

Title:

Addressing the issues of maintenance management in smes: Towards sustainable and lean maintenance approach

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Abstract:

This paper outlines on the preliminary outcomes of pilot project aimed at exploring the issue related to managing of maintenance activity in the Malaysian Small and Medium Enterprises (SMEs). SMEs have been accepted as vital components of domestic industry development in many countries. However, the literature portrays that many of Malaysian SMEs particularly the companies involved in manufacturing, fabrication and machining services are struggling to manage the maintenance of their manufacturing equipment. Dependable manufacturing equipment is important factor towards organizational profitability. Managing the maintenance activity of those manufacturing equipment nowadays, is becoming more challenging due to automation and computerization. Due to such issues, SMEs companies are under stiff pressure to minimize lost time for their survival. Thus, this study seeks to explore the related issues towards further improvements. Qualitative research methodology was adopted in the study. Data were collected at eight (8) SMEs located in three (3) different areas, namely southern, central and eastern region of peninsular Malaysia. Information was gathered from semi-structured interviews with SMEs management and observations focuses on different areas of maintenance management at the respective SMEs. The main concern is to validate the critical success factors (CSFs) in managing the maintenance activity at selected SMEs. This study discovered that nine (9) CSFs are having the most significant impact towards improving the maintenance management practice for SMEs. These include: Understanding the MM philosophy; management commitment and leadership; maintenance strategy; maintenance planning; maintenance training; monitoring and assessment; appropriate number of maintenance staff; integration of tools, techniques and technology, and; record of maintenance data. All those CSFs construct are integrated in a simple yet self-explanatory MM Framework to convey the conceptual idea of MM implementation

program to the management and technical people within SMEs. It is believed that the MM Framework developed would serve as an indicator of company's MM focus level. Through the identification of the CSFs constructs, the SMEs can utilize the information to improve their approach in systematic MM program. The discovered CSFs are vital for all stakeholders that directly or indirectly involve in managing the maintenance activity in SMEs.