

Significant Factors in Agile Manufacturing and the Role of Product Architecture

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Abstract : Agile manufacturing concept was first coined by Iacocca institute in 1991 as a new manufacturing paradigm in order to provide and ensure competitiveness in the emerging global manufacturing order. Afterward, a considerable number of studies have been conducted in this area. Reviewing these studies reveals that they mostly focus on agile manufacturing drivers, definition and characteristics but few of them propose practical solutions to achieve it. Agile manufacturing is recommended as a successful paradigm after lean for the 21st manufacturing firms. This competitive concept has been developed in response to the continuously changes and uncertainties in today's business environment. In order to become an agile competitor, a manufacturing firm should focus on enriching its agility capabilities. These agility capabilities can be categorized into seven groups: proactiveness, customer focus, responsiveness, quickness, flexibility, basic competence and partnership. A manufacturing firm which is aiming at achieving agility should first develop its own appropriate agility strategy. This strategy prioritizes required agility capabilities.

Keywords : agile manufacturing, product architecture, customer focus, responsiveness, quickness, flexibility, basic competence

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