

Practicing Sustainability in Operations & Supply Chain Management

Fritz, M.M.C., Silva, M.E., Touboulic, A.

Abstract

Grounded in a sustainability-practice approach, this editorial provides reflections on how sustainability can be embedded as part of organisations' daily operations and supply chain management (SCM) practices. Moving away from the understanding of a practice as a static action, we explore the metaphor of a tree to demonstrate that a practice is both complex and dynamic. In this editorial, we define practice and how sustainability practice became part of operations and SCM. We glance at previous literature on these aspects, including practice theories, and show how the papers gathered in this special issue complement the ongoing scholarly conversation. The papers additionally provide interesting contributions to advance the practice debate. Finally, we suggest several research directions.

Keywords: Sustainability practice, supply chain management, practice theories

Over the last decades the exploration of sustainability in the context of operations and supply chain management (O&SCM) has become a significant field of research (Touboulic and Walker, 2015). This undoubtedly stems from the fact that the global organising of business operations is responsible for much of the environmental degradation and social exploitation that is witnessed in the world. Yet much of the research to date is still very much rooted in an observation-led paradigm and the field has primarily adopted a narrow focus on sustainability following an instrumental logic (Matthews, et al. 2016, Montabon et al., 2016; Gold and Schleper, 2017; Silva et al., 2022a), which overshadow the diversity of different possibilities to advance the practice of sustainability and drive lasting change.

Practicing sustainability in supply chains (SCs) exceeds focus on a goal itself to consider how actors are performing and learning actions over time as a practice (Silva and Figueiredo, 2020). This requires engagement with the reality in which these actors work and interact, and a thorough understanding of the specific and broader contextual dynamics in which they are embedded (Touboulic et al., 2020). Developing sustainability as a practice is

about understanding *habitus* of agents, which considers not only those aspects that are known, but also requires defining emerging elements and meanings in order to drive action. It is important to highlight that this reality is changing over time and expectations on how to practice sustainability in SCs are influenced by some important trends in the broader context, such as political aspects or emerging international frameworks, such as the Sustainable Development Goals (SDGs) by the United Nations (Fritz and Silva, 2018; Fritz, 2019).

This Special Issue (SI) on practicing sustainability in O&SCM aimed at highlighting a diversity of approaches that do not only show the importance of a practice-based perspective, but also demonstrate empirically how to practice sustainability in SCs, including how change can be fostered at various levels, and what roles stakeholders may play within and outside the SC. The call for this SI was launched in 2021 in parallel with the 8th International EurOMA Sustainable Operations and Supply Chain Forum conference organised at Excelia Business School, La Rochelle, France. The topic of the conference was “*Practicing Sustainability in Operations & Supply Chain Management*”, which was stimulated by a wish to move the field forward and specify what constitutes a sustainability practice and how to implement sustainability practices along the SC.

Practice: what, where, why, how and by whom?

Studies about practice have their roots in practice theories, which are a family of theoretical approaches, that is, there is not one single practice theory but a diversity of possibilities to represent the richness of this approach (Nicolini, 2012). Practice has been used in several disciplines such as strategy (e.g., Jarzabkowski, 2004), yet its application in SCM remains limited (Silva et al., 2022a). Therefore, to evolve in our discussion of practicing sustainability in O&SCM, we need to learn from practice theories.

To understand *what* a practice is, requires avoiding confusions with other terms such as ‘routine’, ‘embodied skills’ or ‘simple actions’ (Gherardi, 2009a). As mentioned by Gherardi (2009a), a practice refers to an active being-in-the-world stage. Such a perspective reveals that practice is indeed a set of activities, but not limited to its execution (cf. Bromiley and Rau, 2014); it involves the production and reproduction of people’s live (Gherardi, 2009a). In this context, practice is a result of learning which can happen individually, but also within communities of practice (Antonacopoulou, 2015; Gherardi, 2009b). Hence studying practice in O&SCM requires a more organic approach to better understand similarities and singularities of different SC configurations and contexts (Silva et a., 2022a).

