

Sustainability-Oriented Entrepreneurial Behavior: Navigating with Improvisation

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Paper type: Review Article / Conceptual Paper

Abstract

Purpose – The primary aim of the article is to investigate sustainability-oriented entrepreneurial behavior, specifically how improvisational capabilities enable entrepreneurs to navigate and address challenges related to sustainability in their practices. The article offers insights into the managerial approaches used by entrepreneurs who align their efforts with environmental and social responsibilities.

Design/methodology/approach – The article uses qualitative content analysis to systematically evaluate existing literature. The study relies on the grounded theory approach, using inductive open coding for breaking down and examining the data, and axial coding to synthesize the findings in new ways by connecting the categories.

Findings – The research identifies improvisation as an important dynamic capability that allows entrepreneurs to respond flexibly to unexpected challenges and capitalize on emerging opportunities in sustainability contexts.

The findings reveal that improvisation is an important dynamic capability in navigating the uncertain landscape of sustainability. The study highlights the importance of developing competencies and fostering inter-organizational collaborations as essential strategies for sustainable entrepreneurship.

Originality – The article offers original insights by establishing a comprehensive framework that integrates improvisation into the understanding of sustainability-oriented entrepreneurial behavior. It points out that entrepreneurship is not just as organization-building but also network creation within entrepreneurial ecosystems.

Keywords: entrepreneurial behavior, improvisation, opportunity, social entrepreneurship, sustainability entrepreneurship.

1. Introduction

The idea of this research is to explore the intersection of improvisation and sustainability-oriented behavior in entrepreneurship. By analyzing the behavioral characteristics that underlie successful sustainable practices, this study aims to shed light on how entrepreneurs can effectively coordinate their efforts to address environmental and societal needs. The focus on behavioral issues, which represent a growing area of interest within entrepreneurship literature, reinforces the need to understand the traits and motivations of individuals driving sustainability initiatives. Considering these aspects, the central research question guiding this study is: how does improvisation influence sustainability-oriented entrepreneurial behavior in the face of contemporary environmental and social challenges? Answering this question aims to uncover the dynamics within entrepreneurial ecosystems that contribute to the formation and execution of effective sustainability strategies, highlighting possible implications for practitioners, seeking to foster sustainable organizations. By addressing this question, this study seeks to enrich the existing literature.

The methodological approach of this study is qualitative content analysis, using inductive open coding for detecting of the first-order constructs, and axial coding for synthesis of second- and third-order constructs. This method, originally designed for building grounded theories on empirical data (Gioia, 2021), is also used in literature-based research, recent examples include Mayer and Schwemmler (2024) and Raadik and Kuura (2024). This analytical approach, applied in literature-based research, supports examination of existing theories on sustainability-oriented entrepreneurial behavior. Systematically processing the existent literature, this

study highlights critical themes and constructs underpinning the relationship between improvisational capabilities and sustainability initiatives in entrepreneurship.

The paper is organized as follows. This introductory section motivates the study and methodical approach and poses the central research question. The second section presents the conceptual background, outlines the knowledge gaps and situates the research within the broader academic discourse. The third section is methodological, it elaborates the applied qualitative approach and the process, including the selection of literature, inductive open coding and followed axial coding. The fourth section presents the core findings derived from the content analysis, highlighting how improvisation serves as a critical capability in navigating sustainability challenges within entrepreneurial contexts. The final section is for discussion and conclusion, including implications for practitioners and avenues for future research.

2. Conceptual background

Sustainability-related issues are getting more and more attention at all societal levels—from supra-national (the United Nations, European Union) and national to regional, local, organizational, and personal. Formal, as well as semi- and informal governing bodies are setting ambitious sustainability-related goals at all these levels. Achieving these goals, including the overall United Nations Sustainable Development Goals (SDGs), is impossible without substantial contribution from businesses. Notably, addressing the prosperity of the social and the natural environment has been increasingly recognized in business practice and research (Silva, 2021; Johnson & Schaltegger, 2020; Maaßen et al., 2023). Sustainable entrepreneurs behold environment-related market failures as potentially profitable opportunities, instantly reducing environmentally degrading behaviors. In some respects, environmental and social entrepreneurship have parallels, chiefly because both are more mission-driven than profit-driven (Dean & McMullen, 2007).

