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Academic Research Papers

Advancing Sustainable and Responsible Management Through Stakeholder Engagement: The Case of Eni's Post-CSR Reporting

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Abstract

This study investigates the evolution of stakeholder engagement practices within the energy sector following the landmark implementation of the Corporate Sustainability Reporting Directive (CSR) and the European Sustainability Reporting Standards (ESRS). Specifically, it analyzes Eni's strategic commitment during the first year of mandatory CSR application to evaluate how regulatory shifts affect the quality of engagement and disclosure. Adopting a qualitative single-case study design, the research employs a content analysis of Eni's 2024 Annual Report. The methodology utilizes a structured coding frame to identify key stakeholder cohorts and delineate the specific modalities of their involvement, drawing on established theoretical frameworks of stakeholder engagement. The analysis reveals a significant strategic transition from a traditionally consultative stance toward a robust, collaborative "involvement strategy" (Stocker, de Arruda, de Mascena, & Boaventura, 2020). This evolution is characterized by the institutionalization of bi-directional engagement mechanisms, such as joint worker-management committees and multi-party strategic partnerships. The findings demonstrate that this elevated engagement maturity yields tangible positive externalities in host communities, particularly in health, education, and local livelihoods, while fostering a more resilient corporate culture.

Theoretically, this paper provides evidence regarding corporate transparency and stakeholder relations. Practically, it identifies Eni as a strategic benchmark, offering a roadmap for organizations in the energy industry to transition toward the "involvement" level of engagement, which emphasizes the co-creation of value and long-term sustainability.

Keywords – Stakeholder Engagement; CSR; ESRS; Sustainability Reporting; Eni.

Paper type – Academic Research Paper

Sommario

Promuovere una gestione sostenibile e responsabile attraverso il coinvolgimento degli stakeholder: il caso della rendicontazione post-CSR di Eni. – Questo studio esamina l'evoluzione delle pratiche di

coinvolgimento degli stakeholder (stakeholder engagement) nel settore energetico a seguito dell'importante implementazione della direttiva Corporate Sustainability Reporting Directive (CSRD) e degli standard European Sustainability Reporting Standards (ESRS). Nello specifico, viene analizzato l'impegno strategico di Eni nel primo anno di applicazione obbligatoria della CSRD per valutare come i cambiamenti normativi influenzino la qualità del coinvolgimento e dell'informativa. Adottando un disegno di ricerca qualitativo basato su un singolo caso di studio, la ricerca impiega un'analisi del contenuto della Relazione Finanziaria Annuale 2024 di Eni. La metodologia utilizza una struttura di codifica per identificare i principali gruppi di stakeholder e delineare le specifiche modalità del loro coinvolgimento, basandosi su framework teorici consolidati in materia di stakeholder engagement. L'analisi rivela una significativa transizione strategica da un approccio tradizionalmente consultivo verso una solida e collaborativa "strategia di coinvolgimento" ("involvement strategy") (Stocker, de Arruda, de Mascena, & Boaventura, 2020). Questa evoluzione è caratterizzata dall'istituzionalizzazione di meccanismi di coinvolgimento bidirezionali, come i comitati congiunti tra rappresentanti dei lavoratori e del management e le partnership strategiche multi-attore. I risultati dimostrano che questa elevata maturità nel coinvolgimento genera esternalità positive tangibili nelle comunità ospitanti, in particolare negli ambiti della salute, dell'istruzione e dello sviluppo socio-economico locale, promuovendo al contempo una cultura aziendale più resiliente.

Dal punto di vista teorico, il presente lavoro fornisce evidenze sulla trasparenza aziendale e sulle relazioni con gli stakeholder. Dal punto di vista pratico, lo studio identifica Eni come un benchmark strategico, offrendo una tabella di marcia per le organizzazioni del settore energetico per la transizione verso il livello di coinvolgimento che pone l'accento sulla co-creazione di valore e sulla sostenibilità a lungo termine.

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1 Introduction

Following the initial implementation of the Corporate Sustainability Reporting Directive (CSRD) (Coronella, 2025; Pizzi & Coronella, 2025; Agarwal, Pandey, & Dubey, 2024), the architecture of sustainability reporting has been fundamentally reconfigured, focusing on scope expansion, standardization, assurance, and digitization (Martinčević, Primorac, & Dorić, 2024). A pivotal element of this transformation is the introduction of the European Sustainability Reporting Standards (ESRS) (Velte, 2025), developed by the European Financial Reporting Advisory Group (EFRAG). These standards are designed to enhance data consistency and comparability while enabling the digital tagging required by the CSRD, and they mandate disclosures regarding strategy, governance, impacts, risks, and opportunities across environmental, social, and governance (ESG) themes (Leal Filho et al., 2025).

Within this regulatory landscape, stakeholder engagement, explicitly mandated by ESRS 2 (Fragidis & Papafloratos, 2025; Stefani & Gabor, 2025), has emerged as a focal point of interest in sustainability reporting scholarship (Benameur, Mostafa, Hassanein, Shariff, & Al-Shattarat, 2024). Specifically, stakeholder engagement within ESG dimensions (Clément, Robinot, & Trespeuch, 2025; Conca, Campobasso, Morrone, & Toma, 2023) represents a critical component of corporate governance (Li, Wang, Sueyoshi, & Wang, 2021). Stakeholder engagement encompasses the diverse processes and strategies organizations implement to manage their stakeholder relations (Mitchell, Mitchell, Hunt, Townsend, & Lee, 2022). Given its significance, this topic has been extensively studied across various organizational contexts, including publicly traded companies (Romero, Ruiz, & Fernandez-Feijoo, 2019), public-private partnerships (Sheppard & Beck, 2022), SMEs (Ligorio & Caputo, 2025), higher education institutions (Brescia, Coronella, Secinaro, & Mechelli, 2025), non-profit organizations (Leardini, Moggi, & Rossi, 2019), and the public sector (Knox, Marin-Cadavid, & Oziri, 2025). Despite this extensive body of work, a literature gap persists, necessitating further investigation into the evolving dynamics of engagement practices (Kujala, Sachs, Leinonen, Heikkinen, & Laude, 2022).

To address this gap, this paper aims to evaluate the quality and depth of Eni's commitment to stakeholder engagement, analyzing how these practices have evolved relative to previous assessments (Salvioni & Almici, 2020). Specifically, 2024 marked the first year of Eni's application of the CSRD; thus, this study investigates how the company's engagement disclosures have transformed in response to this landmark regulatory shift. Utilizing a content analysis methodology (Salvioni & Almici, 2020; Romenti, 2010), this research examines Eni's 2024 annual report to identify stakeholder groups and analyze the modalities of their involvement.

The analysis reveals a notable evolution toward a more substantive and collaborative framework. This transition is evidenced by the institutionalization of diverse engagement mechanisms, including

collaborations and meetings of worker and company representative committees, proactive collaboration with ESG rating agencies, cooperation agreements with organizations, partnerships with institutions, agreements, and participation in projects. Consequently, Eni has successfully transitioned from a traditional consultative stance to an “involvement strategy”, representing the highest level of engagement quality, characterized by the co-creation of value through stakeholder partnerships (Stocker, de Arruda, de Mascena, & Boaventura, 2020).

The implications of this research are twofold. Theoretically, the paper provides evidence regarding stakeholder engagement disclosures. Practically, Eni’s integrated approach serves as a strategic benchmark for organizations aiming to institutionalize high-level stakeholder commitment within the energy sector.

The remainder of this paper is structured as follows: Section 2 reviews the theoretical background; Section 3 delineates the methodology; Section 4 presents the case of Eni; Section 5 provides a discussion; and Section 6 offers concluding remarks.

2 Theoretical background

2.1 Stakeholder engagement

Text, 10 pWithin the contemporary corporate landscape, stakeholder engagement is increasingly recognized as an integral component of the materiality disclosure process, as it serves as a pivotal driver for fostering sustainable development across the private sector (Ngu & Amran, 2018). Stakeholder engagement refers to various processes and strategies that firms and other organizations implement in their stakeholder relation (Mitchell, Mitchell, Hunt, Townsend & Lee, 2022). By adopting a materiality-centric framework, organizations can effectively delineate the scope of their sustainability reporting, ensuring that disclosures prioritize issues identified as significant by their stakeholders; this alignment is mutually beneficial, providing strategic value to both the firm and its broader stakeholder base (Ngu & Amran, 2018).

A stakeholder-centric paradigm fundamentally reconfigures the trajectory of sustainability accounting development. Within this framework, the conceptualization of sustainability performance (tailored to specific organizational and sectoral contexts) is not predetermined but rather emerges through stakeholder dialogue. Consequently, the identification of key performance indicators, along with the methodologies for their measurement and subsequent communication, are directly dictated by the outcomes of stakeholder engagement processes (Schaltegger & Burritt, 2010).

Stakeholder engagement has been extensively investigated in the literature (Doni, Corvino, & Bianchi Martini, 2022; Ren, Ting, Lu, & Kweh, 2022; Torelli, Balluchi, & Furlotti, 2020) through several theoretical lenses. Specifically, Stakeholder Theory posits that corporations act in response to stakeholder demands, adopting either preventive or proactive stances (Wood, 1991; Freeman, 2010). Furthermore, the Resource-Based View suggests that companies engage responsibly to maximize their competitive advantage (Russo & Fouts, 1997). Finally, according to Legitimacy Theory (Bebbington, Larrinaga, & Moneva, 2008), engagement with stakeholders is utilized as a strategic tool to manage and mitigate reputational risks (Ardiana, 2019).

To foster dialogue and maintain accountability with their stakeholder base, organizations predominantly utilize sustainability disclosures (Romero, Ruiz, & Fernandez-Feijoo, 2019; Herremans, Nazari, & Mahmoudian, 2016). In the reporting practices, stakeholder engagement is a fundamental step (Manetti, 2011), and is preceded by materiality assessment (Torelli, Balluchi, & Furlotti, 2020). Indeed, according to the GRI (Brescia, Coronella, Secinaro, & Mechelli, 2025; Grushina, 2017), the materiality assessment, which is designed to identify, prioritize, and act upon issues most significant to organizations and their stakeholders in sustainability reports (Calabrese, Costa, Levialdi, & Menichini, 2016), helps prioritize identified impacts and determine material topics, enabling organizations to take informed action. This process, which involves engaging relevant stakeholders and experts, operates independently of the SR process (GRI, 2021).

The multifaceted significance of stakeholder engagement is well-documented within the extant literature. Recent empirical evidence from case study research suggests that integrated reporting acts as a catalyst for deeper stakeholder engagement, thereby bolstering organizational legitimacy and transparency (Bonetti, Lai, & Stacchezzini, 2023; Sciulli & Adhariani, 2023). Consistent stakeholder interaction, when coupled with strategic communication, can foster more responsible corporate conduct. Concurrently, extant literature demonstrates that corporate sustainability initiatives and ethical behaviors (including robust stakeholder engagement practices) can generate significant added value for firms (Camilleri, 2015). Finally, stakeholder engagement has been identified as a moderating factor that amplifies the positive correlation between ESG performance and overall firm performance (Ho, Nguyen, & Dang, 2024).

