

*Developing capabilities for sustainability alliances: evidence from Italian SMEs<sup>1</sup>*

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**ABSTRACT**

This study explores the capabilities that SMEs need to develop to address sustainability challenges through strategic alliances. Given the increasing importance played by sustainability, SMEs face unique challenges due to their limited resources but, at the same time, they possess the organizational flexibility that can foster innovation. The research focuses on two areas: identifying the specific skills required to manage sustainability-focused alliances effectively, and examining the organizational factors that influence the development of these skills. To do so, we rely on the dynamic capabilities framework and provide a preliminary analysis of 9 SMEs that are implementing sustainability alliances.

**Keywords:** Sustainability alliances, SMEs, alliance lifecycle, capabilities

**1. Introduction**

In recent years, the business landscape has witnessed a paradigm shift towards sustainability, driven by increasing environmental concerns, regulatory pressures, and evolving consumer expectations (Delbridge et al., 2024). This shift has pushed firms to rethink and reorganize their internal operations and, externally, to redefine their inter-organizational relationships for sustainability. While this growing pressure entails opportunities for innovation, it also comes with significant challenges, particularly for Small and Medium Enterprises (SMEs), that make up over 99.8% of firms in the European Union employing 64.4% of workers and producing 51.8% of value-added (Di Bella et al., 2023). Unlike larger firms, SMEs often face resource constraints that limit their ability to integrate sustainability into their operations (Lee et al., 1999). Recent studies on support measures would help SMEs the most to be more resource efficient about a quarter (26%) pointed to better cooperation between firms across sectors (Eurobarometer, 2022). Other studies have also highlighted SMEs possess unique characteristics, such as organizational flexibility, which enable them to develop and deploy organizational capabilities for sustainability (Aragón-Correa et al., 2008). To overcome their limitations, SMEs must develop innovative approaches and competences to approach sustainability, with a focus on leveraging external resources and capabilities.

In this context, developing partnerships and alliances could represent a critical strategy for SMEs to address sustainability challenges effectively. Collaborations can in fact provide access to complementary resources, knowledge and markers, potentially accelerating sustainability initiatives. However, this approach is not without its risks,

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as evidenced by the high failure rate of alliances, estimated at around 60% (Dhaundiyal and Coughlan, 2022).

Moreover, sustainability is increasingly recognized as a networked phenomenon, transcending the boundaries and capabilities of individual organizations (Harrison et al., 2023; Frostenson and Prenkert, 2015). This networked nature calls for the development of collaborative approaches and necessitates expertise in managing sustainability-focused partnerships (Inigo et al., 2020; Forkmann et al., 2018). Thus, we argue for the growing need for organizations to develop dynamic capabilities tailored to addressing sustainability challenges in collaborative contexts. While consultants have explored and called for the relevance of organizational figures in charge of R&D and innovation management, of the impact of the business on the community and territory, of optimizing production processes, and identifying potential risks for sustainability (Deloitte, 2023), no academic studies or consulting reports have discussed and characterized the skills and competences required for managing alliances for sustainability (Peterman et al., 2020), particularly in SMEs.

In the light of this, this study aims to analyze how SMEs develop and utilize dynamic capabilities within their organizations to address networked sustainability challenges and create value through strategic partnerships. Our research will focus on two primary areas: (1) we aim to investigate the specific **skills and competencies** required for effective performance in the management of sustainability alliances in SMEs throughout the phases of the alliance lifecycle; (2) we aim to explore which **organizational aspects** influence the development of such skills in SMEs.

## 2. Theoretical framework

This study's theoretical framework integrates the concepts of sustainability alliances and dynamic capabilities. In particular, we focus on two types of capabilities required to manage sustainability partnerships, that is networking capabilities and sustainability-related capabilities.

Sustainability alliances are inter-organizational collaborations focused on addressing sustainability challenges and based on joint action for the achievement of shared goals and allow firms and organizations to access and pool complementary resources. Such alliances can take different forms, from informal collaborations to shareholding alliances (Gulati, 2007) and they typically follow a lifecycle that encompasses several phases, often labeled as pre-formation, governance, and post-formation phases (Inigo et al., 2020; Kale and Singh, 2009). We further detail such phases as follows:

1. An initial **Focus** phase, encompassing strategic reasoning and the delimitation of the idea and resource allocation;
2. A **Create** phase, aimed to select partners, the type of alliance and the negotiation agreement;
3. A **Manage** phase, in which the collaborative project is activated and implemented;
4. A **Sustain** phase where the alliance is assessed and monitored, the alliance structure and objectives are adapted, and the learning from the alliance experience is systematized.