Businesses comprise a broad variety of organizations—from large, well-established multinational corporations to nascent small and micro-enterprises. Small, including micro- and medium-sized enterprises form a diverse category that encompasses entities from nascent and fast-growing to traditional, often family-owned or “lifestyle” businesses, whose owners expect low (or even no) growth and returns. Businesses are considered ‘entrepreneurial’ if their owners and managers embark upon innovation. Such behavior in the context of established firms is labelled as corporate venturing, intrapreneurship, and growth-oriented nascent businesses are docketed as gazelles, unicorns, or similar. (Aldrich & Ruef, 2018)

From a traditional viewpoint, an important aspect in entrepreneurship is creating organizations, with contemporary perspectives that emphasize network creation, rather than organization creation (Sydow et al., 2015). This is important because sustainable entrepreneurs tend to collaborate with different parties and create entrepreneurial ecosystems. Such ecosystems involve not just the typical micro- and macro-level, but also meso-level subjects, such as sustainability-oriented networks (Johnson & Schaltegger, 2020). Notably, entrepreneurial ecosystems undergo most contemporary developments, such as digitalization (Xiao & Beckmann, 2024), servitisation (Smania et al., 2024), and projectification (Auschra et al., 2019).

In research, sustainable entrepreneurship has had definitive attention (Rosário & Figueiredo, 2024) yet a copious body of literature does not mean that all aspects are sufficiently covered, especially if related to the ‘dark(er) side’ (Hoogendoorn et al., 2019). A prospective, yet still an infrequent, trend in research (also in practice) is learning from related (sub)disciplines. Thus, Davies et al. (2023) persuade that bridging innovation and project management research may “... initiate, enable and implement transitions to a sustainable future” (Davies et al., 2023, p. 26).

Sustainability entrepreneurship combines two wide notions; we intend to apply a broad view on both. As for sustainability, we considered the environmental and social, including the economical perspective; as for entrepreneurship, we included intrapreneurship and considered micro-, macro- and meso-levels. We proceeded from a notion of sustainability-oriented entrepreneurial behavior, coined by Muñoz and Cohen (2017). This includes sustainability entrepreneurship with an emphasis on environmental and/or social responsibility orientation (Schaltegger & Wagner, 2011) and entrepreneurial behavior. Behavioral issues represent a smaller but faster-growing cluster in the entrepreneurship literature that deals with the characteristics of persons behind

business ventures (Baker et al., 2021). Entrepreneurial behavior is seen as intentional behavior towards starting a business and founding an organization. Its common theoretical framework is the theory of planned behavior (TPB) (Kautonen et al., 2015). The construct of sustainability-oriented entrepreneurial behavior is associated with planned behavior (Muñoz and Cohen, 2018); it has been developed by several researchers, introducing additional aspects, such as strategic agency and legitimation (Reynolds et al., 2018); causation and effectuation (Johnson & Hörisch, 2022); and antecedents for pertinent behavior (Srivastava et al., 2023).

Recently, Halberstadt et al. (2024), emanating from a traditional opportunity recognition process, deduced that sustainability entrepreneurs are not homogeneous “do-gooders” and called for a typology that counts various distinguishing factors. In this, they pointed out some interesting moments. First, not just innovative, but also imitative behavior can lead to success in sustainability entrepreneurship. Second, both searching and finding can lead to the recognition of an opportunity for sustainability venturing. In mainstream view, this process starts from problem discovery and proceeds with searching for a solution. This is not necessarily valid for sustainability entrepreneurs: they may start the journey from a decision to act entrepreneurially and/or contribute to sustainability; and some even search for a problem to solve. So, there is a difference between structured searching and occasional thoughts potential sustainability entrepreneurs have. This difference has not deserved academic attention (Halberstadt et al., 2024). Thus, we intend to question the mainstream views of sustainability-oriented entrepreneurial behavior as planned (or intended). Our main proposition is that sustainability-oriented entrepreneurial behavior is not necessarily planned, it may be spontaneous and improvisational. Organizational improvisation has gained attention in academic literature and has influenced several (sub)disciplines in business and social sciences, including entrepreneurship (Kuura & Sandoval, 2023). The focal idea in organizational improvisation is metaphorical learning and adapting. Improvisation in entrepreneurship relates to modern phenomena like bricolage and effectuation, but also to traditional concepts like opportunity identification (Kuura & Sandoval, 2023). A new stream involves abilities or competencies (Kuura & Sandoval, 2023; Bertello et al., 2022) which explicitly relate to sustainability issues (Kuura & Sandoval, 2023; Bertello et al., 2022; Grayson et al., 2014).

