

Contemporary Developments in Business and Management Steel Industry

Patrick Sim MM*

Capital Advisors Partners Asia Pte Ltd, Singapore

Abstract

The purpose of this report is to describe Baosteel Group Corporation, a Mainland Chinese organization that manufactures steel, and to address the impact of external and internal factors on the organization and its iron and steel industry. The study will further take into account the issues of changing competitive environment with regards to; strategic analysis of the theme influencing policies and decision making; evaluation of the effectiveness of the organization in the industry; demonstration in the form of recommending organizational improvements through strategic options that achieve the overall corporate objectives. Alas, due to the lack of thorough primary research, some of the secondary data provided are given by the Chinese authorities may lack precision and accuracy due to political sensitivities. It is also difficult to predict the real threats and opportunities with such indicators as China is still new to global trade, and any responses are limited and inexperienced. Any suggested analysis would be outdated as the changing legal and business environment is dynamic, and failure to uphold the latest practices towards these frameworks would be detrimental.

With compelling unpredictable forces from overseas competitors that have consolidated their business, formed alliances and mergers, Baosteel should nonetheless adopt and evaluate key success factors and realistic strategies such as; good leadership, willingness to change, integrative expansive roles; environmental sustainability; advanced technologies, incentivised welfare for employees, to maintain its effectiveness to the regional and global responses. All strategic efforts will be made to ensure that Baosteel, focused on its diversification and differentiation strategies, keeps developing along the lines of scientific development, new industrialization mode and sustained long-term growth and greater benefits for the shareholders, the customers, the employees, the suppliers and the community.

Keywords: Steel manufacturers; Industry analysis; Environmental scanning; Sustainable competences; Strategic responses

Introduction

Baosteel Corporation is a super large Shanghainese state-owned company run by Chairman Xu Lejiang, manufactures steel and is one of the most competitive steel company in China. It was initiated in 1998 known then as Baoshan Iron and Steel Group. Being the most competitive steel company in China, it produces a wide range of steel products for various purposes that include; automotive, transportation, stainless, household appliances, electrical, boiler, vessel, premium and high grade requirements. It also produces billets, tubes, pipes, bars, and plates, and iron and tin products uses advanced steel processing technologies and globalised strategies to operate its business. It serves markets in United States, Korea, India, Brazil, European Union and is considered to be ranked third in the world for competency.

Baosteel produces more than 20 million tons of steel annually. Its metallurgical activities are supported by more than 20 subsidiaries and affiliated companies around the world. They include operations in construction, finance, information technology, international trade, real estate, and transportation. The development places great important to alliances and acquisitions that define consolidation in a social responsible manner. Its corporate values are designed to entail committedness in terms of exact innovation, safety, and ethical products and practices to clients and the community. It intends to transform product quality into ethical essence by it practises, not limited to delivering standard service without an end. It is also involved in many international projects that contributes high hopes to social concerns. Most importantly, it believes in providing sustainable environmental protection through creating responsible waste efficiency systems [1]. The structure of this report includes an analysis of the external environment and internal organizational issues, the impact of a changing environment facing Baosteel, what its responses towards this change will be, and how

acceptable the recommendations will align with the strategies to cope with the changes.

Environmental Scanning

Environmental scanning is a management concept by which businesses gather intelligence from the environment to achieve a sustainable advantage. By using the PEST model, the variables of politics, economy, society and technology can be better understood to ensure better survival of Baosteel. Nelsen and Scoble [2] describe this as situational analysis, which assists the company in establishing a strategic direction for managing risk and making appropriate adjustments in planning decisions. Environmental influences can be classified by sources (e.g. PEST analysis) or by proximity (micro or task environment) distinguished from the wider influences that form the macro-environment [3]. Situational analysis assists the company in establishing a strategic direction for managing risk and making appropriate adjustments in planning decisions.

