

Studies in Computational Intelligence 966

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New Perspectives on Enterprise Decision-Making Applying Artificial Intelligence Techniques

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Chapter 12

Quality and Human Resources, Two JIT Critical Success Factors



**Jorge Luis García-Alcaraz, José Luis Rodríguez-Álvarez,
Jesús Alfonso Gil-López, Mara Luzia Matavelli de Araujo,
and Roberto Díaz-Reza**

Abstract Timely product delivery is one of the quality characteristics that clients value the most, which is why production plans and programs are made to guarantee it. One of the most used quality-focused production programs is Just-In-Time (JIT) philosophy; however, it remains unclear to what extent JIT factors of quality planning and management influence on the performance of manufacturing companies in Mexico. To address this gap, this chapter presents a structural equation model associating JIT elements of quality planning and quality management with human resources and economic performance in the context of Mexican maquiladoras (cross-border assembly plants). Results indicate that even though there is no direct relationship between quality planning and management and economic benefits, these variables are indirectly related through human resources. In conclusion, human resources are key to achieving financial success of maquiladoras.

Keywords Human capital · Quality management · Quality improvement · Organizational performance · Human resource management

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