3. Research design and descriptive statistics

We performed a systematic review of relevant literature from available academic databases. We searched for “sustainable entrepreneurship” AND “improvisation” (in titles, abstracts and keywords) in SCOPUS and (in topics) in the Web of Science (WoS). We set criteria for including articles in peer-reviewed journals in English. The search in academic databases provided little results and several matches did not actually meet the criteria: SCOPUS provided six and WoS five matches, only four matches from WoS met the inclusion criteria. Thus, we added EBSCO and Google Scholar (GS). Searching for the same set of keywords in EBSCO provided 13 results, whereas only 7 met the criteria. The search with these keywords in GS provided massive redundant matches, thus we used the more exact organizational improvisation. In GS we got 59 results but just 19 satisfied the formal inclusion criteria. So, altogether we got 30 potentially relevant articles (see Table 1).

Table 1. Results of literature searches

Databases	Search terms	Initial results	Fit results
Scopus		6	0
Web of Science	“sustainable entrepreneurship” AND “improvisation”	5	4
EBSCO		13	7
Google Scholar	“sustainable entrepreneurship” AND “organizational improvisation”	59	19
All databases		83	30

Further, we examined the contents of satisfactory papers through several iterations. In the first round we excluded (only!) one duplicate and two articles because of irrelevance (did not deal with organizational improvisation). So, our final sample included 27 articles. Our research process is depicted in Figure 1.

Qualitative content analysis was done manually, starting with inductive open coding. We detected first-order codes and their formation is presented in Table 3. We started deriving codes from keywords and essential words in the headings of sample articles and continued deriving complementary codes from texts. The forming of codes was discussed between the two authors several times and adjusted, if needed. Some codes (or first-order notions) were formed via assembling several sub-notions, and some (especially uncommon) were combined (like networks and networking, uncertainty management and risk management, etc.). The coding process had several iterations until saturation, when we did not perceive additional substantial notions. Finally, we examined all 27 articles again and some number of occurrences increased during this process. Regardless of the qualitative approach, we counted the numbers of occurrences. Herewith, we highlighted that the numbers should be taken as illustrative because the sample was minimal, and importantly, we counted all occurrences equally and did not distinguish between content that was simply alluding and substantial.

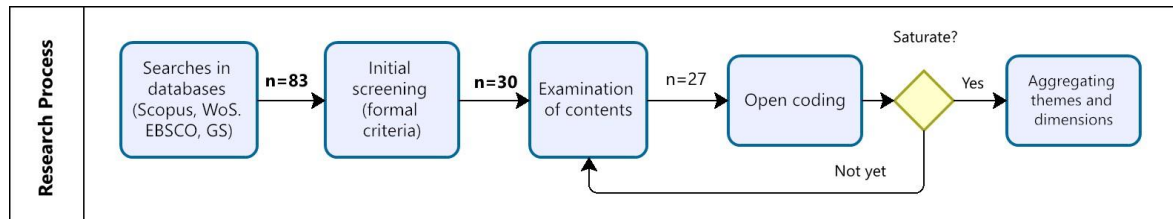


Figure 1 Research process

Statistical generalizations on such a small sample ($n=27$) are questionable but we consider it useful to bring out the main characteristics of the sample. First and foremost, the publication trend (as seen in Fig. 2) seems to be steadily increasing (the number for 2024 is not final as we searched in the middle of the year). Excluding one (2005) paper, improvisational aspects in sustainability-oriented entrepreneurial behavior appeared in the literature about 15 years ago and notably, there has been significant increase within the past five years. The picture looks rather scattered due to small numbers, yet the increasing interest in such a 'niche' topic indicates its relevance.

