

A Case Study on Barriers in Total Productive Maintenance Implementation in the Abu Dhabi Power Industry

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Abstract : Maintenance has evolved into an imperative function, and contributes significantly to efficient and effective equipment performance. Total Productive Maintenance (TPM) is an ideal approach to support the development and implementation of operation performance improvement. It systematically aims to understand the function of equipment, the service quality relationship with equipment and the probable critical equipment failure conditions. Implementation of TPM programmes need strategic planning and there has been little research applied in this area within Middle-East power plants. In the power sector of Abu Dhabi, technologically and strategically, the power industry is extremely important, and it thus needs effective and efficient equipment management support. The aim of this paper is to investigate barriers to successful TPM implementation in the Abu Dhabi power industry. The study has been conducted in the context of a leading power company in the UAE. Semi-structured interviews were conducted with 16 employees, including maintenance and operation staff, and senior managers. The findings of this research identified seven key barriers, thus: managerial; organisational; cultural; financial; educational; communications; and auditing. With respect to the understanding of these barriers and obstacles in TPM implementation, the findings can contribute towards improved equipment operations and maintenance in power organisations.

Keywords : Abu Dhabi Power Industry, TPM implementation, key barriers, organisational culture, critical success factors

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