Furthermore, stakeholder engagement represents a pivotal component within the CSRD. Indeed, the CSRD requires companies operating in the European Union to report on sustainability issues as specified in the European Sustainability Reporting Standards (ESRSs), according to which companies must identify, record, measure, plan, and report their sustainability performance (Hristov & Searcy, 2025). The ESRS framework comprises two cross-cutting standards, namely ESRS 1 and ESRS 2 (Molnár, Lukács, & Tóth, 2025; Levchenko & Antonova, 2024). Within this structure, ESRS 2 governs

disclosure requirements related to governance, which specifically encompass stakeholder engagement (Fragidis & Papafloratos, 2025). More precisely, stakeholder engagement is explicitly addressed under ESRS 2 SBM-2, “Interests and views of stakeholders” (Stefani & Gabor, 2025).

This standard requires the company to disclose how it integrates the interests and perspectives of its stakeholders into its strategy and business model. The overarching objective is to provide a clear understanding of the ways in which stakeholder input informs the undertaking’s strategic direction and operational framework. To do so, the law states that the company shall disclose, among other information, its key stakeholders, whether engagement with them occurs and for which categories of stakeholders, how it is organised, its purpose, and how its outcome is taken into account by the company (ESRS 2 General disclosures, 2023).

2.2 Stakeholder engagement levels

To evaluate Eni’s commitment to stakeholder engagement, it is essential to establish a clear classification of such engagement practices. In this regard, the study by Stocker, de Arruda, de Mascena and Boaventura (2020) is particularly significant. The authors delineate a three-level classification of stakeholder engagement, drawing upon the foundational work of Morsing and Schultz (2006), Gable and Shireman (2005), and Gioia and Chittipeddi (1991). The engagement levels proposed by Stocker, de Arruda, de Mascena and Boaventura (2020) are summarized in Table 1.

As illustrated, the lowest tier of stakeholder engagement (Level 1 – Information Strategy) is characterized by a “track and inform” approach. The second tier (Level 2 – Response Strategy) corresponds to a “consult and support” strategy, whereas the highest level of engagement (Level 3 – Involvement Strategy) involves a “collaborate and partner” framework. Increased stakeholder engagement directly correlates with a more collaborative decision-making process (Langrafe, Barakat, Stocker, & Boaventura, 2020). This classification is pivotal for assessing a firm’s commitment to stakeholder engagement and, consequently, serves as the analytical foundation for numerous studies in this field (Bonetti, Lai, & Stacchezzini, 2023; Pasko, Marenych, Diachenko, Levytska, & Balla, 2021; Stocker, Zanini, & Reis Irigaray, 2021). Ensuring a high level of stakeholder engagement is pivotal, as it represents a foundational element in sustainability communication (Rathobei, Ranängen, & Lindman, 2024). Therefore, stakeholder engagement is a key feature of the sustainability reporting process (Baumüller & Sopp, 2022) and enables companies to demonstrate a commitment to transparency and long-term value creation (Pandey, Al-ahdal, & Hashim, 2024).

Table 1 – Classification of the engagement level

Communication strategy level	Type	Interaction process	Engagement actions
(Morsing & Schultz, 2006)	(Gable & Shireman, 2005)	(Gioia & Chittipeddi, 1991)	(Gable & Shireman, 2005; Morsing & Schultz, 2006)
Level 1. Information strategy	Track	Sensemaking	Monitor; compile actions; terms of Data Protection & Confidentiality; contracts; registration
	Inform	Sensegiving	Annual report; reports; briefings; brochures; magazines; website; intranet; social media; newsletters; guide/manual; Tours; plant visits; exhibitions; special days; Training & Development
Level 2. Response strategy	Consult	Sensemaking → Sensegiving	BackChannel dialogue; opinion polls; forums; surveys; market surveys/research; meetings; sessions; contact centre; phone; customer service; interactions; complaints & suggestions
	Support	Sensemaking → Sensegiving	Strategic philanthropy/sponsorship; advisory activities
Level 3. Involvement strategy	Collaborate	Sensemaking → Sensegiving	Initiatives; actions; cooperation; working groups; commissions; committees; agreements; associations
	Partner	Sensemaking ↔ Sensegiving	Joint projects (formal/informal); programs; alliances

Source: Stocker, de Arruda, de Mascena, & Boaventura (2020)

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3 Methodology

This research employs a qualitative case study approach, focusing on Eni. The methodology is centered on a content analysis of the company's annual report (Ahmed, Ibrahim, & Albitar, 2025; Rathobei, Ranängen, & Lindman, 2024), a technique consistently utilized in similar scholarly inquiries within the field (Salvioni & Almici, 2020; Romenti, 2010).

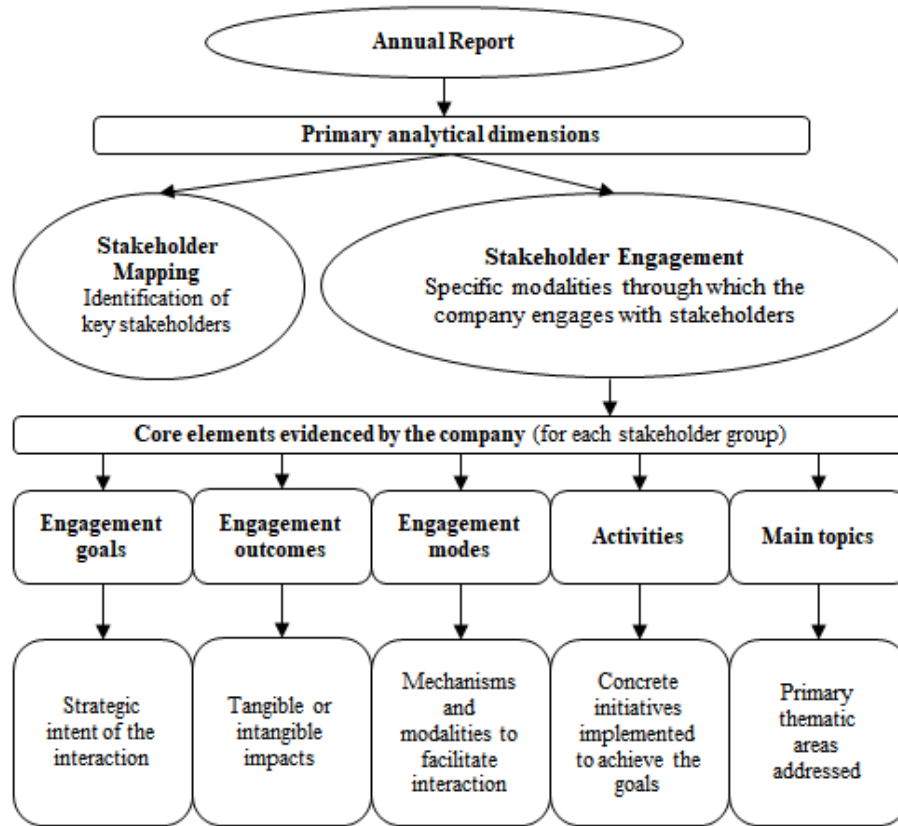
Eni was selected as the focal organization due to its status as the largest Italian corporation by revenue (Ufficio Studi Mediobanca, 2024). Consequently, Eni serves as a strategic benchmark and a potential exemplar of best practices for other firms. This selection is theoretically grounded; notably, Salvioni & Almici (2020) identified Eni as a leader in implementing stakeholder engagement best practices in Italy. Furthermore, the adoption of a single-case study design facilitates a deeper, more nuanced understanding of the research phenomenon (Dyer Jr & Wilkins, 1991).

Data were retrieved from Eni's 2024 Annual Report, following an established tradition of using corporate disclosures to assess stakeholder engagement (Bonetti, Lai, & Stacchezzini, 2023; Bellucci, Simoni, Acuti, & Manetti, 2019). The content analysis performed on this report allows for the systematic interpretation of rich, qualitative data (Schreier, 2012). This method ensures a rigorous description of the material's meaning, specifically regarding the non-financial and strategic disclosures.

Methodologically, the content analysis relies on a structured coding frame, which partitions the data into distinct units of coding (Schreier, 2012). This involved an iterative and careful examination of the report to investigate Eni's commitment to its stakeholders. The data were categorized into two primary analytical dimensions: i) the identification of key stakeholder groups (stakeholder mapping), and ii) the specific modalities through which Eni engages with them (stakeholder engagement). Specifically, the stakeholder engagement coding focused on the five core elements identified by Eni: engagement goals, engagement outcomes, engagement modes, activities, and main topics (Eni Annual Report, 2024). Figure 1 shows the coding process.

The ultimate objective is to evaluate the depth of Eni's commitment to stakeholder engagement. To achieve this, the engagement practices are detailed in Section 4 and subsequently analyzed within the discussion in Section 5.

Figure 1 – Coding process



Source: Author's elaboration

4 The case of Eni

4.1 Company profile

Headquartered in Rome, Italy, Eni is a leading integrated global energy company at the forefront of the technical and structural evolution of the industry¹. With a presence in over 60 countries and a workforce of approximately 32,000 professionals, Eni has transitioned from a traditional oil and gas major into a diversified energy entity. Eni maintains a robust upstream portfolio, prioritizing natural gas as a strategic bridge fuel in the global energy mix. The company executes sophisticated exploration,

¹ Information regarding the company profile is accessible at <https://www.eni.com/it-IT/azienda.html>

development, and production operations across major hubs in North Africa, Sub-Saharan Africa, the Middle East, and the North Sea, as well as significant assets in the United States and Kazakhstan.

By leveraging proprietary geophysical technologies and advanced supercomputing (notably the HPC6 system, one of the world's most powerful industrial supercomputers) Eni optimizes recovery rates and minimizes the carbon footprint of its traditional extraction activities.

A central pillar of Eni's scientific and commercial strategy is the dual focus on retail decarbonization and sustainable mobility; Plenitude is an entity that integrates large-scale renewable energy generation (wind and solar) with retail power sales and a vast European electric vehicle charging network, and Enilive is dedicated to sustainable mobility, focusing on the production of biofuels through the conversion of traditional refineries into biorefineries and the development of Sustainable Aviation Fuel.

4.2 Stakeholder mapping

The stakeholder engagement process is characterized by several iterative phases, commencing with a stage of strategic conceptualization. This foundational phase encompasses stakeholder mapping, the formulation of strategic objectives, and the identification of salient issues, ultimately culminating in the prioritization of both stakeholders and their respective concerns (Bellantuono, Pontrandolfo, & Scozzi, 2016). This means that stakeholder engagement should align with the stakeholder map, which describes their attributes and concerns (Looser & Wehrmeyer, 2015). Therefore, an organization should possess a comprehensive understanding of its stakeholder landscape, institutionalize mechanisms to address their expectations, and successfully reconcile competing interests to fulfill its strategic mission (Freeman, 2010).