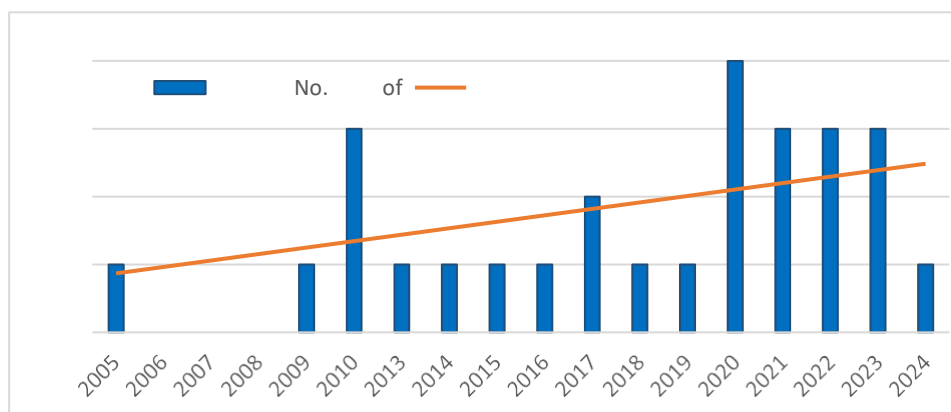


Figure 2 Publication trend

Among journals only two titles repeat: *Entrepreneurship Theory and Practice* (Sage), three times; and *Journal of Cleaner Production* (Elsevier), two times. This reflects a pattern that most articles in our sample appeared in (a) general entrepreneurship and (small) business journals (such as *Entrepreneurship & Regional Development*, *Frontiers of Entrepreneurship Research*) or (b) in specialized journals (*International Journal of Logistics Management*, *International Journal of Supply and Operations Management*, *International Journal of Wine Business Research*). The latter and some others (like the *Journal of Entrepreneurship in Emerging Economies*) deal with specific sectors, groups, regions, etc.

The sample of literature used is listed in Table 2. As the influence of academic publications is expressed by citations, the articles are ordered by a calculated ratio (C/Y), showing citations per year. The numbers of citations (Cit.) are taken from Google Scholar.

Table 2. Used literature sample (ordered by influence)

Author(s) / Year	Article Title	Source Title	Cit.	C/Y
Di Domenico, Haugh & Tracey, 2010	Social bricolage: Theorizing social value creation in social enterprises	Entrepreneurship Theory and Practice	1589	113.5
Roome & Louche, 2016	Journeying toward business models for sustainability: A conceptual model found inside the black box of organisational transformation	Organization & Environment	368	46.0
Dutta & Crossan, 2005	The nature of entrepreneurial opportunities: Understanding the process using the 4I organizational learning framework	Entrepreneurship Theory and Practice	749	39.4
Busenitz et al., 2014	Entrepreneurship research (1985–2009) and the emergence of opportunities	Journal of Cleaner Production	314	31.4
Linnenluecke & McKnight, 2017	Community resilience to natural disasters: the role of disaster entrepreneurship	Journal of Enterprising Communities	154	22.0
Defee & Fugate, 2010	Changing perspective of capabilities in the dynamic supply chain era	International Journal of Logistics Management	299	21.4
Shepherd, Parida & Wincent, 2020	The surprising duality of jugaad: Low firm growth and high inclusive growth	Journal of Management Studies	75	18.8
Kyrgidou & Hughes, 2010	Strategic entrepreneurship origins, core elements and research directions	European Business Review	260	18.6
Fuentes-Fernandez & Gilinsky, 2022	Coopetition as improvisation: an exploratory comparative case study investigation into Spain's natural wine industry	International Journal of Wine Business Research	12	6.0
Bhardwaj & Srivastava, 2021	Dynamic Capabilities of Social Enterprises: A Qualitative Meta- Synthesis and Future Agenda	Journal of Social Entrepreneurship	16	5.3
Archer, Baker & Mauer, 2009	Towards an alternative theory of entrepreneurial success: Integrating bricolage, effectuation and improvisation	Frontiers of Entrepreneurship Research	77	5.1
Mor et al., 2020	Managing food supply chains post COVID-19: A perspective	Int. Journal of Supply & Operations Management	17	4.3
Weber, Sailer & Katzy, 2015	Real-time foresight—Preparedness for dynamic networks	Technological Forecasting and Social Change	28	3.1
Mohammadi & Heshmati, 2021	Entrepreneurial opportunity recognition: a bibliometric overview and clustering analysis	World Journal of Science, Technology and Sustainable Development	9	3.0
Whitaker & Grannemann, 2019	Artists' royalties and performers' equity: A ground-up approach to social impact investment in creative fields	Cultural Management: Science and Education	12	2.4
De Bernardi & Pedrini, 2020	Transforming water into wine: Environmental bricolage for entrepreneurs	Journal of Cleaner Production	9	2.3
Kleine-Stegemann et al., 2022	Are bricoleurs more satisfied? How bricolage affects entrepreneur job satisfaction among experienced versus novice entrepreneurs	Journal of Small Business Management	4	2.0
Karagouni, & Caloghirou, 2013	The nature and dimensions of autotelic capabilities in knowledge-intensive low-tech ventures: an introduction	World Review of Entrepreneurship, Managem. & Sust. Development	13	1.2
Bhardwaj et al., 2023	Toward a typology of entrepreneurial bricolage and its capabilities	Jrnl of Entrepreneurship in Emerging Economies	1	1.0
Sharma, Borah & Moses, 2023	Achieving social and economic sustainability through innovations in transformative services: A case of healthcare organizations in an emerging market	Journal of the Academy of Marketing Science	1	1.0
Intindola & Ofstein, 2021	Change through chaos: using bricolage in cross-sector social partnerships	New England Journal of Entrepreneurship	2	0.7
Nair & Weber, 2017	borjo coffeehouse: Franchise, Independence, and Starbucks	Entrepreneurship Theory and Practice	3	0.4
Stark, 2018	The Art of Responsible Change Sustainable Entrepreneurship, Tacit Knowing and Improvisation	Innovation Management and CSR	1	0.2
Noor, Shah & Kakakhel, 2020	Unfolding Bricolage in Social Entrepreneurship: A Way Forward for Future Research	Int. Review of Managem. & Business Research	-	-
Khatani, Iraqi & Hamid, 2022	Analyzing the Impact of Youth Entrepreneurial Perspective on Sustainable Socio-Economic growth to achieve SDGs in Karachi	South Asian Journal of Management	-	-