In this editorial, we adopt the metaphor of a tree to explain practice. By using elements of metaphor imagination as defined by Stephens et al. (2022), we believe that researchers can gain knowledge and skills from practice theories, that will positively impact the outcomes of their sustainability practice research. To elaborate our metaphor, we explore then *how*, *why*, *where*, and *by whom* the practice has been interpreted to have a better overview of *what* we mean about practice. To do so, we follow the socio-material relations of practice, which takes into consideration human and non-human, material and immaterial, meaning and matter as part of the definition of practice (Schatzki, 2001). We focus here on the practice of researching.

Imagine a tree and its different parts. What comes first to your imagination is defined here as an analogy of a practice of researching. When thinking about a tree probably hidden elements are secondary in your imagination. For instance, although there is no tree without roots, this it is not the first part that you imagine. In the context of the practice of researching, the roots may refer to the less visible elements of doing research such as the epistemology underpinning research projects and the underlying values and assumptions held by the researchers. From this perspective, the roots are *why* the practice exist. Moving on to the trunk, this is the strength of a tree to survive different seasons and grow overtime. The element that keeps it grounded and can enable it to withstand changing surrounding conditions. The trunk represents the most robust element of the tree, which when turning to the practice of research could represent researchers and their surrounding reality. To practice research, researchers are necessary as they are those who try to make sense of their observations of this reality. Here, the trunk refers to *who* carries out the practice as well as the context that affects its performance.

Indeed, *where* this tree stands (or *where* the research as practice exists) will change *how* the other elements will take place. For example, if we think about a tree isolated in a large field or a tree in the middle of a forest, the way it will evolve (i.e., produce and reproduce in terms of practice) changes. To facilitate our metaphorical imagination, we can think of a tree isolated in a large field; attached to the trunk we have the branches which are extensions of this tree. In the practice of researching, the branches would then represent the theories and the methods that researchers may rely upon. At this point, we start to think of the *how* of the practice. In the production of the research, all these issues are interconnected and alive. The branches allow the existence of leaves and fruit/flowers. The leaves relate to the project design, research teams, and research questions, and when the research project is mature enough, the tree may bear fruits or flowers representing research outputs and their impact.

Imagining the practice of researching through the metaphor of the tree can allow us to understand *what* practice is. However, we cannot forget that a practice relies in a constant

process of production and reproduction of actions/activities. We can evolve this metaphor imagination to understand what the new elements of practice are. For example, the resulting seeds of the flowers or fruits would represent future research avenues, when focusing on practice of researching. Naturally, there is a learning process involved and new lifecycles could emerge from dead leaves fertilizing the soil, corresponding to the development of new research projects, or papers and projects failing or coming to an end. This understanding shows us that a practice of researching, represented by the metaphor of the tree, cannot be simply defined by the visible outcomes but should also consider several hidden elements. For instance, as a tree embedded in an ecosystem where some external factors like climate change cannot be controlled, researchers are also embedded into an ecosystem made of individuals, institutions and environmental variables that cannot be controlled but can be understood, explained, and sometimes predicted. In this way, researchers can play an active role to make the ecosystem surrounding them more sustainable by raising awareness, teaching, disseminating knowledge and even become activist researchers.

We decided to explore the practice of researching, to demonstrate that sustainability as a practice can also follow this understanding. More than focusing on *what* is related to sustainability we should also be concerned about *how, why, where, and by whom* the practice emerges. It is important to note that the tree is not static due to continuous changes happening in the ecosystem, but it remains a tree over time. This perspective echoes Silva and Figueiredo (2017), who argued that sustainability as a practice can be observed as a spiral of production and reproduction of learning in which the practice is a point in time that moves in a circular direction (i.e., dynamic of repetition) and experiences linear forces (i.e., the passage of time). With this SI, we aimed at stimulating a conversation with and research agenda for researchers in O&SCM focused on real impact and contributions towards developing more sustainable organisations and societies.

