Product Responsibility Reporting: A Sustainable Marketing Practice for Enhancing Performance in Indian Manufacturing Firms

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Abstract - Indian manufacturing firms are currently facing stiff competition from organizations across the globe. In this situation firms need to be more proactive towards customer requirements and developing a long term relationship with them by assuming responsibility towards them. This will ensure that customers' preferences are not deviated towards competitors or in other words the factor of loyalty is sustainable over a longer period of time. In this paper reporting of product responsibility aspects, which is a social performance indicator of GRI, has been examined to understand the firm's level of customer satisfaction. An analysis has been done to understand whether reporting of product responsibility aspects is being used as a marketing tool to generate greater customer satisfaction that translates into better firm performance. For our study 10 Indian manufacturing firms listed on the Nifty has been considered, and the study period was for 2 financial years.

Key words: Product responsibility, sustainable marketing, manufacturing firms.

I. INTRODUCTION

Business activities should be identified in such a manner that they should create a positive impact on the financial performance of the firm measured via higher return on investments and shareholder value and at the same time generate business outcomes like greater market share better brand image and good corporate citizenship. Firms aiming to be sustainable over the long run have to be responsible towards their customers in addition to other stakeholders like employees, environment, vendors etc. In this context protecting and upholding the rights of customers enables businesses to move towards their goal of becoming sustainable.

In this context customer satisfaction and customer retention plays a significant role for ensuring sustainability of the firm. Readiness to repurchase the products, referring other customers through their word of mouth to opt products from the same firm, and also willingness to purchase products from the same firm at a higher price are outcomes of better customer relationship management.

Customer satisfaction is concerned about the value creation for the customer, and hence it should not be limited to only the standard or quality of the product. It is about the relationship between the customer and the product/service produced by the firm. Customer satisfaction is the degree to which a customer thinks that a business organization has effectively provided a product or service which meets his/her needs in keeping with the customer's awareness about the use of the product or service. Thus the firm is responsible for the quality and safety of the product/service which has been provided to the customer for his/her satisfaction. In addition the firm is also responsible for protecting customer information.

There has been a paradigm shift from transactional marketing to relationship marketing which creates the various dimensions of product responsibility, that are necessary to influence and sustain customer satisfaction.

II. CUSTOMER PROTECTION IN INDIA

In India, customers are mostly unaware about the product responsibility which the manufacturers owe to them. Apart from less education and illiteracy of customers, the major reason that contribute towards this, is lack of information that customers are not aware of the process to gather information regarding suitability, safety and health related aspects of products available to them. Customers have often been exploited/ misinformed by firms offering poor quality products with low safety standards. Hence to safeguard them, customer protection has gained tremendous importance globally. In 1985 United Nations General Assembly developed guidelines for customer protection, so that developing countries can have a framework for establishing customer protection policies. Accordingly India has enacted certain laws, namely The Sale of goods act 1930, Bureau of Indian Standards Act 1986, Drugs and Cosmetics Act 1940, Prevention of Food Adulteration Act 1954, Food Safety and Standards Act 2006, Consumer Protection Act 1986 which are binding on the firms and protect customers against unsafe, defective products and services.

III. REVIEW OF LITERATURE

Grahovar, M (2010) suggested that corporate social responsibility reporting acts as a motivation force for firms, since this has been adding value in terms of resources. The author also suggested that corporate social reporting can be used as a communication tool to establish accountability and performance for better decision making by customers

It has also been found that social responsibility of firms can have a positive impact on its financial results as indicated by Bartlett and Ghoshal (1994). Bebbington et al (2007) identified that a relationship exists between corporate social reporting and firm reputation.

Baron (2001) observed through research that firms consider CSR as an additional attribute of the product. Customers have shown greater interest towards products of those firms who are socially responsible, therefore CSR is considered as a strategic investment. Publicity of firms, in the form of organized advertisement creates an opportunity for customer awareness due to availability of all related information of its products and practices undertaken by them in the form of corporate social performance. Adopting such methodology of advertisement ensures sustainability of firms in a better way.