According to Bourne & Weaver (2010), the primary objective of the stakeholder mapping process is to construct a comprehensive and actionable inventory of relevant actors. Following this identification, it is imperative to evaluate salient stakeholder attributes, structuring these insights to guide the project team in operationalizing effective management strategies. A critical success factor in this process involves the systematic replacement of subjective judgment with objective metrics to ensure evaluative transparency. Such transparency not only elucidates the rationale underlying stakeholder assessments but also facilitates rigorous peer review and iterative updates as the project environment evolves (Bourne & Weaver, 2010).

Therefore, Stakeholder mapping is conducted to evaluate the relative power and interest of key actors (Newcombe, 2003), yielding a stakeholder map that delineates the specific groups prioritized by the firm. Accurate stakeholder identification is paramount, as it constitutes the fundamental prerequisite for facilitating subsequent stakeholder engagement (Walker, Bourne, & Shelley, 2008).

In alignment with its strategic commitment to carbon neutrality and the energy transition, Eni prioritizes engagement across four primary stakeholder macro-groups (Eni Annual Report, 2024). First, the internal workforce is engaged through structured social dialogue and listening initiatives, supplemented by reskilling and upskilling programs designed to facilitate strategic relocation. Second, Eni collaborates with its supply chain partners to identify and mitigate the impacts of the energy transformation; specific emphasis is placed on bolstering the resilience and competitiveness of small and medium-sized enterprises throughout the transition process. Third, the company focuses on local communities, aiming to catalyze socio-economic development and maximize the positive territorial externalities of its operations. Finally, Eni engages its consumer base to promote energy-efficient consumption patterns and provide innovative, sustainable energy solutions. However, regarding the development of stakeholder engagement, the firm provides a more granular classification of the stakeholders it considers for engagement, as further detailed in Section 4.3.

4.3 Stakeholder engagement

Eni's approach to stakeholder engagement is comprehensively delineated in its latest annual report (Eni Annual Report, 2024). For each stakeholder category (Table 2), the corporation identifies five core pillars that underpin its strategy: engagement goals, engagement outcomes, engagement modes, activities, and main topics.

Table 2 – Stakeholder categories of Eni

Categories	see Table
Eni's people and national and international unions	3
Financial community	4
Local communities, community based organization and organizations for cooperation development	5
Contractors, suppliers and commercial partners	6
Customers and consumers	7
National, European and international institutions	8
Universities, institutes, research centers and innovation hub	9
Advocacy organization and trade/category/ Confindustria associations	10

Source: Author's adaptation from Eni's Annual Report, 2024

Specifically, engagement goals define the strategic intent of the interaction tailored to each stakeholder group. Engagement outcomes represent the tangible or intangible impacts derived from these processes. Engagement modes refer to the specific mechanisms and modalities utilized to facilitate interaction. Finally, activities encompass the concrete initiatives implemented to achieve the stated engagement objectives, while main topics identify the primary thematic areas addressed through these efforts.

Table 3 – Stakeholder engagement of Eni’s people and national and international unions

Engagement goal	Engagement outcome	Engagement mode	Activities
Establishing a relationship of trust between society, workers and trade union	Achievement of strategic objectives	Encounters	Awareness of diversity and Zero tolerance policies
Supporting workers’ social protection and respect for human rights	Up/reskilling skills	Workshop	Share of the Golden Principles and Rules of Safety
Sharing changes and skills development	Information and consultation of the workers’ representatives in strategic and operational processes	Collaborations	Team building and youth enhancement
Promoting work-life balance	Updating internal policies	Training and awareness-raising initiatives	The results of the survey for the resources were analyzed and shared with management and specific initiatives were launched
	Participation in global initiatives and campaigns for people’s well-being	Meetings of worker/company representative	

Source: Author’s adaptation from Eni’s Annual Report, 2024

4.3.1 Eni’s people and national and international unions

For Eni’s people and national and international unions, the engagement goals are to establish a relationship of trust among society, workers, and trade unions; support workers’ social protection and respect for human rights; share changes and skills development; and promote work-life balance. The related outcomes are the achievement of strategic objectives; upskilling (i.e., enhancing current skills)

and reskilling (i.e., learning new skills); the information and consultation of the workers' representatives in strategic and operational processes; the update of internal policies, and the participation in global initiatives and campaigns for people's well-being.

To achieve these aims, Eni engages with stakeholders through encounters, workshops, collaborations, training and awareness-raising initiatives, and meetings of worker and company representative committees. The activities include awareness of diversity and Zero Tolerance policies, sharing the Golden Principles and Rules of Safety, team building, and youth enhancement. Moreover, it is stated that the survey results on resources were analyzed and shared with management, and that specific initiatives were launched. The related main topics concern human capital, occupational and process health and safety, and circular economy and waste management.

Table 3 presents the stakeholder engagement of Eni's people and national and international unions.

4.3.2 Financial community

For the financial community, the engagement goals are to ensure adequate understanding of strategic choices, value drivers, operating context, and economic-financial performance, as well as ESG. The related outcomes are communications and presentations aligned with the expectations of the financial community, and the consideration of the financial community's feedback for policy development and ESG rating improvement.

To achieve these aims, Eni engages with stakeholders through continuous dialogue, also with top management, through the participation/organization of events, road-shows, conference calls, thematic conferences, and collaboration with ESG ratings. The activities are the quarterly presentations and Capital Markets Day, the participation in road shows and specialized conferences, one-on-one meetings with investors, the engagement with investors and proxy advisors on shareholders' meeting issues, the engagement with ESG rating agencies for rating issuance, and contacting funds. The related main topics concern economic and financial performance, climate change, occupational and process health and safety, biodiversity and ecosystems, and value chain workers.

Table 4 presents the stakeholder engagement of the financial community.

Table 4 – Stakeholder engagement of the financial community

Engagement goal	Engagement outcome	Engagement mode	Activities
Ensure adequate understanding of strategic choices, value drivers and operating context	Prepare communications and presentations aligned with the expectations of the financial community	Continuous dialogue, also with top management, through the participation/organization of: events, road-shows, conference calls, thematic conferences	Quarterly presentations and Capital Markets Day
Ensure adequate understanding of economic-financial performance and ESG	Consider feedback from the financial community for policy development and improvement of ESG ratings	Collaboration with ESG ratings	Participation in road shows and specialized conferences
			One-on-one meetings with investors
			Engagement with investors and proxy advisors on shareholders' meeting issues
			Engagement with ESG rating agencies for rating issuance
			Contacting funds

Source: Author's adaptation from Eni's Annual Report, 2024

4.3.3 Local communities, community-based organizations and organizations for cooperation development

For local communities, community-based organizations and organizations for cooperation development, the engagement goals are the consideration of local expectations and needs and the implementation of development projects; the identification of potential negative impacts, prevention and mitigation measures, ensuring compliance with HR; the promotion and support of dialogue and active cooperation, including by involving the authorities; the establishment of strong and lasting relationships and partnerships with all the players in the area. The related outcomes are the dissemination of transparent information on Eni's activities; the promotion and implementation of local development programs in line with local needs, sharing know-how and promoting synergies with the

main actors of cooperation; the evaluation and measurement of local development through the use of tools and methodologies.

To achieve these aims, Eni engages with stakeholders through consultations, Grievance Mechanism (i.e., the process of sending, managing, and resolving grievances or complaints), awareness campaigns, workshops, questionnaires and data collection, institutional meetings, initiatives and events in the area, and cooperation agreements with organizations. The activities are the periodic communications on project progress, the request and grievance management, the monitoring of the activities, baseline studies, feasibility studies, project evaluations, the presentation of objectives and results, the collaborations with United Nations Agencies, civil society organizations, and national cooperation agencies, and the agreements for socio-economic development initiatives and for community health initiatives. The main related topics are local development and access to energy, climate change, equal treatment, and community health.

Table 5 presents the stakeholder engagement of local communities, community-based organizations, and organizations for cooperation development.

Table 5 – Stakeholder engagement of local communities, community based organization and organizations for cooperation development

Engagement goal	Engagement outcome	Engagement mode	Activities
Consider local expectations and needs and implement development projects	Dissemination of transparent information on Eni's activities	Consultations	Periodic communications on project progress
Identify potential negative impacts, prevention and mitigation measures, ensuring compliance with HR	Promotion and implementation of local development programs in line with local needs, sharing know-how and promoting synergies with the main actors of cooperation	Grievance Mechanism	Request and grievance management
Promote and support dialogue and active cooperation, including by involving the authorities	Evaluation and measurement of local development through the use of tools and methodologies	Awareness campaigns	Monitoring activities

Establish strong and lasting relationships and partnerships with all the players in the area	Workshop	Baseline studies, feasibility studies, project evaluations
	Questionnaire and data collection	Presentation of objectives and results
	Institutional meetings	Collaborations with United Nations Agencies, civil society organizations and national cooperation agencies
	Initiatives and events in the area	Agreements for socio-economic development initiatives and for community health initiatives
	Cooperation agreements with organizations	

Source: Author's adaptation from Eni's Annual Report, 2024

4.3.4 Contractors, suppliers and commercial partners

For contractors, suppliers and commercial partners, the engagement goals are the support of the suppliers in managing impacts on people and the environment, ensuring compliance with HR; the promotion of safety at work throughout the supply chain, ensuring safe and dignified working conditions; the guide of suppliers on the energy transition path; the optimization of compliance with a view to anti-corruption and HR due diligence on potential third parties at risk, the fostering of the supply chain competitiveness through the adoption of sustainable practices that strengthen the resilience of suppliers in global markets. The related outcomes are the identification, prevention, and mitigation of risks at every stage of the procurement process; building a safe, responsible, innovative, and international supply chain for a fair and sustainable energy transition; and the promotion of training and awareness on ESG and HR issues.

To achieve these aims, Eni engages with stakeholders through training programs and discussions with suppliers on specific ESG issues; surveys, assessments, and monitoring of supplier performance; awareness-raising initiatives on ESG issues; and the enhancement of best practices. The activities are the expansion of the Open-es community (i.e., the platform to support companies in the path of measurement and growth in the ESG field), the extension of the application of the HR due diligence

model, the “Sustainable Supply Chain Finance” programme (an initiative launched in 2023 which allows suppliers to request early payment of invoices without impacting credit lines), and awards and training programs aimed at the entire supply chain. The main related topics are occupational and process health and safety, climate change, human rights, responsible management of supply chains, and anti-corruption.

Table 6 presents the stakeholder engagement of contractors, suppliers, and commercial partners.

Table 6 – Stakeholder engagement of contractors, suppliers and commercial partners

Engagement goal	Engagement outcome	Engagement mode	Activities
Supporting suppliers in managing impacts on people and the environment, ensuring compliance with HR	Identifying, preventing and mitigating risks at every stage of the procurement process	Training program and discussion of suppliers on specific ESG issues	Expansion of the Open-es community
Promoting safety at work throughout the supply chain, ensuring safe and dignified working conditions	Building a safe, responsible, innovative and international supply chain for a fair and sustainable energy transition	Survey, assessment and monitoring of supplier performance	Extension of the application of the HR due diligence model
Guiding suppliers on the energy transition path	Promotion of training and awareness on ESG and HR issues	Awareness-raising activities on ESG issues through initiatives	"Sustainable Supply Chain Finance" Programme
Optimization of compliance with a view to anti-corruption and HR due diligence on potential third parties at risk		Enhancement of best practices	Awards and training programs aimed at the entire supply chain
Foster supply chain competitiveness through the adoption of sustainable practices that strengthen the resilience of suppliers in global markets			

Source: Author's adaptation from Eni's Annual Report, 2024

4.3.5 Customers and consumers

For customers and consumers, the engagement goals are to support and promote actions in favor of the just energy transition and to create and spread a culture of sustainable energy usage, promoting conscious and efficient consumption. The related outcomes include promoting business relationships that focus on customer needs, providing quality products and services tailored to specific needs, and supporting financially vulnerable clients, particularly young people.

