ASSESSING THE UTILITY & IMPLICATION OF MARKETING RESEARCH IN MANUFACTURING INDUSTRY

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ABSTRACT

The fact that Marketing is pivotal to the success of an organization along with other core functions like Finance, Production, Human Resource Management and Information Technology, need not be reiterated. Yet, it is the most complex to understand because it operates in such a dynamic and volatile environment. Its orientation needs to be handled carefully and its integration with other aspects of an organization dealt with carefully. One aspect of the Marketing strategy is the increasing focus on marketing research. A company's strategies are devised on the basis of consumer's requirement and search for avenues to satisfy them quickly and efficiently. This requires that Marketing Research must aim at extensive data collection in areas such as consumer needs and requirements and gathering marketing intelligence in the current environment to help formulate better and more effect marketing strategies. The primary aim of this paper is to assess the utility of Marketing Research approach in Manufacturing Industry in India. This paper uses secondary data to empirically examine the impact of Marketing Research on the overall strategy of the company and consequently on the performance and productivity of organizations in the Steel Industry business. The study proposes to study two large Steel businesses for the purpose. Since Steel Authority of India Ltd. (SAIL) occupies an important place in the public sector undertakings and Tata Steel (formerly Tata Iron and Steel Company-TISCO) in the private sector, therefore these undertakings have been selected for the study. This study seeks to understand the use and applicability of Marketing Research with reference to the Steel Manufacturing industry. The study contributes to the existing literature on Indian Steel Sector by using existing data to throw light on the extent and quality of market research used by these companies. For example, can Marketing Managers determine optimum strategies; estimate the capital requirements for expansion or maintenance and profit maximization strategies of the organization as a whole with the help of Marketing Research strategies.

KEYWORDS: *Manufacturing Industry, Marketing Research, SWOT Analysis, Steel Industry*

INTRODUCTION

In the contemporary world marketing research is central to the marketing system of an organization as it facilitates management decision making by providing relevant, timely and precise information. Every situation requires different type of information and relevant and effective strategies can be developed with the help of relevant information using marketing research. Marketing Research is essential for carrying out three important functions:-
- ➤ Analysis of market opportunities
- ➤ Planning of marketing efforts
- ➤ Control of marketing performance

SAIL and Tata Steel are two of the largest steel manufacturing companies in the Public and Private sector respectively in India. The products

which they manufacture include hot rolled sheets, cold rolled sheets, galvanized sheets, etc. and some byproducts of the manufacturing process. In order to maximize sale revenue and decrease the cost of main products, these by- products are also sold, but these by products possess high market value and need special efforts to be saleable. That is where the marketing department begins to play a significant role. SAIL and Tata steel follow market trends for most of their marketing decisions including price although there are other factors like demand and stock also which must be studied as they play a vital role in price determination.

Tata Steel

Tata Steel is one of the largest integrated steel plants in the private sector. Tata Steel produced 18.21 million ton(mt) crude steel in FY20. Tata Steel manufactures a wide variety of products, which includes flat and long steel, bearings, ferrous-alloys and minerals, etc. While in terms of size, Tata Steel ranks among the best in the world. Tata Steel had also acquired Anglo-Dutch firm Corus for over 12 billion dollars. The Plant of Tata Steel is located in Jamshedpur (Jharkhand) and captive iron ore mines in the proximity, therefore Tata Steel has a distinct competitive advantage. The main plant at Jamshedpur manufactures great amount of flat and long products, and it also acquired Singapore-based Company, NatSteel Asia. NatSteel Asia manufactures steel across Singapore, China, Philippines, Malaysia and Vietnam.

