

Usage of Green Marketing by Large Scale Manufacturing (LSM) Organizations in the North Central Province (NCP) in Sri Lanka

Pathmini, M.G.S and Pushpakumara, W.M.P.G.R.

Faculty of Management Studies, Rajarata University of Sri Lanka

mgsp@rjt.ac.lk

Green Marketing has become a buzz and a novel concept in the world with emerging growth of the economy. It is an important practice which marketers can apply to their manufacturing and marketing process to enhancing the market share, profitability. As revealed by Kotler in 2004, the deterioration of the natural environment is a major global concern. In many countries in the world, air, soil and water pollution has reached dangerous level and hence there is a greater concern about green activities. This problem has increased seriously day by day with the activities of manufacturing organizations in the world. Therefore businesses have begun to modify their behavior to address this new concern of the society. At the same time "Derena", ITN and Rupavahini programs in Sri Lanka continuously raised the bad effect of the environment pollution to the society well-being. Consequently, this study attempts to identify the extent and nature of green marketing strategies adopted by LSM organizations in the NCP in Sri Lanka, one of the most important geographical location and with resource base in the country and to give recommendations to minimize the weakness associated. Accordingly, the study consists of two major independent variables; Designing for environment and Integrated waste management. The sample was 17 LSM organizations with 05 manufacturing categories in the NCP. Establishments with 25 or more employees engaged were selected as LSM organizations. The sample was selected using judgmental and convenience method. Data were collected by interviewing respondents using structured questionnaire. Analysis reveals that overall green marketing usage in the LSM organizations in the NCP is very poor. Hence it is required to take steps to improve the level of usage for enhancing the long term customer satisfaction and society well-being. Green marketing strategies are practiced at very basic level except the green promotion and green distribution. Anyhow practices of "Designing for environment" are somewhat better than practices of "Integrated waste management". Therefore it is suggested to introduce further pollution prevention programs and resource recovery projects based on green policies.

Keywords: Green Marketing, Large Scale Manufacturing Organizations, Designing for Environment, Integrated Waste Management, North Central Province

1. Introduction

The Green marketing is no longer a famous concept in Sri Lanka but it plays a vital role in the market, economy and the society as a whole. As Polonsky (2005) explains green marketing includes broad ranges of activities such as product planning, resource usage, modification and changing the input conversion process, packaging, pricing, advertising etc. Polonsky further explained, as the society became more concerned with the natural environment, businesses have begun to modify their behavior to address this new concern. Donald A. Fuller in 1999 defined,

Green Marketing “as the process of planning, implementing, and controlling the development, pricing, promotion and distribution of product in a manner that satisfy the three criteria; Customer needs, Organizational goals are attained and Eco system”. Eco system serves as the source of all resources. It must remain “clean” and “safer” for human to serve. Hence, Green Marketing intended to satisfy human needs and wants with minimal detrimental impact on the natural environment”. Stephen and Jane in 1996, noted measurements of green products as; Run cleaner, works better and save money and energy through efficiency to provide ways to reduce waste and more environmentally responsible before forced to do so by government regulations. It promotes the business to be honest with consumers and not mislead them by over promising. Therefore green marketing is inherently proactive.

Further, “integrated waste management” and “designing for environment” has been identified by Donald A. Fuller in 1999 as strategies of green marketing. Integrated waste management defined as a way of reduction of any material released to the environment through the air, water and land that is not beneficial to use. All the taking and making activities should not create side effects and cost to the eco system in the form of waste, pollution and damages. “Pollution prevention” and “resource recovery” have been identified as key determinants of integrated waste management. Pollution prevention is activities taken by manufacturers to improve or maintain the physical and biological quality of the earth’s environment. Further the Resource recovery has been defined as “Manage unavoidable waste by recapturing materials and energy for future use”. The second concept “designing for environment” works to minimize the waste by designing and building positive ecological attributes into products and other marketing mix variables.

Different parties in the society gets different benefits with the implementation of green marketing in an organization such as environmental benefits to customers, earning reasonable profit by way of charging premium price for such eco responsible products, exploit market opportunities and enhance the overall marketability of products, open up rooms for innovations and perceived as more socially responsible. Therefore, it is a requirement of entire process be compatible with eco system to establish a long term society well- being. Anyhow, marketers should work on less environmental damage with manufacturing and marketing process.

