

Sustainable Supply Chain Analytics (2024)

Abstract: This paper (2024) investigates sustainable supply chain analytics in the context of Operations. We propose a workflow combining supplier risk, lead time, carbon metrics. Method: Topic modelling (BERTopic) + qualitative coding. Dataset: Hospital ward dataset (n=3,200 encounters). Metrics: NPV, PPV, sensitivity, specificity.

Methods & Data: Topic modelling (BERTopic) + qualitative coding. Hospital ward dataset (n=3,200 encounters).

Results: Benefits are concentrated in small SMEs; larger orgs show marginal gains.

Limitations: Model performance degrades under concept drift over 6 months.