

European steel industry a swot analysis economics essay



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The SWOT analysis is a strategic planning tool that can be used to evaluate the Strengths, Weaknesses, Opportunities and Threats that are involved in a business organization, a project or an industry. The SWOT Analysis tool can be used very effectively for an in-depth industry analysis that can throw light on the critical factors that are needed for the growth and sustainability of the industry in spite of the challenges and the competitive pressures. The Steel Industry of the European Union has been analyzed here on the basis of a SWOT analysis that seeks to establish a “ benchmark reference point” for the industry that can be vital for the effective monitoring of the industry. The SWOT analysis highlights the fact that the steel sector in the European Union is presently facing a large number of challenges and many of them are caused due to increased globalization and the environmental challenge. The industry needs to give high priority to investments in new and innovative technologies and to continuous the value creation processes based on strategic networks and partnership to maintain the competitive advantages. The SWOT analysis will be used to identify some areas of action which industry and policy-makers need to take to maintain the steel industry’s competitiveness.

1. INTRODUCTION

The SWOT analysis is a strategic planning tool that can be used to evaluate the Strengths, Weaknesses, Opportunities and Threats that are involved in a business organization, a project or an industry. It specifies the key objectives of the venture and then identifies the internal as well as the external factors that are favorable and unfavorable for achieving the key objectives (Oleiniuc, M. 2008). The SWOT Analysis tool can be used very effectively for an in-

depth industry analysis that can throw light on the critical factors that are needed for the growth and sustainability of the industry in spite of the challenges and the competitive pressures. The Steel Industry of the European Union has been analyzed here on the basis of a SWOT analysis that seeks to establish a “ benchmark reference point” for the industry that can be vital for the effective monitoring of the industry. It can also help in clearly analyzing the sectoral competitiveness studies with the objective of the growth and sustenance of the steel industry in the EU region (Ecorys, 2008).

The SWOT analysis highlights the fact that the steel sector in the European Union is presently facing a large number of challenges and many of them are caused due to increased globalization and the environmental challenge. The globalization challenges are marked by the emergence of new competitors (especially from the large emerging economies), imbalances in raw material supplies and increasing raw material and energy prices. In addition, there are the market imperfections pertaining to tariff and non-tariff barriers. The global competitors are also scaling up their capacities for producing high-quality products.

2. SWOT ANALYSIS OF THE EUROPEAN STEEL INDUSTRY

The four dimensions of the SWOT analysis is presented below, and explained in the following.

Tabel 1. The four dimensions of the SWOT

STRENGTHS

Strong position of the European steel industry

Focus on value creation with leadership in product development leadership and high quality output

Strong Research & Development Capabilities

High level of Specialization

High degree of recycling

Attractive investment prospects in the new EU member states

WEAKNESSES

Dependency on the import of raw materials

Energy intensity of the steel industry

Availability and Recruitment of Skilled Workforce

Trade Imbalance with greater import of steel in the region

OPPORTUNITIES

New market opportunities and consolidation of the industry through M&A activities

Upstream process and optimization of raw material use

Opportunities in the high-tech specialized products

Use of cleaner and safer technologies

More efficient and flexible processes and the adoption of ‘ intelligent manufacturing’

New market opportunities through partnerships and innovations

Cooperation with scrap suppliers for better recycling

Focus on high-end products and value creation

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THREATS

Stiff competition from China

Strong competition from other emerging economies

Imbalances in the demand and supply for raw materials

Increasing freight transportation costs

Malfunctioning of the energy markets

Environmental Legislation

Long-term demographic changes

STRENGTHS

Strong position of the European steel industry

According to EUROFER (2012), the steel industry in Europe is in a leading position in the world with an annual turnover of about EUR 190 billion and directly employing nearly 360 thousand highly skilled personnel, and

manufacturing 200 million tons of steel per year. The 23 European Union Member States have more than 500 steel production facilities and they provide direct and indirect employment and a living for millions of Europeans.

The EU steel industry operates across national borders, and the industry has a strong and advantageous position in domestic markets, particularly in high-end segments. The steel manufacturers in the European Union are well established in their primary home markets, and they have strong relations with their customers all sub-sectors. This also creates a strong foundation for looking for new business opportunities in high-end export markets.

Focus on value creation with leadership in product development leadership and high quality output

The EU's steel manufacturing industry is the world's second largest in terms of market size and it is technologically advanced due to the focus on product quality, manufacturing excellence, performance of equipment, and innovative capacity. It is capable of providing complex and high-quality products to the demanding customers, and the industry has a strong emphasis on value creation. Thus, some of the key strengths of the industry are its high-quality output and customer focus, supported by the use of advanced technology and high standards within service and the just-in-time delivery approach.