Research Problem

“One of the major problems today, the society faced is garbage and environmental pollution. The problem has increased seriously day by day with the increase of pollution. This problem is further expanded through the activities of manufacturing sector”. (Derana, ITN Rupavahini program, 2008) As Kotler reveals in 2004 the deterioration of the natural environment is a major global concern. In many cities in the world air and water pollution have reached dangerous level and

there is a greater concern about "green house gases" in the atmosphere due to the burning of fossil fuels about the depletion of the ozone layer, due to certain chemicals. According to Kotler in Western Europe green practices have rigorously pressed for public action to reduce industrial pollution. Further New environmental regulations hit certain industries very hard. This situation is common to most countries as well as Sri Lanka in the world. Therefore it is important to do a study on this problem in Sri Lanka. Hence, this study aims to search; How far the LSM organizations in the NCP practice the green marketing concept?

Significance of the Study

Treating for green concept is major goal of most of the organizations working in the dynamic environment and it is always an integral part of development. Becoming environmentally friendly can lower the cost and increase the market as well as their revenue. In fact only companies that adopted the green marketing strategies have achieved competitive advantages since sizable number of consumers prefers to eco friendly products. (Harvard business review,2009). With the question of how people use limited resources to satisfy unlimited needs in an economy with less harm to the environment, most people tried to search ways and means of satisfying their needs because most of the organizational activities directly affect to the natural environment. It appears that all parties of the society including consumers, government, organizations and general public, becoming more concerned about the protection of natural environment since they are becoming to realize that they are as members of the wider community and therefore must behave in an environmentally responsible fashion. At this point, green marketing explains the relevance and importance of environment in business activities since most of the business activities damaging the earth's eco system. It examines; How marketing decisions affect the eco systems that sustain our lives? And How marketing mix decisions do influence environmental outcomes? Therefore, it helps the businesses to aim their activities on 3 major issues; such as; What it takes? (Material and Energy resources), What it makes? (Products derived from inputs conversion process) and What it wastes? (Eco cost, garbage, waste, pollution and ongoing destruction of natural resources). Hence ,it challenges the marketers to cope with a relentless issue-eco- system degradation caused by consumption. It explains the marketers to reinvent strategy- "win-win-win" outcomes, such as Customer win (obtain genuine benefits), Organization win (achieve financial and other benefits and Eco system win (functioning to preserved or enhance the environment)

Further the Governments around the world emphasized the need to protect the consumers and society from unethical business activities and formulated environment regulations to protect those parties in several ways. Hence, social responsibility and environmental protection identified as most important objectives that should be achieved by all organizations.

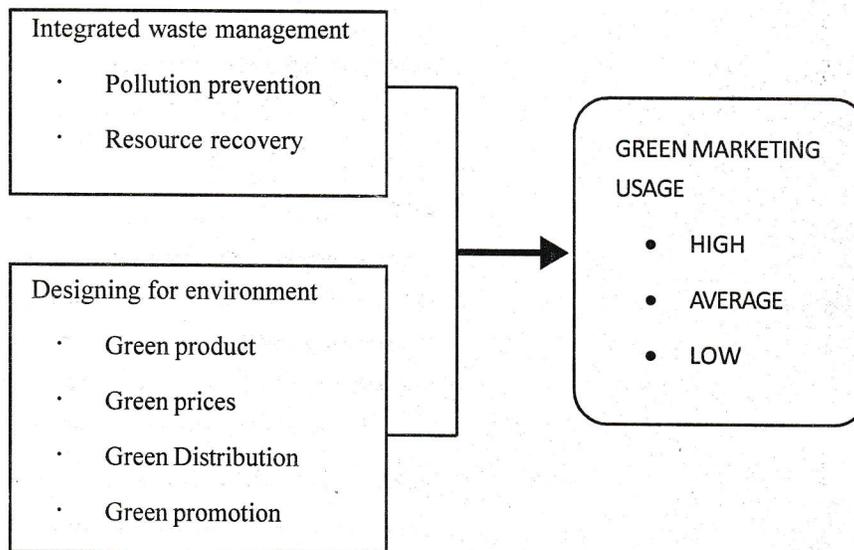
In fact all organizations in the current business society should concern with green marketing. But one of the biggest problems with this issue is that there has been little or no attempt to academically

examine environment marketing especially in Sri Lanka. Therefore this study attempts to examine the practices of green marketing adopted by LSM organizations in NCP in Sri Lanka. Hence, findings given by this study would be very much important for organizations which are not concerned this issue since there are no sufficient research studies done on this aspect. In addition, there is a huge research gap to fill in the academic discipline in Sri Lanka. Therefore this study will be helpful to fill this research gap and finally, this will help to link the marketing practices with environmental issues by taking into account the findings and recommendations of this study.