Fisman et al. (2008) identified that CSR activates play a predominant role for firms with respect to customer awareness in a competitive environment, since they become aware of product quality through intense advertising done by firms.

Servaes, H., and Tamayo, A., (2013) suggested that advertising can be used as a tool for enhancing customers' awareness regarding products and practices adopted for corporate social responsibility activities.

O' Dwyer's (2002) identified that the driving force of firms for adopting sustainability reporting was primarily to enhance corporate legitimacy. This gives a clear understanding that reporting of product responsibility by firms, which is integral part of sustainability reporting, will enhance business opportunities of firms. Hence it can be viewed as an effective marketing tool, which improves the existing bond between customers and manufacturer of products / service provider.

IV. REPORTING PRODUCT RESPONSIBILITY VIA GRI FRAMEWORK

Firms aiming to be sustainable are increasingly adopting the GRI reporting framework for reporting their economic, environment and social performance. It of the report, and presents a balanced and reasonable idea of the firm's performance. The social aspect of sustainability report consists of performance indicators which inform the public about the impact a firm has on the society within which it operates. One important social performance indicator of GRI is product responsibility which identifies and evaluates how the firm can ensure customer satisfaction.

The term product responsibility is multi faceted. It identifies the impact a firm's product /service has on customer health and safety. It also covers product information and labeling which provide the customer complete information regarding proper usage of the product, the marketing procedure/communications adopted by the firm, upholding privacy of customer information, and compliance issues, as illustrated in Table :1.

	Table 1: elaborates on different categories of product responsibility indicators
	PRODUCT RESPONSIBILITY
	CUSTOMER HEALTH AND SAFETY
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.
PR2	Total number of incidents of non compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.
	PRODUCT AND SERVICE LABELING
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements,
PR4	Total number of incidents of non compliance with regulations and voluntary codes concerning products and service information and labeling, by type of outcomes.
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.
	MARKETING COMMUNICATIONS
PR6	Programmes for adherence to laws, standards and voluntary codes related to marketing communications, including advertising, promotion and sponsorship,
PR7	Total number of incidents of non compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes
	CUSTOMER PRIVACY
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data
	COMPLIANCE
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services,

Table 1: elaborates on different categories of product responsibility indicators

V. OBJECTIVE OF THE PAPER

The objective of this paper is to study the Product Responsibility reporting status of the 10 Indian manufacturing firms who have adopted GRI reporting framework during 2011-2013, generate a Product responsibility reporting score and thereafter rank the sampled firms on the basis of that. An attempt has been made to assess the progress made in the different aspects of product responsibility of these firms over the period 2011-12 and 2012-13. Financial performance like increase or decrease in revenue over this period has also been studied. The paper aims to evaluate whether any relationship exists between the financial performance of the firms and their marketing practice of enhanced reporting on product responsibility, which demonstrates their greater responsibility towards customers.

VI. METHODOLOGY

The study is database oriented. Data and facts have been collected from Sustainability Reports and Annual Reports published by the leading manufacturing companies listed on the Nifty. Public Sector Units (PSUs') like GAIL (India) Limited, Oil and Natural Gas Corporation, Bharat Petroleum Corporation Limited and private manufacturing firms like Tata Steel Limited, Tata Motors Limited, ITC Limited, Hindalco Industries Limited, Reliance Industries Limited, Mahindra & Mahindra Limited, Larsen & Toubro Limited have been considered in the study. Data on Net Revenue was collected from the Annual Reports of the companies whereas the data on product responsibility were collected from the Sustainability Report published annually by the organizations.

A score has been generated by undertaking a content analysis of the product responsibility reporting included in Sustainability Reports. Firms which have fully reported against a particular clause of product responsibility framework of GRI have been awarded 2 points. Likewise for partially reporting against a particular clause 1 point has been awarded. Firms which have not reported against a particular clause of product responsibility have been awarded 0 point. This procedure has been followed for all the 10 manufacturing firms for each of the two financial years (2011-12 & 2012-13). The year wise-scores of each firm have been summated to generate a reporting score against each of the 9 clauses. Thereafter a firm wise score for disclosure on all the parameters of product responsibility in the GRI framework has been computed by summating the clause- specific scores.