In each phase of the alliance lifecycle, partners exchange, share, or co-develop resources, competences and capabilities. Indeed, alliance success depends on the relationships between partners. At the same time, however, a huge role is played by the capabilities of each firm to manage alliances, conceived as the ability of the firm to identify partners, initiate alliances, engage in the ongoing management and possible restructuring of alliances (Inigo et al., 2020), which SMEs are called to develop such capabilities (Russo and Cesarani, 2017). In this sense, the dynamic capabilities framework provides a valuable lens for examining how organizations adapt to changing environments (Teece, 1997). Applying Teece's framework to the alliance lifecycle, three main capabilities emerge: sensing (identification of sustainability-related opportunities, potential partners, and complementary capabilities), seizing (strategy formulation to capitalize on sustainability opportunities and mobilizing resources), and reconfiguring (adaptation of organizational structures, process, resource allocation to effectively sustain alliances and facilitate knowledge transfer and objective alignment).

The effectiveness of these dynamic capabilities at each phase is influenced by the SMEs' organizational factors, such as the strategy of collaboration, the organizational structure of the company in terms of teams, roles, training and information flows, and the collaborative culture (Kumar et al., 2016).

### 3. Notes on methodology

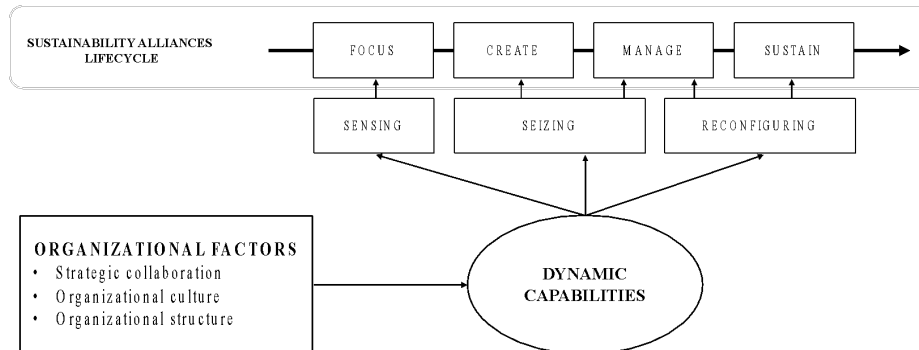
Given the exploratory nature of the study, we adopt a qualitative methodology based on 10 semi-structured interviews (Kvale and Brinkmann, 2009) with CEOs, alliance managers, and managing directors of 9 Italian SMEs. The companies have been selected following a purposive sampling to select unique, informative cases, based on two criteria: (i) SMEs located in Italy, and (ii) adopting sustainability practices. The interviews covered themes as collaboration strategies, the alliances life cycle process, professional figures in charge of sustainability alliances, organizational culture.

*Table 1 - Interviews' information*

#	Company	Interviewee	Date and duration
1	Amaro Lucano	CEO	June 2024 - 30'
2		Alliance Manager	July 2024 - 30'
3	Aproli	CEO & Alliance Manager	June 2024 - 30'
4	Gargano pesca	CEO	June 2024 - 40'
5	Granomischio	CEO	June 2024 - 40'
6	Naturbio	CEO	July 2024 - 30'
7	Cascina Savino	CEO	July 2024 - 30'
8	Masseria Redenta	CEO	July 2024 - 30'
9	Biorganica	CEO & Alliance Manager	August 2024 - 30'
10	Fiordelisi	Managing Director	August 2024 - 40'

The preliminary analysis is based on the theoretical framework developed in the previous section and represented in Figure 1.

*Figure 1 – Preliminary framework for analysis*



#### 4. Results

The preliminary results show the role of collaboration to achieve sustainability within companies, revealing both shared practices and differences in alliance management. Sustainability alliances take different forms, based on their objectives (commercial vs. research-oriented) and partners involved (companies, local associations, public actors).

