



Proceedings of International Conference on Strategies in Volatile and Uncertain Environment for Emerging Markets
July 14-15, 2017
Indian Institute of Technology Delhi, New Delhi
pp.512-520

Analyzing Corporate Social Responsibility (CSR) Activities of Polluting Industries in Jharkhand

Rashi Malpani¹ and Anupam Ghosh²

Abstract

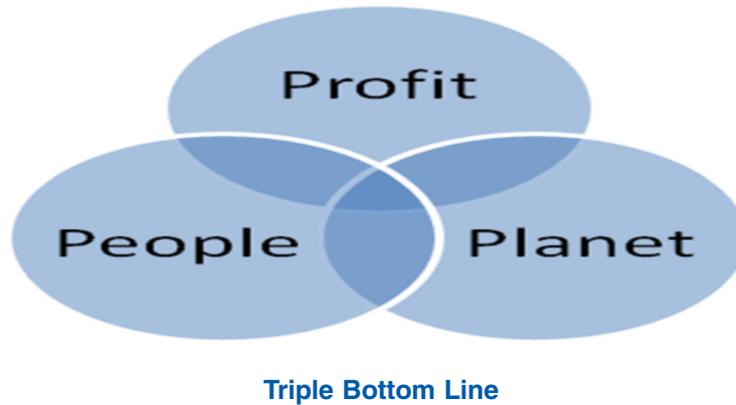
The state of Jharkhand has a huge reservoir of minerals such as coal, copper, iron and steel. It is a tribal state where the population earns their living by agriculture or by working in these industries. Jharkhand earns huge revenue from these industries. Jharkhand has 172 units of polluting industries. Fossil fuels are becoming scarce so they should be utilized optimally. The ozone layer is depleting day by day, so organizations are taking initiatives to protect the environment by reducing the emission of harmful gases, conservation of energy etc. The employees are treated well; they are given a hygienic workplace along with safety measures leading to sustainability. The objective of this paper is to identify the CSR activities and its uniqueness and to know about the natural environment, society and profitability initiatives undertaken by these industries. Research Design: Exhaustive literature survey regarding the topic and related concepts has been done. This research is qualitative in nature. Exploratory research design has been used. Secondary data is collected through interviews, sustainability reports, and annual reports of the industries in Jharkhand. We have come to know that innovation is definitely a tool for sustainable business. Undergoing CSR activities is an expensive task yet; these industries are taking huge initiatives to be sustainable.

Keywords: Corporate Social Responsibility, Entrepreneurship, Innovation, Pollution, Sustainability

1. Introduction

In this era of competition entrepreneurs are taking a lot of initiative to earn profit. They innovate products so that they stand differently in the eyes of their customers as well as gain new prospects. CSR is one of them being undertaken to have a competitive edge. In past, CSR was just a philanthropy activity for the society but with times it has evolved as corporate sustainability responsibility. Now, with times it has integrated society with planet and profit. Entrepreneurs now make eco friendly products as well as take into consideration stakeholder engagement. If the stakeholders are satisfied then the demand of the product increases; capital can be raised easily, cost of production declines. Industrialization occurs leading to employment generation. Per capita income increases thereby leading to an increase in standard of living. GDP and NY of an economy increases. CSR also includes healthy working condition, fair wages, good superior subordinate relationship etc. Employees working in these organizations are satisfied and motivated to achieve their goals, ultimately leading the organization to attain its goals. It thus, helps in building effective supply chain management and thus increases the goodwill of the organization.

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1. Doctoral Scholar, Department of Management, Birla Institute of Technology, Mesra, Ranchi
 2. Assistant Professor, Department of Management, Birla Institute of Technology, Mesra, Ranchi



Triple bottom line is integration between people, profit and planet. Any organization can be sustainable only when it follows the concept of triple bottom line. After undertaking CSR and Sustainability activities, innovation is very important. According to Schumpeter, “innovation can be in five ways- by launching a new product, application of new methods of production or sale, opening of a new market, acquiring new sources of supply of raw material or semi finished goods, new industry structure”. Jharkhand is a tribal state, where people earn their living either by agriculture or by working in these mining industries. Innovation is very necessary as it will help in creating industries, employment opportunities. It will also help in reducing disparity between rich and poor. Jharkhand has a low literacy rate. People should be given online education which will reduce transportation cost, thereby reducing pollution. E-rickshaw should be used as the medium of transport to decrease the level of pollution. Eco friendly huts should be made for the people living nearby these industries. Biological nitrogen fixation process should be adopted for plantation of trees. Dust, and gases released in mining area act as a slow poison for the worker. It is very hazardous for their health. So, gadgets should be made for screening of tuberculosis, HIV, lungs and heart disease on a regular basis. By these instruments, diseases will be identified with less medical support. It is an accident prone area, so easy to use audio books should be distributed among the employees so that they gain knowledge about the safety measures while working in these industries. There should be certain technological solution (artificial intelligence techniques, robots to be used) to stop the accidents occurring in these industries. Companies should not only look upon the profitability of itself and its stakeholder but also of non stakeholders