External Analysis

According to Duncan [4], when environmental uncertainty increases, the more environmental conditions are dynamic and complex. Thus to sustain competitive advantage, the company must respond quickly to the information and adapt by altering its strategies

*Corresponding author: Patrick Sim MM, Capital Advisors Partners Asia Pte Ltd, Singapore, Tel: 65-6632-0480; E-mail: edulearner.sg@gmail.com

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and plans when the need arises. Environmental scanning include external and internal analysis (Table 1).

Political rules

Rules and regulations are often the bane of many companies that would involve issues such as foreign and fair trade, environmental protection, labour, and any other issues that might arise which would benefit the society and government at large. One of the issue that unfavourably impacted on Baosteel was the dumping of stainless steel by foreign countries below market prices in 1999. According to American Iron and Steel Institute [5], the Chinese government provided subsidies in the form of loans, direct credit, infusions, land discounts, forced mergers and direct grants from anywhere between 258 million to 18 billion US dollars. These massive aid in turns forces other nations' government to enact took anit-dumping measures to restrict Chinese imports into European Union or United States.

Economic

The iron and steel industry (referred as "the industry" afterwards) is one of the most important foundation industries props up our country's national economic development. In 2005, the crude steel yield of our country exceeded 350 million tons for the first time, and the total industrial production value attained 2,116.9 billion dollars, occupying 11.61% of the whole nation's GDP. The country's economy growth is expected to be 7-8% in 2007 [6]. There is room for potential in the local consumption markets, bringing new steel products and processes, which should also extend to steel materials manufacturing, shipbuilding, automobile, container, and electric appliance. Much will depend on the macro-economic factors affecting other industries catering to the demand of steel, economic facilities, which will aid or suppress the industries, and external trade regulations to be implemented by other nations.

Social

Iron and steel industry is highly material and energy-intensive enterprises, the every ton of production needs input about 2 tons and 700kg standard coal energy materials. Nearby neighbouring residences are concerned with the affluence derived from factories. Steel making is a very energy-intensive manufacturing process and accounts for over 10% of China's primary energy use and related carbon dioxide emissions and taxes maybe implemented. On the supply side, the steel market is characterised by notorious over-capacity. According to OECD [7], recent estimates show that the world steel producing capacity exceeds actual production by some 25%. Over-capacity is present in most regions, implying shifts in the distribution of factories, thus pollution, even though it is not known if the social costs are worth the benefits of supplying better steel grade.

Technology

New innovations such as the twin shell electric arc furnace would

help mini-mills increase production on lower cost. Baosteel wish to implement continuous-casting and refined casting, blast furnace overhauling. Strip casting technology was the next leap forward that would produce think strips of steel and eliminate slab-casting stage and rolling in a hot mill. Many developed countries had developments underway. Other advances include advanced metallurgical practices, and process control sensors and refinements in casting and rolling. Advanced solutions to problems are a key advantage for viability which should be embedded across the organisational culture for impact.

Environment

Environment protection is a corporate goal of many large enterprises that are responsible towards prevention of waste and emissions pressured by various individuals and organizing bodies. It can disclose its policies and outcomes through many media. In one instance, Baosteel's elecrogalvanized passivated, phosphated, fingerprint resistant and non-treated products have become environment-friendly steel at home for the first time, which opens a "green tunnel" for their users specialized in manufacturing electric appliances to enter the European market [8].

Legal

The disclosure of Baosteel's steel practices must be in line with local regulations such as, The Prevention and Control of Water Pollution Act and the Mining Resource Act of PRC. According to Peiyuan [9], enterprises that exceed emissions should formulate plans. For steel mining, a registration system is established to manage the mining exploration. Mining enterprises can start their business only when their report or application is approved. Enterprises that provide incorrect information will be punished and fined.

Internal Analysis

Internal analysis would involve a thorough understanding of one's company's resources targeted at organizational and functional planning.

