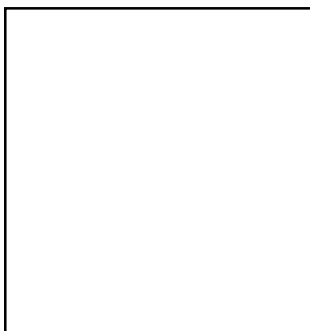


Industrial clusters

The hubs of innovative activities at enterprise level

V. P. Kharbanda

Today's knowledge economy calls for knowledge-intensive enterprises that can survive the ongoing process of globalization and increased international competition. Knowledge as a factor of competitive advantage has replaced traditional factors like labour and capital. With the help of a few case studies, this article examines how enterprises in India are facing this challenge and, particularly, how small-scale enterprises are moving towards industrial clusters to be able to compete internationally.



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Introduction

In most developing countries small and medium enterprises (SMEs) constitute the bulk of the industrial base and contribute very significantly to their exports as well as to their GDP or GNP. For instance, India has nearly three million SMEs, which account for almost 50 per cent of industrial output and 42 per cent of India's total exports. They constitute the most important employment generating sector and are an effective tool for promoting balanced regional development. They account for 50 per cent of private sector employment and 30-40 per cent of value-addition in manufacturing.¹⁴ They produce a diverse range of products (about 8,000) including consumer items, and capital and intermediate goods.

However, these Indian SMEs, constituting more than 80 per cent of the total number of industrial enterprises

and form the backbone of industrial development, are as yet in the backwaters of science and technology. They suffer from problems of sub-optimal scales of operations and technological obsolescence. While most large companies, even in developing countries, have the financial as well as the technical capacity to identify technological sources and evaluate alternate technologies that would suit their requirements, this capacity is conspicuously absent in most SMEs. This is why SMEs make an ideal target for technological upgradation through technological cooperation with foreign and local enterprises, with R&D institutions and with centres of technology development.

As nations integrate into a global village, these SMEs will have to respond accordingly, and thus deserve special attention. To enable SMEs to overcome their technological backwardness and