

Identifying the Barriers behind the Lack of Six Sigma Use in Libyan Manufacturing Companies

Authors : Osama Elgadi, Martin Birkett, Wai Ming Cheung

Abstract : This paper investigates the barriers behind the underutilisation of six sigma in Libyan manufacturing companies (LMCs). A mixed-method methodology is proposed, starting by conducting interviews to collect qualitative data followed by the development of a questionnaire to obtain quantitative data. The focus of this paper is on discussing the findings of the interview stage and how these can be used to further develop the questionnaire stage. The interview results showed that only four key barriers were highlighted as being encountered by LMCs. With a difference in terms of their significance, these factors were identified, and placed in descending order according to their importance, namely: "Lack of top management commitment", "Lack of training", "Lack of knowledge about six sigma", and "Culture effect". The findings also showed that some barriers which, were found in previous studies of six sigma implementation were not considered as barriers to LMCs but can, in fact, be considered as success factors or enablers for six sigma adoption. These factors were identified as: "sufficiency of time and financial resources", "customers unsatisfied", "good communication between all departments in the company", "we are certain about its results and benefits to our company and unhappy with the current quality system". These results suggest that LMCs face fewer barriers to adopting six sigma than many well-established global companies operating in other countries and could take advantage of these successful factors by developing and implementing a six sigma framework to improve their product quality and competitiveness.

Keywords : six sigma, barriers, Libyan manufacturing companies, interview

Conference Title : ICAMS 2016 : International Conference on Agile Manufacturing Systems

Conference Location : Berlin, Germany

Conference Dates : May 19-20, 2016