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LINK BETWEEN ISO 9000 CERTIFICATION AND BUSINESS PERFORMANCE IN SRI LANKAN COMPANIES



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Supervised by

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This thesis was submitted to the Department of Mechanical Engineering of the University of Moratuwa in partial fulfillment of the requirements for the Degree of Master of Engineering in Manufacturing Systems Engineering
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**Department of Mechanical Engineering
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DECLARATION

This Dissertation paper contains no material which has been accepted for the award of any other degree or diploma in any University or equivalent institution in Sri Lanka or abroad, and that to the best of my knowledge and belief, contains no material previously published or written by any other person, except where due reference is made in the text of this Dissertation.

I carried out the work described in this Dissertation under the supervision of Dr. H. S. C. Perera.

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Abstract

The purpose of this study was to assess the link between ISO 9000 Quality Management System Certification and business performance of Sri Lankan companies. Organizations of different sizes, industries, with different ownership, public as well as private and profit making as well as non-profit making, are pursuing ISO 9000 series of Quality management system Certification. A total of ISO 9001:2000 certificates have been issued worldwide in over 175 countries and economies and in Sri Lanka almost above 500 companies have been certified by year 2008. Until the end of year 2005 there was a reasonable increase in the certification but after 2005 the annual growth rate of certification has declined. Therefore it is of importance to analyze the relation to understand the benefits or costs associated with implementation of the standard.

From worldwide research conducted it is evident, that enhanced quality of product is the most widely gained advantage through adoption of ISO 9001:2000 certifications. However analysis of standard indicates many other benefits like improved market share, optimized resource utilization, improved and efficient process management, high employee productivity, adherence to applicable regulations, and providing a basis for benchmarking.



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According to the research finding, benefits like improved sales, improved management of processes, improved quality of product and many other benefits listed above were identified. However any increase in profitability or returns to the shareholders was not found for Sri Lankan Public listed companies, after certification. It was viewed that companies with higher profitability seek certification rather than companies with low returns. Also, documentation required for implementation was viewed by many companies as a difficult process to implement.

In this analysis we used the method of t-test for testing significant differences in means of certified and not certified firms. Time series analysis was conducted taking year of certification as the year zero. Also benefits other than financial benefits were analyzed using descriptive statistics.

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Nomenclature / Notations:

μ : population mean

x : Sample mean

S : Sample Standard Deviation

n : sample size

t : t-statistic

α : Significance level

p : probability of acceptance of null hypothesis

df : degrees of freedom

H_0 : Null hypothesis

H_A : Alternative hypothesis

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Abbreviations

BSC : Balanced Score card

ISO : International Organization for Standardization

QM: Quality Management

QMS : Quality Management System

ROA : Return on Assets

ROE : Return on Equity

ROI : Return on Investment

SLSI : Sri Lanka Standards Institution

TQM: Total quality Management