IMPLEMENTING JIT
IN UNCERTAIN MANUFACTURING ENVIRONMENTS

Abstract

Given the increased competitive pressures on manufacturing, many companies are interested in implementing Just-In-Time (JIT) manufacturing philosophies. At the shop floor level, one application of JIT is the introduction of kanbans in order to control in-process inventory. Traditionally, it has been argued that kanban systems work well when the shop floor environment is fairly stable. In this paper, we propose and illustrate a methodology, based on Taguchi’s robust design framework, to implement kanban systems in uncertain manufacturing environments. From a managerial perspective, this procedure can be used not only for kanban system design but also to target shop floor factors for improvement efforts.

Full citation: