Marketing strategies are the revolutionary tools to meet demand and supply of coal for customer satisfaction —A case study on Micro analysis of Indian coal industry in India.

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Abstract

Coal is one of the basic resources of energy and it contributing beyond fifty percent of total prime energy production, and is anticipated that it will prolong to be crucial to India's future energy requirements. Coal is also to be had in abundance throughout the world. For any successful business Marketing strategies are the revolutionary tools to meet demand and supply of coal which leads to customer satisfaction. Researcher try to focus in his article impact of marketing strategies in coal sector meets which demand and supply and makes customer satisfaction for long term retention. Research is based on Micro study of Coal India limited and tries to shows short mathematical relation between demand and supply of organization.

Key words – Marketing strategies, Marketing, Coal, Demand and supply Customer satisfaction

Introduction

Whenever we think about marketing we need to consider the interest of consumer and their satisfaction which is the overall impression of customer about suppliers and their products or services. Customer satisfaction is the tools of marketing strategies.

Coal marketing strategy is a process that can allow an organization to concentrate its limited resources on the greatest opportunities to increase size sales and achieve a sustainable competitive advantage.

Customer satisfaction has turn out the key note for coal produces to get better their own marketing strategies.

Coal is a minining industries which is extracted from natural resources there feature cannot be change .Indian coal Industry, after enjoyed monopolistic status in the past has now entered a new phase i.e. liberalization, globalization and privatization. On liberalization and globalization of Indian economy, imported coal is now available at competitive price. The coal industry has to evolve new strategies which are not only consumer friendly but they should also give boost to the marketability of Indian coal.

Strategies make business perfect. For consumer satisfaction in coal industry correct weight and grade, transparency of sampling and analysis are important. To improve upon quality, deshelling of coal, reduction in size of coal dispatches are also required.

Objective of the study

- 1. To analysis the Marketing strategies of Indian coal industry.
- 2. To analysis the factor depends on Consumer satisfaction.
- 3. To analysis the correlation between demand and supply of CIL.

Hypothesis Formulated in the study

Following are the hypothesis in the current study to be tested using various data analysis techniques.

Null Hypothesis(H0): Coal Marketing strategy depend upon demand and supply for customer satisfaction

Over view of Coal Industry in India

The CIL, a holding company which comes under the ministry of coalwhich as exist as a public sector undertaking in Nov 1975 with the directive to restructure nationalized coal mines and make sure integrated growth of the coal sector. CIL was formed as coal mines authority limited in 1973 and further in 1975, it is changed to coal India ltd and became as a holding company with five subsidiaries:-

- Bharat Coking Coal Ltd (BCCL) Dhanbad
- Eastern coalfields limited (ECL) Sanctoria, Asansol, west Bengal)
- Central Mine planning and Design Institute Ltd. (CMPDIL)-Ranchi, Jharkhand.
- Eastern Coalfield limited (CL)- Nagpur region.

CIL has embarked upon some strategies like out sourcing of coal, e-auction of coal and fuel sales agreement with coal consumers.

Productivity of Coal in CIL

In India just because of lower per man shift comparison with foreign companies. This results as poor productivity. This is happened just because of number of reasons. One of the reasons is unmatched skills & ability of man power. However in spite of all this, there is more related problems i.e.; absenteeism, alcoholism, stress and health related problem etc. Also the safety standards and safety consciousness is too not up to the international standard. In addition there are lots of possibilities for up gradation, of technology used as well as capacity utilization, management practices, these all need to be improved. An all-purpose advancement of the work culture is also needed which will definitely prove to be an aid for the quality and productivity of the Indian coal industry. CIL use to produce non-coking coal and coking coal of different grades for diverse applications. The following table helps to highlight certain information related with the demand and supply of coal periods indicated:-

Table 1
Share of demand met by indigenous supply

Year	Demand of coal	Supply of coal	% of Demand
	(in MT)	(in MT)	overall Supply

2007-2008	492.00	454.49	92%
2008-2009	550.00	490.02	89%
2009-2010	597.98	514.56	86%
2010-2011	656.31	524.09	80%
2011-2012	696.03	535.88	77%
2012-2013	772.84	567.40	73.44%
2013-2014	769.69	571.00	78%
2014-2015	787.03	582.02	74.84%
2015-2016	832.39	589.12	70.80%
2016-2017	884.87	595.02	67.24%