Looking at the focus phase, all interviewed companies highlight the importance of partnerships and sustainability, integrating environmental, social, and economic considerations into their strategic frameworks. For instance, firms like Amaro Lucano and Biorganica prioritize sustainability and territorial development through strategic alliances, while others, such as Naturbio and Fiordelisi, focus on operational management of supplier and customer relationships. A distinctive approach is observed at Cascina Savino, which innovates agricultural practices by fostering human-centric relationships rather than just focusing on production.

In terms of alliance creation, trust and formal agreements emerge as key factors, with companies like Grano Mischio and Biorganica using contracts to formalize their collaborations. However, differences arise in how these alliances are managed and innovated. Amaro Lucano employs a structured approach with rigorous audit cycles, whereas Cascina Savino adopts a more flexible, trust-based model. Notably, companies such as Gargano Pesca integrate ESG criteria into their alliances more explicitly than others, and some, like Gargano Pesca, also include mechanisms for dissolving ineffective partnerships, in contrast to other companies that seem to focus more on creating and maintaining in the long term. Firms operate in different sectors, and this is reflected in their partners and types of alliances. In fact, Amaro Lucano focuses on business partners and supply chain projects, while Cascina Savino focuses on creative and design collaborations with architects and designers.

The management phase of alliances shows consensus across firms on the need to encourage teamworking and create a multidisciplinary team, promoting a sense of belonging and collaboration. Interestingly, from an organizational perspective, none of the cases selected has formalized the role of a manager in charge of sustainability alliances or specific training in this regard, rather this role is often distributed among

team members. The role of effective and informal/unstructured communication, the continuous monitoring of activities and error evaluations, coupled with inclusive leadership and shared vision and objectives are mentioned as key aspects. Notable differences exist in the organizational structures: Amaro Lucano maintains a centralized, formalized structure with a focus on financial sustainability, firms like Cascina Savino adopt a community-oriented, flexible approach. Resource management also varies, Gargano Pesca emphasizes advanced technology, whereas Aproli and Biorganica focus on traceability. Also approaches to sustainability differ, with Gargano Pesca prioritizing innovation, Grano Mischio adhering to ESG criteria, and Naturbio and Masseria Redenta adopting practical, less formalized methods.

Finally, sustainability and adaptability are key to sustaining long-term alliances. Amaro Lucano and Biorganica stress the integration of environmental and economic sustainability; others, including Naturbio and Fiordelisi, highlight the importance of collaborative corporate culture and adaptability; Gargano Pesca on the other hand valorize social inclusion and diversity as key elements of alliances. Differences emerge in governance and change management approaches, with some companies focusing on continuity and others embracing more dynamic, inclusive practices.

Concerning skills, Table II summarizes the skills associated with a dynamic capability, a phase of the sustainability alliances and excerpts from the interviews.

*Table II - Summary of skills throughout the phases of sustainability alliances*

DYNAMIC CAPABILITY	SKILL	SUST. ALLIANCE PHASE	EXAMPLE
SENSING	Ability to identify potential sustainability-focused partnerships	FOCUS	"We have activated a mapping of competencies. Starting from a management system, competencies and stakeholders are identified" (Gargano Pesca); "The company participates in national and international ecosystems meetings to identify opportunities for collaboration and innovations (i.e., renewable energy)" (Grano Mischio)
	Skills in analyzing market trends for sustainable innovation opportunities	FOCUS	"We conduct midterm reviews accounting for market variables, given fluctuating prices, social inclusion, to identify new skills that emerge or are needed" (Gargano Pesca)
	Ability to design integrated sustainable business models	CREATE	Amaro Lucano created an alliance [smelling room in the company museum] with the prison institution of Potenza to reduce costs, create value from waste materials and deliver value to consumers
SEIZING	Ability to assess cultural and territorial assets for strategic leverage	FOCUS	Cascina Savino created partnerships with local actors, such as universities, designers and architects with the aim to implement 'Relationship Agriculture', with the territory as protagonist
	Skill in negotiating and structuring sustainable partnership agreements/contracts	CREATE	"Moving from a strategic to an administrative phase is a challenge requiring professional support and a change in managerial mindset" (Amaro Lucano); "It is important to create formal structures such as consortia with a defined legal entity and a clear organizational framework" (Masseria Redenta)
	Developing technical, management, interpersonal and strategic skills	CREATE	In Fiordelisi, on sustainability issues, employees had to develop new skills and knowledge related to the application of new technologies. Learning can be formalized, when participating in projects, and non-formalized through the practical use of tools
RECONFIGURING	Ability to implement and monitor sustainability-focused KPIs	MANAGE	"We use of a goal-based evaluation system, including training and promotion for consortium members" (Masseria Redenta); "To improve alliance monitoring and performance evaluation, we aim to implement corrective actions and collect feedback to improve collaboration, such as sending evaluation questionnaires" (Naturbio)
	Ability to adapt management strategies to evolving partnership dynamics	MANAGE	"Continued reflection on the need to adjust skills and manage generational transitions is seen as crucial to maintaining and evolving alliances" (Grano Mischio)
	Skill in facilitating knowledge transfer within partnerships	MANAGE	"Agronomists and technicians play a key role in knowledge transfer to farmers and operational management of the alliance" (Biorganica)
	Skill in managing multi-stakeholder governance structures	SUSTAIN	"It takes an aptitude for working in constantly changing teams. It takes time, knowledge and work done together to define shared goals" (Masseria Redenta)
	Ability to integrate triple-bottom-line principles into operations	SUSTAIN	"We address the challenge of continuity of alliances with a focus on governance, adopting measures such as ESCC plus certification along the entire supply chain to ensure long-term sustainability" (Grano Mischio)