To achieve these aims, Eni engages with stakeholders through information activities, dedicated channels, focus groups, initiatives, and events in the area (with customers), and initiatives and events in the area (with consumer associations). The activities include maintaining customer satisfaction and service quality, and holding periodic meetings with consumer associations. The related main topics concern climate change, customers, and consumers.

Table 7 presents the stakeholder engagement of customers and consumers.

Table 7 – Stakeholder engagement of customers and consumers

Engagement goal	Engagement outcome	Engagement mode	Activities
Supporting and promoting actions in favour of the just energy transition	Promotion of business relationships focused on customer needs	Information activities through dedicated channels, focus groups, initiatives and events in the area (with customers)	Maintaining customer satisfaction and service quality
Create and spread the culture of sustainable energy usage, for conscious and efficient consumption	Providing quality products and services in line with specific needs	Initiatives and events in the area, dedicated channels (with consumer associations)	Periodic meetings with Consumer Associations
	Supporting financially vulnerable clients, especially young people		

Source: Author's adaptation from Eni's Annual Report, 2024

4.3.6 National, European and international institutions

For national, European and international institutions, the engagement goals are the contribution to the public debate on topics of interest, including the energy transition, by representing the company's position; the creation of partnerships and memberships that promote Eni's business or corporate positioning; the creation of partnerships for projects aimed at contributing to the socio-economic and health development of the Countries in which Eni is present; and the support of transparent dialogue.

The related outcomes include representing Eni's interests at various institutions to assess the impacts of policies and regulations, helping improve policy effectiveness, and participating in consultations on policy proposals.

Table 8 – Stakeholder engagement of national, European and international institutions

Engagement goal	Engagement outcome	Engagement mode	Activities
Contribute to the public debate on topics of interest, including the energy transition, by representing the company's position	Representation of Eni's interests at the various institutions for the assessment of the impacts of policies and regulations	Meetings, working groups, think tank initiatives	Eni's positioning on issues of interest to policymakers and in public events
Creation of partnerships and memberships that promote Eni's business and/or corporate positioning	Help improve policy effects and effectiveness	Institutional dialogue	Presentation of projects, visits of associations, institutional and political delegations to industrial plants, operational sites and research centers
Creation of partnerships for projects aimed at contributing to the socio-economic and health development of the Countries in which Eni is present	Participation in consultations on policy proposals	Participation in events, visits and economic promotion initiatives	Collaboration agreements
Supporting transparent dialogue		Partnership	Elaboration of rankings and responses to public consultations
		Communication with dedicated channels	
		In-depth analysis of geopolitical and energy scenarios, sustainable development and new technologies	

Source: Author's adaptation from Eni's Annual Report, 2024

To achieve these aims, Eni engages with stakeholders through meetings, working groups, think tank initiatives, institutional dialogue, participation in events, visits, economic promotion initiatives,

partnerships, communication with dedicated channels, and in-depth analysis of geopolitical and energy scenarios, sustainable development, and new technologies. The activities include Eni's positioning on issues of interest to policymakers and in public events; the presentation of projects; visits by associations, institutional, and political delegations to industrial plants, operational sites, and research centers; collaboration agreements; and the elaboration of rankings and responses to public consultations. The main related topics are climate change, energy transition, decarbonization of industry and transport, sector discipline, strategic industrial projects, innovation, digitalization and cybersecurity, sustainable development, and community health.

Table 8 presents the stakeholder engagement of customers and consumers.

4.3.7 Universities, institutes, research centers and innovation hubs

For universities, institutes, research centers and innovation hubs, the engagement goals are to promote the development of skills and technological know-how to ensure a sustainable transition, activate an innovative ecosystem for the transition and new energy supply chains, and assess and monitor risks related to business activities and their impact on worker health. The related outcomes are the development of innovative solutions (such as magnetic confinement fusion), the promotion of scientific research activities, and the support of dialogue and skills for the transition.

To achieve these aims, Eni engages with stakeholders through collaborations, projects, hubs, agreements, and startups. The activities are represented by the four-year agreement with the Massachusetts Institute of Technology (MIT) to develop advanced energy technologies sustainably, the participation in the main national and international innovation hubs, the launch of the first International Network on African Energy Transition (INAET) to set up a common hub on the continent's transition, 8 business development hubs (8 in Italy and 2 in Kenya and Congo), more than 100 innovative startups incubated and accelerated, and research activities in the health sector. The main related topics concern human rights, climate change, local development, access to energy, and health.

Table 9 presents the stakeholder engagement of universities, institutes, research centers, and innovation hubs.

Table 9 – Stakeholder engagement of universities, institutes, research centers, and innovation hubs

Engagement goal	Engagement outcome	Engagement mode	Activities
Promote the development of skills and technological know-how to ensure the sustainable transition	Development of innovative solutions, such as magnetic confinement fusion	Collaborations	New four-year agreement with MIT
Activating an innovative ecosystem for the transition and new energy supply chains	Promotion of scientific research activities	Projects	Participation in the main national and international innovation hubs
Assess and monitor the risks related to business activities on the health of workers	Supporting dialogue and skills for the transition	Hub	First International Network on African Energy Transition launched
		Agreements	8 business development hubs active in Italy and 2 abroad (Kenya and Congo)
		Startups	More than 100 innovative startups incubated/accelerated
			Research activities in the health sector

Source: Author's adaptation from Eni's Annual Report, 2024

4.3.8 Advocacy organizations and trade/category/Confindustria associations

For advocacy organizations and trade/category/Confindustria associations, the engagement goals are to support the business on its path of energy transformation and transition, to share knowledge and experience along the energy transition path, and to promote discussion of solutions for energy production, research, and development. The related outcomes are the definition of strategies to support the energy transition, the support for global policies and regulations in the fight against climate change, the promotion of sustainable mobility with alternative fuels and car sharing, the promotion of new technologies in the blue economy, the implementation of the Open-es platform, and the promotion of a sustainable supply chain strategy.

To achieve these aims, Eni engages with stakeholders through conferences and events, debates, training initiatives, annual meetings and workshops, and participation in projects. Regarding the activities, more than 200 companies are involved in a sustainable growth path, 10 territorial associations, and 3 categories result in membership to Open-es, Eni implements events and workshops to promote the use of biofuels, accelerate the decarbonization of the maritime and land-based sectors, and support (together with trade associations) for activities in the field of green and blue economy. The main related topics are energy transition, sustainable mobility, corporate sustainability, local development and access to energy, and climate change.

Table 10 presents the stakeholder engagement of advocacy organizations and trade/category/Confindustria associations.

Table 10 – Stakeholder engagement of advocacy organizations and trade/category /Confindustria associations

Engagement goal	Engagement outcome	Engagement mode	Activities
Supporting the business in the path of energy transformation and transition	Definition of strategies to support the energy transition	Conferences and events	More than 200 companies involved in a sustainable growth path
Sharing knowledge and experience in the energy transition path	Support for global policies and regulations in the fight against climate change	Debates	Membership of 10 territorial associations and 3 categories to Open-es
Promote discussion on solutions for energy production, research and development	Promotion of sustainable mobility with alternative fuels and car sharing	Training initiatives	Events and workshops to promote the use of biofuels, accelerate the decarbonization of the maritime and land-based sectors
	Promotion of new technologies in the blue economy	Annual meetings and workshops	Support together with trade associations for activities in the field of green and blue economy
	Implementation of the Open-es platform	Participation in projects	
	Promotion of sustainable supply chain strategy		

Source: Author's adaptation from Eni's Annual Report, 2024

5 Discussion

Eni demonstrates a profound commitment to stakeholder engagement, a dedication that manifests in two primary dimensions. First, the corporation demonstrates high granularity in identifying stakeholder cohorts, ensuring engagement is strategically tailored to achieve group-specific goals. Second, this commitment is further evidenced by the diverse array of engagement modalities and operational activities the firm implements to facilitate meaningful interaction.

Notably, within a global landscape where stakeholder engagement has rapidly transitioned from being a marginal consideration (Ardiana, 2023) to a focal point of strategic accountability (Galeotti, Camilleri, Roberto, & Sepe, 2025), Eni has successfully elevated its engagement maturity, positioning itself as an industry benchmark. Drawing on the evidence, Eni's strategy exemplifies a collaborative paradigm built upon a diverse array of initiatives, actions, cooperation, working groups, commissions, committees, agreements, associations, therefore its stakeholder engagement can be classified as a sophisticated level of direct engagement (Pasko, Marenych, Diachenko, Levytska, & Balla, 2021; Stocker, de Arruda, de Mascena, & Boaventura, 2020), aligning with the AA1000 Stakeholder Engagement Standard principles of inclusivity, materiality and responsiveness. Particularly, Eni's involvement strategy is characterized by collaboration with the financial community and academic bodies (including universities, research centers, and innovation hubs); cooperation initiatives with local communities; strategic partnerships with national, European, and international institutions; and active participation in advocacy organizations and trade associations.

These findings underscore a strategic evolution in Eni's engagement framework, which has transitioned from a predominantly consultative stance toward a more advanced collaborative paradigm. This progression signifies a shift toward an "involvement strategy", marking a substantial improvement over previous years when the approach was primarily consultative (Salvioni & Almicci, 2020). By fostering deeper, reciprocal relationships, the corporation has successfully elevated its engagement maturity to align with higher-order strategic objectives. These findings align with literature highlighting that firms proactively adopting and communicating environmental sustainability practices strengthen their stakeholder relationships, and corporate environmental sustainability initiatives foster higher levels of engagement through an "involvement strategy", simultaneously reinforcing bonds of trust, reciprocity, and equity (Goes, Fatima, Santos Jhuniar, & Boaventura, 2023). Moreover, to facilitate stakeholder engagement, Eni has implemented a "Stakeholder Management System" that enables the company to define engagement strategies and effectively manage stakeholder concerns and critical issues (Eni Annual Report, 2024), which are significant aspects of the stakeholder engagement process (Greenwood, 2007).

Eni's commitment to stakeholder engagement has yielded substantial positive externalities. Notably, empirical evidence from Arthur (2025) demonstrates that collaborative initiatives with public institutions in Ghana have significantly enhanced the relevance and long-term sustainability of development interventions, particularly in health, education, and local livelihoods. This specific case illustrates how Eni's strategic engagement goal for "National, European, and international institutions" (which focuses on establishing partnerships for socioeconomic and health development) successfully operationalizes corporate objectives into tangible, positive impacts within its host nations.

