

## Simulating Lean and Green Correlation in Supply Chain Context

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**Abstract :** Implementing green practices in supply chain management is a complex task mainly because ecological, economical and operational goals are usually in conflict. Green practices might thus face companies' reluctance because managers can consider its implementation obviously as a performance lean degradation. To implement lean and green practices successfully, companies need relevant decision-making tools to highlight the correlation between them. To contribute to this issue, this work tries to answer the following research question: How to use simulation to assess correlation (antagonism or convergence) between lean and green goals? To answer this question, we propose in this paper a based simulation process that measures correlation generally between two variables. So as to prove its relevance, a logistics academic case study is used to illustrate all its stages. It shows, as for example, that Lean goal 'Stock' and Green goal 'CO<sub>2</sub> emission' are not conceptually correlated (linearly).

**Keywords :** simulation, lean, green, supply chain

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