When the practice of sustainability meets operations and SCM

Practicing sustainability becomes reality in O&SCM when SC activities are developed repeatedly in an ongoing process (Silva and Figueiredo, 2020). Silva et al. (2022b) define SC sustainability practice as “a set of specific managerial activities spread widely throughout the supply chain as repeated actions for the purpose of achieving sustainability, which is rooted in the way of thinking and/or cultural values.” By emphasising the need for a dynamic of production and reproduction of activities, these authors demonstrate that hidden elements should be considered. For instance, Glover and Touboulic (2020) explored the notion of

hypocritical practice for sustainability adoption using a supplier perspective. By discussing elements such as power, they show that SC practices are related to emotional consequences affecting agency and resistance for sustainability practice.

Following this perspective, practicing sustainability is intrinsically multilevel and bridges disciplinary boundaries; two facets currently under-represented in the field. Silva et al. (2022a) corroborate this perspective as they found in their literature review that the application of practice theories in the sustainable O&SCM field is still in its infancy. These authors identified eight practices that take place in SCs, namely: purchasing, designing, transporting, sharing information, cooperating, packaging, lean manufacturing, managing people and operations. These practices have contributions to sustainability adoption in O&SCM at different levels: upstream the SC, within the focal company, and downstream the SC. However, practicing sustainability also requires multi-stakeholder approaches and although this is widely recognised, stakeholders' roles, expectations, and level of impact in the SC necessitates further attention, in particular to develop more concrete implications for practitioners (Seuring et al., 2022; Fritz et al., 2018).

Research on practices theories focused on sustainability in O&SCM are currently organised around two theoretical approaches: practice-based view (PBV) and practice-based studies (PBS; Silva et al., 2022a). Although studies are evolving in the field, there is room for widening the boundaries. PBV refers to a more positivist theoretical approach that is less accepted by practice researchers than the PBS, due to its lack of consideration of issues beyond the *what* (Jarzabkowski et al., 2016). However, PBV has been applied to multiple contexts (Brömer et al., 2019; Silva et al., 2018). Furthermore, based on Bromiley and Rau (2014), Carter et al. (2017) have coined the idea of supply chain practice view that can be used for sustainability implementation. More precisely, such a proposal reveals a need for further studies that have a clear understanding of how resources, relations and practices explain firm's behaviours.

Regarding PBS, they have huge potential to explain practice beyond *what* it is, which includes *how*, *why*, *where*, and *by whom*. PBS are often developed by means of interpretive research. For example, Silva and Figueiredo (2020) conducted a study in which a bundle of practices (i.e., cooperating, understanding, deeming, improving, and changing the logic) was identified to represent the practice of sustainability for responsible business. Similarly, Silva et al. (2022b) have focused on the downstream SC and identified that for end customer engagement the emerging bundle of practices for sustainability was related to: informing, training, involving, respecting, protecting and changing the mindset. PBS is a theoretical

approach that opens the door for multiple perspectives of studies, including emotions (Glover and Touboulic, 2020; Silva et al., 2022b) related to what Schatzki (2001) names teleo-affective structure surrounding the socio-material practices.

Overall, there are plenty of opportunities to increase our understanding on practicing sustainability in O&SCM. For instance, although not yet applied to sustainability, the *habitus* of agents rooted in Bourdieu's critical theory is a strong theoretical lens to be considered. Lissillour and Bonet (2021) have used this theory to study safety governance issues in the maritime industry. Based on this overview, we consider that this SI contributes to the existing literature by including papers that increase this debate not only at a theoretical level, but also by providing empirical research of on the practice of sustainability in O&SCM.

Learning from the special issue papers

In addition to the extant literature concerning practicing sustainability in O&SCM, the use of novel theoretical lenses and concepts as well as their combination with current literature was highly encouraged for this SI as it intended to offer a platform not only for traditional empirical research but also promote alternative approaches such as engaged and activist research (Touboulic et al., 2020; Touboulic and McCarthy, 2019), with strong engagement toward sustainability practice. For instance, contributions following a critical approach to understand SCs were welcome, such as the emerging and promising area of research on decolonising sustainability studies (Touboulic et al., 2020).