Firms were then ranked accordingly to the score generated as shown in Table:2 & Table:3.

REPORTIN G FRAMEWO RK	YEAR	ITC	L&T	RIL	TAT A STE EL	TATA MOTO RS	ONG C	GAI L	HINDAL CO	BPC L	M& M
	2012-13	P(1)	R(2)	P(1)	R(2)	P(1)	R(2)	NR(0)	P(1)	P(1)	R(2)
PR1	2011-12	P (1)	R(2)	P(1)	R(2)	P(1)	R(2)	R(2)	P(1)	P(1)	R(2)
	SCORE	2	4	2	4	2	4	2	2	2	4
	2012-13	NR(0)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	NR(0)	R(2)
PR2	2011-12	NR(0)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)
	SCORE	0	4	4	4	4	4	4	4	2	4
	2012-13	R(2)	R(2)	P(1)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)
PR3	2011-12	R(2)	R(2)	P(1)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)
	SCORE	4	4	2	4	4	4	4	4	4	4
	2012-13	NR(0)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	NR(0)	R(2)
PR4	2011-12	NR(0)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	NR(0)
	SCORE	0	4	4	4	4	4	4	4	2	0
	2012-13	NR(0)	R(2)	R(2)	R(2)	NR(0)	R(2)	R(2)	P(1)	NR(0)	R(2)
PR5	2011-12	NR(0)	R(2)	R(2)	R(2)	NR(0)	R(2)	R(2)	P(1)	NR(0)	NR(0)
	SCORE	0	4	4	4	0	4	4	2	0	2
	2012-13	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	NR(0)	R(2)	R(2)	R(2)
PR6	2011-12	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)
	SCORE	4	4	4	4	4	4	2	4	4	4
	2012-13	NR(0)	R(2)	R(2)	R(2)	R(2)	R(2)	NR(0)	R(2)	NR(0)	NR(0)
PR7	2011-12	NR(0)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	NR(0)
	SCORE	0	4	4	4	4	4	2	4	2	0
	2012-13	NR(0)	R(2)	R(2)	R(2)	R(2)	R(2)	NR(0)	R(2)	NR(0)	R(2)
PR8	2011-12	NR(0)	R(2)	R(2)	R(2)	NR(0)	R(2)	R(2)	R(2)	NR(0)	NR(0)
	SCORE	0	4	4	4	2	4	2	4	0	2
	2012-13	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	NR(0)	R(2)	R(2)	R(2)
PR9	2011-12	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)	R(2)
	SCORE	4	4	4	4	4	4	2	4	2	4

TABLE NO. 2 : PRODUCT RESPONSIBILITY SCORE (PR: PRODUCT RESPONSIBILITY, R: FULL REPORTING, N	R: NOT
REPORTING, P: PARTIAL REPORTING)	

PRODU CT RESPO NSIBILI TY SCORE	14	36	32	36	28	36	26	32	20	26
RANK	6	1	2	1	3	1	4	2	5	4

VII. DATA ANALYSIS

The table indicates that Larsen Toubro, Tata Steel and Oil and Natural Gas Corporation Limited have scored the maximum points (36 points) and have been secured first rank. Reliance Industries Limited and Hindalco Industries Limited have scored 32 points and have secured second rank. Tata Motors Limited, GAIL (India) Ltd, BPCL and ITC have scored 28 points, 26 points, 20 points and 24 points respectively and accordingly they have secured third, fourth, fifth and sixth rank.

During the period 2011-12 and 2012-13, following are the firms who have not reported on the following parameters of product responsibility:

- 1. ITC Limited Customer health and safety (PR2), product and servicing labeling (PR4), PR5 of product and servicing labeling, PR7 of marketing communication and PR8 of customer privacy.
- 2. Bharat Petroleum Corporation Limited PR5 of product and servicing labeling and PR8 of customer privacy.
- 3. Mahindra & Mahindra Limited PR7 of marketing communication.
- 4. Tata Motors Limited PR5 of product and servicing labeling.

