
Relationships between total quality management and Six Sigma inside European manufacturing companies: a dedicated survey

Andrea Chiarini

Chiarini & Associates,
Via Di Corticella,
181/3 – 40128 Bologna, Italy
and
Faculty of Engineering,
University of Ferrara,
Via Saragat, 1 – 44122 Ferrara, Italy
E-mail: andrea.chiarini@chiarini.it

Abstract: This paper investigates the relationships between total quality management (TQM) and Six Sigma as viewed by a sample of 176 European manufacturing companies. The purpose is to understand whether or not TQM has been pushed into the background by Six Sigma or whether the two models are used alongside each other in manufacturing companies. Findings from a literature review were transformed into a questionnaire; the questions represent the hypotheses to be validated. The quality managers of the 176 companies completed the questionnaire in an interview and the responses were analysed by the means of frequency tables and percentage pie-charts. Interesting findings concerning what the companies think about TQM and Six Sigma have emerged. In particular, the relationships between TQM and Six Sigma and corporate social responsibility, staff involvement and management of improvements. In this way the research tries to fill a gap existing in literature.

Keywords: corporate social responsibility; CSR; large companies; quality managers; European manufacturing companies; questionnaire; Six Sigma; survey; total quality management; TQM.

Reference to this paper should be made as follows: Chiarini, A. (2013) 'Relationships between total quality management and Six Sigma inside European manufacturing companies: a dedicated survey', *Int. J. Productivity and Quality Management*, Vol. 11, No. 2, pp.179–194.

Biographical notes: Andrea Chiarini is Managing Director at Chiarini & Associates in Bologna, Italy and Visiting Professor at University of Ferrara, Italy. He earned his Master in Electronic Engineering and Diploma in Business Administration from Bologna University, Italy. He also earned his PhD and his Master's of Arts from Sheffield Hallam University, UK. He is a senior member of American Society of Quality.
