

Closing the Loop: Exploring Circular Economy, Resilience, and Supply Chain Implications from Supply Management to End Consumer

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UNIVERSITÀ
di **VERONA**

Dipartimento
di **MANAGEMENT**



LRN Italy Forum 2023

**Improving supply chain sustainability
and resilience: the Italian way!**



Agenda



1. **Supply chain management for circular economy:** conceptual framework and research agenda (Manuscript 1)



2. Achieving **supply chain resilience** in an era of disruptions: a configuration approach of capacities and strategies (Manuscript 2)



3. The challenge of **remanufactured products:** the role of returns policy and channel structure to reduce consumers' perceived risk (Manuscript 3)

Research Group of Logistics & Supply Chain Management



Procurement

Supply risk
Commodity shortages and price fluctuations
Resilience strategy



3PLs

Circular practices
Logistics service quality



Transportation & Warehouse Management

Decarbonization




Retail Supply Chain

Omnichannel strategy
Last mile delivery
Reverse logistics
Service recovery resilience



Consumers

Consumer role
Consumer impact



CE & SCM

Supply chain processes, closed loop supply chain and circular economy practices

Cronaca

La sfida veronese



UNIVERSITÀ di VERONA

Department of MANAGEMENT

Università, nuovo Centro di ricerca dedicato all'economia circolare

Manuscript #1
published in International Journal of Logistics Management

IJLM
32,2

Supply chain management for circular economy: conceptual framework and research agenda

510

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Revised 16 June 2020
Accepted 27 September 2020

Benjamin T. Hazen

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Steyr, Austria*

Ivan Russo and Ilenia Confente

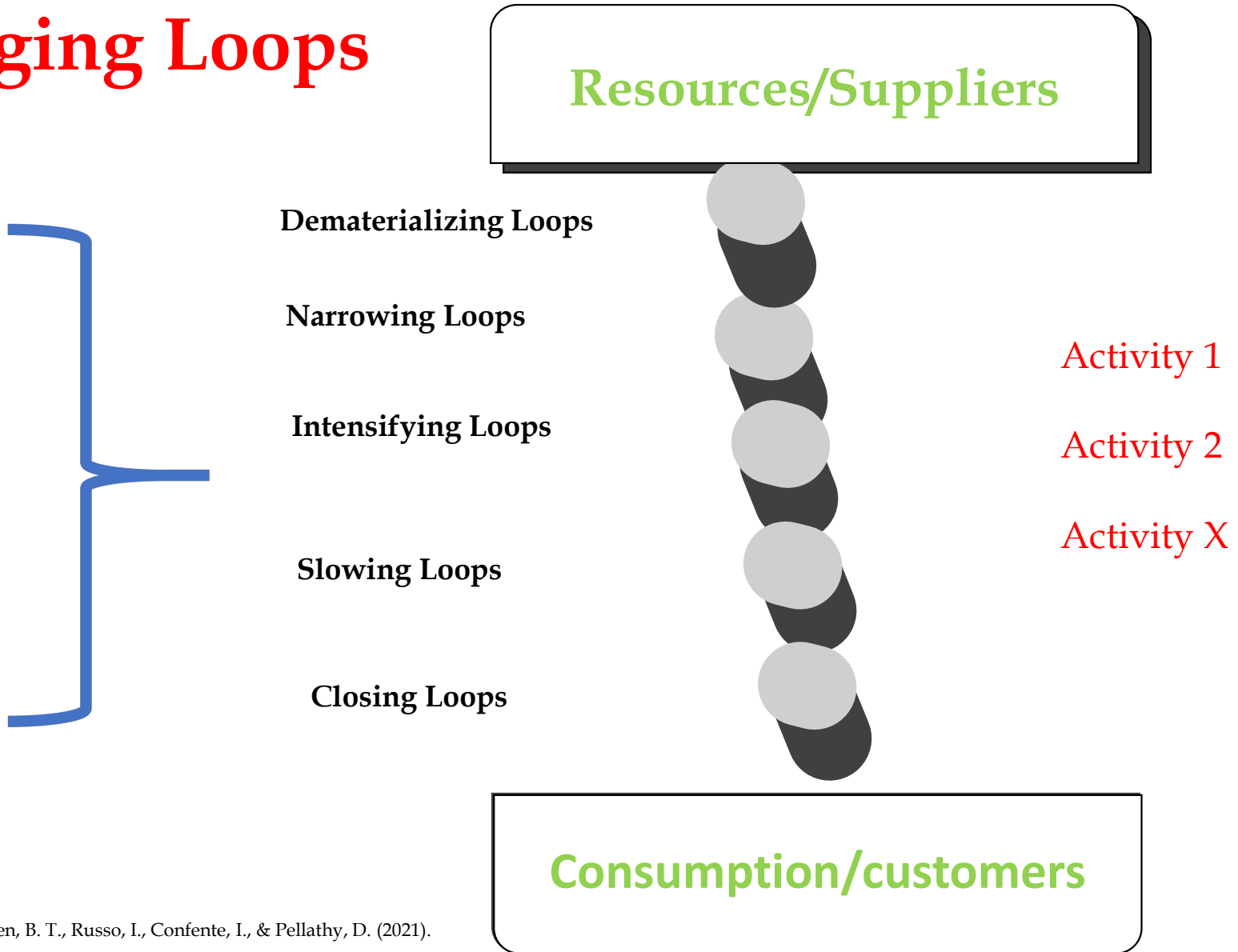
*Department of Business Administration, Università degli Studi di Verona,
Verona, Italy, and*

