

# Analyze the executive summary essay

[Technology](#), [Innovation](#)



The steel manufacturing industry was characterized by a high pace of technological advancements and businesses in the industry had to necessarily set aside spending for these advancements in order to remain competitive.

Thus operating in the industry presented high capital expenditures which would discourage potential new entrants. The availability of substitutes was high in the form of plastics, aluminum and other composites. Bargaining power of buyers was high because they were streamlining for reduced reliance on steel

Bargain power of suppliers was moderate as buyer choices were high. Competitive rivalry was high as shipment volumes were not exhibiting growth.

Nucor was able to respond to external threats quickly because it had a flat management structure which facilitated decentralized decision making. This organizational structure was reinforced by the management emphasis on learning as officials from the company kept an eye on technological developments that were taking place throughout the world.

This helped the company to grow because of its ability to reengineer its internal processes quickly in order to suit changing market conditions. This was a critical factor in the steel manufacturing industry because the industry was characterized by high competitive rivalry and a high threat of substitute products. Therefore the steel manufacturing businesses had to keep using the state-of-the-art technology in order to develop and maintain a competitive edge.

Nucor was able to create the kind of organizational structure that would support this sort of change management efficiently and effectively. Members of its board of directors had first hand knowledge of the steel manufacturing processes with which they had worked earlier in their career. As mentioned before, the company had a flat management structure. As a result, lower level managers and employees could gain access to this knowledge quickly and easily. As a result employee motivation was maintained.

### Introduction

The industry can be defined as cyclical and mature in which supply exceeded demand and the result was consolidation into a smaller number of larger and more efficient steel manufacturers. However for Nucor Corporation, the larger competitive threat arose from Mittal Steel USA and other foreign competitors who had reduced costs of production to a level below that at Nucor Corporation. One of the important economic characteristics of the industry was that demand enjoyed by foreign competitors varied with exchange rate fluctuations.

Therefore the level of imports into the US increased when the local currencies were stronger. Foreign competitors also enjoyed an advantage over US competitors in terms of government subsidies. This allowed the foreign manufacturers to reduce their costs of production to a considerable extent. Because demand exceeded supply, the critical success factor was cost minimization. In order to meet this objective, the managements of the companies utilized technological innovations.

### Major driving forces of the industry

As mentioned before, the most critical consideration in the industry was the minimization of costs. This was one of the most important driving forces driving companies to experiment with different technological innovations such as the electric arc technology and the thin-slab casting technology. The advent of the electric arc technology reduced the cost of production and therefore start-up companies were able to compete in the industry.

However this meant that there were too many suppliers in the market and as a result capacity exceeded demand. This was the greatest threat in the industry and as a result of this threat, many companies had gone bankrupt.

This created an opportunity for the profitable companies in the in the form of strategic acquisitions. For successful companies such as Nucor Corporation, US Steel, Mittal Steel and Tata Steel, the most important growth strategy was to maintain a continuous process of strategic acquisitions. The implementation of this strategy enabled the companies to diversify their product lines.

As mentioned before, the urgency of meeting the objective of cost minimization drove companies to maintain a continuous improvement process in the form of technological innovations. One of the most important technological innovations was the advent of the electric arc technology. This was a critical innovation because it enabled many start-up companies to enter the steel manufacturing industry.

However the use of the electric arc technology was still limited by the limited availability of scrap steel and the price fluctuations of scrap steel. In this respect, the critical consideration for companies such as Nucor

Corporation was to invest in research and development so that alternatives to scrap steel could be found.

However the companies in this industry were more vulnerable than others to economic downturns. Economic downturns were the reasons that the industry was characterized by a considerable level of consolidations. This enabled the growth-minded companies to control costs of production.