Organizational structure

Baosteel is a world first-class transnational company that features "one main industry of exceptional quality and the diversified trades of appropriateness and relevance". It possesses 22 wholly owned subsidiaries (including 9 overseas subsidiaries) and 14 holding companies (including 2 overseas subsidiaries) and 24 equity-sharing companies. Among the wholly owned subsidiaries and share holding companies, 11 are iron and steel companies, 2 financial companies, 8 trading companies [8]. Its Board of Directors is mainly hierarchical in nature and the company possesses reliable proprietary intellectual property rights and strong competitive systems, displaying power in steel making and the appropriate diversification.

Resources

Human Resources Management: Baosteel's management style is

Baosteel-Critical Success Factors		
Factor	Importance	Definition
Integrative role	Critical	Move to stainless steel. Supply joist Products.Cuts cost in external purchase
Dealing with business change	Critical	Experimented with new mills and built new making process-Difficulty to make process
Good Leadership	Critical	Xu Leijiang is a transformative leader. No frills and very focus.
Benchmark style	Important	Highly empowered, much ownership. Good tactics in managing changes in time
Employees	Important	High incentive, less personal gains Standardised sharing of information, financial consolidation, management examinations
Technology	Important	Linked to each centre's production schedules. JIT system Mini mill teach allowed cheaper production of stee

Table 1: Baosteel-Critical Success Factors.

autonomous and democratic-participating, supported by the existence of a lean, decentralized provincial operating system, which allowed the managers to delegate tasks and control daily decisions on profit making. There was a sense of responsibility and ownership when returns were achieved. Access and feedback to top management about performance and innovative ideas were openly fair. The relationships between divisional managers were competitively friendly. Less contact of managers were the norm, except in reporting of financial consolidation and management examination activities. The incentive systems were standardized leading to staff satisfaction and keeping good talents. Direct systems and no ceiling of wages were used. Such wage systems were far superior by at least 3 times to the average manufacturing wage in China.

Operations

Recent statistics showed that Baosteel's revenue grew from RMB34 million to RMB42 million from year 2005 to 2006. Profits moved up from RM3306 to RM4706 million. With the expected progresses made in administration and production, the consolidated revenues from principal business of the company totaled Rmb 113,231,000,000 during the period from January to September 2006, with a total consolidated profit of Rmb13,242 million. The total sales of finished products reached 15,957,800 tons, a year-on-year increase of 42.05%, which defined the growth capability of its machinery. With healthy cash flow and growth potential, distribution of funds and talents to the right place at the right time becomes important. Risks are to be assessed through a feasibility study that will scale potential projects.

Sustainable competencies

Relevant knowledge, skills and information are indispensable assets to Baosteel. Collinson [10] describes this as corporate "capabilities" that are brought together to identify differences between competitors and company, which has to be sustainable. This encourages intra-firm knowledge between Baosteel's technical service centers, production sites. Amongst Chinese firms, Baosteel has a relatively good extension of sales agencies around the world. Business development and soft skills to acquire ventures to develop commercial and technical areas (e.g. strip casters) are desired, following the paths of other European companies. One of the competencies are; ability to transform process, save resource and energy, carry out utilization of the three wastes (i.e. waste gas, waste water and industrial residue), change by-product into a kind of resource and pushing for clean production. To strictly abide by the environment-related laws and regulations of the central and local governments, and adopt higher pollution control standards while dealing with the internal pollution problems may converge only if local governments are do not succumb to temptations.

The impact of changing competitive environment

Although the overall resource assessment seems bright, there might be a hindrance towards real growth and talent seeking due to the layers of structure and red-tapes in a strict governed industry. The process of determining resource impacts of expansion, recruitment and growth proposals are often translated into economic or relationship terms that may not assist responsible acts. The company should measure and explain the opportunity costs that would have leaked if other directions were taken. Potentially, a significant number of changes in major consolidations have occurred among the top 40 steel companies. While the steel industry remains intensive, top 30 companies have control of only 45 percent of the market, which is fragmented and paves the way for smaller companies [11]. In research terms, it is hard to measure

if the acquired companies or collaborative projects, skills and 'know-how' can actually help translate into the desired objectives, since such mergers could be tokenish and making losses.