Daniel Pellathy

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Michigan, USA*

#1 Managing Loops

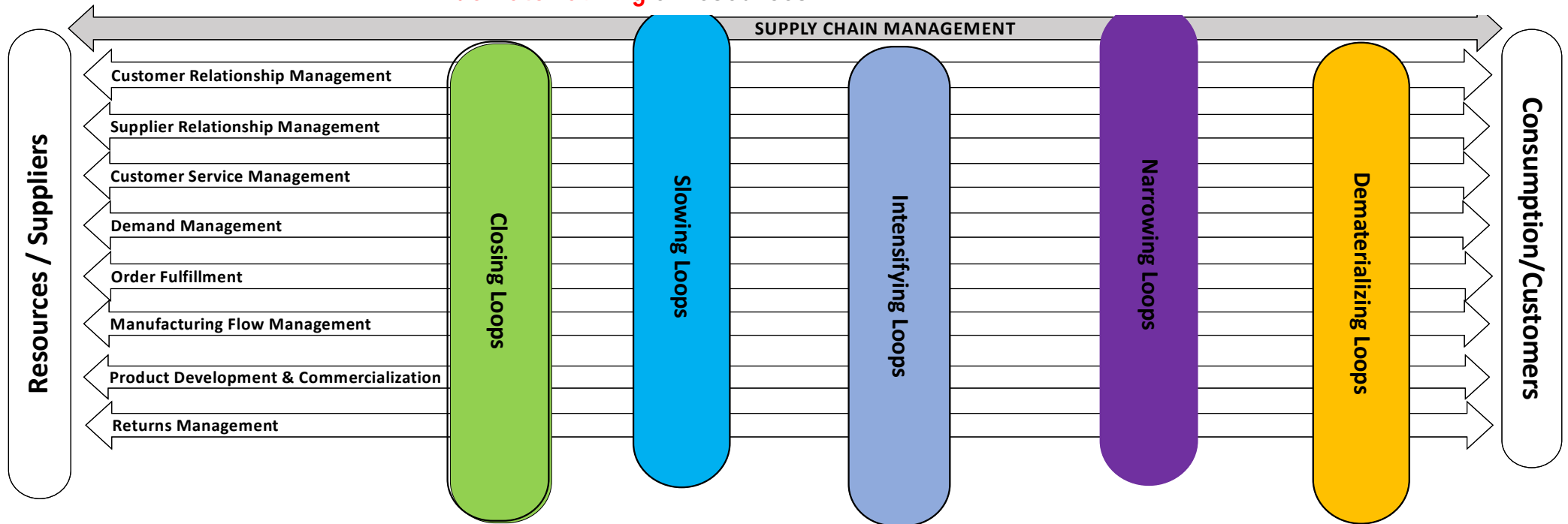
Eight Supply chain processes
(Lambert, 2014)



Adapted from: Hazen, B. T., Russo, I., Confente, I., & Pellathy, D. (2021).