Strong Research & Development Capabilities

The steel industry in the EU is characterized by a high standard for research and development activities that keep the factories at the forefront of

technology which is an important competitive advantage for the manufacturers. All sub sectors of the steel industry are engaged in R&D activities in close cooperation with their customers and OEM manufacturers.

High level of Specialization

The European Union steel industry is highly specialized with the small manufacturers providing specialized products in close business relationships with their customers. Most of the steel foundries operate as custom-made suppliers for the industries they serve, and as such there is limited competition in the industry.

High degree of recycling

The high degree of recycling that is followed in the European Union steel industry with a large-scale scrap usage is the strength in all the sub-sectors of the industry. This makes the European steel manufacturers quite competitive compared to the suppliers in the APAC and the Middle East who are increasingly becoming dependant on scrap imports.

Attractive investment prospects in the new EU member states

The new member states that have either officially joined the EU or are in the process of joining, have high growth rates and strong demands for steel. Moreover, in these countries the labor costs are low but the technological capacity, expertise and the skill levels are improving. Thus it is quite attractive to invest in business opportunities in these new member countries and this is a strong growth factor for the EU steel industry.

WEAKNESSES

Dependency on the import of raw materials

The steel industry in the European Union is highly dependent on imported raw materials and the overseas supplies form a large part of its total raw material input. Thus the industry suffers from the weakness in terms of secure raw material supply and variable costs due to the continual fluctuations in raw material and transportation prices.

Energy intensity of the steel industry

The European Union steel industry suffers from the drawback of the intense energy usage for the operation and other processes. As such, the industry is vulnerable to energy shocks and rising fuel prices as well as to the government policies aimed at reducing emissions.

Availability and Recruitment of Skilled Workforce

The European Union steel industry faces a strong and increasing demand for highly skilled labor with more knowledge and expertise. Thus hiring and retaining skilled people is getting more difficult as the supply of labor is decreasing and the competition for highly skilled and qualified personnel is constantly increasing.

Trade Imbalance with greater import of steel in the region

The European Union faces the challenge of unbalanced trade flows with moderate rise in the export of steel in the global markets and significant increase in imports into the region. Some of the factors that lead to this trade imbalance are the high labor costs and less availability of raw

materials. The increasing capacity and the oversupply by the key exporting countries (mainly China) have also contributed significantly to this situation.

OPPORTUNITIES

New market opportunities and consolidation of the industry through M&A activities

The steel industry in the European Union has witnessed large-scale consolidations with some of the significant merger and acquisition activities in the recent years. The steel industry and its sub-sectors are expected to undergo further consolidations through mergers and acquisitions, which can invariably enhance the steel industry's overall bargaining power. More industry consolidation improves the foundation for devising a business strategy that is geared to access the best capabilities, knowledge, and assets and enhance the management capacity over the business cycle.

Upstream process and optimization of raw material use

Upstream processing and optimization of raw material utilization is significant for improving the steel industry's raw material efficiency. The factors also help to reduce the effects of supply-side sensitivity. In addition, such process improvements can also lead to lower energy consumption and lesser CO₂ emission.

Opportunities in the high-tech specialized products

The steel manufacturing industry in the European Union can undergo specialization in the high-tech and premium products segment to take advantage of new opportunities. Some of the innovation drivers in the manufacturing sector are energy efficiency and environmental responsibility

products. Wind energy is rapidly becoming more important in Europe and presently more than 100 offshore wind farms are under construction in the region, each requiring nearly 3, 000 metric tons of steel.

Use of cleaner and safer technologies

The use of more efficient technologies is an important opportunity for increasing energy efficiency and reducing emissions during the steel production processes. Thus, technological innovation and the use of cleaner and safer technologies are important, partly needed due to legislation, but also for the prospects of reducing costs and meeting the increasing demand for cleaner and safer technologies. Most significantly, the cleaner and safer technologies provide an important opportunity for proactively pursuing new business opportunities.

By participating in the European Steel Technology Platform (ESTEP), the EU steel industry is presently working with the European Commission and the member nations to finance long-term projects aimed at changed process technologies. The most ambitious one among the initiatives is the ULCOS (Ultra Low CO₂ Steelmaking), that aims to reduce CO₂ emissions from steelmaking by 50% by 2050.

More efficient and flexible processes and the adoption of ‘ intelligent manufacturing ’

The steel industry in the European Union must keep investing in the development of new technology and achievement of production process improvements so as to pursue new market opportunities and to maintain and develop its competitive strength. This requires higher efficiency and more

flexibility in the downstream process. Some of the intelligent manufacturing processes for better organization and management, (such as Lean, knowledge management) and the adoption of new IT technologies are key to achieve this objective.

New market opportunities through partnerships and innovations

The focus on high-quality customized steel products in close cooperation with the customers is an opportunity to differentiate and to compete with the other suppliers. Strong and collaborative relationships help the companies to meet the expectations of their customers by creating more value. Such partnerships are normally important for the maintenance of strong business relationships with the present and potential customers.

