



Trends and Perspectives

Manufacturing Strategy: Experiences from Select Indian Organizations

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Abstract

The manufacturing function can be a formidable weapon to achieve competitive superiority. Through three case studies, this paper observes the manufacturing strategy practices in select Indian organizations. The common aspects and differences between the example organizations are highlighted. A model is proposed linking the manufacturing competitive priorities and the action plan pursued by these firms.

Keywords: *Manufacturing Strategy, Corporate Strategy, Order Qualifiers, Order Winners, World-Class Manufacturing*

Introduction

Turbulent and uncertain marketplaces throughout the world are the result of intense competition, changes in manufacturing management, developments in manufacturing technology, environmental changes, rapid advances in information technology, developments in new processes and materials, opening up of economies, shortening of product life cycles, and advances in physical and biological sciences. The transition of production systems to new organizational forms and managerial practices under the pressure of radical changes in competition, marketplaces, technologies, and socioeconomics has attracted much research attention. It is becoming increasingly important for manufacturing organizations to articulate clear and coherent manufacturing strategies that support their long-term business objectives.

Manufacturing strategy in an organization is concerned with key decisions about the specific role to be played by the manufacturing function in achieving competitive advantage. In the past, manufacturing strategy has been a neglected topic of discussion, especially in countries such as India. In fact, manufacturing has frequently been regarded as the poor relation of the other higher profile functions of finance and marketing.¹ The manufacturing function

was regarded merely as a collection of resources and constraints and was expected to fulfill, as efficiently as possible, the production targets generated by the marketing strategy within the capacity and capital expenditure constraints imposed by financial strategy.¹ Skinner¹ was the first to observe that a company's manufacturing function could do more than simply produce and ship the products.

Assessing manufacturing strengths and weaknesses is imperative to decide the strategies to compete in the marketplace. To assess the critical success factors in today's competitive environment, a company must formulate a manufacturing strategy aligned with business strategy to achieve superior performance and capability.² Numerous efforts on manufacturing strategy have been reported in the literature by various researchers in the form of empirical studies, surveys, transnational comparisons, and case studies.³ Prochno and Correa⁴ developed a model of manufacturing strategy development in an industry in Brazil, where the environment is turbulent and change is not the exception but the rule. They involved five customers and key managers from different functions and used a number of worksheets and interviews during their study. In their study, Rohr and Correa⁵ addressed the key question of competing in time. They applied semi-structured questionnaires and interviews in seven selected companies in Brazil. Lindberg and Trygg⁶ focused on the interdependence of component suppliers and manufacturers of finished goods in Swedish industry. They collected data from 126 companies to assess these objectives, whereas Horte, Borjesson, and Tunav⁷ discussed some aspects of manufacturing strategy developed by Swedish manufacturing companies over a three-year period from 1986-1989. They used survey methodology for 184 Swedish firms. Kim and Arnold⁸ developed a process model of manufacturing strategy for operationalizing the

fundamental concepts of competitive priorities into more concrete decisions on action programs. Their process model was based on data collected from the 1990 manufacturing futures survey for 182 US-based firms. Kim and Arnold included three major constructs of manufacturing strategy—competitive priorities, manufacturing objectives, and action plans. Similar research has been performed by Neely et al.⁹ for 344 UK firms. They assessed the status of manufacturing strategy and performance measurement systems in the selected companies. Hitomi¹⁰ highlighted industrial strengths and status of manufacturing strategy in Japan. Ardishvili and Hill¹¹ conducted a study of 49 firms in the former Soviet Union to understand the manufacturing practices and to determine the required changes for a new market-driven economy. Chikan and Demeter¹² assessed manufacturing strategy practices and Skinner's framework for 75 Hungarian firms.

Transnational comparisons of various countries and continents are also reported in the literature. Bolwjin and Brinkman¹³ compared Western and Japanese work culture, management, and organization practices and highlighted the fundamental differences between them. Pilkington¹⁴ compared the automobile leaders of USA, UK, Japan, France, and Italy and explored why manufacturing managers have remained embedded in the best-practice mode. Noble¹⁵ tested a cumulative model for the building of manufacturing capabilities by comparing and contrasting the manufacturing strategies of 265 North American, 129 European, and 167 Korean factories by region. A similar study was performed by Ferdows et al.¹⁶ for comparing the trends in implementation of manufacturing strategy in 168 European, 174 North American, and 186 Korean firms. In 1998, Voss and Blackmon¹⁷ gathered data from 600 firms in 20 countries. They examined the cultural differences between Western and Japanese firms for manufacturing practices and performance. According to Voss and Blackmon, there is a perceptible difference about strategic time orientation in manufacturing strategy. They found that the widely accepted belief that Western companies are short-term oriented and that Japanese companies are long-term oriented was wrong. They observed that Japanese companies are simultaneously short-term and long-term in their approach to manufacturing strategy.

The Situation in India

Though a number of select case studies have been reported by researchers elsewhere, no such study has been reported to date for India. Manufacturing strategy practices in India are theorized to be closer to the other third-world countries like Hungary, Brazil, and so on. The following factors characterize the situation:

- The Indian economy is being made more and more open. This is reflected through the following points:¹⁸
 - Foreign equity up to 100% is encouraged in several sectors.
 - Single market-determined exchange rate for the rupee is prevalent.
Use of foreign brand names and trademarks for sale of goods in India is allowed.
 - Foreign companies are permitted to open branch offices in India.
- The entry of multinational companies has increased the level of competition; for example, since 1991 Daewoo, LG, Santro, Samsung, and so on have started plants in India.
- There is a favorable attitude of government and other funding agencies.¹⁹
 - Facilities for automatic and single-window clearance are available with respect to proposals for 100% export-oriented units.
 - The Reserve Bank of India gives automatic permission for foreign technology agreements in high-priority industries.

Between the 1950s and the 1990s, India's industrial development policy was characterized by excessive regulation. Initially set up to avoid overcapacity in a capital-scarce economy, this policy spawned a maze of regulations governing product, capacity, technology, and foreign exchange availability. In the late 1980s, inflows of foreign technology and equity were permitted and manufacturing capacity constraints lifted. The gradual opening of the Indian economy resulted in the entry of foreign competitors and expanded production by domestic manufacturers. By the 1990s, the Indian economy was undergoing structural change, and imports were largely unregulated.²⁰

Since reforms began in 1991, such as the abolition of the license regime that meant the end of protection and control measures, Indian firms have faced a very

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