

Digital Manufacturing: Evolution and a Process Oriented Approach to Align with Business Strategy

Authors : Abhimanyu Pati, Prabir K. Bandyopadhyay

Abstract : The paper intends to highlight the significance of Digital Manufacturing (DM) strategy in support and achievement of business strategy and goals of any manufacturing organization. Towards this end, DM initiatives have been given a process perspective, while not undermining its technological significance, with a view to link its benefits directly with fulfilment of customer needs and expectations in a responsive and cost-effective manner. A digital process model has been proposed to categorize digitally enabled organizational processes with a view to create synergistic groups, which adopt and use digital tools having similar characteristics and functionalities. This will throw future opportunities for researchers and developers to create a unified technology environment for integration and orchestration of processes. Secondly, an effort has been made to apply “what” and “how” features of Quality Function Deployment (QFD) framework to establish the relationship between customers’ needs – both for external and internal customers, and the features of various digital processes, which support for the achievement of these customer expectations. The paper finally concludes that in the present highly competitive environment, business organizations cannot thrive to sustain unless they understand the significance of digital strategy and integrate it with their business strategy with a clearly defined implementation roadmap. A process-oriented approach to DM strategy will help business executives and leaders to appreciate its value propositions and its direct link to organization’s competitiveness.

Keywords : knowledge management, cloud computing, knowledge management approaches, cloud-based knowledge management

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