Eni's commitment to stakeholder engagement could also yield significant internal strategic advantages. Within the specific context of the oil and gas industry, empirical findings by Doni, Corvino, and Bianchi Martini (2022) demonstrate that stakeholder engagement is positively correlated with corporate social performance; furthermore, such engagement serves as a pivotal internal driver capable of fostering a robust corporate culture, thereby enhancing the organization's capacity to proactively address corporate social responsibility challenges, and several studies demonstrate that prioritizing stakeholder interests is a key driver of enhanced organizational performance (Marcon Nora, Alberton, & Ayala, 2023; Attanasio, Preghenella, De Toni, & Battistella, 2022; Hristov & Appolloni, 2022; Lopes de Sousa Jabbour, Vazquez-Brust, Chiappetta Jabbour, & Andriani Ribeiro, 2020; Amankwah-Amoah, Danso, & Adomako, 2019; Gallego-Alvarez, Ortas, Vicente-Villardón, & Alvarez Etxeberria, 2017; Goodman, Korsunova, & Halme, 2017; Martin & Rice, 2014).

6 Conclusions

This study analyzed Eni's strategic commitment to stakeholder engagement by examining its annual reporting. The findings underscore a robust level of engagement that yields significant positive externalities within host communities, particularly across the domains of health, education, and local livelihoods.

While prior scholarship has examined Eni's stakeholder dynamics (Salvioni & Almici, 2020), this research contributes to the literature by evaluating these practices in the immediate aftermath of the implementation of the Corporate Sustainability Reporting Directive (CSRD) in Europe. Specifically, the analysis reveals a notable evolution toward a more substantive and collaborative framework. This transition is evidenced by the institutionalization of diverse engagement mechanisms, including collaborations and meetings of worker and company representative committees, proactive collaboration with ESG rating agencies, cooperation agreements with organizations, partnerships with institutions, agreements, and participation in projects. Consequently, Eni has successfully transitioned from a

traditional consultative stance to an “involvement strategy”, representing the highest level of engagement quality, characterized by the co-creation of value through stakeholder partnerships (Stocker, de Arruda, de Mascena, & Boaventura, 2020).

The implications of this research are twofold. Theoretically, the paper provides evidence on stakeholder engagement disclosures. Practically, Eni’s integrated approach serves as a strategic benchmark for organizations aiming to institutionalize high-level stakeholder commitment in the energy sector.

Despite its contributions, this study is not without limitations. The analysis relied exclusively on the annual report; therefore, future research should adopt a triangulation approach by incorporating additional data sources, such as corporate press releases, official websites, and social media communications, to provide a more holistic view of stakeholder-oriented signalling. Moreover, while relying exclusively on corporate sources provides insight into the company’s communication, it does not allow for a comprehensive understanding of actual implementation. Future research could address this limitation by adopting more active approaches, including direct observation and participation (Annesi, Battaglia, & Frey, 2021). These further analyses, based on more active approaches, could also shed light on the criticisms and issues faced by the company while engaging with its stakeholders, which is a difficult aspect to identify through documentary sources alone.

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Ingredient-Based vs Nutrition-Based Claims: Implications for Consumer Health Perceptions and Responsible Food Choices

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Abstract

Growing consumer sensitivity toward individual well-being has fostered more conscious consumption practices and increased attention to health-oriented food products. Within this context, packaging serves as a key communication tool through which firms can highlight health-related attributes that are not directly observable, particularly through the use of nutritional claims. This paper investigates how different types of packaging claims – ingredient-based versus nutrition-property-based claims – influence consumers' desire to consume a product, examining the mediating role of perceived

healthiness and expected taste, two potentially conflicting variables in food evaluation. The study aims to shed light on the cognitive mechanisms through which health-related communication shapes consumer evaluations and perceptions. A between-subjects experiment was conducted (N=300), randomly assigning participants to one of two claim conditions (ingredient-based vs. nutrition-based). Data were analyzed using multiple regression analyses and a parallel mediation model. Results show that nutrition-property-based claim significantly increases perceived healthiness, which fully mediates its effect on desire to eat the product. Expected taste strongly predicts desire to consume but does not mediate the effect of the type of claim. From a managerial perspective, the findings suggest that emphasizing nutritional properties can enhance perceived healthiness, but such communication should be balanced with elements that preserve taste expectations. Combining nutritional claims with sensory cues may therefore improve packaging effectiveness. The originality of the study lies in examining the impact of health-related claims on a hedonic variable such as desire to consume, while distinguishing between ingredient-based and nutrition-property-based claims.

Keywords – Packaging; Nutritional claims; Perceived healthiness; Expected taste; Responsible food choice.

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Sommario

Claim basati sugli ingredienti vs. claim nutrizionali: implicazioni sulla percezione di salubrità del prodotto e le scelte alimentari responsabili. – La crescente sensibilità dei consumatori nei confronti del benessere individuale ha favorito pratiche di consumo più consapevoli e una maggiore attenzione verso prodotti alimentari orientati alla salute. In tale contesto, il packaging rappresenta uno strumento di comunicazione centrale attraverso cui le imprese possono veicolare caratteristiche salutistiche non direttamente osservabili, in particolare mediante l'impiego di claim nutrizionali. Il presente studio ha analizzato in che modo differenti tipologie di claim riportati sul packaging – basati sull'ingrediente versus basati sulla proprietà nutrizionale – influenzino il desiderio di consumare un prodotto alimentare, esaminando il ruolo di mediazione della salubrità percepita e del gusto atteso, due dimensioni potenzialmente in conflitto nella valutazione del cibo. L'obiettivo è far luce sui meccanismi cognitivi attraverso cui la comunicazione salutistica incide sulle percezioni e sulle valutazioni dei consumatori. A tal fine, è stato condotto un esperimento tra gruppi (N = 300), in cui i partecipanti sono stati assegnati casualmente a una delle due condizioni sperimentali definite dal tipo di claim *ingredient-based* vs. *nutrition-based*). I dati sono stati analizzati mediante analisi di regressione multipla e un modello di mediazione parallela. I risultati mostrano che il claim basato sulla proprietà nutrizionale incrementa significativamente la percezione di salubrità, la quale media completamente il suo effetto sul desiderio di consumo. Inoltre, il gusto atteso emerge come un forte predittore del desiderio di consumo, ma non media l'effetto del tipo di claim. Dal punto di vista manageriale, i risultati suggeriscono che l'enfasi sulle proprietà nutrizionali può rafforzare la percezione di salubrità del prodotto; tuttavia, tale comunicazione dovrebbe essere bilanciata con elementi in grado di preservare le aspettative di gusto. L'integrazione di claim nutrizionali con indicazioni sensoriali può dunque accrescere l'efficacia comunicativa del packaging. Tra gli elementi di originalità dello studio l'analisi dell'impatto della comunicazione salutistica su una variabile edonica quale il desiderio di consumo, distinguendo tra claim basati sugli ingredienti e claim basati sulle proprietà nutrizionali.

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1 Introduction

Among the 17 Sustainable Development Goals (SDGs) included in the United Nations 2030 Agenda, Goal 3 aims to ensure healthy lives and promote well-being for all individuals at all ages (United Nations, 2015). The adoption of a healthy diet, combined with regular physical activity, represents one of the key factors in achieving this goal, as they constitute major preventive tools against chronic respiratory and cardiovascular diseases (De-Magistris, Gracia, & Barreiro-Hurle, 2017).

In recent years, consumers have increasingly shown greater sensitivity toward their individual well-being (WHO, 2022). This orientation is reflected in more conscious consumption practices, characterized by balanced food choices and a growing interest in health-oriented products aimed at promoting overall health and well-being (Chen, Zhang, Hu, Chen, & Li, 2023). Firms have responded to this growing demand by expanding their product portfolios of elements potentially harmful to consumers' health (Cameron, Charlton, Ngan, & Sacks, 2016). Among these products, a prominent role is played by so-called superfoods, a term used to describe foods known for their health-promoting properties, attributed to their particular chemical composition and high concentration of nutrients – such as vitamins, minerals, and antioxidants – that contribute to health maintenance and the prevention of certain diseases (Ekesa, 2017; Groeniger, van Lenthe, Beenackers, & Kamphuis, 2017).

The increasing diffusion of health-oriented products, such as superfoods, has made product communication increasingly relevant. In this context, packaging represents a strategic tool for firms seeking to enhance and communicate the nutritional characteristics of their products, particularly through nutritional claims (Choi, Northup, & Reid, 2021). These claims are able to provide concise and immediate guidance on healthier food choices (Mediano Stoltze, Busey, Taillie, & Carpentier, 2021). However, the effectiveness of information displayed on packaging depends on several factors, including the amount of information provided and the time available for making a choice.

In the retail context, consumers are often required to make decisions under conditions of information overload, a situation in which they must process an excessive amount of information relative to the limited time available to make a decision (Roetzel, 2018). This informational overload can complicate the selection of healthier products, leading decision-makers to rely on cognitive shortcuts or heuristics when evaluating information (Hu & Krishen, 2019).

Previous research has shown that products frequently display more than one claim on packaging, often repeating the same message or including references to different nutritional attributes (Hieke et al., 2016). Consequently, the selection of information to be communicated on the label plays a crucial role in avoiding consumer cognitive overload.

Although claims are inherently concise, an excessive number or redundancy of claims may reduce their communicative effectiveness. For example, the product's healthiness can be conveyed through the communication of both its ingredients and the nutritional properties associated with them. Although literature has widely demonstrated that both ingredients and nutritional properties can influence consumer perceptions in the evaluation of health-oriented products (Acton & Hammond, 2018; Hartmann, Hieke, Taper, & Siegrist, 2018; Rizk & Treat, 2015; Turner, Skubisz, Pandya, Silverman, & Austin, 2014), in order to avoid overwhelming consumers with similar or overlapping information, it becomes necessary to identify which type of information is more effective in shaping judgements about the product.

Despite the growing body of literature on health-related claims, existing research has predominantly examined their effects on functional outcomes that describe consumer behavior, such as attitudes, purchase intentions, and willingness to pay (Barreiro-Hurle, Gracia, & De-Magistris, 2010; de Mello Marsola, de Carvalho Ferreira, Medina, & da Cunha, 2025; Huang, Chou, Zhang, & Lan, 2025; Krutulyte et al., 2011; Steinhäuser, Janssen, & Hamm, 2019), while comparatively less attention has been devoted to hedonic responses, such as the desire to consume the product (Vadiveloo, Morwitz, & Chandon, 2013). Moreover, prior studies have often treated health claims as a broad and homogeneous category, without distinguishing between particular types of information conveyed on packaging. As a result, there is still a lack of research that directly investigates which type of information is more effective in shaping consumer responses and avoiding information overload. This study addresses these gaps by investigating whether it is more impactful to emphasize the ingredient itself or its associated nutritional property. Specifically, it compares ingredient-based vs nutrition-property-based claims to examine their differential effects on both cognitive (perceived healthiness) and hedonic (desire to eat) responses. In doing so, the research contributes to a more nuanced understanding of how specific forms of health communication through packaging shape consumer perception and motivation to consume.

The present study therefore aims to address the following research question:

RQ. Which between the ingredient and its associated nutritional property exerts a greater influence on product perception and consumers' desire to consume the product?