SAIL

Steel Authority of India Limited (SAIL) is state-owned Indian steel making company with headquarters in New Delhi, India. It is a public sector undertaking which is owned and operated by the Government of India and has shown an annual production of 16.30 mt in FY20. Incorporated on 24 January 1974, SAIL has 68,742 employees (as of 01-Jun-2020). With an annual production of 16.30 million metric tons, SAIL is the 20th largest steel producer in the world. SAIL operates and owns 5 integrated steel plants at Bhilai, Rourkela, Durgapur, Bokaro and Burnpur (Asansol) and 3 special steel plants at Salem, Durgapur and Bhadravathi. It also owns a Ferro Alloy plant at Chandrapur. (SAIL Annual Reports). As a part of its global ambition, the company is undergoing a massive expansion and modernization programme involving upgrading and building new facilities with emphasis on state of the art green technology. It also has R&D centre for Iron & Steel (RDCIS), centre for Engineering in Ranchi, Jharkhand

Challenges faced by Steel Industry and Utility of Marketing Research

- The gap between demand and supply of steel is increasing. The challenge before the company is to fulfill the customer needs through increased production and the customer needs can be ascertained to a great degree with the usage of Marketing Research.

- The manufacturing sector is based on to the 4 P's of marketing viz. price, product, promotion, and place. All these factors have their own importance and all are inter-related with each other. In any manufacturing industry, all factors like Product, price, place, promotion are carefully formulated to gain competitive advantage in the market. It is very important for business analyst to evaluate the modern trend and market position. In the other hand it is vital for business operation to know the need and desire of customer which can be effectively accomplished by Marketing Research.

- To prepare an effective marketing strategy, a company must use Marketing Research to neutralize the threat of competitors. A firm should maintain good relation with their distributors and retailers keeping in view competitive orientation through Marketing Research.

- The information through Marketing Research will prove beneficial in taking proactive action for combating competition. This information is very useful and important as it explores facts about the competition, their product penetration, product demand, promotion policy, and the whole program of Marketing Research gives an overview where the company needs to improve.

- Different set of customers are attracted by different features of the products. Some customers are mainly interested in the cost of a product, and as per the information generated by the marketing research; the organizations strive to position themselves to offer the lowest price.

- Within every sector, there is usually a segment of the market which buys a product taking into consideration the aspect of lowest cost. So the organization should carefully after doing all the research strives to customize the product and become the low cost producer.

- Quality can be bifurcated into product quality and process quality. The level of quality in a product's design and process design will vary with the amount of market research.

SWOT ANALYSIS

The SWOT analysis of the company refers to the strengths, weaknesses which are internally present in the organization while the opportunities & threats are faced by them from the environment, which may be present external to the organization. SWOT analysis is the base of the Marketing Research process which ultimately facilitates the attainment of the strategic objective of the organization. SWOT analysis has been done in order to have a better understanding of the organization.

SWOT of Tata Steel

Strengths:

- One of the largest and lowest cost producers of coal based sponge iron in the country.
- Total backward integration ensuring steady stream of profits
- Captive mining of iron ore and coal with coal washery facility
- Captive power generation
- Identifying projects and business opportunities.
- Expertise in project implementation at low capital cost and within the schedule time.
- Lowest cost producer of sponge iron (coal based in the country).
- Huge reserve of iron ore and coal in mines.
- The world's longest rail developed in the factory brightens company's future outlook. It is backed by the 140-year old TATA dynasty, one of Asia's oldest and most respected conglomerates.
- It is the world's sixth largest steel manufacture. It also has a global presence.
- Very low operating costs by global standards, therefore the margins enjoyed by the brand are huge.
- Dedicated management and workers, Tata has never had a strike in 65 years

Weakness:

- Domestic consumption of steel dependent on infrastructure spending by GOI.
- It is located in the eastern region of India; however, much of the market for steel is on the west coast. Hence, its freight absorption costs very higher above average.
- It is located 250 KM from the nearest port, which adds to its costs when importing raw materials and exporting steel products.

Opportunity:

- Forward integration into value-added Products, Rails & Universal beams will drive future growth.
- Association with NKK to create huge export potential for Rails.
- State of Chhattisgarh encourages the setting up of new power projects.
- The Government's policy to privatize the power trading leaves new opportunities opened for the company.
- Reduced availability of steel scrap (substitute for the sponge iron) will increase demand for the sponge iron.
- The increasing price of steel in the market will maximize the profitability of the company further.
- India's per capita consumption of steel is projected to increase substantially in the future.
- With their Greenfield plants going on stream and expansion in Jamshedpur they will have a great opportunity to increase the production multifold. This shall give them the potential to become the world's second largest steel maker by that time.
- Possible mergers and acquisitions.