2. Literature Review

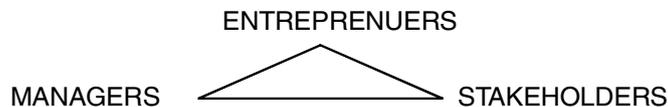
CSR has evolved since post independence period when Mahatma gave the concept of Trusteeship and Sarvodaya. After the World War II when everything got devastated, Bowen (1953) said that the countries could only survive when big industrialist spend money in CSR activities. In 1971, Jhonson said that the companies have some extra fiduciary responsibilities for social upliftment of the society and it should be a part of company's objectives. Milton Freidman gave the stockholder theory. Stockholders are the persons who invest their money in business. So, the organization looks only after the interest of his shareholders and it is the responsible of the government to look after the rest. Caroll (1979-1991) gave us the CSR approach. He talked about the ethical responsibility of the business. He stated a four layer pyramid in which the bottom layer is economic, legal, ethical and philanthropy. After the stockholder theory Milton Freeman gave the concept of stakeholder theory. Stakeholders include customers, shareholders, government, employees, and suppliers. All the organization should work to satisfy the

stakeholders. In (1987-1996), the Brundtland commission presented a new concept: Sustainable Development (1987). It defines sustainable developments as “Development which meets the need of current generation without compromising the ability of the future generation to meet their own needs”. In 1995 John Elkington defined triple bottom line in his books “Cannibals with forks”. He said the sustainability is the integration between people profit and planet. Now, in 2002, three waves of moon came into existence which said that the product being manufactured should be produced by a socially responsible process. At the same time community should be involved and there should be good employee relations. Moon said that employees and internal stakeholders are one of the basic elements of CSR. Then environmental CSR was laid down which said that now environmental concern is an integral part of company’s CSR policy. “Firms are not solely profit-maximizing entities; they also engage in voluntary behavior to the benefit of its stakeholders. This voluntary engagement is termed Corporate Social Responsibility (CSR), and addresses the social and environmental aspects of firms’ actions (Takala and Pallab, 2000; Sharma and Starik, 2002)”. “Melé 2009 has noted that corporate social responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the community and society at large. Furthermore, he has added elements of the following issues to the priorities of CSR: Human rights, Employee rights, Environmental protection, Supplier relations, Community involvement and Stakeholder rights” (Melé 2009, 300 -301). In 2010, CSR2.0 was introduced by Wayne Visser which is a double helix model which takes into consideration Environment, social, economic and human sustainability as well as moral, community, labor and financial responsibility. This is how CSR has evolved and has now become corporate sustainable responsibility from corporate social responsibility. More recently, Shepherd and Patzelt (2011:137) offer the following definition: “sustainable entrepreneurship is focused on the preservation of nature, life support, and community in the pursuit of perceived opportunities to bring into existence future products, processes, and services for gain, where gain is broadly construed to include economic and non-economic gains to individuals, the economy, and society”, “Sustainable innovation takes into account both the ecological and the social dimension of innovation activities (Ketata *et al.*, 2015).”

3. CSR (Corporate Social Responsibility)

Corporate responsibility or is a one of the most crucial factor for the business and society literature, addressing topics related to business ethics, corporate social performance, global corporate citizenship, and stakeholder management. It looks into the needs of its stakeholders where it performs its task and achieves the goals without compromising the ability of the future generation to fulfill their needs by making innovations. CSR is about how enterprise manages their business processes to produce an overall positive impact on society. CSR not only focuses on profit making but also pays attention environment and social activities across all levels of value creation chains so that it can eradicate and solve societal problems. Entrepreneur’s objective is to grab opportunities and to convert financial risk into a monetary profit. The complete process from identifying those opportunities and converting them into profit, entrepreneurs experience gaps in business operation. Now, when the entrepreneurs identify those gaps, they innovate and operate things in a manner to shift the business operation to the next level. So, entrepreneurs always have a tendency to innovate or to do things differently in order to create their own social glow. Now, CSR activities are done in a strategic way such that it won’t affect the stakeholders. Rather, entrepreneurs step out to support CSR activities. In case, these CSR activities are implemented in wrong way, usually entrepreneurs bear the cost of its failure. Financial support is being provided by entrepreneurs for the smooth functioning and a better implementation of CSR. Generally, entrepreneurs support these activities for societal development,

