

An Evaluation of Drivers in Implementing Sustainable Manufacturing in India: Using DEMATEL Approach

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Abstract : Due to growing concern about environmental and social consequences throughout the world, a need has been felt to incorporate sustainability concepts in conventional manufacturing. This paper is an attempt to identify and evaluate drivers in implementing sustainable manufacturing in Indian context. Nine possible drivers for successful implementation of sustainable manufacturing have been identified from extensive review. Further, Decision Making Trial and Evaluation Laboratory (DEMATEL) approach has been utilized to evaluate and categorize these identified drivers for implementing sustainable manufacturing in to the cause and effect groups. Five drivers (Societal Pressure and Public Concerns; Regulations and Government Policies; Top Management Involvement, Commitment and Support; Effective Strategies and Activities towards Socially Responsible Manufacturing and Market Trends) have been categorized into the cause group and four drivers (Holistic View in Manufacturing Systems; Supplier Participation; Building Sustainable culture in Organization; and Corporate Image and Benefits) have been categorized into the effect group. "Societal Pressure and Public Concerns" has been found the most critical driver and "Corporate Image and Benefits" as least critical or the most easily influenced driver to implementing sustainable manufacturing in Indian context. This paper may surely help practitioners in better understanding of these drivers and their priorities towards effective implementation of sustainable manufacturing.

Keywords : drivers, decision making trial and evaluation laboratory (DEMATEL), India, sustainable manufacturing

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