Threats:

- Sponge iron prices movements are dependent on international scrap prices, which fluctuate widely.
- The main competitors like RINL, JSW steel, NMDC, MITTAL STEEL, JSPL etc.
- Continuing demand and pricing slump in the industry.

SWOT Analysis of SAIL

Strengths

- Staffing is a big strength for SAIL as being a Government venture it is looked upon for generating and offering employment

- Customer base is another major strength for SAIL as it offers steel at subsidized rates and hence caters to high volume of clients

- Another strength for SAIL is its Market position which is on a very successful level and thus there is no hesitation in its clients

- Financial Resources also acts as strength as it can use Government funds for ventures.

- Sales Channels also is strength as it uses all possible channels for promotion and Sales.

- Strength is the (product Steel) is core in nature and related to almost all development and infrastructure activities.

- Profitability is also strength as SAIL records astounding profit figures in spite of providing social benefit and subsidies to its clients.

Weakness

- SAIL being a Public sector undertaking, the targets and workload are not as tough as private sector undertakings and job security leads to staff being complacent sometimes.

- Another weakness is that higher profit margins are possible but not allowed since being a Government enterprise.

- Competitive strategies are another weakness as competitors include private players with better quality manpower, strategies and policies.

- Another weakness is production of a dedicated product in steel and no diversification.

Opportunities

- However SAIL has got certain opportunities as it is affiliated to the Government of India, therefore security, expansion and growth is possible.

- SAIL can market its products globally with ease using Government support.

- SAIL being financially sound can undertake merger and acquisition projects with weaker counterparts.

- It can also involve in production of forward integration products and by-products apart from its core product (Steel) with the help of its healthy brand image.

Threats

- Threats would include change in Government Policies and Economy trend which can have a direct impact on the functioning of SAIL.

- Also emerging and existing private sector competitors who can steal market share.

- Also late implementation of technology and modern machinery as compared to counterparts can pose a potential threat.

- Apart from the above major threats, labour turnover can also cause problems due to existence of higher paying jobs with better benefits in the sector

Methodology of Marketing Research in Steel Manufacturing Industry

The Marketing Research at SAIL and Tata Steel focuses on process improvement, cost competitiveness, product quality, product development and basic research for improvement in techno-economic parameters to improve the overall efficiency. Major initiatives aimed at Process improvement, cost competitiveness and product development include:

- Improvement in lining life of converter by technological initiatives

- Increase in productivity by process changes in furnace working from peripheral working and other changes in charging system.

- Technological initiatives like hot charging of wheels, modification of ingot design, etc., helped in record production of wheels

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- Reduction in roll spalling at various steel manufacturing plants
- Measures to obtain increased campaign length and reduced roll consumption at various steel manufacturing plants
- Installation of automation of hot saws in Structural Mill

Cost competitiveness

According to Annual Report of SAIL and Tata Steel, the following cost reduction measures are implemented to gain competitive advantage:-

(a) Reduction in fixed cost through volume growth, reduction in manpower cost and financial charges;

(b) Reduction in variable cost through technological interventions like elimination of ingot steel route, 100% Basic Oxygen Furnace and Continuous Casting, coke rate reduction via CDI/auxiliary fuel injection, and higher levels of process control automation, leading to improvement of operating efficiency; and

(c) By business process improvements such as streamlining of supplies of key inputs of steel making through higher utilization of e-commerce, centralized procurement for select items, etc.

Quality competitiveness

SAIL and Tata Steel also emphasize on technology & input quality improvement across value chain; thrust on special quality steel and new products; improvement in process consistency and metal treatment; advanced online testing and quality control facilities; standardization/automation/process control & IT. However, the market research indicators are directing to higher growth potential. Therefore, depending on the market growth, strategies of competitors, global economic scenario, government policies and resource availability, the organization's plans may be revised from time to time, and further growth in terms of volume, products, etc., may be aimed through investments, acquisitions/mergers etc. The current marketing research provides the broad direction for SAIL and Tata Steel to move forward.

Marketing Research Strategies adopted in Steel Manufacturing Industry

Product Positioning: Steel being an industrial commodity, it is very necessary to maintain customer relationship for profitability and smooth running of company. SAIL implements following practices for continuous improvement.