Zhuge, He, Yuan & Sun, 2023	Can adopting lean startup strategy promote the sustainable development of new ventures? The mediating role of organizational iterative learning	Plos one	-	-
Mateus & Sarkar, 2024	Bricolage—a systematic review, conceptualization, and research agenda	Entrepreneurship & Regional Development	-	-

As seen in Table 2, there is a clear standout, Di Domenico, Haugh and Tracey's (2010) conceptual paper about social bricolage. The other seven well-cited papers represent a nearly equipotent cluster; the C/Y ratio of the following group (not included in Table 2) is only six. Remarkably, popular publication outlets appear also there. Highly cited works concern various (sub)topics but one keyword—entrepreneurial opportunities—repeats. Most highly cited works were published during the second decade of this century (2010–2020) with one remarkable exception—a paper by Dutta & Crossan (2005) that stands out in Figure 2. These observations will be discussed in the next section, along with findings from the following content analysis.

4. Results of content analysis and synthesis of themes and dimensions

In content analysis, using inductive open coding, we revealed improvisation-related aspects in sustainability-oriented entrepreneurial behavior. Furthermore, we followed the Gioia methodology and, using axial coding, combined the coded first-order notions into second-order themes and then, consolidated the embodied themes into third-order aggregated dimensions. From the included 28 first-order notions we formed five second-order themes and two aggregated dimensions (Fig. 3).

In a methodical sense it is worth noting that when we started this work, we discussed the usefulness of counting occurrences, but now, looking at the results, it proved worthwhile. As we had counted occurrences of first-order notions, we summarized the occurrences in rallied categories, and this delineated some patterns. There are two 'big', two 'medium' and one 'small' second-order theme, whereat both 'big' and both 'medium' ones converge almost equal numbers of occurrences of initial codes. The first (upper) 'big' theme comprises fewer first-order notions than the lower 'big' theme but this is not a big difference, and notably, both 'medium' themes are utterly equal. Moreover, the aggregated dimensions, both comprising one 'big' and one 'medium' theme, have virtually equal total occurrences of initial codes.