Circular Economy & Supply Chain Management Processes

Under what circumstances can companies shape the decision-making process to expand customer adoption of practices that facilitate the **closing loop strategy**? Which supply chain design will companies have to develop to improve the **dematerializing** of resources?



What is the process that companies go through to identify opportunities for **narrowing** through digitalization their existing supply chains? What are the critical factors influencing this process?

Under what circumstances are companies most likely to cooperate to achieve greater **intensification** of resources? supply chains?

Manuscript #2
published in Supply Chain Management, an international journal

Achieving supply chain resilience in an era of disruptions: a configuration approach of capacities and strategies

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#2 Our research

Key lens:

Supply Chain Resilience (Wieland and Durach, 2021)

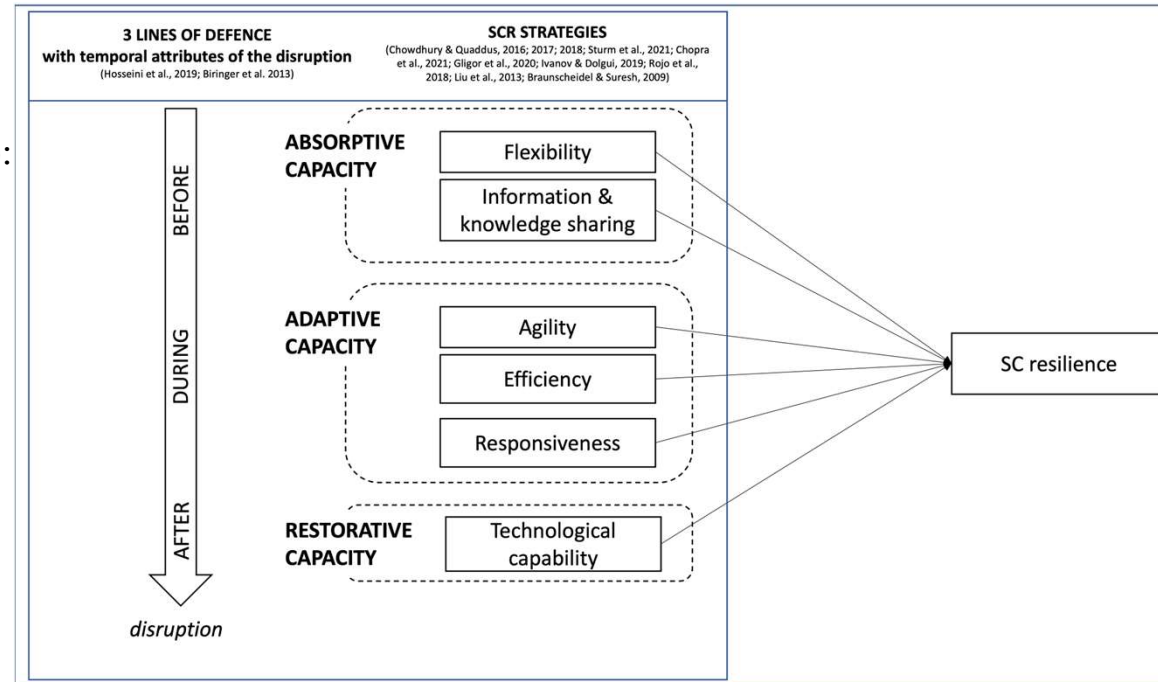
with 3 “lines of defense” (before, during and after a disruption):
absorptive, adaptive and restorative capacities
(Hosseini et al., 2019)

and their strategies

(Chowdhury & Quaddus, 2017; Sturm et al., 2021)

How to combine them?