- Procedure / process adapted to access current / future expectation of customers.

- It induces market research visiting customer premises attending to customer complaints.

- The manufacturing industry has Market Research divison where specialists monitor changing demand pattern and development in each Market segment is carried on.

- It has posted market development officers at various locations that are its eyes and ears for monitoring current and future expectation of its customer.

- The Business-planning department is exclusively meant to study customer's changing demand scenario and assess current and future expectation.

To understand customer needs, Marketing Research division organizes seminars and workshops regularly. SAIL and Tata Steel have adopted the philosophy of recognizing segment of the market and identifying key customer in segment and giving them preferential treatment. Sales executives have been trained to use direct selling as tool for building long lasting relationship with the customers.

Market Development: Marketing Research at SAIL and Tata Steel have valued customers group in identifying their specific needs specific to that group thus segmenting and developing market segment for the products. Major product changes are done as per their specific needs of the Market segment thereby creating product differentiation packages.

JIT Delivery: JIT Delivery means just in time delivery. SAIL and Tata Steel are able to make delivery just in time because it executes its strategies properly and takes order only after consulting the production units and hence the products are delivered on time.

Production According To Market Needs: SAIL and Tata Steel are always adapting to the market and tries to produce according to market needs. These manufacturing giants try to produce quality products / new products which full fill the need of market.

Policies of Marketing Research

This segment carries out product pricing and related activities which are as follows :-

- Finalize annual sales plan and quantity, monthly, weekly, and daily rolling programme of Rolling mills in consultation with CMO and mills. This plan is based on the sales forecast receive from the marketing research department.

- Optimizing the product-mix by proper utilization of available stocks.

- Receiving Enquiries and complaints, cancellation of orders etc.

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- Coordinating the works of mills and traffic department so as to maximize dispatches.
- Co-ordinations with CMO from stages of enquiry, for exports, development of new Profiles, sections, modification of product scheduling till the orders are completed.
- Development of new qualities of steel. Regular market surveys of products to analyze the market situation.
- Implementation of suggestions received from the customers feed bock.
- Ensure customer satisfaction by meeting customers regularly; provide redressal to their problems and fulfillment of demand.

BY PRODUCT: In the steel industries coke is heated to get some gas and tar product such as Ammonia, Tar, Benzene etc. These products are unwanted but can't be left in vain. Since they are profitable as well as harmful for the environment and industries, so they go through certain process and are then made into some valuable product. Eg. At the Bokaro plant heat the coke ammonia gases obtained, and then mixed it in the sulfuric acid and made ammonia sulphate that is used as a fertilizer with brand name RAJA.

SECONDARY PRODUCT: In the process of making core project, defectives are also produced; the reason may be break down or any technical default. Scrap is also produced in the process of producing steel products. These secondary products are processed from the beginning or else they are sold through the auction or lot sale.

MARKETING RESEARCH IMPLICATIONS

There are some steps need to be taken to help the Indian Steel Industry achieve its potential which is as follows:

- Steel is yet to touch the lives of millions of people in India. Per capita consumption of steel in India is only 29 kg and has to go a long way to reach consumption levels of around 400 kg in various developed countries.
- There is a need to continue the current thrust on infrastructure related activities and extend them to rural India. Rural Indian today presents a challenge for development of the country and the opportunity to increase usage of steel in these areas through projects such as rural housing etc.
- Current shortage of inputs has pushed up the costs for the steel industry. Government should ensure that quality raw material such iron-ore and coke are available to the

industry. With Ministry of Steel targeting an output of 100 MT of steel, there is an urgent need to develop raw material resources for inputs like iron-ore and coal within or outside the country.

- Adequate enabling infrastructure such as power, ports, roads, rail transport is pre-requisite for the Indian steel industry to remain competitive.
- Government should not regulate prices and free market forces should prevail. Intervention by the Government is only a short-term solution to the issue of steel prices in the country.