This SI is an opportunity to increase our understanding of sustainability practice. Thus, every paper included provides insights on how to advance our knowledge on this subject, but at the same time as a collection, they reveal the diversity of this research field. The SI comprises six papers, including a literature review and five qualitative empirical studies. The first paper of **Gruchmann et al. (2022)** is a literature review with a focus on sustainable tourism SC practice. The next two papers, **Le (2022)** and **Viale et al. (2022)** have focused on upstream SC practices with different connections to sustainability practices and different contexts. The fourth paper written by **Taghavi (2022)** focused on internal operations and energy efficiency practices. Next, **Carmagnac and Naoui-Outini (2022)** revealed the effects of teleo-affective structures in the sustainability practice. Finally, **Lissillour (2022)** has explored the critical lens of Bourdieu to study the habitus in the shipping sector. Following a summary of these papers is provided:

1. **Gruchmann et al. (2022)** conduct a literature review on antecedents, driving factors, barriers and outcomes of sustainability practices in tourism O&SCM. They find that research

mainly focuses on a few stakeholders, namely tour operators, hotels, and transport providers, neglecting the role of other stakeholders such as destination management organisations. They show that all stakeholders in the tourism SC (e.g., consumers, employees, suppliers, destination management organisations) need to cooperate to develop sustainable practices in tourism O&SCM. This contribution furthermore underlines the importance of the practice of stakeholder mapping to identify stakeholders to develop sustainability practices in O&SCM.

2. **Le (2022)** enables unveiling a particularly marginalised perspective in sustainable SC management, that of workers in SCs. The study draws on the concept of policy-practice decoupling and stakeholder salience theory to explore the ways in which suppliers and factory workers navigate buyers' expectations through the practice of social sustainability decoupling. Her work yields important implications for research and practice, and notably the critical importance of engaging workers in the development and implementation of initiatives seeking to improve their working conditions.

3. **Viale et al. (2022)** highlight practices of open innovation between the focal firm and its suppliers to enhance sustainability in O&SCM in the specific context of the textile industry. They particularly focus on SMEs, which are understudied although they represent the majority of businesses in the economy. They underline with a PBS approach the important role of the procurement department in driving sustainability along the SC thanks to a combination of open innovation and supply chain sustainability practices borrowed from Silva et al. (2022a), which results in a set of sustainable collaboration practices.

4. **Taghavi (2022)** investigate the energy efficiency practice in operations by developing a practice-based framework. By using a qualitative research based on interviews and observation she analyses sayings and doings of different actors (e.g., managers and workers) of strategic and operational levels. Along the analysis multiple department efforts are identified to practice efficiency in energy consumption, which conveys sustainability as a practice that should be adopted to address sustainability-oriented strategies in companies.

5. **Carmagnac and Naoui-Outini (2022)** explore the practice of sustainable innovation diffusion from the perspectives of suppliers in the textile and cosmetics sectors. Their work enables conceptualising sustainable innovation as a sequential practice encompassing three activities: presentation, evaluation, and implementation. Of particular interest is how their study uncovers the criticality of emotions in the sustainable innovation process and how emotions are entangled with other aspects, namely practical understanding and ends.

6. **Lissilour (2022)** studies human and non-human (i.e. boundary objects) agents' disposition and conditioning towards sustainable practices in the SC. Bourdieu's theory of

practice was explored to conduct multiple case studies with shipping agents (e.g. ship-owners, port authorities), the author explores the concept of *habitus*. In this research, an analysis grid is provided in which *habitus* is composed by practical tacit knowledge and a set of dispositions, but also developed through social interactions over time. By identifying classification certificates as a boundary object, the analysis shows that agents were able to contribute positively to long-lasting sustainable practices. This critical perspective adds to the extant literature by combining human and non-human interactions for sustainability practice.