Research Objectives

1. To study the nature and extent of the green marketing practices adopted by the large scale manufacturing organizations in NCP in Sri Lanka.
2. To identify problems associated with green marketing practices in the large scale manufacturing organizations in the NCP in Sri Lanka.
3. To give useful recommendations to avoid the problems arisen in this field
4. To give academic contribution toward the green marketing concept in Sri Lanaka

Study Framework



2. Material and Methods

All LSM organizations in the NCP were the study population. According to the Dept. of Senses and Statistics in year 2007, all LSM organizations in the NCP were 45. (Including 21 from Anuradhapura District and 24 from Polonnaruwa District). Researcher used only 5 manufacturing categories as explained in the table 1.1 among 15 categories defined by Senses and Statistic

Department in 2007 for the NCP. The judgmental and convenience sampling methods were used to select organizations. Hence, the sample size was 20 LSM organizations including 10 from Polonnaruwa District and the rest from Anuradhapura District. The LSM organizations were selected based on the definitions given by the Department of Senses and Statistics (“Establishments with more than 25 employees engaged”) and Industrial Development Board (Invested Capital more than Rs.04 Million). Both primary and secondary data were collected for this study. Primary data were collected by interviewing respondents using structured questionnaire which consists of 2 parts. The first part includes background information and the second part consist the green marketing approach of the organizations. Questionnaire was directed to marketing managers, production manager or other relevant officers in selected organizations. Most of the questions in the questionnaire were prepared using Likert scale taking point values: 1 (poor), 3 (average) and 5 (good). Descriptive statistical techniques especially univariate analysis (mean) and percentage values were used to analyze the data. The 3 ranges continuum based on mean value was used to determine the degree of the different variables.

Range: (1.00-2.33; Low, 2.34 – 3.66; Average, 3.66-5.00; High)

Table 1 : Selection of sample

S/N	Manufacturing Category	No. of Organizations	Anuradhapura	Polonnaruwa
01	Food & Beverage	05	03	02
02	Chemical, Rubber and Plastic products	05	02	03
03	Machinery & Equipments	04	01	03
04	Stone, Clay, Glass and Concrete Products	03	02	01
05	Furniture , Wood Works	03	01	02
	Total Sample	20	09	11

Source: Ministry of Industry Development NCP

3. Results and Discussion

Sample profile

Though this study aimed to collect data from 20 LSM organizations only 17 organizations were responded. That is 85 % from the total sample and 38% from the total population as stated below in table 1 and also the composition is 53% from Anuradhapura District and 47% from Polonnaruwa District. At the same time 17 organizations consisted of all 5 manufacturing categories including

29.5%, 17.6%, 29.45, 11.8%, 11.8% from foods/beverage, constructions, rubber, machinery and furniture respectively.

Table 2 : Distribution of LSM organizations

District	No. of organization	%
Anuradhapura	9	52.9
Polonnaruwa	8	47.1
Total	17	100.0

Source: Survey data

Target Market

Table 2 shows that most of the LSM organizations operate their activities at the national market and it is around 70%. Very limited organizations work in other markets. That is around 30%. Only 11% limited their activities only to NCP.

Table 3 : Target market

Market	N0	%
NCP	02	11.7
Few provinces	02	11.7
National market	12	70.7
National and International both	01	05.9
Total	17	100.0

Source: Survey data

Employees working

The survey reveals that 70% organizations are having number of employees in between 25-125 and only 12% organizations having more than 400 employees. The average number of employees working in these organizations is 138. Further most of the employees working are male. That is proximately 78%. The balance 28% is female.

Table 4: Number of employees working

Number of employees	F	%
25-150	12	70.5
150-275	02	11.8
276-400	01	5.9
400>	02	11.8
Total	17	100

Source: Survey data

Approaches to the Green Marketing

The green marketing practices were measured using two major determinants namely, "Designing for the Environment" and "Integrated Waste Management".

Designing for the Environment

This was measured using 4 determinants in relation with marketing mix: level of green product, level of green price, level of green distribution and level of green promotion. According to the survey the degree of strategies adopted for designing for the environment is poor, since the calculated mean value is 2.28 which is located in the poor range in the continuum. Therefore, it cannot be considered that there is a sufficient level for the improvement of green marketing practices by the LSM organizations in the area. According to facts given in the table 5 the level of marketing mix variables are averagely practices excluding product and price. The mean values calculated for the marketing mix variables are 1.71, 1.76, 2.59 and 2.48 respectively. Therefore it can be concluded that the level of green product and price is not practiced in a favorable manner. At the same time figures reveals majority of respondents (47%) were average with green distribution. It is a better trend towards the implementation of green marketing successfully in due course.

Table 5 : Descriptive statistics relating to designing to the environment

Determinations	Mean	Mean
Level of green product	1.71	
Level of green price	1.76	2.21
Level of green distribution	2.59	
Level of green marketing promotion	2.48	

Source: Survey data

Table 6 furnishes the information about degree of marketing mix under 3 categories; low, moderate and high. Hence, the variable place contributed sufficiently (47%) while promotion contributed averagely (52%) to strength the designing for environment. Anyhow other 2 variables product and price did not contribute favorably towards this matter.