Short term vs long term approaches?



Using a theoretical lens: Contingency Resource Based View (CRBV)

Research question

What configurations of SCR strategies and capacities to cope with the COVID-19 pandemic lead to SC resilience?

fsQCA → searching for possible configurations (Ragin, 2009, Woodside, 2014)

Passive companies: Proactive, reactive and technology driven companies:
no investments! *Fully equipped!*

Reactive companies driven by technology capabilities:
Coping with events!

Proactive but partially unplugged companies:
Think in advance, but unplugged!

SCR capacity	Variable (SCR strategy)	Group 1	Group 2		Group 3			Group 4		
		Absence of capacities and no investments in SCR strategies Sol. 1	Presence of strategies linked to all three capacities Sol. 6 Sol. 8		Presence of restorative capacity and max. one strategy related to adaptive capacities Sol. 2 Sol. 4 Sol. 5			Presence of strategies linked to absorptive and adaptive capacities Sol. 3 Sol. 7 Sol. 9		
ABSORPTIVE	Flexibility	⊗	⊗	●		⊗	⊗	●	●	⊗
	Information and knowledge sharing	⊗	●		⊗	⊗		⊗	●	●
ADAPTIVE	Agility	⊗	●	●	⊗	●	⊗	⊗	●	●
	Efficiency	⊗	●	●	⊗		⊗		●	⊗
	Responsiveness			●	⊗	⊗	●	●	●	⊗
RESTORATIVE	Technological capability		●	●	●	●	●	⊗		⊗

Evidences and Conclusions

- **Complex picture** of how companies and their SCs have combined SCR strategies, and related capacities, to achieve SCR and to cope with disruptive events
- Several complex patterns the SC adopt to achieve SCR since heterogenous and **diverse solutions can lead to achieve SCR**
- Different capacities and strategies, and **different timelines**

Manuscript #3

published in International Journal of Physical Distribution & Logistics Management

IJPDLM
51,4

350

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The challenge of remanufactured products: the role of returns policy and channel structure to reduce consumers' perceived risk

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Research question:

How can return policy and channel structure help to reduce the perceived risk of remanufactured products to entice consumers' purchase intention from the retailer?



Return policy

(e.g., Petersen and Kumar 2009; Bonifield et al. 2010; Röllecke et al. 2017)