Notably, the only single 'small' theme is left standing alone, not included in the aggregated dimensions. The reason is that it could be in one or another, or even in both. This is not against any rules or traditions—the third level is not obligatory, as it "... would connote omniscience and only God has that kind of understanding" (Gioia, 2021, p. 25). Nevertheless, we believe that our aggregated dimensions are relevant, as we try to bring this around in following discussion.

Table 3. Results of open coding: first-order notions

1 st order notions (codes)	Sub-notions (if needed)	n.	N.	1 st order notions (codes)	Sub-notions (if needed)	n.	N.
resource(s)	... & management	24	43	organizational processes			21
	...-constrained	15		knowledge	... management, transfer		21
	... mobilization	3		design(ing)	... products, services, ...		19
	shared ...	1		uncertainty / risk management		19
innovation		21	37	collaborat_			18
	... & change management	3		transform_			18
	... & learning	7		stakeholder engagement			17
	... & novelty	6		social ... (dimension)	... impact	9	17
(organizational) learning		18	30		... entrepreneurship		6
	... & unlearning	1			... transformation		2
	... & adaptation	8		community engagement			16
	experiential ...	3		(dynamic) capabilities			15
strategy / strategic	... & management	21	30	cooperation	alliance, partnership		14
	... & planning	5		financial / finance	(management)		14
	... entrepreneurship	4		competitive advantage			13
opportunity		17	28	bricolage			13

... recognition	7	effectuation	10	13
... exploitation	4	trial-and-error	3	
entrepreneurial ...	22	creativity	11	
... orientation	27	flexibility	10	
... action	3	economic impact (growth)	10	
... cognition	2	crisis management	6	
value (creation ...)	23	inter/cross org. processes	6	
network(ing)	22			

Figure 3 encapsulates how sustainable intentions are not merely static but are influenced by improvisational capacities that allow entrepreneurs to adapt their strategies in response to changing environmental conditions or societal expectations. Moreover, it emphasizes the dual dimensions of sustainability-oriented entrepreneurial behavior: environmental and social responsibility. This is crucial as it reinforces the idea that entrepreneurs need to navigate not only economic requirements but also the moral and ecological dimensions that are increasingly relevant in today's business landscape.

First-order notions (codes)	N.	Second-order themes	N.	Aggregated dimensions	N.
resource(s)	43	Intra-organizational (dynamic) capabilities	192	Intra- and inter-organizational (dynamic) capabilities	252
financial / finance (management)	14				
knowledge	21				
(dynamic) capabilities	15				
(organizational) learning	30				
strategy / strategic	30				
transform_	18				
organizational processes	21				
inter-/cross-org. processes	6	Inter-organizational (dynamic) capabilities	60		
cooperation	14				
collaborate_	18				
network(ing)	22				
crisis management	6	Organizational resilience	25		
uncertainty/risk management	19				
innovation	37	Entrepreneurialism (entrepreneurial orientation, behavior etc.)	194	Sustainable, socially and environmentally responsible entrepreneurialism	254
opportunity	28				
entrepreneurial ...	27				
value (creation ...)	23				
design(ing)	19				
competitive advantage bricolage	13				
effectuation creativity	13				
flexibility	11				
	10				
stakeholder engagement	17	Organizational externalities (CSR, etc.)	60		
community engagement	16				
social ... (dimension)	17				
economic impact (growth)	10				

Figure 3 Consolidated themes and dimensions

5. Discussion and concluding remarks

The revealed improvisational aspects in sustainability-oriented entrepreneurial behavior (first-order notions) deserve attention especially because there is no good match with what has been detected earlier. For example, two central improvisation-related notions in the existent literature on entrepreneurship are minimal structures and

aesthetics of imperfection (Kuura & Sandoval, 2023). Surprisingly, neither were mentioned in our sample. More precisely, minimal structures were in the references of two articles, meaning that this concept might be involved indirectly, but we noted something only if it was dealt with substantially. On the other hand, there were some good matches. In entrepreneurship, the dominant improvisation-related notions are bricolage, effectuation, capabilities and competences (Kuura & Sandoval, 2023). All these appeared clearly in our research, especially capabilities that are also in second- and third-order constructs. Albeit competences are not presented as a first-order notion, they are there, as knowledge is an important component of competences and resources (the most frequent notion), including human resources carrying individual competences.

