Green Marketing Practices: A Retailer's Perspective

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ABSTRACT

The main interest all over the global is to protect environment. International evidence indicates humans are worried about the surroundings and are changing their behavior. Due to this, green advertising has emerged which speaks for growing marketplace for sustainable and socially accountable services and products. The main objective is to find the factors influencing the attitude of retailers towards green marketing practices. Factors identified may be inter-related but not independent. Hence, the objective is also to group these factors based on the commonalities and name it accordingly. Second objective is to measure the attitude of retailers towards green marketing practices by using Cluster analysis technique which is justified using ANOVA. Survey was conducted and the retailers are asked to opine about the factors influencing their attitude towards green marketing practices. The opinion is obtained for twenty-two statements which are related to the factors influencing the attitude of retailers towards green marketing practices by adopting scaling technique, namely, Likert Five Point Scale. A multi-variant statistical technique called factor analysis is applied. In this Principle factor method with orthogonal varimax rotation is used to group the related factors and also other relevant statistical methods are used for data analysis. From the results it is observed that 5 factors were identified. Viz., Awareness creation on green practices and waste reduction, Make employees and customers familiar with green products, Application of Energy Saving Products, Adoption of Green Technology, Recycling of Waste and 3 clusters were formed such as Energy Savers, Awareness Creators, and Green Motivators.

Keywords: *Green marketing, retailer perspective, attitude of retailers, factor analysis, Cluster analysis*

1. INTRODUCTION

Green marketing is swiftly converting the stylish marketing strategies as in step with the consumer demand in a sustainable way. green marketing method reaps more than one benefits like extended sales, reduced costs, new product improvement, risk mitigation, surroundings safety, global safety and better brand recognition. green marketing is wanted to cope with environmental troubles which affect all human society and natural environment.

"Green marketing" refers to holistic advertising concept in which the manufacturing, marketing consumption and disposal of products and services happen in a way this is much less damaging to the surroundings with growing attention about the implications of global warming, non-biodegradable strong waste, risky effect of pollution and so forth., both marketers and consumers are becoming more and more sensitive to the want to exchange over to inexperienced products and services. while the shift to "green" can also appear to be steeply-priced within the quick term, it'll definitely prove to be essential and fine, cost-wise too, in the long run.

2. Review of literature

R.H.Walker, and D.J. Hanson [1] (1998) in their research article, "Green Marketing and Green Places: A Taxonomy for the Destination Marketer", highlights environmental implications and imperatives associated with destination marketing as distinct from those related to products and services

marketing. A comparative taxonomy has been generated to illustrate these, and to provide a structure for discussing their relevance, with reference to the particular case of Tasmania as a tourism destination.

Ricky Y. K. Chan., (2001)[2]. In his study entitled "Determinants of chinese language consumers' green purchase behavior", examines the have an effect on of diverse cultural and psychological factors on the green purchase behavior of chinese language customers. To this end, a conceptual model has been proposed and subjected to empirical verification with using a survey. in opposition to the foregoing heritage, this observe goals to comprehend a higher expertise of the way diverse psychological elements might affect chinese language customers' green purchasing. As might be elaborated later, the foremost elements below investigation consist of the customers' affective responses towards and information of ecological troubles in popular, and their precise attitudes closer to green purchases.

M.J.Roy, and R. Vézina [3] (2001) of their research article,"Environmental overall performance as a basis for competitive method: possibilities and danger", shows that corporations are thinking about environmental differentiation as a basis for their competitive method. similarly it examines significance of the subsequent 3 gadgets like company Environmental reviews (CER), eco-labelling programs, and the ISO 14001 environmental control structures (EMS) standard.

H.Madsen and J.P.Ulhoi[4](2003) in their study, "Have Trends in Corporate Environmental Management Influenced Companies' Competitiveness?" discusses that over the past two or three decades, corporate environmental management concept has gradually developed. Many companies have incorporated environmental considerations into their activities in order to eliminate or minimize the impact of these activities on the natural environment. The question is, however, whether managers perceive corporate environmental initiatives as a challenge leading to new strategic method and, eventually, increased competitiveness or whether they regard it as yet another problem. Based on a number of surveys, this paper discusses contemporary trends in the implementation of environmental management systems in Danish industry up to the beginning of the new millennium in an attempt to identify any related impacts on competitiveness.

D.Pujari, K.Peattie and G.Wright [5] (2004) in their research article, "Organizational Antecedents of Environmental Responsiveness in Industrial New Product Development", examines the environmental responsiveness in industrial new product development in 82 industries. In comparison of traditional one with new product development process in the extant literature, the findings revealed additional activities in the greening of industrial new product development. These activities fall under the broader scope of life cycle assessment (LCA) for environmental impact including supplier evaluation and design for environment issues.

