

Implementation of Environment Management System in Manufacturing Industry: Investigating the Challenges and Mechanism to Address Challenges

Veera Kumar Mohan and Gabriel Tonga Noweg*

University Malaysia Sarawak (UNIMAS), Institute of Biodiversity and Environmental Conservation, Malaysia

*Corresponding author, Email : gtnoweg@unimas.my ; 17010137@siswa.unimas.my

An environmental management system (EMS) is considered a systematic approach, that is taken by the organization to manage all the issues related to the environment. It includes measuring the performance and taking appropriate action that automatically enhances the value of an organization and is beneficial for both organization and environment. Abu Dhabi is under stress because of rapid urbanization, that is related to land reclamation and construction breakwater. There are several manufacturing units and their activities in Abu Dhabi, UAE that have affected the environment adversely by reducing the quality of air and water and productivity of the ecosystem. As a result, the EMS helps to preserve national resources, such as oil, water to maximize productivity and reduce waste of most resources. Therefore, the present study aims to propose the measures/structure to overcome the challenges of the effective implementation of environmental management system (EMS) by the manufacturing industries in the Emirate of Abu Dhabi, UAE. The factors leading towards the adoption of EMS within the manufacturing industries in UAE and evaluating the current status in the implementation of EMS by such manufacturing industries in UAE has been determined. In order to reach this objective, a quantitative research method has been followed that uses 4–point Likert scale based close-ended questionnaires as primary data and journals, articles, books, etc., has been used as secondary data. Simple random sampling method has been used and the questionnaire has been distributed among 475 individuals with different levels, such as management staff and operational staff from the different manufacturing industries in Abu Dhabi, UAE. SPSS analysis has been used for data analysis tools involving Chi-square tests. The results and findings have been illustrated as per the data analyzed in the study. Also, the limitations and conclusions have been represented for the given research.

KEYWORDS

Environmental management system, Environment, Manufacturing industries, Operations, Organizations

1. INTRODUCTION

The changes occurring in the manufacturing industries have led towards the reconfiguration of the business as well as manufacturing strategies for coping with the new pressure of work. Some of the major factors of manufacturing industries, such as production, energy and transportation have been found with rapid increase in price and need to be regulated accordingly. Such factors in the manufacturing industries of Abu Dhabi, UAE involves the availability of resources, population and labour force, trending of information and communication technology and political and social stability. The rapid increase in the price in manufacturing industries concerning the production, labour cost, transportation, raw materials, tooling has been considered

to rise and hence the need for regulating these prices has been implicated in Abu Dhabi, UAE. The cost per finished price of the manufactured product varies inversely with volume. This has enabled the industries to follow more manufacturing footprints involving the global network production and their supply system. An environmental management system consists of different practices and tools that help in developing a framework for the protocol and processing of the operations in the industries evolving the protection of the environment for preventing socio-economic and environmental impact and allowing continuous improvement. The implementation of the environmental management system requires the need of planning and strategies with the help of the government agencies and other related stakeholders for reaching the goal of protecting the environment from adverse effects and producing quality production by maintaining the production environment.

The environment related issues have been considered