(Source: Annual report of Coal India limited coal demand & supply)

Co-efficient of co-relation between Demand and Supply

Table 2

X	Dx	Dx ²	Y	dy	dy^2	dxdy
492.00	-280.84	78871.11	454.49	-112.91	12748.67	31706.26
550.00	-222.84	49657.67	490.02	-77.38	5987.66	17243.36
597.98	-174.86	30576.02	514.56	-52.84	2792.07	9239.60
656.31	-116.53	13579.24	524.09	-43.31	1875.76	5046.91
696.03	-76.81	5899.78	535.88	-31.52	993.51	2421.05
772.84 (A)	00	000	567.40 (A)	00	000	0000
769.69	-3.15	9.92	571.00	3.6	12.96	-11.34
787.03	14.19	201.36	582.02	14.62	213.74	207.46
832.39	59.55	3546.20	589.12	21.72	471.76	1293.43
884.87	111.75	12487.30	595.02	27.62	762.86	3086.54
$\sum X = 10$	$\sum dx =$	$\sum dx^2 =$	$\Sigma Y = 10$	$\sum dy =$	$\sum dy^2 =$	$\sum dxdy =$
	-689.54	948228.69		-250.40	25858.99	70236.24

Coefficient of Correlation(
$$\mathbf{r}$$
) = $\frac{\sum dxdy}{N}$ xy

Stander deviation (x)

$$x = dx^2 / N - (dx / N)^2$$

 $x = 1948228.69 / 10 - (-689.54 / 10)^2$

x = 194822.87 - 475.34

x = 194347.53

x = 440.85

Stander deviation (y)

$$y = dy^2 / N - (dy / N)^2$$

 $y = 25858.99 / 10 - (-250.40 / 10)^2$

x = 2585.90 - 627.00

x = 1958.9

x = 44.25

r= 70236.24 / 195076.13

r = +0.36

Relation between Demand and Supply of Coal is positive

Observation

It is to be observed by above given data that the share of demand met through indigenous make available has been drastically approaching downward year-to-year i.e. 92% in 2007-08 and 78% in 2013-14. When asked about the reasons for indigenous supply corresponding to growing necessity of coal and any specific plan of action contemplated by the Ministry of Coal, to reduce the dependency over the import of coal. The Ministry in their verbal answer; affirmed that the Coal imports in the country can be attributed to mounting gap between demand and indigenous availability of coal, limited availability of requisite quality of indigenous coking coal, As per environmental concern low ash content coal is required with of indigenous coal of high ash content coal based on location the cost of coal must be considered for coastal consumers of the country. As per the supplementary note issued earlier the Ministry added further and stated that the reasons regarding this which includes imported of Non-coking coal by the power sector mainly after consideration of commercial prudence, transport logistics, export entitlements along with insufficient availability of such better-quality coal as of indigenous sources. Moreover, a number consumer of the power houses are intended their operations/production lying on the imported coal only i.e. on high superior

features coal which highlighted that the import of superior quality coal particularly low ash coal will continue even if the demand of that coal can be fulfilled through the indigenous resources. As far as coking coal is concerned, import of superior coking coal will continue in future also due to the limitation of indigenous coking coal reserve. CIL has engaged an International Reputed Agency to study and examine the procedure of mine operations for the modernization & mechanization possibilities and potential, which are under assessment and may further help in improving coal production.

Marketing strategies of Coal India Ltd.

Marketing strategy of CIL covers the marketing mi i.e. Product, Price, Place, Promotion which explains the company's marketing strategy. There are multiple factors that influence the demand for coal and thereby the price of coal. The electricity factor in the demand of coal. Increase in economic activity like increase in steel production also result in increasing demand for coal.

Challenges for Coal Industry in Market strategy

Coal Industry is mining industries its product feature cannot be differentiate like manufacturing product because coal is a natural resources which is extracted from mining. Its features cannot be changed. Coal industries facing the challenges in quantity, price, production and Research & Development.

Conclusion

Researcher conclude that Indian coal industries has done tremendous job in increasing the production, post nationalization from 72 billion to 567 million tones. The directive principal at the time nationalization was to supply quality of coal suitable for his purpose at reasonable price. Above analysis shows that Marketing strategies is a business generates tools that meet demand and supply in favor of customer to meet satisfaction

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