Cooperation with scrap suppliers for better recycling

Recycling is a crucial element of steel production in the European Union. It is strategically important to maintain a well-organized recycling process (or to achieve optimum scrap availability) due to the structural barriers of further replacing the iron ore by scrap and the increasing export of scrap to the non-EU countries.

Focus on high-end products and value creation

The focus on high-quality and high value added products, solutions and services is important to further prioritize and develop the European steel industry's capabilities and strengths. The steel industry in the European Union has a competitive edge in this area and most of the forecasts have predicted that the demand in the high-end area will continue to increase.

THREATS

Stiff competition from China

China has increased its steel output level quite significantly and its steel capacity level has also been driven by its high economic growth and demand from its construction sector. China has also markedly improved its international business relations and it has become the world's largest exporter of semi-finished and finished steel products. The European Union is one of the largest export destinations for China and it has flooded the region with both flat and long products produced by its steel industry.

Strong competition from other emerging economies

The European Union's steel industry not only faces strong competitive pressures from China but also from the other large and growing economies like India, Russia, Ukraine and Brazil. India is at present rated among the top ten global steel producing countries and the Indian steel industry is expected to continue its growth and expansion phase in the near future. The Indian steel producers are quite cost-competitive and they have enough reserves of iron ore and coking coal, and they are striving hard to achieve the global standards for quality, productivity, and efficiency. Brazil also has a well consolidated and low-cost steel industry due to its domestic iron ore reserves, low energy and labor costs.

Imbalances in the demand and supply for raw materials

The increasing demand for steel, driven mostly by China, has resulted in the present imbalances in supply and demand for the raw materials. This can result in a shift towards the low-cost countries for steel production, as some

of them have cheaper access to the raw materials and the availability of low-wage labor.

Increasing freight transportation costs

The steel producers in the European Union face the challenge of the increasing freight transportation rates that also increase the relative costs and make it more difficult to compete in the competitive export markets. Moreover, transport within the European Union is far more expensive than in the other areas such as the US due to imperfections in cross-border railway transport of goods and country related differences in road regulation. Apart from increasing freight rates, malfunctioning logistics infrastructures and transport markets also are a threat to the competitiveness of the European steel industry.

Malfunctioning of the energy markets

The European Union has increased the consumption energy at a steady pace and the region is a major importer of energy (imports correspond to more than 50% of total energy use). The import share of the energy consumption in the region is expected to increase steadily in the near future. The steel industry is a heavy user of energy and this increasing energy usage and dependence on imports would definitely affect it. The overall competitiveness of the steel sector is also hampered due to malfunctions in the energy market due to the weak connections between energy systems, national taxations and differences in the pricing structure and regulation of the energy markets.

Environmental Legislation

The European Union steel industry faces the challenge of compliance to environmental regulations regarding its energy use, CO2 emission, pollution prevention, and waste. The new Emission Trading Scheme (ETS) legislation might lead to the loss of competitiveness of the European steel producers compared to the other steel producers do not face such restrictive emission legislations. The adverse environment legislations can also reduce the interest of investors while investing in the steel industry projects.

Long-term demographic changes

The demographic changes in European Union correspond to a declining workforce and consequently the difficulty for the European industries to ensure and attract sufficient and qualified employees. In addition, the number of young people applying for technical programs is decreasing across the region. These factors are threats to the steel industry, (as it is to the other industries as well) in terms of ensuring the hiring of sufficient and qualified people for the work in the industry. It also creates a structural barrier to the health and competitive edge of the industry compared to other countries without such difficulties.

3. CONCLUSION

The strengths of the European Union steel sector constitute a strong position for meeting the challenges of globalization due to its technology leadership, high-quality products, and a strong tradition for innovation and technical knowledge base. In order to maintain and strengthen the competitive position, it is imperative for the EU steel industry to continue the

development of its current strengths while exploring the new market opportunities. The industry needs to give high priority to investments in new and innovative technologies and to continuous the value creation processes based on strategic networks and partnership to maintain the competitive advantages. The steel industry must be encouraged to constantly improve the technologies to enhance flexibility and efficiency. The issues related to the environment legislation compliance must be met by the continuous development of cleaner technologies in the production processes, management systems, products and transport.

The SWOT analysis can be used to identify the following six areas of action which industry and policy-makers need to take to maintain the steel industry's competitiveness (Ecorys, 2008). These are:

Engaging in dealing with the climate change challenge effectively

Upstream engagement and investments

Maintenance of high technology leadership and operational excellence

Enhancing knowledge sharing and engagement in strategic networks for maintaining competitive position and improving capacity for strategic outlook to meet the future risks and challenges

Setting up an even playing field and improving the functioning of energy and transport markets in the European Union region

Enhancing the skills base and strategies for lifelong learning