with the statement that ‘Green foods are reasonably safe for human consumption’.

Consumer perception towards green marketing

S. No	Perception	No.of Respondents	Percentage to total responses
1	Would you buy green foods even if they are costly	29	58
2	Green marketing strengthens company’s image	32	64
3	Company that focus on environmental concerns persuade consumers to buy products	33	66

From the above table it is evident that most of the respondents perceived that company that focus on environmental concerns persuade consumers to buy products followed the statement that green marketing strengthens company’s image.

Factors which influence consumer purchase decision

S.No	Parameter	Garrett score	Ranking
1	Quality of the product	70	1
2	Availability of the product	57	2
3	Brand name of the company	32	6
4	Previous Experience	55	3
5	Advertisements	47	4
6	Family/Friends opinion	48	5

From the above table it is evident that consumer purchase decision is highly influenced by Quality of the product followed by the Availability of the product and are least influenced by Brand name of the company followed by Family/Friends opinion.

Entrepreneur Awareness towards Green products and eco-labels

S.No	Awareness	Respondents	Percentage to total
1	Awareness on green products	9	90
2	Awareness on Eco-Label	8	80

From the above table it can be observed that majority of the respondents (90 per cent) are aware of Green products and (80per cent) are aware of Eco-Labels.

Entrepreneur attitude towards Green marketing

Total Variance Explained

Com- ponent	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.034	35.495	35.495	6.034	35.495	35.495	3.770	22.176	22.176
2	3.500	20.590	56.085	3.500	20.590	56.085	3.538	20.812	42.988
3	1.920	11.297	67.382	1.920	11.297	67.382	2.775	16.326	59.314
4	1.694	9.963	77.345	1.694	9.963	77.345	2.514	14.787	74.101
5	1.224	7.200	84.545	1.224	7.200	84.545	1.775	10.444	84.545

Extraction Method: Principal Component Analysis.

CONCLUSION

- In this study it is proved that only young and middle age people have more awareness towards green marketing
- News papers are the major source of awareness to the respondents followed by the television
- People will not always buy the green products , and they often read the nutritional and ingredients section of food labels before buying the new food products
- Respondents agree that the green foods are safe for human consumption, they consider the environmental aspects before buying them and
- They also agree that by implementing green marketing strategy the companies are able to gain competitive advantage over others
- More than half respondents are willing to buy green foods even if they are costly
- More than half respondents perceive that Green Marketing strengthen company's image in the mind of consumers persuade consumers to buy products
- The consumer purchase decision was mostly influenced by quality of the product followed by availability of the product.

- Form cost and time dimension, it is evident that the entrepreneurs are planning to get eco-labeling done for their products but the major concern is getting environmental certifications is a expensive and lengthy process
- Entrepreneurs have a notion that the consumers may not buy eco-friendly products which are costlier
- From Eco labeling dimension we can say that the entrepreneurs believed in the concept of green marketing and eco-friendly practices.
- They also believe that eco-labeling has/will increase their product cost.
- Based on Environmental company dimensions entrepreneurs goal is to be perceived as a environmental company.
- From brand image dimensions entrepreneurs believe that Green Marketing strengthen company's image in the mind of the consumers
- From corporate image dimensions entrepreneur believe that green marketing promotes a more thoughtful, responsible corporate image.

LIMITATION

- There are certain limitations in this study:
 - The consumer survey was limited to the selected parts of Coimbatore
 - This study was based on primary data collected from sample customers and entrepreneurs by survey method.
- However, with the available information provided by the case firm and the customers' enquiry, the present study has been designed so as to fulfill the objectives contemplated in this study. Utmost care has been taken to truly reflect consumers' response by structuring the interview schedules and making cross checks.

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