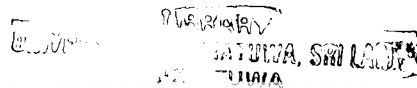


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**EVALUATION OF CHEMICAL PROCESS INDUSTRIES IN
SRI LANKA:
APPLICATION OF FIVE FORCES MODEL FOR
IN-DEPTH ANALYSIS OF PULP & PAPER AND
SUGAR INDUSTRY IN SRI LANKA**

by

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This dissertation was submitted to the Department of Management of Technology of the University of Moratuwa in partial fulfilment of the requirements for the Degree of Master of Science.

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Department of Management Of Technology

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February, 2003

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DECLARATION

I hereby declare that this dissertation is my own work and that, to the best of my knowledge and behalf, it contains no material previously published or written by another person nor material which, to substantial extent, has been accepted for the award of any other academic qualification of a university or other institute of higher learning except where an acknowledgement is made in the text.



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ABSTRACT

In a national development context industrial sector is a “key sector” of economic development. Of all industry sectors, Chemical Process Industry sector, “*the CPI sector*” plays an important role in manufacturing which is a key area for growth. The sector is highly competitive as it creates a massive business environment with interconnected industries. Rapid growth of modern technology and technology adaptation, rates of Technology Transfer (TT) and Industrial Competitiveness (IC) enhance the competitive environment and differences determine the individual national level competitiveness. The thesis considers the issue of competitiveness in general and the Sri Lankan industry sector in particular. Sri Lanka is looking at rapid industrialisation for its economic progress and industrial sector competitiveness is evaluated in the thesis. After an evaluation of the historical development of the Sri Lankan industry sector, Michel Porter’s Five Forces Model of Industrial Competitiveness is used as the analytical model, which evaluates the trend of a particular industry for long-term survival with profitability. The study concentrates on two sectors namely sugar industrial sector and pulp and paper sector. Sugar and paper products are subjected to analysis, which are essential consumer commodities in some context are indicators of the status of the economy (i.e. per capita consumption). It is seen that the local sugar and paper industries have only shown poor progress over the years and slow growth is the basic feature.

This is a suitable time to open our eyes to find out “where we stand”? when compared to the level of the other countries in manufacturing sugar and pulp and paper products. Paper and sugar industries have received significant investment on equipment and factories in Sri Lanka since 1940. Current sugar production is 15% of the local demand and paper production was 15,026 MT with 40% capacity utilisation in 1998/1999 with an increased product cost of Rs. Million 98,673. Both industries continue to use technologies, which they have adopted in the beginning without adopting any modifications. Despite a high population in Sri Lanka the demand for locally produced paper products and amount of current production of sugar are insufficient. Processes have been working under low capacities and some factories have already being closed down. With a change of tariff scheme of 10% for paper products, paper pulp and imports of paper products have rapidly grown since 1994 in Sri Lanka creating a highly competitive environment among the importers with significant impacts on both. Michel Porter’s theories in industrial competitiveness help to recognise opportunities of competitive advantage in industrial development via relevant competitive strategies to achieve success in economic development. The thesis is focused to highlight the importance of understanding competitive strategy in industrial competitiveness by taking sick industries such as paper and sugar industries as suitable examples. Suitable recommendations to enhance the development of Chemical Processing Industries are explained via data analysis, current industrial development plans. Finally, an analytical frame work for the development of the two industries is proposed.

Key Words: Technology Transfer, Industrial Competitiveness, Competitive Strategy



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LIST OF ABBREVIATIONS

AIT	Asian Institute of Thailand
CE	Chief Engineer
CFCP	Constant Factor Cost Price
CP	Current Price
CPI	Chemical Process Industries
DC	Developed Countries
EMB	Embilipitiya Factory
FFM	Five Forces Models
FCP	Factor Cost Price
FDI	Foundations in Development and Investments
FM	Factory Manager
GDP	Gross Domestic Product
GNP	Gross National Product
GM	General Manager
HO	Head Office
IDB	Industrial Development Board
ISIC	International Standard Industrial Classification
LDC	Low Developing Countries
LLDC	Lower Level Developing Countries
MID	Ministry of Industries
MOT	Management of Technology
NIC	Newly Industrialized Countries
NPCL	National Paper Company Limited
SIC	Standard Industrial Classification
SNIC	Simple Newly Industrialized Countries
SWOT	Strengths, Weaknesses, Opportunities and Threats
SMI	Small Medium Scale Industries
SRI	Sugar Research Institute
TIC	The Industrial Competitiveness
VCH	Valachchainai Factory

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