To answer this research question, a between-subjects experiment was conducted, hypothesizing a parallel mediation model aimed at assessing the role of the claim on consumers' desire to consume the product, as well as the effects exerted by perceived healthiness and expected taste.

From a theoretical perspective, this study: (1) extends the existing literature on packaging information, with particular reference to nutritional claims (distinguishing between ingredient-based and nutrition-property-based claims) and the perceptions consumers develop toward them; and (2)

highlights how such claims influence not only cognitive and functional dimensions, but also motivational and hedonic variables.

From a managerial perspective, the paper provides useful insights into how to effectively communicate the health-related characteristics of products, balancing perceived healthiness with taste expectations, in order to support the development of more effective marketing strategies that are aligned with consumer perceptions and with the aim of guiding responsible consumer choices.

2 Theoretical background and hypotheses development

Numerous studies have examined how consumers' growing attention to individual well-being and health translates into new consumption patterns and food choice criteria (Chen, Zhang, Hu, Chen, & Li, 2023; Fang, Cappelletti, & Zhechev, 2025; Steinhäuser & Hamm, 2018; WHO, 2022). The pursuit of healthy foods now represents one of the primary purchase motivations, driven both by the desire to prevent diseases and by the intention to adopt more balanced lifestyles (Franco Lucas, Costa, & Brunner, 2021).

In response to these transformations, the food industry has progressively expanded its offerings by introducing products formulated to improve their nutritional profile – for instance, by reducing components perceived as unhealthy, such as fats, or by adding beneficial ingredients, such as fiber and micronutrients. This evolution has led to a substantial increase in the presence of products bearing nutritional claims on supermarket shelves. Such claims represent strategic communication tools that synthesize and enhance the functional characteristics of foods, guiding consumers toward choices perceived as healthier (Choi, Northup, & Reid, 2021).

Information displayed on packaging has been shown to significantly influence product perceptions, consumer attitudes, and behaviors throughout the purchase decision process (e.g., Abbas, Munir, & Ahmad, 2024; Mediano Stoltze, Busey, Taillie, & Carpentier, 2021). Packaging thus represents a strategic communication channel capable of shaping consumer choice through claims and labels that summarize a product's healthiness and beneficial properties. The communication of a product's healthiness may emphasize different dimensions, starting from ingredients and their associated nutritional properties. Ingredients, in particular, constitute key information, as they play a decisive role in shaping consumer preferences and perceived healthiness (Acton & Hammond, 2018; Annunziata, Vecchio, & Kraus, 2015; Hartmann, Hieke, Taper, & Siegrist, 2018).

Among a product's ingredients, some assume particular importance as they identify its distinctive characteristics, especially its nutritional benefits. These ingredients can be referred to as “hero ingredients”, as they provide substantial benefits that translate into health advantages for consumers.

At the same time, the nutritional properties derived from the main ingredient represent a relevant source of information that can influence product perceptions (Rebouças, Rodrigues, Freitas, Ferreira, & Costa, 2017; Rizk & Treat, 2015). These properties encompass the attributes that define a food's overall nutritional value and its potential health benefits (Wang, et al. 2022).

Among ingredients that provide substantial benefits to the product, research has focused, for example, on oats and their main associated nutritional property, namely the presence of prebiotics. Oats have been shown to exert positive effects on the gastrointestinal system precisely due to the presence of prebiotics, which contribute to maintaining a balanced gut microbiota (Gibson et al., 2010; Precup, Pocol, Teleky, & Vodnar, 2022). In line with this evidence, some retailers have introduced products that display claims such as “with prebiotics” on their packaging, often accompanied by additional information such as “supports gut flora balance”.

Despite the growing attention towards healthier food choices, these are also often characterized by a tension between the desire for immediate gratification linked to taste and the goal of maintaining good long-term health (Briers, Huh, Chan, & Mukhopadhyay, 2020). Indeed, the literature has shown that health-related and taste-related goals frequently conflict, and that taste often prevails in food decision-making (Bravo, Colamatteo, Romano, & Vistocco, 2025). The relationship between perceived healthiness and tastiness has been widely investigated, albeit with mixed results. On the one hand, several studies support the so-called “unhealthy = tasty intuition”, according to which foods perceived as less healthy are considered tastier (Bialkova, Sasse, & Fenko, 2016; Raghunathan, Naylor, & Hoyer, 2006). On the other hand, other scholars have questioned the universality of this belief, highlighting positive or null associations between perceived taste and perceived healthiness (Dubé, Fatemi, Lu, & Hertzer, 2016; Werle, Trendel, & Ardito, 2013).

Given that both health and taste represent central goals in food choices (Erensoy, Lu, Aaker, & Fishbach, 2025), it is important to understand whether, and how, the communication of healthiness conveyed through packaging can influence consumers' desire to consume a product, also through perceptions of healthiness and expected taste.

2.1 Desire to eat the product

The desire to eat a product can be defined as an intense impulse toward specific foods, which does not necessarily imply pathological behavior but rather represents a normal component of eating behavior (Reents, Seidel, Wiesner, & Pedersen, 2020). Highlighting on packaging either the main

ingredient or the nutritional property that provides health benefits may strengthen consumption motivation, as shown, for example, in the case of protein-related claims (Holtrop, Cleeren, Geyskens, & Verhoef, 2024; McKeon & Hallman, 2024). However, the presence of elements emphasizing a product's healthiness – such as beneficial ingredients or nutritional properties – may also lead consumers to perceive the product as healthier but less tasty, thereby reducing their desire to consume it (Haasova & Florack, 2019). Several studies have compared different types of claims and front-of-pack labels, analyzing their ability to influence consumer behavior (Hong et al., 2022; McKeon & Hallman, 2024), and reporting significant differences in their effects.

Building on this evidence, the present study compares two specific claims: one referring to the ingredient (“with oat flakes”) and the other referring to the nutritional property associated with the same ingredient (“rich in prebiotics”). Most claim-related studies (Hamlin & McNeill, 2018; Hong et al., 2022) have focused on the effects of such messages on functional value variables, such as willingness to pay, purchase intention, or product choice. In contrast, the present research focuses on the hedonic value of food by examining the effect of communication type on desire to consume, a variable rarely associated with a product's health-related characteristics (Raghunathan, Naylor, & Hoyer, 2006). Accordingly, the study aims to investigate whether the type of communication (ingredient vs. nutritional property) directly influences consumers' desire to consume the product, leading to the following hypothesis:

H1. Nutritional-property claim as compared to ingredient-based claim will lead to higher desire to eat the product.

2.2 Perceived healthiness

Perceived healthiness can be defined as the consumers' expectation regarding the impact that a product has on their health status (Mai & Hoffmann, 2015). This perception is positively influenced by the information communicated by firms through product packaging (Van Kleef, Van Trijp, & Luning, 2005). Numerous studies have shown the specific types of claims – such as those related to protein or fiber – positively influence perceived healthiness and other product evaluations (McKeon & Hallman, 2024; Mediano Stoltze, Busey, Taillie, & Carpentier, 2021). Similarly, a substantial body of literature has documented that claims communicating beneficial ingredients or properties strengthen consumers' perceptions of healthiness (Choi, Northup, & Reid, 2021; Roberto et al., 2012). This perception, in turn, positively influences consumer behavior in healthy food choices (Steinhauser, Janssen, & Hamm, 2019).

Traditionally, perceived healthiness has been considered a predictor of functional value variables, such as purchase intention, willingness to buy, and willingness to pay, while its effect on hedonic variables has been neglected. In the present study, instead, perceived healthiness is examined as a mediating variable between claim type (ingredient vs. nutritional property) and a dependent variable of hedonic nature, namely desire to consume the product. It is hypothesized that a claim referring to a nutritional property, by explicitly highlighting the health benefit associated with the ingredient, has a stronger impact on perceived healthiness than a claim mentioning the ingredient itself. In turn, higher perceived healthiness is expected to increase consumers' desire to consume the product. Formally:

H2. Nutritional-property claim as compared to ingredient-based claim (a) will increase the product perceived healthiness, which in turn (b) positively influences the desire to consume the product.

2.3 Expected taste

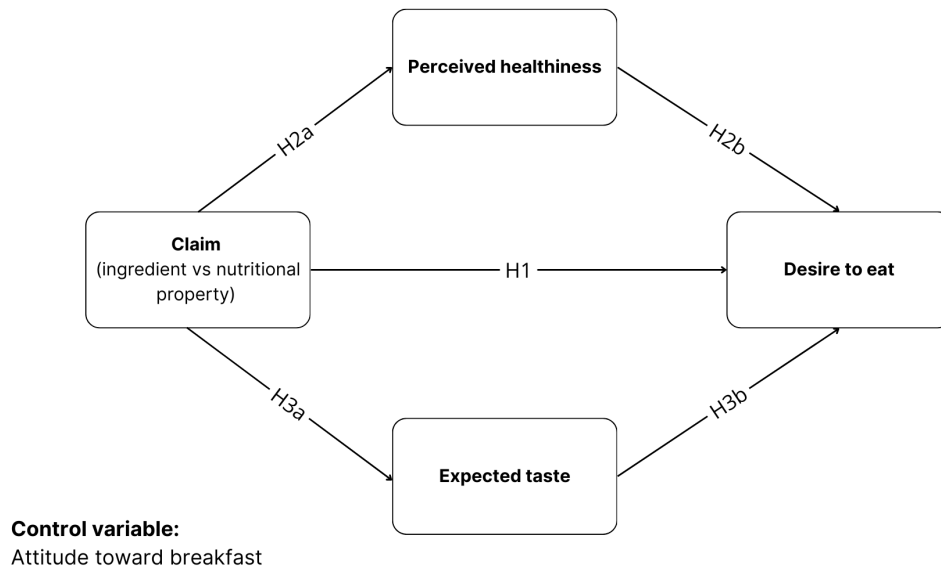
Neurogastronomy suggests that food flavors result from brain processing that integrates information from all sensory modalities (Tokat & Yilmaz, 2023). Consequently, beyond olfaction, visual cues and information conveyed by packaging contribute to the formation of taste expectations (Tokat & Yilmaz, 2023). Information displayed on packaging can therefore significantly influence consumers' expectations regarding the tasting experience.

The findings of Szakály, Soós, Balsa-Budai, Kovács, and Kontor (2020) indicate that products displaying nutritional or health-related claims tend to be perceived as healthier but less tasty, consistent with the cognitive mechanism known as the “unhealthy = tasty intuition”. According to this mechanism, consumers tend to associate less healthy foods with a greater taste expectation, while a greater healthiness of the product would be associated with a lesser taste, thus generating a tension between the health dimension and the perception of gustatory pleasantness (Paakki et al., 2022; Raghunathan, Naylor, & Hoyer, 2006). Moreover, the literature emphasizes that taste represents one of the primary determinants of purchase decisions (Konuk, 2021), and that taste perceptions themselves can be influenced by product elements related to health (Grunert, Seo, Fang, Hogan, & Nayga, 2024). Therefore, the nutritional attributes emphasised in a product's communication could influence taste judgements. Based on these evidences, it is hypothesized that the type of communication conveyed through claims (ingredient vs. nutritional property) may influence the formation of expected taste, which in turn positively affects consumers' desire to consume the product. More formally:

H3. Nutritional-property claim as compared to ingredient-based claim (a) will decrease the product expected taste, which in turn (b) positively influences the consumer's desire to eat the product.

