

# A Neural Networks-Based Evaluation Of Quality In The SMEs: An Application In Turkish Textile Sector

**Abstract:** In this study an approach for neural networks evaluation of quality management (QM) is proposed. It is based on a checklist tool using a neural networks-based evaluation model. This approach enables the determination of the most important quality criteria and the generation of recommendations for improving the quality management in textile sector. A neural networks method is illustrated and validated by a study in 156 small- and medium-sized textile companies in Istanbul. Data from company's managers were collected by the checklist tool. Then QM evaluations were calculated using neural networks approach. Based on the approach the most important QM criteria that affect business performance in the textile industry were determined. Relevant recommendations and measures for improving the textile industry were proposed. The advantages, drawbacks and further developments of the study are discussed.

**Keywords:** Quality management, textile industry, business performance, neural Networks

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