



Extended Abstract | The 2nd Research Innovations in Sustainable Marketing: A Global Symposium

Balancing Disenchantment and Replacement of Innovations: Challenges for Sustainable Supply Chain Management

Mariuxy Jaramillo-Villacrés ^{1,2} and **Javier Palacios-Fenech** ²¹Business Department, Faculty of Economics and Business, University of Barcelona, Barcelona, Spain²Department of Business, EAE Business School, Barcelona, Spain

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Sustainable supply chain management increasingly relies on digital technologies such as artificial intelligence, the Internet of Things, and blockchain to enhance transparency, efficiency, and social responsibility (Jiang et al., 2024). The diffusion of innovations theory outlines the process of innovation adoption serving as a framework to identify and address barriers and challenges in the adoption of emerging technologies within supply chains (Moraes et al., 2024). However, a critical yet under-explored challenge lies in the discontinuance of these innovations, where technologies are abandoned either due to disenchantment (unmet expectations) or replacement (emergence of superior alternatives) (Prins et al., 2009). Compounding these challenges, the integration of sustainability into supply chain management is further complicated by competing logics that create tensions between operational and environmental priorities (León Bravo et al., 2021). This study integrates the theory of discontinuance with sustainable supply chain management to examine how these dynamics impact the lifecycle of technological adoption, potentially undermining long-term sustainability goals

(Palacios-Fenech and Vrain, 2024).

By bridging gaps in existing frameworks such as the technology-organization-environment theory (Tornatzky, 1990) and diffusion of innovation theory (Rogers, 2003), this research offers novel insights into mitigating the risks associated with technological discontinuance and fostering more resilient and sustainable supply chain practices (Kouhizadeh et al., 2021; Reshad et al., 2023). We adopt a qualitative, exploratory research design, using a systematic literature review to investigate the dynamics of disenchantment and replacement in sustainable supply chain management (Jiang et al., 2024). The literature review identifies gaps in the integration of digital technologies, particularly in understanding their lifecycle within social and sustainable supply chain management. A comprehensive theoretical framework is used to guide organizations in mitigating the risks of discontinuance and addressing the gaps centered in the challenges posed by disenchantment and replacement dynamics (Lehmann and Parker, 2017).

Theoretically, this research advances the under-



standing of discontinuance by applying it to sustainable supply chain management, offering a new perspective on how disenchantment and replacement disrupt technological lifecycles. It addresses key gaps in existing theories by linking discontinuance to sustainability outcomes, emphasizing risks such as increased electronic waste and the misalignment of supply chain goals (Pouyamanesh et al., 2023). Managerially, the study provides actionable strategies to mitigate disenchantment by aligning expectations, improving implementation processes, and fostering stakeholder engagement. Additionally, it emphasizes the need for strategic decisions regarding replacement to ensure technologies support both innovation and sustainability goals. By offering a comprehensive framework for managing the lifecycle of technologies, this research empowers supply chain leaders to balance technological agility with stability, thereby enhancing the resilience and sustainability of supply chains in a rapidly evolving digital landscape.

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Conflict of Interest

The authors declare no conflict of interest.

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References

- Jiang, M., Jia, F., Chen, L., & Xing, X. (2024). Technology adoption in socially sustainable supply chain management: Towards an integrated conceptual framework. *Technological Forecasting and Social Change*, 206, 123537–123537. <https://doi.org/10.1016/j.techfore.2024.123537>
- Kouhizadeh, M., Saberi, S., & Sarkis, J. (2021). Blockchain technology and the sustainable supply chain: Theoretically exploring adoption barriers. *International Journal of Production Economics*, 231, 107831–107831. <https://doi.org/10.1016/j.ijpe.2020.107831>
- Lehmann, D. R., & Parker, J. R. (2017). Disadoption. *AMS Review*, 7(1), 36–51. <https://doi.org/10.1007/s13162-017-0093-8>
- Leøn Bravo, V., Jaramillo Villacrés, M., & Silva, M. E. (2021). Analysing competing logics towards sustainable supplier management. *Supply Chain Management: An International Journal*, 27(7), 49–63. <https://doi.org/10.1108/scm-07-2020-0354>
- Moraes, K. K., Ganga, G. M. D., Godinho Filho, M., Santa-Eulalia, L. A., & Tortorella, G. L. (2024). Overcoming technological barriers for blockchain adoption in supply chains: A diffusion of innovation (doi)-informed framework proposal. *Supply Chain Management: An International Journal*, 30(1), 19–49. <https://doi.org/10.1108/scm-02-2024-0138>
- Palacios-Fenech, J., & Vrain, E. (2024). Measuring the adoption and discontinuance of low carbon digitally-enabled innovations: Exploring repeat survey quality. *Journal of Cleaner Production*, 434, 140311–140311. <https://doi.org/10.1016/j.jclepro.2023.140311>
- Pouyamanesh, S., Kowsari, E., Ramakrishna, S., & Chinappan, A. (2023). A review of various strategies in e-waste management in line with circular economics. *Environmental Science and Pollution Research*, 30(41), 93462–93490. <https://doi.org/10.1007/s11356-023-29224-y>
- Prins, R., Verhoef, P. C., & Franses, P. H. (2009). The impact of adoption timing on new service usage and early disadoption. *International Journal of Research in Marketing*, 26(4), 304–313. <https://doi.org/10.1016/j.ijresmar.2009.07.002>
- Reshad, A. I., Biswas, T., Agarwal, R., Paul, S. K., & Azeem, A. (2023). Evaluating barriers and strategies to sustainable supply chain risk management in the context of an emerging economy. *Business Strategy and the Environment*, 32(7), 4315–4334. <https://doi.org/10.1002/bse.3367>
- Rogers, E. (2003). *Diffusion networks*. Free press.

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