Calin Gurau and Ashok Ranchhod [6](2005) analyzed in their work" international green marketing – A comparative study of British and Romanian firms", the concepts of international green marketing practices. More over they analyzed the general green strategic elements applied by UK and Romanian firms that commercialize ecological products in overseas markets. The findings indicate strong differences between the UK and Romanian eco-firms, in terms of marketing objectives and strategic orientation.

V.Venkataramana and Ms. Nisha singh, [7] (2005) in their article on "Green Marketing: A "Sustainable" Strategy" In this study focused on although environmental issues influence all human activities, few academic disciplines have integrated green issues into their literature. There are 4 S's of green marketing mix i.e., Satisfaction of customer needs, Safety of product and production for consumers, workers, society and the environment, Social acceptability of a products, its production and the other activities of the company; Sustainability of the product, their production and other activities of the company. It covers more than a firm's marketing claims. And then it appears that consumers are not overly committed to improving their environment and may be looking to lay too much responsibility on industry and government.

Dr. R. Azhagaiah and A. Ilangovan, [8](2006) in their article on "Green Marketing and Environmental Protection". In this article, it is analyzed and inferred that the modern concept is insufficient for sustainable development. At the same environmental condition is deteriorating at an alarming rate, mostly due to consumption-oriented marketing. Therefore, it will require a proactive corporate marketing strategy and active government involvement to encourage green marketing. In addition, it must encourage re-

consumption of products through re-cycling of waste and increase the usage of capacity. Further, it must re-orient its marketing mix to develop and promote environmentally safe products and re-organise to achieve this aim.

Giorgia Nervi., [9] (2008), In their study entitled "A study on Green Market Research practice among companies", has analyzed the current green marketing wave is based on a better, more reliable and focused green market research. The thesis seeks if any and what kind of green marketplace research practice is carried out by means of companies that expose themselves as being environmentally pleasant or sustainable. specifically, the undertaking centered on: monitoring the practice of green market research as a way to gather green indicators from the marketplace.

Kalama, Eric [10] (2007) in his study "Green Marketing Practices By Kenya Petroleum Refineries: A Study of The Perception of The Management of Oil Marketing Companies In Kenya", findings show that the Kenya Petroleum Refineries had put in mechanisms that help check on the environment and hence making it to be perceived as practicing green marketing. The company has invested heavily on its employees who were perceived to be well trained in their areas of specialization and above all, there was management support in all the activities that take place.

3. Objectives of study

1.   To find the factors influencing the attitude of retailers towards green marketing practices.
2.   To measure the attitude of retailers towards green marketing practices by using Cluster analysis technique which is justified using ANOVA

4. Research Design And Methodology

The study is descriptive based on both the primary and secondary data. The research problem, the hypotheses and interview schedule all have been formulated and framed accordingly. The suggestions of the study emerge from the inferences drawn from the sample survey of consumers, retailers and manufacturers in Bangalore district.

The secondary data were collected from standard text books related to topic, leading journals, published reports and booklets, documents and records of the Government departments and the internet.

The present study is an empirical one based on survey method. First hand data were collected from the field through interview schedule. In this study, the researcher prepared three interview schedules, one for consumers, one for retailers and the other one for manufacturers.

Data relating to the green marketing practices of consumers, retailers and manufacturers are collected through the separate interview schedules. A number of discussions were held with knowledgeable persons such as academicians, government officials and NGOs for designing the interview schedule.
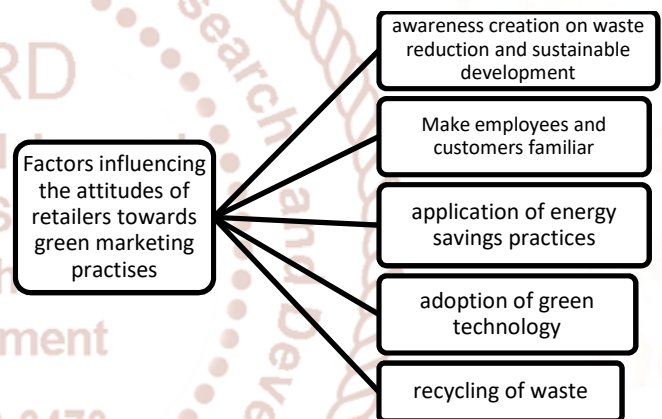
4.1 Research model

Fig 1: Factors influencing the attitude of retailers towards green marketing practices

5. Analysis

During the survey, the retailers are asked to opinion about the factors influencing their attitude towards green marketing practices. The opinion is obtained for twenty two statements which are related to the factors influencing the attitude of retailers' towards green marketing practices by adopting scaling technique, namely, Likert Five Point Scale. Table 1 shows the details of about attitude of retailers towards green marketing practices.

