

Evaluation of Uncertainties

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Abstract

The measurement of customer satisfaction, as requested by ISO 9001-2000, is becoming a current practice in the industry and one of the most advanced features of “soft” metrology.

The measurement uncertainty associated to the result is usually limited to the sample size contributor. However, there are more factors to take into account for a realistic estimate.

This paper is an attempt to evaluate the full uncertainty budget of the satisfaction index (main indicator) when using a survey methodology.

After a brief review of the procedure used, the uncertainty budget contributors will be presented with an estimation of their value and combination.

The paper will also explore other aspects of this topic such as the bias introduced by culture when trying to compare results between countries, and the accuracy of satisfaction predictors when using a partial least square analysis.

The conclusion will discuss the reliability of customer loyalty measurement deducted from customer satisfaction results.