for creating values, and to receive a social response towards their business. The acceptance of the CSR activities may also help a business to be accepted socially. For instance, let us consider a small town, where people are not aware of a business existence or they might have not accepted business methodology at the local level. Then, these CSR activities may work as a tool to create awareness and help them to increase their revenues. In those cases, business might be accepted at a local level. The level of acceptance or a social glow of a firm is dependent somehow on the CSR activities and the way these activities are accepted by the people. Now days, entrepreneurs are becoming more strategic towards CSR activities and try to solve those issues, particularly in the domain of their core business in order to achieve maximum profit. The changes brought in the society through products and services are not the only thing society demands. It is clearly evident that society expects more than just revolutionizing a business product. Entrepreneurs are very well aware of this demand. Now, bringing change to the society and to revolutionize the concept through business, they need to bring innovation in its implementation as well as in its operations. Entrepreneurs know CSR activities would help them to bring a change in societal values. CSR brings positivity to drive business towards innovation and CSR encourages corporate leaders to solve social and environmental problems which are faced by our society. CSR activities is a kind of innovation in which portion of financial assets are put in, which appears to be a financial loss to a company, but eventually it turns out to be a profit making firm. If the CSR activities are not implemented properly, it would be a costly affair. Well, another aspect of entrepreneurship and CSR activities is that it brings forward a social contract or social bonding between the owners of the firm, i.e. entrepreneurs who take decision, the managers, who implement those decisions and the citizens or the stakeholders, which are actually consuming products or may investing in the business. CSR activities connect the three sides of the triangle.



For a service provided or initiated by a corporate firm is to be considered as a CSR there must be a clear social value creation, and it must bring a new business model that bring something innovative to the market for societal development. Another area of concern for a successful Entrepreneur, that their products must satisfy the demand of present, and had a potential to satisfy the demand of the future generation too, i.e. Sustainable economic development. Now, government agencies and other various socially motivated organizations put efforts to create opportunities for sustainable development. While doing so, companies and corporate firms also get involved in these efforts. These corporate firms have a vital role for the development of the societies. There is a necessity that these firms contribute for the improvement of the society, particularly in their domain. These contributions could be done through CSR activities. Although CSR implementation is one of the complex tasks, but CSR is considered to be one of the most promising opportunities for entrepreneurs who cannot be ignored. These opportunities pay off eventually, especially in the developing countries like India. Overall CSR activities are being evaluated on the basis of how they are practiced, how much these activities impact the people locally, how they are leveraging the strength of the corporate firms. Well, building capacity for sustainable CSR is also major area to be taken care off. Basically, Entrepreneurs follow an approach where CSR as a part of their core business strategy and vision. Entrepreneurs integrate their CSR activities with their business, so that they can attract potential stakeholders by

addressing to the key societal and environmental issues. Therefore, to create a value for business, we need to align the CSR with core business process. Importantly, the value created in the society for the product due to CSR is not constrained to financial profit. Rather, it even enables trust for the business in the society. CSR provides a new approach to establish a reputation of the firm in an undeserved society by addressing social and environmental issues with new or existing services. This customization is done in order to create awareness about the utility of their offerings. One of the approaches is to provide employment to local people which help them to sustain product awareness which even support local community development. Even innovation brings together the expertise of various stakeholders, in particular when business and on field expertise efforts are integrated. The benefit of this approach gives a broader perspective with the consideration of opportunities and even identifying risk associated with the offering. This change has enforced entrepreneurs to come up with new innovative ideas and with new business models seeking societal development. Entrepreneurs are motivated to introduce new business model so as to capture the future market. "CSR has a positive impact on the adoption of sustainability oriented innovation by firms" (Nicholas Poussing). CSR offers vision ad new business model addressing societal challenges which helps in creating value of the firm. Hence, CSR is a tool of entrepreneurship. Indian entrepreneurs have a long tradition of working within the values. However, in recent times Indian entrepreneurs have proved themselves in putting effort for societal development through CSR. Corporate firms in India have come up with both innovation and business process change in adapting CSR initiatives and integrating them into core business process. The various polluting industries in Jharkhand are:

Coal Industry

Coal is a non renewable source of energy. Jharkhand has 27.3% of India's coal reserves. Coal helps in production of electricity. It also helps in to manufacture steel and cement. Moreover, it is also used as a liquid fuel.

