AUTOMOTIVE PARTS MANUFACTURING INDUSTRY:
UNRAVELING THE EFFICACIOUS QUALITY FRAMEWORK

Muzalwana A. Talib
Department of Applied Statistics, Faculty of Economics and Administration,
University of Malaya, Kuala Lumpur, 50603 Malaysia
Telephone: +603-79673764
*Corresponding author

Susila Munisamy
Department of Applied Statistics, Faculty of Economics and Administration,
University of Malaya, Kuala Lumpur, 50603 Malaysia
Telephone: +603-79673669

Shamsuddin Ahmed
Department of Engineering Design and Manufacture, Faculty of Engineering,
University of Malaya, 50603 Kuala Lumpur, Malaysia
Telephone: +603-79674455

Acknowledgements
This research work is supported by University Malaya Research Grant:
* Short Term Research Grant - F0284/2007B
* Postgraduate Research Fund – PS227/2007B; PS318/2009A

Abstract
This paper puts forth the strategic importance of statistical quality improvement for automotive stamped parts manufacturing process. The review on the Malaysian automotive parts suppliers reveals that the automotive stamped parts suppliers are facing with quality-related problems. Intense pressures for quality improvement are actually experienced by automotive parts suppliers to stay-tuned in competitiveness and to build a long-term relationship with automotive manufacturers. The automotive parts suppliers in Malaysia are urged to contribute towards enhancing the overall quality of national car. While empirical studies have shown that statistical concepts are crucial to good quality management and key in dealing with manufacturing processes, there has been inadequate emphasis on the deployment of statistical approach in quality practice among these suppliers. This paper proposes a conceptual framework for statistical quality improvement in automotive parts manufacturing. The practical implications of applying the statistical thinking methodology towards continuous quality excellence are also highlighted.

Keywords: Quality improvement, conceptual framework, statistical quality control, automotive stamping industry