

Data-Driven Management in Sustainable Supply Chains

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Abstract:

As more and more environmental issues, such as global warming, atmospheric haze and waste mismanagement, emerge frequently, environmental protection receives more attention from practitioners and governments. On one hand, governments would announce the regulatory mandates and incentive mechanisms to stimulate companies and people to be environmental-friendly. On the other hand, companies need to take into account environmental concerns in their supply chain management to improve competitiveness. In the Era of Industry 4.0, smart equipment and intelligent systems with sensors are increasingly used. More and more data are available through advanced technologies, such as Cyber-Physical Systems (CPS) and the Internet of Things (IoTs) in intelligent systems. How to use the data to manage the supply chain to reduce environmental issues in addition to improve profits will be of interest to academics, practitioners and governments. Therefore, this special session aims to discuss emerging research issues regarding how to manage sustainable supply chains with the data obtained in intelligent systems. We invite authors to contribute theoretical and applied research papers in topics including but are not limited to:

- Data-driven forecasting in supply chains considering environmental issues
- Data-driven modeling and performance evaluation under environmental regulatory requirements
- Optimization based on IoTs and big data analytics in sustainable supply chains
- Smart logistics considering carbon emission
- Data-driven analytical frameworks for waste management
- Decision support systems for remanufacturing systems
- Successful management cases based on the data considering environmental factors