Table –1 Factors Affecting the Attitude of Retailers about Green Marketing practices

Sl.No.	Particulars	VSA	SA	A	DA	SDA	Total
		-5	-4	-3	-2	-1	Score
1	Following green technology in the promotion mix	38	25	40	15	2	120
		31.70%	20.80%	33.30%	12.50%	17%	100%
2	Using low-electronic application in my shop packing	20	38	39	17	6	120
		16.70%	31.70%	32.50%	14.20%	5.00%	100%
3	Always follow the post purchase method in my shop	17	33	50	15	5	120
		14.20%	27.50%	41.70%	12.50%	4.20%	100%
4	Green house gas emissions are minimized	26	29	30	33	2	120
		21.70%	24.20%	25.10%	27.50%	1.70%	100%
5	Purchase the goods from only green companies and green supplies	14	28	37	33	8	120
		11.70%	23.30%	30.50%	27.50%	6.70%	100%

Similarly factors: Familiar about the biodegradable wastes and non-biodegradable wastes, Bio-degradable wastes are properly sent to recyclable industries; Non biodegradable wastes are minimized; Government and NGOs are always giving suggestion to follow; Green practices followed in their business routine; Carbon foot print is minimized in my business; Solid waste reduction system is followed; Familiar about green product, green brand and green label; Regularly provided orientation on green practices to our customers; Proper training is given to our employees about the eco-friendly business method; The principles of sustainable business of reduce and reuse and recyclable are continuously followed in my daily practices; Customers are compelled to bring green bags for the shopping. Etc.,

Table 1 discloses that majority of retailers agree with all factors in connection with their attitudes about green marketing practices, the Percentage to Total is high for 'Agree', 'Strongly Agree' and 'Very Strongly Agree' scales.

5.1 Result and Interpretation of Factor Analysis

The rotated factor matrix of the variables relating to the factors which influence attitudes of manufacturers towards green marketing practices are given Table 2. Table2 gives the loading received by the factors under F1, F2. F3, F4 and F5.

Table 2 The Rotated Factor Matrix for the Factors Affecting Attitude of Retailers' towards Green Marketing Practices

Sl. No	Variables	Rotated factor loadings				
		F1	F2	F3	F4	F5
1	Regularly provided orientation on green practices to our customers (V1)	0.74	0.31	-0.05	0.11	0.037
2	Solid waste reduction system is followed (V2)	0.69	0.16	0.118	0.23	0.016
3	Non-biodegradable wastes are minimized (V3)	0.66	0.032	0.168	0.19	0.166
4	Purcchase the goods only from green companies and green suppliers (V4)	0.6	0.079	0.232	0.11	0.444
5	Governments and NGOs are always giving suggesstion to follow green practices (V5)	0.57	0.136	0.375	0.02	-0.04

Table 2 reveals that the related factor loadings for the 21 twenty one statements (variables) of factors influencing the attitude of retailers' towards green marketing practices.

It is clear from the above table that all the twenty one statements have been extracted into five factors namely F1, F2, F3, F4 and F5. The factors with identified new names which influence the attitude of

retailers' towards green marketing practices are discussed in the following.

Factor I: Awareness creation on waste reduction and sustainable development

There are green market opportunities that benefit development and conservation of those resources. It could be possible by applying effective waste reduction method and optimum utilization of resources Regularly provided orientation on green practices to our customers (0.742), solid waste reduction system is followed (0.686), non-biodegradable wastes are minimized (0.661), Purchase the goods only from companies and green suppliers (0.595), Government and NGOs are always giving suggestion to follow green practices (0.570) and Carbon foot print is minimized in my business (0.513) are the items with high loadings on factor I. As the above items relate to green practices, Factor I is named as 'Awareness Creation on Green Practices and Waste Reduction'. The communality values of variables 1, 2, 3, 4, 5, 6 are 0.663, 0.562, 0.531, 0.622, 0.486 and 0.670 respectively. The Percentage to Total of variance is 16.595. All the above variables have a high communality, so they indicate that the variables within Factor I have very high association within the group.