Larsen Toubro Limited, Tata Steel Limited and Oil and Natural Gas Corporation Limited have fully reported against all the clauses of product responsibility for the years 2011-12 & 2012-13. Tata Motors Limited has not reported on PR 7 in 11-12, but it did report in 12-13. GAIL (India) Limited did not report on PR 7, 8 & 9 in 11-12, but the same was reported in 12-13. Bharat Petroleum Corporation Limited did not report on PR 2, 4 & 7 in 11-12, but the same was reported in 12-13. For both the years Hindalco Industries Limited has partially reported against PR 1 & 5.

FIRM	RANK
ITC Limited	6
Larsen & Toubro Limited	1
Reliance Industries Limited	2
Tata Steel	1
Tata Motors Limited	3
Oil & Natural Gas Corporation Limited	1
GAIL (India) Limited	4
Hindalco Industries Limited	2
Bharat Petroleum Corporation Limited	5
Mahindra & Mahindra Limited	4

Table No.3: Ranking of firms w.r.t product responsibility reporting score :

Table No.4: Ranking of firms w.r.t proportionate increase in revenue generated form operations:

FIRM	PROPORTIONATE INCREASE %	RANK
BPCL	13.28	7
GAIL	17.44	2

HINDALCO	-2.03	10
ITC	18.90	1
L&T	14.49	4
M&M	15.72	3
ONGC	8.48	9
RIL	9.21	8
TML	13.42	6
TATA STEEL	14.35	5

VIII. CORRELATION BETWEEN PRODUCT RESPONSIBILITY REPORTING AND INCREASE IN REVENUE

The Spearman's rank correlation coefficient between product responsibilities rank and rank w.r.t proportionate increase in revenue has been measured to determine whether any statistical dependence exists between the two variables or not. It has been observed that value of rho (ρ) is +0.53. The formula for evaluating rho (ρ):

$$\rho = \frac{\sum_i (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_i (x_i - \bar{x})^2 \sum_i (y_i - \bar{y})^2}}$$

where i = number of firms = 10.

Where x = Ranking of firms w.r.t product responsibility reporting.

Y = ranking of firms w.r.t. proportionate increase / decrease in revenue generated form operations:

We can therefore say that the two ranks are moderately correlated in a positive manner. Thus it can be concluded that a positive linear relationship exist between the two ranks obtained by the firms. Since the rank correlation coefficient is positive, it shows that if the product responsibility score, Table: 3 (the independent variable) of the firm increases, the firm's revenue generated from operations, Table:4 (the dependent variable) will also increase. We can infer that in addition to other factors a better reporting effort by firms can lead to higher revenues.

In this paper we posit that reporting of product responsibility via a structured and widely accepted framework such as that of GRI, can be used as a marketing tool. This reporting enhances customer awareness about socially responsible firms and their attention towards maintaining the safety and reliability of their products. It induces customers to buy products of such responsible firms on a repetitive basis, which increases firms' sales and in turn positively impacts their revenues. It may be that firms in spite of being socially responsible fail to generate adequate customer loyalty, because of not reporting their responsibility towards their customer in a stringent manner. Thus communication about product responsibility is a vital tool for enhancing brand image and building customer trust.

IX. CONCLUSION

To ensure sustainability it has become imperative for firms to focus their attention on various dimensions which includes the social aspect. Responsibility towards customers is an important social dimension of sustainability. Thus product responsibility has been stressed upon as one of the parameters in the corporate sustainability reporting framework. Such reporting provides information to customer on how the firm is taking responsibility towards them and working towards enhancing their satisfaction. It can thus be assumed that this detailed information on product responsibility acts as an effective marketing tool by increasing the awareness of the stakeholders, especially the customers. The framework of product responsibility reporting should be adopted by more firms as a supplement to their other marketing tools, to create a positive impact on customer satisfaction, confidence and retention, thereby improving the performance of manufacturing firms.

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 - Gail (India) Limited iii)
 - Tata Steel Limited iv)
 - Bharat Petroleum Corporation Limited v)
 - vi) ITC Limited

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- vii) Reliance Industries Limited
- viii) Hindalco Industries Limited
- Mahindra & Mahindra Limited ix)
- x) Larsen & Toubro Limited