Conclusion and Future Research

Practicing sustainability is an emerging and fruitful topic that can help scholars and practitioners better understand how O&SCM deal with sustainability challenges. The SI call invited considerations for broad (e.g., the whole supply chain in its broader context) or narrow scopes (e.g., one specific department within an organisation, e.g., purchasing department), and for different stakeholder voices. Contributions were required to explore the practice of sustainability and strong empirical evidence in different contexts was particularly welcome. Methodologically, like conceptually, this SI called for diversity. Qualitative methods providing deep dives into the reality and context of practising sustainability (e.g., action research, ethnography, observations) were encouraged. We hope that the SI will contribute to deepening the conversation on the intersection between a practice perspective and the fields of sustainable O&SCM and open up new avenues for exploration. Notably, the call for engaged research remains timely and significant. Additionally, we identify four key priorities for research in this space. First, more research is still needed on which practices for sustainability in O&SCM are implemented and how to implement them. Second, contributions should endeavour to explore novel and more marginalised perspectives from both the downstream (e.g., consumers, communities) and upstream SC (e.g., suppliers in various contexts, workers, communities). Some additional fruitful avenues exist in attempting to connect these perspectives and what the implications may be for practicing sustainability. Third, research going beyond the practices of focal firms is still needed (e.g., dyadic relations and beyond dyadic relations). We envisage that collective efforts to advance towards more sustainable practices will naturally lead to unveiling all or several of these aspects. Fourth, we see a need to think about how to conduct research and how researchers could accompany the implementation of sustainability practices within organisations and their SCs. This points to the methods and theoretical lenses used in O&SCM, but also to the development of multi-disciplinary research teams and partnerships with organisations that can make use of the knowledge and learning outcomes researchers can bring

to the field. These collaborations seem essential to better understand the complexity of the reality we observe and create a multiplier impact (Wickert et al., 2021) that will contribute to bridging the gap between research and practice.

As elaborated through our metaphor of the tree, we should recognise that practicing sustainability in O&SCM cannot be limited to visible elements such as the trunk and leaves. Both scholars and practitioners cannot simply base their work on external communication and compliance to stakeholders' pressures. Indeed, roots, branches, leaves, fruits/flowers, seeds, all parts of the practice should be considered as relevant to advance towards sustainability. There is no chance for sustainability dissemination and practice across multiple tiers, for example, if those who are involved in these processes do not grasp the main targets and understand the meanings around the practice. Practicing sustainability requires embeddedness and discussions beyond the materiality of the practice.

References

- Antonacopoulou, E. (2015), One more time-what is practice? *Teoria e Prática em Administração (TPA)*, 5(2), 1-26.
- Brömer, J., Brandenburg, M., & Gold, S. (2019). Transforming chemical supply chains toward sustainability—A practice-based view. *Journal of Cleaner Production*, 236, 117701.
- Bromiley, P. & Rau, D. (2014), Toward a practice-based view of strategy, *Strategic Management Journal*, DOI: 10.1002/smj.2238.
- Carmagnac, L. (2021). Expanding the boundaries of SSCM: the role of non-traditional actors. *Supply Chain Forum: An International Journal* 22(3), 192-204.
- Carter, C. R., Kosmol, T., & Kaufmann, L. (2017). Toward a supply chain practice view. *Journal of Supply Chain Management*, 53(1), 114-122.
- Fritz, M. M. C. (2019). Sustainable Supply Chain Management. In W. Leal Filho et al. (eds.) (Ed.), *Responsible Consumption and Production, Encyclopedia of the UN Sustainable Development Goals* (pp. 1–14).
- Fritz, M. M. C., & Silva, M. E. (2018). Exploring supply chain sustainability research in Latin America. *International Journal of Physical Distribution & Logistics Management*.
- Fritz, M. M. C., Rauter, R., Baumgartner, R. J., & Dentchev, N. (2018). A supply chain perspective of stakeholder identification as a tool for responsible policy and decision-making. *Environmental Science and Policy*, 81, 63–76.
- Gherardi, S. (2009a). "Practice? It's a matter of taste!" *Management Learning*, 40(5), 535-550.