Iron and Steel Industry

Iron and Steel is used for the construction of buildings, Machine tools, natural gas pipelines, bridges, vehicles, railway tracts etc. It has a low production cost.

Copper and Zinc Smelting Industries

Jharkhand contributes to about 8% of national production of copper. Copper is used in electrical, electronic, automobile, chemical and alloy industry (tin, zinc, aluminum, nickel etc.).

These industries bring in industrialization. Employment is generated. Per capita income increases. Standard of living of the people increases. Poverty is being alleviated. State earns huge revenue which can be used for the betterment of stakeholders.

4. Conclusion and Findings

This article tells us about the CSR and sustainability initiatives undertaken by the polluting industries listed by the Central Pollution Control Board. Each and every industry is doing something or the other to be sustainable. Some of the measures which differentiate them from each other are:

Coal Industries: The CSR activities undertaken by these industries are education, women empowerment, drinking water, sanitation.

Sustainability Measures: Extensive tree plantation program is undertaken every year by these industries. Preservation and reuse of Top soil is being done. Powerhouses are assisted with equipments for disposal of fly ash in mine voids. Spontaneous fire in raw coal stocks / rejects

dumps are controlled through regular water sprinkling. LPGs are being used in many colonies & other establishments. Commercial exploitations of CBM, CMM, VAM, UG Coal gasification is being done. Promotion of alternative energy possibilities i.e. Windmill driven by return air of UG mine (WCL). Solar energy is being used and solar street lights are being installed. Quick implementation of fire projects is being done.

Innovativeness: A standardized method of environmental monitoring is being followed in all the mines. Air stations, water stations, noise stations and vibration monitoring stations have been fixed. Sampling of air and water and measurements of noise level and vibration are made at intervals. Spontaneous fire in raw coal stocks / rejects dumps are controlled through regular water sprinkling.

Copper and Zinc Smelting Industries: CSR activities undertaken by these industries involve healthcare, education, skill training, women empowerment, and agricultural support, live hood in nearby places, animal husbandry, Safe drinking water and sanitation.

Sustainability Measures: Protection of environment is being done by construction of chimney. CO₂, NO_x and SO_x gases are being monitored continuously online. Electro static precipitators are being used. Bag Filters and water spray system in dust areas are being used. Green belt development is being done. Closed circuit Air cooling system to conserve raw water. ETP and STP water treatment plant and construction of ash pond is being done to conserve water. Fly ash is stored in silo and is supplied to cement industry. Bottom ash is also collected in a lined ash pond and is disposed off to cement industry. Zero liquid discharge is practiced. Companies sell its scrap through e-auction. Solid waste like granulated slag, waste brick, boiler ash are sold where tailing and waste rock are stored and are recycled and reused.

Innovativeness: Back filters and water spray system are being used to control dust. Consumption of water is being reduced with the help of synthetic liquid.