The Indian Steel industry also faces stiff competition from various global players. While developed countries have placed various tariff and non-tariff barriers on steel exports from their nations, the domestic industry is exposed to low cost imports from competing nations. The Government should give reasonable protection to the domestic steel industry. Steel Industry should be allowed to have a decent return on investment and contribute to the overall growth of the Indian manufacturing sector. CRISIL in a recent study has concluded that given the large exposure that banks and financial institutions have given to the steel industry, a healthy steel sector is in the best interest of the economy. Today, Indian steel manufacturers employ one of the best standards of technology. Indian Steel finds growing acceptability in international markets. But despite this India's share in world trade steel is bare minimum 2%. Given the potential of the Indian steel industry there is tremendous scope to increase this share further. While the steel industry will continue servicing the domestic demand there is a vast untapped potential.

Therefore, it can rightly be concluded that the liberalization of industrial policy and other initiatives taken by the Government have given a definite impetus for entry, participation and growth of both private and public sector in the steel industry. Assurance, reliability and superior brand experience in every product have always been the core concepts for SAIL & Tata Steel's brand building strategies. In addition, the realigned operating strategy takes into consideration, the realities of the marketplace and improvement of customer satisfaction and relationships with existing customers. In the domain of brand building, both SAIL and Tata Steel have always been able to stay ahead of competition and sustain their position of supremacy even in the face of erratic market changes. In recent times, the Tata Steel Group has been concentrating on the geographies that are logistically favorable to its plants in Europe and Asia, in response to current

realities of the marketplace. Tata Steel has been working to improve customer satisfaction by the usage of Marketing Research. Tata Steel is focusing on positive markets by applying its resources to the core business where they are most needed.

CONCLUSION

Most Indian businesses were large on margins and low in complexities. There was no imminent need for using analytics as a differentiating factor and one could easily get away without using statistics to predict the potential of a customer. But the last five years has seen competition building up significantly. Therefore, to retain a customer, it has become essential to quantify the risks involved in the business. So, how do businesses recognize or map the uncertainty? Can they do so by using statistical modeling, which involve analyzing the different variables in the business? Take for instance, an FMCG company. A highly marketing-driven industry, companies spend around 15 per cent of their sales on their marketing activities like advertising on various media channels, promotions to retailers or consumers, and so on, going by annual reports. This 'marketing mix modeling' uses multiple variable analysis techniques to estimate the impact of advertising, pricing, merchandising, competitive activity, seasonality, etc. According to Fractal, proper implementation of this modeling can increase efficiency of marketing spend by 10 per cent. In the last three years, analytics companies in India have developed mathematical tools in areas such as cross-selling, employee attrition management and customer acquisition and retention for Indian companies like ICICI Bank, HDFC, Reliance Infocomm, UTI and ABN-AMRO, among others.

Globally, the use marketing research models have spread to sectors like banking, telecom, advertising, search engine marketing, advertising, FMCG, insurance, and transport and communication. It has created millions for mathematicians. Mathematical modeling is now being taken to the next level. After products and services, it is now being used to decipher the random behavior of the consumer. The global insurance industry is now using what is called the generalized linear modeling. Till now in India, it is mainly the banking and telecommunication industries that thrive on marketing research tools. One of the main reasons is lack of consumer data capture processes, like in the case of FMCG industry. Globally, statisticians use a multi-variate analysis technique called structured equation modeling (SEM), which factors in parameters like consumer background, preferences and brand feel while devising solutions. The success of such a model is dependent on the accuracy of available data. "Because of the lack of organized retail sector, data

compilation and even the reliability of data are an issue. Besides, in developing markets like India, data is still gathered through monthly retail audits. This restricts the entry of data to monthly level," says. Ramakrishna Reddy, vice-president, Fractal. It's time Indian businesses started applying Marketing Research to maximize returns. An integrated steel plant is a complex entity in which various products are routed through different production units. Sales, cost, and net profit of each product are functions of many variables. If the operating manager makes decisions that result in sub-optimal operations, a significant savings or income opportunity can be lost. Professor Goutam Dutta of the Production and Quantitative Methods (P&QM) area and Professor Robert Fourer, his colleague at Northwestern University surveyed mathematical programming applications and report about seventy applications in fifteen different countries since 1958. Although steel is a basic industry, very few applications of marketing research in Marketing have been reported in the literature in comparison with Marketing Research Applications in other industries such as oil, airlines, and semiconductors.

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