- Gherardi, S. (2009b). "Introduction: The critical power of the practice lens". *Management Learning*, 40(2), 115-128.
- Glover, J., & Touboulic, A. (2020). Tales from the countryside: Unpacking "passing the environmental buck" as hypocritical practice in the food supply chain. *Journal of Business Research*, 121, 33-46.
- Gold, S., & Schleper, M. C. (2017). A pathway towards true sustainability: A recognition foundation of sustainable supply chain management. *European Management Journal*, 35(4), 425-429.
- Jarzabkowski, P. (2004), "Strategy as practice: recursiveness, adaptation, and practices-in-use", *Organization Studies*, Vol. 25 No 4, pp.529-560.
- Jarzabkowski, P., Kaplan, S., Seidl, D., and Whittington, R. (2016) On the risk of studying practices in isolation: Linking what, who, and how in strategy research, *Strategic Organization* 14(3): 248–259.
- Lissillour, R., & Bonet, D. (2021). The balance of power in the governance of the global maritime safety: the role of classification societies from a habitus perspective. *Supply Chain Forum: An International Journal*, 22(3), 268-280.
- Matthews, L., Power, D., Touboulic, A., & Marques, L. (2016). Building bridges: Toward alternative theory of sustainable supply chain management. *Journal of supply chain management*, 52(1), 82-94.
- Montabon, F., Pagell, M., & Wu, Z. (2016). Making sustainability sustainable. *Journal of Supply Chain Management*, 52(2), 11-27.
- Nicolini, D. (2012). "Practice theory, work, and organization: An introduction." OUP Oxford.
- Schatzki, T.R.: (2001). Introduction. Practice theory. In: Schatzki, T.R., Knorr-Cetina, K., von Savigny, E. (Eds.), *The Practice Turn in Contemporary Theory*. Routledge, London and New York, pp. 1e14.
- Seuring, S., Aman, S., Hettiarachchi, B. D., de Lima, F. A., Schilling, L., Sudusinghe, J. I., 2022. Reflecting on theory development in sustainable supply chain management. *Cleaner Logistics and Supply Chain*, 3, 100016.
- Silva, M. E., & Figueiredo, M. D. (2017). Sustainability as practice: Reflections on the creation of an institutional logic. *Sustainability*, 9(10), 1839.
- Silva, M. E., & Figueiredo, M. D. (2020). Practicing sustainability for responsible business in supply chains. *Journal of Cleaner Production*, 251, 119621.

- Silva, M. E., Fritz, M. M., & El-Garaihy, W. H. (2022a). Practice theories and supply chain sustainability: a systematic literature review and a research agenda. *Modern Supply Chain Research and Applications*.
- Silva, M.E., Pereira, S.C. and Gold, S. (2018), “The response of the Brazilian cashew nut supply chain to natural disasters: a practice-based view”, *Journal of Cleaner Production*, Vol. 204, pp.660-671.
- Silva, M.E., Rodrigues, A.P., & Alves, A.F. (2022b). Incorporating supply chain sustainability practices through end customer engagement. *Supply Chain Forum: An International Journal* (Vol. 23, No. 2, pp. 135-145).
- Stephens, V., Matthews, L., Cornelissen, J. P., & Rowlands, H. (2022). Building Novel Supply Chain Theory Using “Metaphorical Imagination”. *Journal of Supply Chain Management*, 58(1), 124-139.
- Touboulic, A., & McCarthy, L. (2020). Collective Action in SCM: A call for activist research. *International Journal of Logistics Management*.
- Touboulic, A., McCarthy, L., & Matthews, L. (2020). Re-imagining supply chain challenges through critical engaged research. *Journal of Supply Chain Management*, 56(2), 36-51.
- Touboulic, A., & Walker, H. (2015). Theories in sustainable supply chain management: a structured literature review. *International Journal of Physical Distribution & Logistics Management*.
- Wickert, C., Post, C., Doh, J. P., Prescott, J. E., & Prencipe, A. (2021). Management research that makes a difference: Broadening the meaning of impact. *Journal of Management Studies*, 58(2), 297-320.