Forming the code “(dynamic) capabilities” we bracketed the adjective “dynamic” consciously because we did not want to make a distinction and discuss the difference between dynamic capabilities and just capabilities. We did not imagine that this notion will function as a cornerstone for subsequent second- and third-order constructs. Yet now we could say that the brackets are rather redundant because our constructs are in line with the dynamic capabilities of Mayer and Schwemmler (2024) that “... integrate, build and reconfigure internal and external competencies to address changing business environments” (Mayer and Schwemmler, 2024, p. 6). In our case, there are more components than competences, but the general idea is similar. As presented in Figure 2, both intra- and inter-organizational (dynamic) capabilities are involved. The coordination of inter- or cross-organizational processes is increasingly important and pertinent (permanent and/or temporary) structures and methods (orchestration and choreography) proliferate (Kuura & Lundin, 2019). In traditional views, these aspects are for bigger and mature organizations, but the paradigm is changing and nowadays network-creation is even more important than organization-creation (Sydow et al., 2015).

Inter- or cross-organizational aspects, leading to increasing vagueness of organizational boundaries, is also present in our other second- and third-order constructs under the umbrella notion ‘entrepreneurialism’. Entrepreneurialism denotes the spirit or mind of individuals to create something new and valuable. It embodies entrepreneurial orientation and behavior, as well as pursuing sustainability goals (Reynolds et al., 2018). The first (upper) ‘medium’ theme comprises business-to-business relations; the second deals with relations between businesses and societies. The second (lower) aggregated dimension exerts that entrepreneurialism (entrepreneurial orientation and behavior) is continually important, but all entrepreneurial behavior should be sustainable, and socially and environmentally responsible.

The stand-alone minor theme—organizational resilience—appeared via two rare first-order notions and thus may seem overlooked, but is a rather popular topic in organizational improvisation literature. The crucial role of improvisation in crisis situations was recognized by Rerup (2001) in the article “Houston, we have a problem ...” where he scrutinized an accidental situation during the Apollo-13 space mission in 1970. Over the past decades, especially in the years following the COVID-pandemic, this recommended practice became essential (Groenendaal & Helsloot, 2020).

The emphasis on inter-organizational dynamics aligns with the emerging paradigm that values network creation over traditional organization-building in entrepreneurship (Sydow et al., 2015). In the context of improvisation, it illustrates how entrepreneurial actions are inherently non-linear and require adaptability—a necessity in an evolving market driven by sustainability imperatives. This improvisation may manifest in different ways, such as responding to unexpected market shifts, leveraging new technologies for sustainable practices, or collaborating with other stakeholders to create sustainability-enhancing innovations. The depiction thus captures the reality that in the face of unpredictability, the ability to creatively adapt becomes a critical asset for those aiming to fulfil sustainability objectives. Considering this, business managers and owners should cultivate a culture of improvisation within their organizations, allowing those to respond swiftly to unforeseen challenges related to sustainability. This kind of agility can lead to innovative solutions in complex situations. Improvisation-oriented organizational culture should encourage all staff members to take ownership of sustainability initiatives that can enhance company-wide engagement and creativity. This connotes understanding of motivational factors and behavioral intentions of employees regarding sustainability. Based on this, building networks with other businesses and ecosystem participants, such as NGOs and governmental organizations, becomes indispensable for the co-creation of effective and innovative sustainability solutions.

In conclusion, we believe that our findings may contribute essentially to the emerging literature on

entrepreneurial and sustainability-oriented improvisation, chiefly by highlighting the role of spontaneous actions (which in our opinion is still underestimated), particularly in achieving sustainability outcomes. We consider that the revealed five themes and two dimensions—intra- and inter-organizational (dynamic) capabilities, and sustainable (socially and environmentally responsible) entrepreneurialism—are well-grounded.

At the beginning of this work, we expected to achieve more—for one, with regard to the (actual and desirable) proportion between planned and improvisational actions in sustainability-oriented entrepreneurial behavior—but this question has not yet been fully explored in the literature. In reality, there are several unanswered questions, meaning that there are numerous possibilities for further research on this topic. The fact that we discovered only 27 relevant articles alludes to this, as well. In particular, sustainability-oriented entrepreneurial behavior and the role and extent of improvisation in it may differ between nascent and small versus big and mature organizations. This is just one example, as the possibilities for further research are broad.

Conflict of interest: The authors declare no conflict of interest.

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