Figure 1 illustrates the overall hypothesized model.

Figure 1 – Hypothesized conceptual model



Source: Authors' elaboration

3 Methodology

A quantitative approach was adopted to pursue the aim of examining which type of communication, ingredient-based or nutritional property-based, is more effective in shaping consumers' perceptions of product taste and healthiness, and how these perceptions, in turn, influence the desire to consume the product. The analysis was articulated in two stages: a preliminary pre-test phase and a between-subjects experimental phase.

3.1 Pre-test and stimuli

A pre-test was conducted to identify a breakfast product category characterized by an intermediate level of perceived healthiness. This was necessary to avoid distortions arising from products perceived as either excessively healthy or insufficiently healthy. To this end, a sample of 54 individuals evaluated three different product categories: biscuits, snacks, and cereals. For each category, a specific product

image was selected and participants were asked to indicate its level of healthiness. Perceived healthiness was measured using a 7-point self-anchored scale developed by Adams and Geuens (2007) (see Table 1).

The results of the pre-test showed that cereals were perceived as the healthiest product ($M_{\text{cereals}} = 4.59$), snacks as the least healthy ($M_{\text{snacks}} = 3.27$), while biscuits were positioned at an intermediate level of perceived healthiness ($M_{\text{biscuits}} = 3.98$). Based on these findings, the biscuit category was selected as the experimental stimulus for the main study, as it can be considered a “neutral condition” suitable for observing perceptual variations attributable exclusively to the claim manipulation.

For the experimental phase, a fictitious-brand biscuit package was developed as stimulus, in order to avoid potential biases related to brand familiarity or brand preference. The packaging was manipulated solely with respect to the claim – ingredient-based (“with oat flakes”) versus nutritional-property-based (“rich in prebiotics”) – while all other visual elements (colors, package shape, brand name, and product image) were kept identical and constant across conditions (Figure 2). The two claims were operationalized to reflect the same underlying product attribute while differing in their communicative framing. Specifically, the ingredient-based claim (“with oat flakes”) emphasized the presence of the core ingredient, whereas the nutrition-property-based claim (“rich in prebiotics”) highlighted the functional benefit associated with that ingredient. This approach ensured that the manipulation isolated the effect of claim framing while holding the underlying product characteristics constant.

Figure 2 – Experimental stimuli



Source: Authors' elaboration

3.2 Data collection

Data were collected through a structured questionnaire consisting of two main sections. The first section was devoted to the measurement of the latent variables: perceived healthiness, expected taste, and desire to consume the product, as well as attitude toward breakfast, which was included in the model as a control variable. The second section gathered sociodemographic information, including age, gender, education level, geographic area of residence, and occupation.

Participants were presented with the product image through the structured questionnaire and were asked to carefully observe the stimulus before answering the questions. This procedure ensured standardized exposure to the experimental stimuli for all participants.

The final sample consisted of 300 participants, evenly distributed across the two experimental conditions. One hundred and fifty respondents were exposed to the stimulus featuring the ingredient-based claim (“with oat flakes”), while the remaining one hundred and fifty participants were shown the stimulus featuring the nutritional-property-based claim (“rich in prebiotics”). All participants completed the questionnaire anonymously and on a voluntary basis.

3.3 Measures

Validated and widely used scales from the literature were employed to measure the latent variables, as reported in Table 1. Perceived healthiness was measured using a 7-point self-anchored scale developed by Adams and Geuens (2007). Expected taste was assessed using a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree) adapted from Paakki et al. (2022). Desire to eat was measured using a single-item 7-point scale proposed by Lambert, Neal, Noyes, Parker, and Worrel (1991). Prior research supported the use of single-item to capture concrete unidimensional constructs, particularly in experimental contexts (Bergkvist & Rossiter, 2007). Previous studies investigating desire to eat in response to food characteristics and olfactory stimuli have successfully employed single-item measures similar to the one adopted in the present study (Fedoroff, Polivy, & Herman, 2003; Wallis & Appleton, 2026). Finally, attitude toward breakfast (control variable) was measured using a 7-point Likert scale adapted from Tapper et al. (2008), where 1 = strongly disagree and 7 = strongly agree. The reliability of these scales was assessed through Cronbach’s α and was satisfactory for all the constructs ($\alpha > 0.70$) as shown in Table 1.

Data analysis was conducted using IBM SPSS software (SPSS Inc., Chicago, IL, USA; Version 29.00) employing a parallel mediation model (Model 4 of Hayes’ PROCESS Macro).

Table 1 – Variables measurement and Cronbach's alpha

Construct	Items	Cronbach's α
Perceived healthiness <i>Adams and Geuens (2007)</i>	Unhealthy-is healthy Has a low nutritional value-has a high nutritional value Is bad for my body – is good for my body Has a negative influence on my weight – has a positive influence on my weight Is bad for my teeth – is good for my teeth	0.846
Expected taste <i>Paakki et al. (2022)</i>	I expect this product to have an excellent taste I expect eating this product to be a pleasant experience	0.933
Desire to eat <i>Lambert, Neal, Noyes, Parker, and Worrel (1991)</i>	No desire – Very strong desire	-
Attitude toward breakfast <i>Tapper et al. (2008)</i>	I usually eat healthy foods for breakfast I often miss breakfast (<i>r</i>) It's okay to miss breakfast (<i>r</i>) I hardly eat anything for breakfast (<i>r</i>) I hate eating breakfast (<i>r</i>) I usually eat unhealthy foods for breakfast (<i>r</i>) I can concentrate on my morning activities even if I missed breakfast (<i>r</i>) I usually have a snack at morning break instead of breakfast (<i>r</i>) I feel okay in the mornings even if I haven't eaten breakfast (<i>r</i>) Eating breakfast is boring (<i>r</i>) I'd rather have a snack at morning break than eat breakfast (<i>r</i>) If I miss breakfast, I feel more tired in the morning I usually have a good breakfast.	0.876

Note. Items marked with (*r*) were reverse-coded.

Source: Authors' elaboration

4 Results

4.1 Sample characteristics

The overall sample consisted of 300 respondents, with an average age of approximately 43 years (min=18; max=65), and exhibited perfect balance with respect to gender distribution. The majority of

respondents had a high school diploma (55%) and worked full-time (58%). The sociodemographic characteristics of the sample are detailed in Table 2, with the participants divided accordingly to experimental conditions (*ingredient-based* claim vs. *nutrition-property-based* claim).

Table 2 – Sociodemographic characteristics of the sample by experimental condition

Variables	Category	Experimental Conditions	
		Ingredient group (n=150)	Nutritional Property group (n=150)
Age group	18-24 years old	12%	12%
	25-34 years old	17.3%	18%
	35-44 years old	18.7%	19.3%
	45-54 years old	26%	24.7%
	55-65 years old	26%	26%
Gender	Male	50%	50%
	Female	50%	50%
Geographical area	Northwest	28%	27.3%
	Northeast	18.7%	20%
	Center	19.3%	18.7%
	South and Sicily	24%	23.3%
	Islands	10%	10.7%
Education	Lower secondary school with license	5.3%	8.7%
	Upper secondary school with diploma	33.3%	30.7%
	Three-year/five-year degree	56%	54%
	Doctorate/Postgraduate	5.3%	6.7%
	Master's degree	5.3%	6.7%
	Lower secondary school with license	5.3%	8.7%
Employment	Full-time	58.7%	57.3%
	Part-time	18%	22%
	No	23.3%	20.7%

Source: Authors' elaboration

4.2 Hypothesis testing

The data were analyzed using a parallel mediation model (Model 4 of PROCESS Macro; Hayes, 2015), with 5,000 bootstrap samples. The type of claim was incorporated as an independent variable,

perceived healthiness and expected taste as parallel mediators, desire to eat as a dependent variable, and attitude toward breakfast as a control variable.

The results shown in Table 3 highlight that the “rich in prebiotics” claim does not have a significantly greater impact on the desire to eat than the “with oat flakes” claim ($\beta = 0.078$, $p = 0.650$, 95% CI = [-0.415; 0.260]). Hypothesis H1 is therefore not supported. On the contrary, the analysis demonstrates that the nature of the claim exerts a substantial influence on the perceived healthiness of the product ($\beta = 0.350$; $p = 0.026$; $F(2,297) = 3.318$; $p < 0.05$), suggesting that the “rich in prebiotics” claim communicates a greater perception of healthiness than “with oat flakes”, thus supporting hypothesis H2a.

Table 3 – Results of the analysis (Ingredient vs. Nutritional property)

Independent	Perceived healthiness			Expected taste			Desire to eat		
	Coeff	SE	p	Coeff	SE	p	Coeff	SE	p
Constant	4.916	0.383	0.000	3.401	0.365	0.000	0.185	0.523	0.724
Claim (Oats=0; Prebiotics=1)	0.350	0.156	0.026	0.032	0.185	0.864	0.078	0.172	0.650
Perceived healthiness	—	—	—	—	—	—	0.184	0.069	0.008
Expected taste	—	—	—	—	—	—	0.713	0.058	0.000
Attitude toward breakfast	-0.095	0.068	0.166	0.188	0.081	0.021	-0.019	0.076	0.424

Note. Model fit indices:

- Perceived healthiness: $R^2 = 0.022$, $F(2,297) = 3.318$, $p = 0.038$
- Expected taste: $R^2 = 0.018$, $F(2,297) = 2.750$, $p = 0.066$
- Desire to eat: $R^2 = 0.427$, $F(4,295) = 54.873$, $p = 0.000$

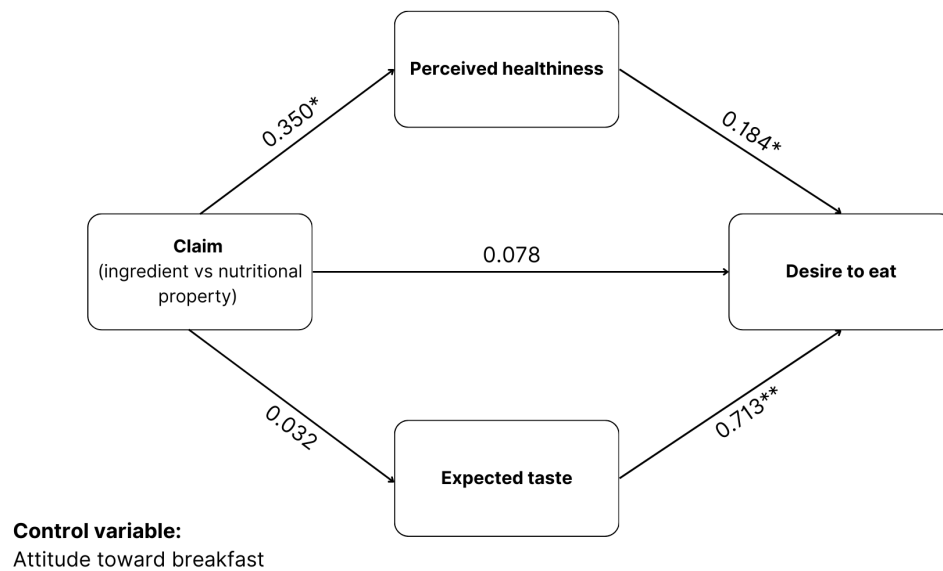
Source: Authors' elaboration

Furthermore, the results demonstrate that perceived healthiness significantly predicts the desire to eat the product ($\beta = 0.184$; $p = 0.008$), confirming the hypothesis H2b. Analysis also showed that perceived healthiness fully mediates (Baron & Kenny, 1996) the relationship between type of claim and

desire to eat (indirect effect: $\beta = 0.064$; 95% CI [0.003; 0.153]). In other words, claims that communicate nutritional properties (“rich in prebiotics”) lead to a greater perception of product healthiness compared to claims that focus on ingredients (“with oat flakes”), and healthiness, in turn, acts as a key driver of the desire to consume the product.