Table 6 : Degree of green marketing mix variables

Category	Product		Price		Place		Promotion	
	F	%	F	%	F	%	F	%
Low	8	47.1	9	52.9	2	11.7	6	35.3
Moderate	7	41.2	6	35.3	7	41.2	9	52.9
High	2	11.7	2	11.8	8	47.1	2	11.7
Total	17	100	17	100	17	100	17	100

Source: Survey data

Integrated Waste Management (IWM)

This was measured using 2 determinants namely; pollution prevention and resource recovery. Table 7 furnishes the degree of IWM utilized by LSM organizations under 3 categories. Accordingly, the degree of IWM is very poor in the study area.

Table 7 : Degree of Integrated Waste Management of LSM organizations in NCP

Degree	No. of organizations	%
Poor	14	82.3
Moderate	02	11.8
High	01	05.9
Total	17	100.0

Source: Survey data

Table 8 : Descriptive statistics relating to IWM

Determinants	Mean	S.D.	Mean	S.D.
Pollution prevention	1.62	0.53	1.98	0.42
Resource recovery	2.01	0.57		

Source: Survey data

This situation is further proved by the table 8 (Calculated mean value is 1.98 which lies in poor range.) Anyway, it reveals that the resource recovery in the area is somewhat better than the pollution prevention

4. Conclusion and Recommendation

Overall Usage of Green Marketing

This was measured by using 2 variables. Designing for Environment and Integrated Waste Management. The calculation made as above both are not practiced successfully. Among these 2, designing for environment is averagely practiced while integrated waste management is very poor. The overall usage of the green marketing is poor and it is indicated by tables 9 and 10.

Table 9 : Overall usage of green marketing by the LSM organizations in NCP.

Degree	No. of organizations	%
Poor	12	70.6
Average	04	23.5
High	01	05.9
Total	17	100.0

Source: Survey data

Table 10 : Descriptive statistics relating to overall usage of green marketing

Determinants	Mean	S.D.	Mean	S.D.
Integrated waste mgt	1.98	0.42	2.05	0.46
Designing for environment	2.25	0.47		

Source: Survey data

Recommendations

1. It is recommended to improve the level of practicing “designing for environment” by focusing the attention more on green product and green pricing. At this point it is highly important to introduce the following to their manufacturing process.
 - a. Improve the products with new technologies
 - b. Designing and planning environmentally friendly products
 - c. Use of green materials.
 - d. Invest more on R & D to increase the efficient usage of energy and to identify alternative materials which does not affect seriously to environment.
 - e. Saving cost by reducing energy (with new technology) & capital expenditure.
 - f. Improve the value for money for customers.
2. Since the degree of Integrated Waste Management is very poor it is recommended to introduce new resource recovery projects attending three 3Cs namely; reduce, reuse and recycling. Also, introduce pollution prevention projects to enhance the green marketing focusing more on inputs taken from natural environment, preventing pollution at all 3 stages; input and process and outputs.
3. Anyhow, they should pay higher attention on pollution prevention than resource recovery since it is more poorly practiced than the resource recoveries.

5. References

- District Secretary Office, (2008). "Sampath Pathikada", Anuradhapura
- Donald A. Fuller, (1999). "Sustainable Marketing: Managerial-ecological Issues, Sage Publication.
- Kotler P., (2002) "Social Marketing; Improving the quality of life", Saga Publication India Pvt Ltd, Delhi
- Kotler P. & Keler, (2008) "Marketing Management", Prentice Hall, India
- Ministry of Industry Development (2008), "Basic Details an industry located in Industrial Estate"
- Peter Jones, Colin Clarke-Hill, Daphne Comfort, David Hillier, (2008) "Marketing and Sustainability", Marketing Intelligence & Planning, Vol. 26 Iss: 2, pp.123 - 130 Emerald Group Publishing Limited.
- Polonsky M.J. & Nicola M., (1995) "Using strategic alliances to develop credible green marketing", Journal of Consumer Marketing, Vol. 12 Iss: 2, pp.4 – 18, MCB UP Ltd
- Polonsky M.J., Alma T. M., (1996), "Environmental marketing: strategies, practice, theory, and research, Haworth press, ISBN 1560249285
- Prakash A., (2002), "Green Marketing, Public Policy and managerial Strategies" Business Strategy and the Environment, Wiley InterScience
- Shi, J. Stephen, and Jane M. Kane. (1996) "Green Issues." Business Horizons. January-February 1996