

ABSTRACT

An Economic Analysis of Just in Time Implementation in

Batch Manufacturing with Emphasis on Process

Improvement Project Selection. (May 1994)

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In response to ever increasing global competition, American manufacturers are turning to a wide range of options based on technical, organizational and employee involvement (EI) initiatives. The concept of Just in Time (JIT) involves elements of all three and has received considerable acceptance as a competitive tactic for manufacturers. As with any process improvement effort, managers attempting to use JIT based processes are faced with the dilemma of how to allocate fixed resources among competing projects. The resource allocation process is complicated by the present deficiencies of standard accounting practices associated with managerial accounting. Many of these deficiencies are overcome through the use of a managerial project selection, justification and evaluation methodology based on a hybrid decision model that uses organizational goals and engineering economics. Additionally, this methodology allows for the comparison of EI versus capital equipment projects. A case study was performed using the methodology in an electronics batch manufacturing environment.