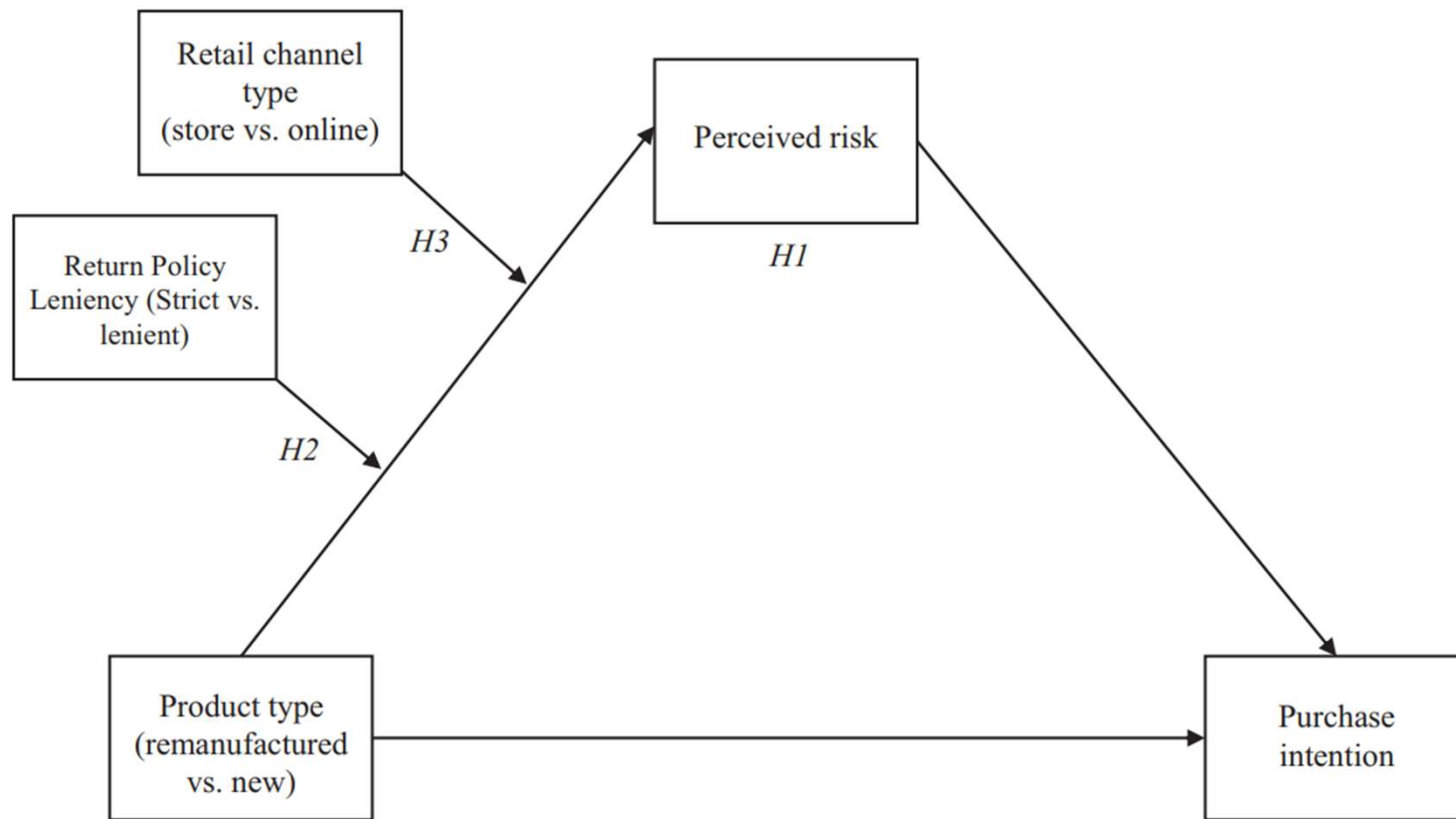


Retail Channel Structure

(e.g., Griffis et al., 2012; Dimoka et al., 2012; Kim and Krishnan, 2015)

Theory and Hypotheses

Theory of Perceived Risk: consumers will perceive some type of risk during a purchase situation and will try to minimize the risk through different strategies (Taylor 1974; Sweeney et al., 1999).

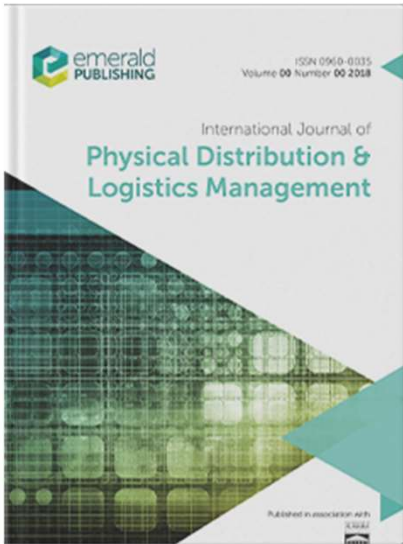


Contribution



- We focus our attention on the retailer-consumer interface and also highlights the potential value of investing in circular economy initiatives and the relative sustainable solutions
- Our research suggests that providing a **lenient return policy** for remanufactured products is one option that entices consumers to purchase remanufactured products from retailers.
- Furthermore, offering a lenient return policy mitigates risk in both channels but as study 2 illustrates, **it might be more effective** (in particular for remanufactured products) **in a brick-and-mortar setting**
- Managers must make a careful assessment between the goal of achieving a closed-loop supply chain and potentially having to process more returns of remanufactured products. One option would be to **differentiate the return policy depending on whether the product is new vs. remanufactured.**

International Journal of Physical Distribution & Logistics Management (IJPDLM)



IJPDLM is
53 year-old!