Factor II: Make employees and customers familiar with green products

Green products can be made from recycled materials and reduce harmful effects on the environment. The main role of retailers is to give training and orientation to his employees and customers about environment friendly products such as save water, energy and money. Further a retailer must given a valuable idea on green brand, green label and green product for his employees. It helps us to boost up the sales in the present and future. The retailer must encourage his or her customers to bring eco-friendly bags for shopping purpose. A retailer must also induce the neighbor retailer by adopting attractive green practices. Proper training is given to our employees about the eco-friendly business method (0.791). Customers are compelled to bring green bags for the shopping (0.697). Potentiality for high for sake of green product in future (0.695). Familiar about green product, green brand and green label (0.648) and giving suggestion to our neighbour retailer to follow green marketing practices in the day to day

operation (0.562) are the items with high loadings on factor II.

The above items refer to the employees' and customers awareness on green products. Hence, the factor I is characterized as "Make employees and customers familiar with green products". 0.718, 0.656, 0.597, 0.496 and 0.561 are the communality values of variables 1, 2, 3, 4, 5 respectively. The Percentage to Total of variance is 14.947. Hence all the variables have high communality. So they indicate that the variables of factor II have very high association with them.

Factor III: Application of energy saving practices

Retailers green marketing practices leads to the benefit of yielding more profit since the energy conservation refers to efforts made to reduce energy consumption. Energy conservation can be achieved by the retailers through increased efficient energy use, in conjunction with decreased energy consumption from conventional energy sources.

Energy conservation can be created through using of energy saving electronic home appliances, fuel saving vehicles and using of other eco-friendly machineries Table 4.57 reveals that Green house gas emissions are minimized (0.707); Using low voltage electronic home appliances in my shop (0.686); Familiar about the bio-degradable and non-biodegradable wastes (0.566); Fuel saving, environmental friendly vehicles are used for our purchase and supply chain (Transportation) (0.538); Always follow the post purchase packaging method in my shop (0.504) are the items with high factor loadings on Factor III.

As the above items related to green practices Factor III is named as "Application of Energy Saving Practices". The communality value of variables 1,2,3,4 and 5 are 0.675, 0.591, 0.591,0.385 and 0.596. The Percentage to Total of variance is 12.834. So all the variables are having high communalities. So they indicate that the variables of factor III have very high association with them.

Factor IV: Adoption of green technology

Technological Advancement is always reducing the burden of the retailers for making the sales. Particularly they are giving more importance in the induction of green technology within their routine activities. Construction of shop with green architecture, usage of eco-friendly advertisement and

other promotion mix with modified technology are the few examples for the green technology. Generally retailers are very eager to invest more financial resources for the development of the green technology.

Following green technology in the promotion mix (0.660), our building is a green building (0.634), willingness to invest more amount for green practices (0.633) and green practices followed in their business routine (0.606) are the items with high loadings on factor IV. Factor IV is characterized as "Adoption of green technology". The communalities are 0.703, 0.622, 0.672 and 0.628 of variables 1, 2, 3 and 4 respectively. The Percentage to Total of variance is 10.671. All the variables have high association because of their high communality.

Factor V: Recycling of waste

Reduce; Reuse and Recycle are the significant principles of the green marketing. Recycling of waste plays a dominant role in nature saving process. Retailers have to separate the bio-degradable wastes from non-bio-degradable and store them properly. Non-bio-degradable wastes must be sent to the recyclable industries without fail, because such wastes are highly dangerous to our environment.

In the fifth factor, Non bio-degradable wastes are properly sent to recyclable industries (0.572) is the only item with high loadings. Factor V is characterized as "Recycling of waste". The communality value of variables 1 is 0.603. The Percentage to Total of variance is 5.671.

Regularly provided orientation on green practices to our customers with factor loading of 0.742, proper training is given to our employees about the eco-friendly business method with factor loadings 0.791, Green house gas emissions are minimized with factor loadings 0.707, Following green technology in the promotion mix with factor loadings 0.660 and Bio-degradable wastes are properly sent to recyclable industries with factor loadings 0.572 are the statements with the highest factor loadings under the dimensions namely Awareness creation in Green practices and Waste Reduction (F1), make employees and customers familiar with green products (F2), Application of energy saving practices (F3), Adoption of green technology (F4) and Recycling of waste (F5) respectively. Hence, these are the identified dimensions (factors), which influence the attitude of retailers towards green marketing practices.

From the above discussion, it is evident that all the factors that have been identified are important but they have all been rated differently. By incorporating these factors in the best proportion, a retailer can increase upon the benefits of the green products by adopting green technology and the introduction green brands and green labels may attract more number of customers and they should occupy a dominant market share in the present and future scenarios.

6. Measuring the attitude of retailers towards green marketing practices by using cluster analysis technique

Cluster Analysis is a convenient method for identifying homogenous groups of objects called Clusters. It is also referred to as a classification technique, numerical taxonomy and Q analysis. The group can be done for objects, individuals and entities. The basic assumption is the fact that similarity is based on multiple variables and it attempts to measure the proximity in terms of the study variables. The researcher identifies a set of clustering variables which have been assumed as significant for the purpose of classifying the retailers into groups.

