

ENABLERS AND BARRIERS IN ADAPTING CHEMICAL LEASING IN DYEING & WASHING PROCESSES OF SRI LANKAN APPAREL INDUSTRY

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1. Introduction

Sri Lanka's economy has always relied heavily on the apparel industry, which creates jobs and boosts exports. However, many of its procedures, such as washing, printing, and dyeing, use a lot of chemicals, which can cause serious environmental problems like contaminated soil and water. Chemical leasing is a cutting-edge business strategy that has shown encouraging results all over the world and is intended to increase chemical efficiency and decrease waste. The use of chemical leasing in Sri Lanka's garment industry is still in its early stages, despite its potential. By highlighting chemical leasing's role in encouraging sustainable practices and reducing the environmental issues brought on by the industry's heavy reliance on chemicals, this research seeks to uncover the enablers and barriers to its effective implementation.

2. Research Methodology

The study used a quantitative research methodology, gathering information from chemical engineers, manufacturing managers, and sustainability managers using a survey technique. Key enablers and barriers were identified using factor analysis, and their relative importance was evaluated using ranking analysis.

3. Findings and Discussion

The factor analysis found Four categories of enablers: Operational and Regulatory Support, Economic and Technological Advantages, Sustainable Chemical Practices, and Supplier Reliability. On the other hand, two main categories of barriers were identified: Behavioral and Knowledge Barriers and Financial and Structural Constraints.

4. Conclusion and Implications

The results demonstrate how chemical leasing has a great deal of promise to improve sustainability in the apparel sector, so long as the barriers are successfully removed. A diverse strategy is required to overcome these barriers, including financial incentives, technical assistance, pilot projects, awareness campaigns, training, and steps to promote cooperation and confidence.

Keywords: Apparel dyeing & washing, Chemical leasing, Chemical use, Environmental contamination