## 5. Preliminary discussions and conclusions

The effective management of sustainability alliances in SMEs requires a dynamic set of skills, evolving throughout the alliance lifecycle through interaction (Russo and Cesarani, 2017; Dhaundiyal and Coughlan, 2022). In the Focus phase, strategic perception skills (i.e. environmental scanning, strategic thinking, and opportunity recognition) enable companies to identify and align with suitable partners, while also analyzing market trends. The Create phase requires opportunity-seizing skills, focusing

on negotiating with partners and internal organizational alignment. During the Manage phase, operational skills are key for identifying KPIs to monitor partnerships and to foster technology transfer. Meanwhile, interpersonal skills in team building, communication, and conflict resolution appear essential (Kale & Singh, 2009; Kumar et al., 2016). The Sustain phase calls for adaptability and continuous monitoring and improvement to maintain and evolve the alliance by making proper changes, including to the internal management structure, taking care that operations respect social and economic environmental constraints (Forkmann et al., 2018).

Building an alliance is a complex process, which differs from a business relationship, being equal and driven by interests' convergence. The role of the sustainability alliance manager (SAM) is key in this process, requiring broad transversal skills beyond mere negotiation abilities. The formalization of the figure of the SAM can improve the effectiveness of sustainability alliances, but it can also contribute to developing and transferring knowledge within SMEs, allowing them to better address sustainability challenges. This figure can play a role in **knowledge sharing**, acting as sustainability-related knowledge broker and facilitating the sharing of knowledge between teams and partners. It can support **training and skills development** by identifying the training needs of staff and promoting targeted programs encompassing sustainability-related issues. It can contribute to **innovation**, through the monitoring of the external environment and trends, fostering adaptation of strategies and existing alliances in response to changes. In terms of **partner relationships' strengthening**, it can ensure alignment and **evaluate and monitor alliances** through KPIs, optimizing alliance performance over time. Finally, it should be tasked with **promoting a collaborative culture**, where communication and cooperation are valued, contributing to creating a more cohesive work environment.

Organizational aspects including structure, leadership, resource management and partners' diversity influence the development of these competencies. A flexible organizational structure and inclusive leadership practices promote a collaborative culture that supports competence development (Kumar et al., 2016). However, lack of formal training programmes suggests an area for potential improvement, ensuring that all team members possess the required skills (technical and "soft" skills) (Draghici et al., 2021). SMEs need to develop training programmes helping employees acquire and refine skills relevant to each stage of the alliance lifecycle.

While in its early stages, this research shows promising initial findings on the skills and role of the SAM as well as of the organizational factors influencing them. In the next steps, we will extend the current base of data by including additional companies and by collecting further empirical material, which will also allow us to evaluate sectoral or territorial specificities, and we will develop a sounder theoretical framework to interpret such data. Future research could also explore the implementation of formal training programs and the leadership role of the SAM.

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