In business development terms, the unforeseen political scene can often mean that situations of operating funds being locked-up and unable to be reinvested elsewhere. Personal objectives, relationships and cronies hidden within the organization will weaken the layers of management, skills acquisition, which lead to work instability. Thus evaluation of resource factors must involve assessment of the 'intangibles', which is difficult to account for. The evaluation also predicts that conditions are volatile in the wake of local dissatisfaction on economic issues and company's greed, as well as global dangers in green environment. A good sufficient stretch of resources is required within the environment's context to reposition from awareness to concrete activities to sustain a competitive advantage. The assessment interpretation would be; what will be the global demand impact on steel and steel-related products? Will this demand continue to be the same in the next few years if green standards are not met? Are there any other forms of technology that can produce elements that will improve steel making processes, and at what social costs and benefits?

It would be myopic to choose factors that seem more critical at hindsight, only to be denied by a contingency from another. Prioritizing to seek an advantage is almost impossible and unrealistic. Consider how opponents spread rumors that are detrimental and cause the market shares to nosedive. Events that affect one industry will have a ripple effect to other organizations, radically altering all organization's intended plans and enthusiasm. Critically, willingness to adapt quick and precise to 'unnatural' changes are keys to survival. A steelmaker needs to position to succeed in this changing environment. The way to do that is to assess where the company is right now, move into a stronger position and perceive challenges as a necessary to become a market leader or niche player.

The effectiveness of Baosteel's strategic responses

Baosteel's has optimized integration synergy, accelerated projects-in-progress, implemented quality product strategy, and sustainable reduced costs while striving to improve efficiency by benchmarking. As there is a shortage of raw materials, such strategic responses can quickly adapt and become key success factors. Responses are ever-changing and they need to be updated and shared across the organization for better improvements. According to Giarratani et al. [12], "The attractiveness of mill sites to service centers that goes well beyond the transportation cost savings associated with proximity to the mill. They reported that service centers can and do advertise proximity as an attribute to potential customer. According to Rockart [13], critical success factor (CSF) is a business term for an element which is necessary for an organization or project to achieve its mission. Baosteel should impose a set of strategic critical success factors that are vital for a strategy to be successful.

It is crucial to perceive that the external environment described in a dynamic sense by considering the current and future trends of situations of threats and opportunities. Any threats can often prove beneficial otherwise and vice-versa. One of the disadvantages; it fails to involve time factors (hedge funds for security in imports/exports for the next 3 months), change elements (a sudden closure of the factory), and pretends that most relationships and communication are functioning, and that implementation is at hand by someone. Still undue accidents occur on-site, compensation results, and production managers normally do not agree with plans and assessments designed

by the general manager; one deemed to be taking a helicopter view.

Baosteel has taken strategies under the guidelines of extensive resources, skills and associated risks.

It has sustained capital flow for better production methods and investment loads for tie-ups and overseas collaboration. It should not build to the customers' market, but as a leader, a new creation of the market is required. Steel products should be designed for replication to other business or consumer products not on the market. Efficient shipment and pricing systems are required to guarantee quick transfer of products. Baosteel's endearing policies of costs control of labor and operational funds flowed through regional lock-boxes have not marginalized their objectives. One risk is that other superior advancements from other rich-source competitors can cancel out Baosteel's investments, in the same way as imitators may copy the process-product technologies. Exports to foreign nations also risk fluctuation in currencies if Chinese dollars appreciate with inflation, which is very likely in the short-term.

