ABSTRACT

The general requirement for the competence of testing and calibration laboratories (ISO/IEC 17025) allows laboratories on the one hand, to obtain an acceptance of testing and calibration results internationally, satisfying customers’ needs and enhancing a good professional practice, and on the other, to reduce costs by preventing mistakes and time wasting and allowing improvements in the corporation’s process. However, in spite of these advantages, problems can be also found in its implementation such as inefficient use of resources. Thus, for a successful implementation, laboratories must develop a number of implementations in a right way. Therefore, the research aimed to identify critical success factors (CSFs) of ISO/IEC17025 implementation.

A questionnaire survey was used and 132 respondents on ISO/IEC 17025 accredited laboratories filled them out. After collecting the data, eight hypotheses were tested by Product moment correlation or Pearson correlation coefficient for analyzing the relationship between Implementation factors (Independent variables) and successful ISO/IEC 17025 implementation (Dependent variable).

The research results indicated that between the eight implementation factors, there were significant positive correlations. Thus, all eight implementation factors were identified as critical success factors (CSFs) of ISO/IEC17025 Implementation, which are quality planning factor, employee’s involvement factor, supplier management factor, training factor, customer focus factor, continuous improvement factor, quality assurance factor and top management and commitment factor.
Based on the findings, the research can be used by any laboratories which are now accredited ISO/IEC17025 and it is necessary that they pay attention to these CSFs, understanding, and critically implement. Laboratories can use these findings for planning the laboratory quality management practice, and develop actions for improving the basic elements of ISO/IEC17025. These eight CSFs as proposed here, can be of assistance to ISO/IEC17025 implementation in any laboratories in order to achieve their goal.