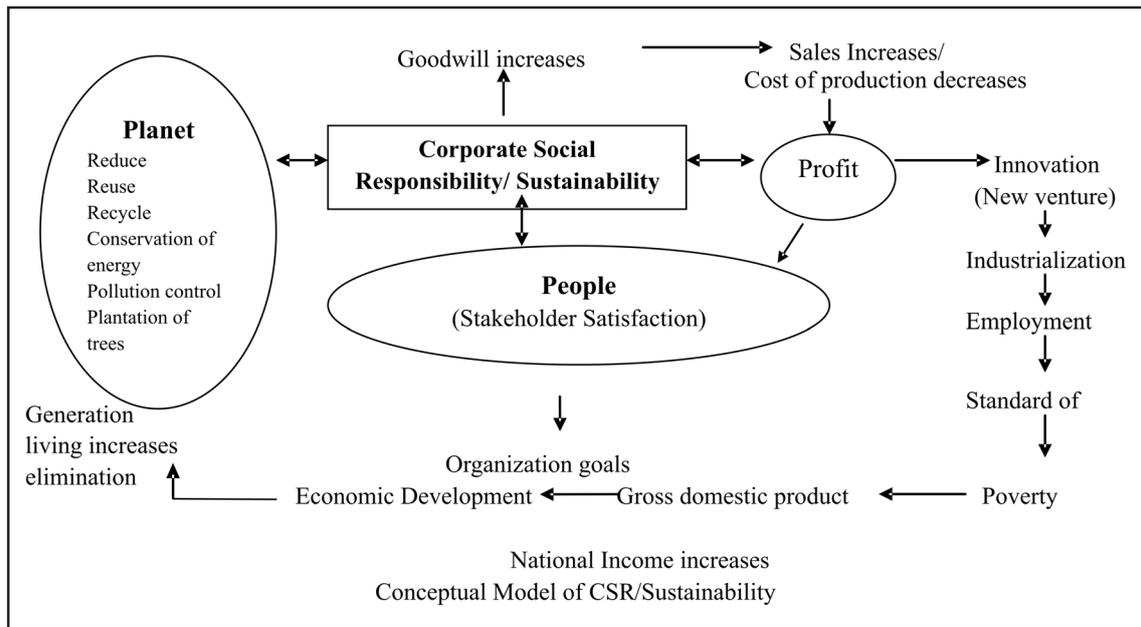
Iron and Steel Industries: CSR activities undertaken are education, health, community welfare, Women empowerment.

Sustainability Measures: Power is being generated from Top gas pressure Recovery Turbines (TRT) using Waste Pressure of Top Gas. Steam generation from the Coal Dry Quenching is being done. Heat Pipe technology based WHR at Stoves of Blast Furnaces is being used. Waste Sulphur Recovery Unit recovers sulphur from Coke Oven gas, which is a by-product of the coking process, and hence reduces Sox emission into atmosphere. Common Effluent Treatment Plant was commissioned to conserve water. Recharging of ground water through rainwater harvesting is being done. Bag filters and suction mechanism is introduced so that the fume is sucked while the dust is collected in a silo. The dust collected is utilized in iron making.

Innovativeness: There are various byproducts being made across the value chain (coal rejects from wateriest, slag scrap from steel making and rolling mills, coal tar) which are being used to make rail ballast, road, cement manufacturing etc. Non-Metallic products, which are sources of Lime and Magnesium Oxide (MgO), are being used in the Sinter Plant and Blast Furnace. Metallic by-products go to the Sinter Plant while scrap is used to the Steel making process along with pooled iron. Carbon friendly pellet making facility has been introduced. Waste Heat recovery from flue gases of Hot Stoves at "I" Blast Furnace through which power is being generated.

Industries in Jharkhand are taking a lot of initiatives to conserve energy by using solar, wind energy, reduce, recycle, reuse of waste, making of by products, preserving bio diversity, plantation

of trees, a forestation. Reduction in emission of gases through filters, chimneys, electrostatic perspirations is being done. Poisonous gases released through these mines are hazardous to health. So, free monthly check ups are being done. They are given education about the safety measures to be undertaken by them while excavating mines. These industries earn profit keeping in view the stakeholders satisfaction.



When any organization undertakes CSR activities, its goodwill increases. Sales increases thus leading to profit. This profit is then utilized to satisfy its stakeholders. Innovation is done. Entrepreneurs are now producing eco friendly products. Industrialization occurs. Employment is generated, standard of living increases, poverty is alleviated. GDP and NY increases. It leads to overall development of the economy. So, Csr is a very important tool of entrepreneurship.

5. Recommendations

As, discussed earlier, Schumpeter said innovation can take place in 5 forms. So in case of Jharkhand we recommend that new eco friendly products should be produced so as to protect the environment. Boulton and Walts mining invention should be used to automate the manufacture of textiles. Use of artificial intelligence techniques, robots should be used in exploring and excavation of mines, so that people are protected from poisonous gas. Reallocation of people living there should be done. It should also take waste from other parts of India and use it to make by products. E- Rickshaw should be used as a mode of transport. People living there should be educated so that they can study online e-books on safety measures. CSR should be a part of innovation to make any business sustainable. This is very much required in Jharkhand because half of the population is at the bottom of the pyramid. There is poverty prevailing in the state but at the same time there are opportunities due to its diversified eco system. This issue should be looked upon by the state government and effective regulatory policies should be formed respectively. State legislation and the companies should take both the small stakeholders as well as non stakeholders into consideration.

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