It is reckoned that there is a need for stronger selling and marketing of homogenous steel to match all kinds of needs. This coupled with the capability of research and development to innovate better shapes and sizes of steel for multi-purposes become critical for differentiation. There is a lack of awareness in Baosteel's national image and reputation (unlike China steel, regarded as a symbol), since their mass marketing approach does not allow for segregation of customers. Strong cooperation from internal subsidiaries and overseas channels also sets a good selling fundamental. Wholesale buyers may sacrifice namesake and features for costs and favor India or Vietnam. Buyers' needs for differentiating factors become unimportant in homogeneous products producing mass steel, although there are options to manufacture design steel-based products (interstitial-free atom steel for door sheets for cars, air-conditioners, fridges) and have them installed as added value services for the consumer market. Such a differentiation approach will be slight, and servicing for overseas market is not feasible due to the distance and cultural differences.

Another of the strategy used by Baosteel for the 21st century, would be to not consolidate whatever is available, but to pre-empt on markets that are relatively untapped (i.e. Middle East or Africa). The focus strategy should concentrate on segments that attempt to achieve either a cost advantage or differentiation. The costs gap widens, volumes are lower, and customers are better served, moving the chain value up. Another niche area could be focused on production methods that attach societal responsibilities to sustaining activities, reducing unwanted pollutants, propaganda and conflicts with the community [14]. Overall, the risk of niche emphasis is the difficult art of balancing costs and differentiation, since differentiation amounts to higher costs in research, talent sourcing, marketing and servicing of customers.

Recommendations for improvement

Pashiardis [15] comments that a firm needs to know the environment in which it operates before making any decisions about the organization, so as to be able to match one's capabilities with the environment in which the organization operates. Depending on the objectives and success factors within the changing environment, it would be recommended that Baosteel adopt a changing façade in the business environment. It has taken a "premium products" strategy and aims to become the prime research and development base for new processes. This gathers a phenomenal aspect in China and serves as a competitive warning to other overseas competitors. A product that

adds value rather than variety should be a focus, since Baosteel has a tendency to produce many products. Baosteel should also follow a strategy of "one main industry of exceptional quality with appropriate and relevant diversified trades". It engages in diversified industries such as trade, finance, engineering and equipment manufacturing, information, coal chemical industry, deep processing of steel products and recycling [8]. As a Chinese firm per se, it would not be advisable if China trades overseas in a specialty that it has no learning curve of. Although it has a global network including many overseas and domestic trading companies, overseas competitors with better expertise will exploit Baosteel's other diversified products. Its marketing position and reputation can hardly be strengthened its diversified investments do not include steel products. Baosteel has also adopted differentiation from the perspectives of exploration, competition and cooperation, which leads to quality differentiation and long-term survival. Additionally, differentiation in reputation and trust of reliable products and services are crucial for safety and social concerns (being the objective). Stakeholders and customers have solid confidence and will continue to invest. Still, it is the adoption of constant innovation and advancement that will be difficult for competitors to keep up with, and is not about always about super technologies built per se. Differentiation also allows creating customer loyalty; especially the pioneer can attract a critical mass, which stimulates demand through a multiplication effect through the word-of-mouth. However, the cost of being different may be too great for preventing company and brand switching. The downside would be the trade-off between cost advantage and differentiation are not always [16,17].

Conclusion

In summary, Baosteel is in a strong position to challenge for a bigger international market share of the steel industry based on its financial, human and operational resource capabilities. There is extensive knowledge on producing and automating newer process and products to stave off local, Asian and European competitors. Additionally, it has strong and crucial industrial links and technical transfers with domestic and global companies related in the steel business through the mode of acquisition, joint ventures and mergers. Baosteel is highly sensitive to balancing its objectives of annual cost cutting and return of capital investments on huge infrastructure, in addition to achieving societal responsibilities and green solutions with a purpose of boosting its marketing range, reputation and penetration. Thus, it should adopt various strategies in the form of differentiation and leadership, to complement its direction and to service its stakeholders (esp. shareholders) with better paybacks and satisfaction [18].

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