>60 countries

Submission

~ 45 articles

Accepted (p.a.)
(2020-22)

~ 10-12%

Acceptance rate
(2020-22)

360 days

Submission to
acceptance
(median)

Editor-in-chief

Ivan Russo

Chee Yew Wong

11 issues p.a.

Regular issues

Special section (4-6k words)

Special issues (3-5 p.a.)

One issue for open access

< 14 days

Desk-reject
(inappropriate)

1 month

Average 1st
Decision

3 months

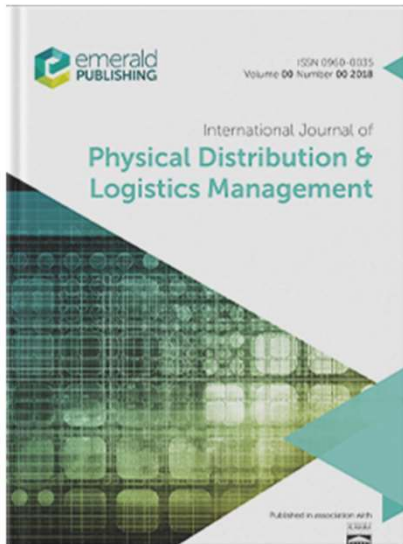
Max. 1st
Decision

2 months

1st decision =
Major (median)

Previously known as International Journal of Physical Distribution and Materials Management (1977-90); International Journal of Physical Distribution (1970-77)

IJPDLM: Aims and Scopes



Aim to inform

Business practitioners
Policy-makers
Consultants
Academics

Aim to...

Facilitates the interchange of information among stakeholders across the globe while providing a platform for new insights on problems and techniques related to all facets of supply chain management.

Regular issue (10k words)

EIC: Ivan Russo & Chee Yew Wong

Topics

Physical distribution
Business logistics
Supply chain management

Logistics
Supply chain
Operations
Marketing
Purchasing
Human resource
Digitalization/technology
Omni-channel/last-miles
Sustainability (SDGs)
Global trade/development
Emerging markets
And more...

Section on Innovators and transformers (4-6k words)

SEs: Remko van Hoek, David Loseby & Chee Yew Wong

Methods

Empirical quantitative
Empirical qualitative
Conceptual/Theoretical
Experiments
*Literature review
**Mixed methods
**Design science
**Action research
And more...

Note:

*Not descriptive reviews
**Quantitatively oriented mathematical and modelling research papers are not suitable (but they can a part of these studies)

IJPDLM is 53 year-old!

IJPDLM: current special issues

Closes: 30 Dec 2023

Call for Papers: The missing link between supply chain technologies and sustainability issues: advancing theory and practice

International Journal of Physical Distribution & Logistics Management

Submit your paper here! Introduction The emphasis on supply chain sustainability is greater than ever before. Climate change, depl...

Guest editor(s): Andrea Patrucco, K. Mathiyazhagan, Stefan Seuring, Samuel Fosso Wamba, Andrea Appolloni

Closes: 30 Dec 2023

Reimagining Supply Chain Management Practice and Research

International Journal of Physical Distribution & Logistics Management

Key deadlines Submissions open: 30th July 2023 Submissions close: 30th December 2023...

Guest editor(s): Remko Van Hoek, David Loseby, Chee Yew Wong

Closes: 01 Feb 2024

Platform-enabled supply chain and logistics excellence

International Journal of Physical Distribution & Logistics Management

Key Deadlines Opening date: 16th June 2023 Closing date: 16th Feb 2024 Introduction Though definitions of platforms may differ according to the types, a digital platform can be generally known as a technolo...

Guest editor(s): Hing Kai Chan, Yang Cheng, Yongjiang Shi, Jie Sheng

Call for special issue proposals IJPDLM 2024!



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Grazie!

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