

---

## **Editorial**

---

### **Guest Editor: G.S. Dangayach**

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 process materials, opening up of economies, shortening of product life cycles, and advances in physical and biological sciences. The transition of production systems to new organisational forms and managerial practices under the pressure of radical changes in competition, market places, technologies, and socio-economics has attracted much research attention. It is becoming increasingly important for manufacturing organisations to articulate clear and coherent manufacturing strategies that support their long-term business objectives.

Business environment across the globe is becoming more and more competitive. Manufacturing is the most important competitive asset for an industrial organisation. Business performance is linked with manufacturing competence.

The objective of this special issue is to create a forum for exchange/update knowledge between practitioners and researchers. This special issue contains theoretical contribution, strategic frameworks, case studies and empirical investigations emphasising different aspects of manufacturing strategy. An overview of the papers included in this special issue is presented hereunder.

Dangayach and Deshmukh in their paper 'Exploring linkages between manufacturing competence and business performance' give a framework for measuring manufacturing competence and business performance. This framework is applied to compute manufacturing competence index and business performance index, based on an extensive survey of Indian manufacturing companies. The study included companies from four major manufacturing sectors viz. automobile, electronics, machinery, and process.

Creation of knowledge in any organisation is inevitably incessant. Its appropriate use and handling is strategic to the competitiveness of the organisation. In order to compete effectively in global markets and achieve competitive advantage, manufacturers need to use effective knowledge management practices. The paper 'A structured approach to knowledge management in SMEs: towards a successful manufacturing strategy' by Jyoti and Vinay discusses a framework that could be used for applying an effective knowledge management method in SMEs.

Pati et al. have presented a cost optimisation model for multi-variety (or multi-type) recycled waste reverse logistics system (RWRLS) in their paper 'Cost optimisation model in recycled waste reverse logistic system'. The model helps the organisation in developing appropriate manufacturing strategy, e.g., units of various varieties of paper produced, by comparing the costs in different scenarios of demand.

To achieve the expected benefits of advanced manufacturing technology (AMT), appropriate managerial efforts prior to and after adoption of these technologies are required. Tritos and Paul in their paper 'Competitive manufacturing strategy: an application of quality management practices to advance manufacturing technology

implementation' presents the results of exploratory factor analysis of survey data obtained from 149 companies in the Thai automotive industry.

The paper by Alegre and Chiva, 'Alignment between product innovation and manufacturing strategy: an insight into competitive priorities' deals with the alignment between competitive priorities and product innovation. They propose through two case studies in the Spanish ceramic tile industry, that innovative companies follow a different set of competitive priorities compared to non-innovative companies because of the emphasis placed on flexibility and quality capabilities.

There is a general challenge offered to the field of engineering economics by the introduction of advanced manufacturing systems. Typically, the traditional approaches do not account for the significant intangible benefits offered by the CMS. In their paper 'Multi-attribute decision models for justification of cellular manufacturing system', an attempt has been made by Kodali and Sangwan to overcome the above deficiencies.

Strategic decisions require thoughtful consideration of environmental variables notably political, economical, and logistical. Grandzol et al. propose a framework in their paper 'An emerging framework for global strategy', built upon two external influential and emerging factors, each converging to its own well-defined set of parameters: international trade agreements and quality management programmes.

Performance measurement is a conscious effort on the part of any organisation to know its standing vis-à-vis others in the contemporary field besides its attempt to know the utilisation of its internal resources. Rathore and Taha in their paper 'Measuring performance the productive way', presented a case study to measure performance.

### **Acknowledgements**

The editor of this special issue has been overwhelmed by the response to the call for papers on 'manufacturing strategy'. Each paper was reviewed by two referees. The Guest Editor gratefully acknowledges the assistance provided by Dr. M.A. Dorgham, Editor-in-Chief of the *International Journal of Manufacturing Technology and Management*, Liz Harris, Production Editor and 35 anonymous referees who reviewed the manuscripts. The Guest Editor would like to acknowledge Professor S.G. Deshmukh of IIT Delhi, India, for his encouragement and support to this project.