6.1 Cluster Analysis Procedure

The first step is to decide on the characteristics that that will be used to segment the variables. In other words, the researcher has to decide clustering variables of retailers.

Then the next step is to identifying groups of objects or variables that are very similar. After having decided on the clustering variables, the researcher needs to decide on the clustering procedure to form groups of retailers. It can be easily computed under K-means analysis Method with using SPSS. In the final step, the researcher needs to interpret the solution by defining and labeling the obtained clusters.

Cluster Centers

Cluster I		Cluster II		Cluster III	
Factor	Value	Factor	Value	Factor	Value
Application of Energy Saving Practices	0.5319	Awareness of Creation on Green Practices and Waste Reduction	-0.389	Make Employees and Customers familiar with green products	0.55
Adoption of Green Technology	0.9598	Recycling of Waste	0.9272		

Table 3: Identified Clusters

For the purpose of cluster analysis, the factor analysis scores of the factors influencing the attitude of retailers towards green marketing practices have been used.

All cases are assigned to clusters, based on the last set of cluster centers. Using the final cluster centers, the researcher describes the clusters in Table 4.58. It indicates that Awareness creation on green practices and waste reduction (F1) has highest score i.e., .-.38905 in the cluster II, make employees and customers familiar with green products (F2) hash highest score (0.55028) in cluster III, Factor 3 i.e., Application of Energy Saving Practices has highest score (0.53189) in Cluster I, Adoption of Green Technology i.e., Factor 4 has highest score (0.95979) in cluster I also, Recycling of waste (F5) has secured highest score (0.92723) in cluster II. It can be concluded that Factor 3 and 4 has highest scores in cluster I, Factor 1 and 5 have highest scores in Cluster II and Factor 2 has highest score in Cluster III.

6.2 Identified Clusters

Based on the computed cluster values of factors, the variables are classified into three clusters which are displayed in the table 3

The Table 3 shows that among the three clusters, Application of Energy Saving Practices (0.53189) and Adoption of Green Technology (0.95979) factors with their cluster values are coming under cluster I named as Energy Saver; Awareness Creation on Green Practices and Waste Reduction (-0.38905) and Recycling of Wastes (0.92723) factors with their cluster values are occupied in the Cluster II named as Awareness Creator; make employees and customers familiar with green products (0.55028) factor with its cluster value is coming under cluster III named as Green Motivator. It is inferred that three clusters are

created based on the above five factors with their cluster values.

Number of retailers in each cluster

The total number of retailers comes into any of the three clusters under Cluster analysis. The number of retailers in each cluster is shown in Table 4

Table 4 - Number of Retailers in Each Cluster

Cluster No.	Cluster Name	Number of Cases (Retailers)	Percentage to Total
1	Energy Savers	35	29.17
2	Awareness Creators	37	30.83
3	Green Motivators	48	40
	Total	120	100

Source: Computed data

The Table 4 exhibits that out of 120 retailers, 48 retailers (40.00%) are green motivators; 37 retailers (30.83%) are awareness creators; and remaining 35 retailers (29.17 %) are energy savers. It is understood that most of the retailers (40%) are green motivators.

7. Findings and suggestions

The researcher has found some facts from research work carried out by him regarding with the green marketing practices of retailers and they are summarized. Majority of the retailers are male, sole trader and aware about green marketing practices. Most of the retailers are having their businesses in urban area. Garett Ranking Technique is used to

know the top ranked source for knowing information on green marketing that media and Government's effects is secured top most rank and to indentify the top ranked reasons for motivating the buyers to purchase green brand that environmental safe has secured the first rank.

Regarding the cluster analysis, the clusters extracted that influence the attitude of retailers towards green marketing practices are Energy savers, Awareness creators, Green motivators.

Conclusion:

The main interest all over the global is to protect environment. The primary objective is to identify factors influencing attitude of retailers towards green marketing practices. Second objective is to measure the attitude of retailers towards green marketing practices by using Cluster analysis technique which is justified using ANOVA. Data collection were done using survey by adopting scaling technique, namely, Likert Five Point Scale. Principle factor method with orthogonal varimax rotation is used to group the related factors. From the results it is observed that 5 factors were identified. Viz., Awareness creation on green practices and waste reduction, make employees and customers familiar with green products, application of energy Saving Products, Adoption of Green Technology, Recycling of Waste and 3 clusters were formed such as Energy Savers, Awareness Creators, and Green Motivators.

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