

**EXPLORING THE RELATIONSHIP BETWEEN GREEN
MANUFACTURING PRACTICES AND
ORGANIZATIONAL ECONOMIC PERFORMANCE:
A CASE STUDY OF GLOBAL RUBBER INDUSTRIES
PVT LTD**

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Master of Administration in Supply Chain Management

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Sri Lanka

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DECLARATION

I declare that this is my own work, and this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any other University or Institute of higher learning, and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgment is made in the text. I retain the right to use this content in whole or part in future works (such as articles or books).

Signature:

Date: 09/10/2023

The above candidate has carried out research for the master's thesis under my supervision. I confirm that the declaration made above by the student is true and correct.

Name of Supervisor: Dr. Amila Thibbotuwawa

Signature of the Supervisor:

Date: 09/10/2023

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ABSTRACT

Purpose - This study aims to assess the impact of Green Manufacturing Practices on the Organizational Economic Performance of Global Rubber Industries Pvt Ltd.

Design/Methodology/Approach - The population of this study consisted of executive-level and above employees located in six manufacturing facilities of Global Rubber Industries Pvt Ltd. A stratified sampling technique was employed to extract a sample of 100 respondents. The research strategy utilized a survey method, where a self-administered, standardized, structured questionnaire was distributed via the internet using Google Forms to collect data from the respondents.

Findings - Correlation and regression analysis shows that organizational economic performance has more impact on Circular Manufacturing (3Rs), Energy Efficiency and Natural Resources. Although Environmental Safety Measures, Eco-friendly Product Development and Life-cycle Assessment haven't more impact than the other three variables.

Practical Implications - Very helpful material for operation managers who want to put these processes into place and keep them consistent across enterprises. Operation managers should be aware of the impact levels of GM techniques before implementing them at the best level. The study also presents a wide range of areas where scholars could conduct additional research and create search agendas.

Originality/Value - This study suggests that Global Rubber Industries Pvt Ltd could enhance the green aspects of their manufacturing processes by fostering mutually beneficial relationships between environmental and economic factors, leading to sustainable development. Additionally, it highlights the importance of government regulations and policies in promoting Green Manufacturing Practices across the organization's group companies, subsidiaries, joint ventures, and associate companies.

Key Words - Green Manufacturing Practices, Circular Manufacturing (3Rs), Environmental Safety Measures, Energy Efficiency, Eco-friendly Product Development, Natural Resources Conversation, Life-cycle Assessments, Manufacturing Facilities

Paper Type- Research Paper

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LIST OF ABBREVIATIONS

Abbreviation	Description
CM	Circular Manufacturing
DfDRR	Design for Disassembly, Reuse, and Recycling
DfE	Design for the Environment
EE	Energy Efficiency
EMS	Environmental Management System
EMS	Environmental Safety Measures
EnP	Environmental Protection
EP	Economic Performance
EPD	Eco-friendly Product Development
GM	Green Manufacturing
GMP	Green Manufacturing Practices
GRI	Global Rubber Industries Pvt Ltd
GSCM	Green Supply Chain Management
ILCD	International Life Cycle Data System
ISO	International Organization for Standardization
LCA	Life Cycle Assessment
LCD	Life-Cycle Design
MS	Microsoft
NPD	New Product Development
NRC	Natural Resources Conservation
OEP	Organizational Economic Performance
SDG	Sustainable Development Goals
SETAC	Society of Environmental Toxicology and Chemistry

SLR	Systematic Literature Review
SP	Social Performance
SPSS	Statistical Package for the Social Sciences
UNEP	United Nations Environment Programme

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