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CHALLENGES AND CRITICAL SUCCESS FACTORS IN ISO/IEC 17025 IMPLEMENTATION FOR QUALITY MANAGEMENT SYSTEM IN SOUTH ASIAN ELECTRICAL TESTING LABORATORIES



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Abstract:

In an era of electrical power network enhancement and a rapid shift towards renewable energy the reliability and standardization of the electrical equipment is a critical factor. Therefore, for reliability enhancement, higher operational efficiency, and increased customer confidence, a worldwide-accepted standard is inevitable; hence, ISO/IEC 17025 serves this purpose. The Implementation of ISO/IEC 17025 is a thought-provoking task which poses technical and managerial challenges. The technical challenges include validation and verification methods, calibration and maintenance of equipment, measurement uncertainty and record management. On the other hand, managerial issues encompass the human and financial resources allocation, required competencies, risk management, confidentiality and committed management. Apart from these challenges, this paper also discusses the ISO/IES 17025 clauses related to specific challenges and common deficiencies, whereas critical success factors suggest the resolution and way forward. The paper also narrates the accredited electrical labs in the South Asian region. The expected cost and financial benefits associated with the ISO implementation are also described. Such a study can also be extended to other sectors like civil, chemical and other relevant engineering laboratories.

Keywords:

ISO Standard, Quality Management System, Electrical Laboratories, Critical Success Factors, South Asia

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