

ICRAMCS 2026

THE EIGHTH EDITION OF THE INTERNATIONAL CONFERENCE ON
RESEARCH IN APPLIED MATHEMATICS AND COMPUTER SCIENCE
April 23-24-25, 2026 | Marrakech, Morocco



Toward an Integrated Lean–Green Supply Chain Management Framework: A Qualitative Analysis in the Moroccan Industrial Context

Communication Info

Authors:

Abdelali OUFKIRI¹
BOUSSIF Ali²

¹ Hassan II University of Casablanca / Faculty of Legal, Economic and Social Sciences Ain Sebaa, Casablanca, Morocco

² Hassan II University of Casablanca / Faculty of Legal, Economic and Social Sciences Ain Chock, Casablanca, Morocco

Keywords:

- (1) Lean Management;
- (2) Green Practices;
- (3) Supply Chain Management;

Abstract

The integration of Lean Management, Green practices, and Supply Chain Management (SCM) can be framed as a multi-objective optimization problem balancing operational efficiency and environmental performance. Lean focuses on waste elimination and process improvement [1], while Green practices aim to reduce environmental impacts across supply chains [2]. Their convergence within a Lean–Green Supply Chain Management (LGSCM) framework supports the alignment of cost, quality, and sustainability objectives [3]. However, empirical evidence from emerging economies remains limited [4].

This study explores how Moroccan industrial firms conceptualize this integration from a decision-support perspective. Based on documentary analysis and ten semi-structured interviews, the findings reveal trade-offs between cost efficiency, resource utilization, and regulatory compliance, highlighting the need for structured modeling approaches to achieve sustainable supply chain performance [5].

© ICRAMCS 2026 Proceedings ISSN: 2605-7700

References

- [1] Womack J.P., Jones D.T., Lean Thinking, Simon & Schuster, 1996, 15–45.
- [2] Srivastava S.K., Green supply-chain management: A state-of-the-art literature review, International Journal of Management Reviews, 9, 2007, 53–80.
- [3] Dües C.M., Tan K.H., Lim M., Green as the new Lean: How to use Lean practices as a catalyst to greening your supply chain, Journal of Cleaner Production, 40, 2013, 93–100.
- [4] Govindan K., Azevedo S.G., Sustainable supply chain management: A literature review, Resources, Conservation and Recycling, 66, 2012, 10–20.
- [5] Cherrafi A., Elfezazi S., Govindan K., Garza-Reyes J.A., Benhida K., A framework for the integration of Lean and Green manufacturing, Journal of Cleaner Production, 119, 2016, 365–377.