Finally, if the expected taste has a positive and significant influence on the desire to eat ($\beta = 0.713$; $p < 0.001$), thus confirming H3b, then the type of claim does not result in significant differences in terms of expected taste ($\beta = 0.032$; $p = 0.864$), not supporting H3a. The results are graphically presented in Figure 3.

Figure 3 – Results of the mediation model and coefficients



Note. * $p < 0.05$; ** $p < 0.001$

Source: Authors' elaboration

5 Discussion and implications

The objective of this research was to determine whether the type of communication used to emphasize the nutritional properties of a food product influences consumers' perception of and judgment about it.

The results indicate that the type of claim exerts a different effect on how healthy a product is perceived to be. Specifically, the claim based on nutritional properties has a stronger impact on perceived healthiness than the ingredient-based claim. This finding suggests that emphasizing a nutritional benefit activates a different perceptual process to that triggered by ingredient-focused communication. Although the nutritional benefit is inherently linked to the ingredient itself, consumers attribute different levels of healthiness to otherwise identical products when they are framed through distinct communicative cues.

The analyses further reveal that the type of claim does not produce a significantly different effect on expected taste. The hypothesis of a direct relationship between claims and taste expectation was grounded in the literature on the “unhealthy = tasty” intuition, which posits that consumers often infer a trade-off between healthiness and palatability, thus assuming that foods perceived as less healthy tend to be evaluated as tastier, whereas healthier options tend to be considered less flavorful (Raghunathan, Naylor, & Hoyer, 2006). From this perspective, emphasizing a positive nutritional attribute could activate compensatory inferences, leading consumers to expect a reduction in taste as a consequence of improved healthfulness. However, the empirical evidence did not support this assumption. Contrary to the predicted trade-off, highlighting a specific nutritional benefit did not reduce taste expectations. This suggests that health-related claims may not automatically result in a taste penalty, particularly when they focus on the presence of a beneficial attribute rather than the absence or reduction of a hedonic component (e.g., fat or sugar). This result may also be interpreted in light of the distinction between additive and subtractive health claims. While subtractive claims (e.g., “low fat”, “sugar-free”) often activate the “unhealthy = tasty” intuition by signaling a reduction in hedonic components (Szakály, Soós, Balsa-Budai, Kovács, & Kontor, 2020), additive claims (e.g., “rich in prebiotics”) emphasize the presence of beneficial attributes without implying a loss in taste. Overall, these results contribute to the ongoing debate on the “unhealthy = tasty” intuition by indicating that its effect may be context-dependent and less robust when health information is framed positively.

The absence of a significant effect of type of claim on expected taste may also be explained by the fact that both claims convey health-related information rather than sensory attributes of the product, such as texture, flavor, or hedonic cues. Prior research suggests that sensory and experiential cues exert a more direct and substantial influence on taste expectations (Szakály, Soós, Balsa-Budai, Kovács, & Kontor, 2020). Moreover, consumption desire can be conceptualized as a construct closely related to behavior which results from the integration of multiple evaluative processes rather than from a single informational stimulus (Mai & Hoffmann, 2015).

Furthermore, the results show that the nutrition-property-based claim indirectly influences the desire to consume the product through perceived healthiness. The fact that perceived healthiness fully

mediates the relationship between claim type and consumption desire aligns with prior literature, which highlights how nutritional information shapes health-related perceptions and, in turn, affects cognitive evaluations of food products (Mai & Hoffmann, 2015; McKeon & Hallman, 2024). In summary, the type of nutritional claim can influence the desire to eat the product, but only if the perception of healthiness varies too.

Finally, the findings demonstrate that both perceived healthiness and expected taste exert a positive and significant influence on consumption desire. This result corroborates existing research underscoring the pivotal role of health and taste expectations as key predictors and drivers of consumers' desire to eat food products (Erensoy, Lu, Aaker, & Fishbach, 2025).

From a theoretical standpoint, the study makes a significant contribution to the existing body of literature on the use of packaging information and nutrition claims as communication tools capable of influencing consumers' perception of the product. Specifically, the research results reveal a significant distinction between *ingredient-based* and *nutrition-property-based* claims, highlighting how these two forms of communication generate different effects on perceptual and motivational variables. Indeed, the research shows that such claims not only affect functional variables (e.g., purchase intention, willingness to pay), but also directly increase perception of healthiness and indirectly influence hedonic dimensions such as consumption desire. These findings also contribute to the literature on responsible food consumption by showing how specific forms of health communication through packaging can guide consumers toward healthier choices without reducing the anticipated enjoyment of food. In this sense, nutritional claims can act as informational nudges that facilitate more conscious and balanced consumption decisions.

From a managerial perspective, the results provide actionable insights for food companies and marketing professionals. The findings demonstrate that emphasizing a product's nutritional properties (e.g., "rich in prebiotics") is more effective in enhancing perceived healthiness than merely highlighting the presence of an ingredient (e.g., "with oat flakes"). Importantly, communicating nutritional benefits does not reduce expected taste, as initially hypothesized. This suggests that firms can foreground nutrition-property-based claims without risking negative effects on taste expectations.

By emphasizing functional nutritional benefits rather than ingredient cues, companies can effectively balance health and sensory dimensions, guiding consumers toward healthier choices without compromising the anticipated pleasure of consumption. In this sense, nutrition claims can strengthen a product's health-oriented positioning while preserving its hedonic appeal, thereby reinforcing health-related brand associations without diminishing taste expectations. In practical terms, companies can combine nutritional claims with sensory cues on packaging, such as appealing product imagery or indulgence-related color schemes, in order to reinforce expected taste while enhancing perceived

healthiness. This approach is consistent with the present findings, which show that emphasizing nutritional benefits does not reduce taste expectations. By integrating health-related information with elements that evoke sensory appeal, firms may simultaneously strengthen both the functional and hedonic dimensions of product evaluation. However, the effectiveness of specific combinations of cues remains an open empirical question and could be further investigated in future research.

Furthermore, because both perceived healthiness and expected taste positively influence consumption desire, managers should consider health perceptions not merely as cognitive assessments but as behavioral drivers. Investing in effective nutrition claims can indirectly enhance consumption desire by increasing perceived healthiness, highlighting the strategic role of health-related communication as a motivational lever rather than solely as informational content.

In addition, the findings underscore the strategic importance of front-of-pack design. Managers should increase the visual prominence of nutritional benefits, employ concise and easily processable claims, and structure packaging layouts to ensure immediate perceptual accessibility. In doing so, firms can leverage communicative framing as a cost-efficient strategic tool, capable of enhancing consumer responses without requiring costly product reformulation.

Finally, from a responsible marketing perspective, the results suggest that companies can promote healthier consumption patterns through effective packaging communication strategies, while preserving hedonic appeal, thereby supporting more sustainable and conscious food choices.

6 Limits and future research directions

The research offers a significant contribution to understanding the cognitive mechanism that guides consumer response to health information on packaging. The results provide relevant insights into how to improve the communicative effectiveness of nutritional claims. These insights focus on the necessary balance between health value and hedonic consumption experience, with a view to promoting a sustainable lifestyle linked to conscious food choices.

Notwithstanding the significance of the results obtained, the study has some limitations that open the way for further research. Firstly, the experimental design is based on static stimuli (images of packaging) rather than on actual consumption experiences. This may have limited the ability to fully capture the sensory and taste perceptions of the participants. Secondly, the research considered only one product category (biscuits), which may have influenced how consumers interpreted and evaluated the information on packaging.

In view of these considerations, future research and development could be directed toward expanding the analysis in several directions. In particular, it would be appropriate to replicate the experiment on other product categories (e.g. cereals or snacks for the breakfast category) in order to verify the robustness of the model in different contexts.

Furthermore, future studies may benefit from incorporating multisensory stimuli or including actual tasting experiences, in order to more accurately capture the impact of claims on taste perception and consumer behavior. Moreover, further research could include and evaluate potentially pertinent individual variables, such as familiarity with prebiotics and nutritional knowledge, which have the potential to influence consumers' interpretation and evaluation of different types of claims. In addition, further research avenues could explore the moderating role of individual health consciousness, as prior studies suggest that more health-conscious consumers are more responsive to nutrition-related information and tend to process health claims differently (May & Hoffman, 2015).

Overall, the results suggest that effective nutritional communication cannot ignore an understanding of the consumer's hedonic perception dynamics, especially in contexts where health is increasingly important, but not exclusive, factor in the consumer decision-making and food choice process.

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Sustainable Corporate Governance and ESG Adoption in Italian SMEs: Organisational Learning and the Liminal Stage of ESG Maturity

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Abstract

Sustainability transitions increasingly require organisational governance and learning mechanisms capable of translating institutional pressures into concrete organisational change. In this context, ESG (Environmental, Social and Governance) frameworks, together with the evolving European regulatory landscape (including the Corporate Sustainability Reporting Directive and Italian Legislative Decree 125/2024), may function not only as reporting obligations but also as potential catalysts for organisational transformation in small and medium-sized enterprises (SMEs). Empirical evidence on how SMEs interpret and operationalise these pressures, however, remains limited, particularly in the Italian context.

This exploratory study investigates ESG perceptions and integration among Italian SMEs, focusing on the drivers, barriers, and governance arrangements shaping sustainability-related practices. Data were collected through a structured questionnaire administered to 82 SMEs operating in the manufacturing, agri-food, and service sectors across Northern Italy (Lombardy, Emilia-Romagna, and Veneto). Quantitative descriptive analyses were complemented by qualitative interpretation of open-ended responses to capture organisational sense-making and learning dynamics.

The findings indicate increasing yet uneven levels of ESG awareness. While most firms recognise sustainability as strategically relevant, only a limited number have embedded ESG within formal governance structures, organisational routines, and performance measurement systems. Reputation and relational legitimacy emerge as the most salient drivers of ESG engagement, whereas capability constraints-particularly limited expertise-together with perceived implementation costs and regulatory uncertainty represent the principal barriers. Firms characterised by more formalised governance

arrangements display higher levels of ESG integration and stronger expectations regarding sustainability-related benefits.

Overall, the results indicate that many SMEs currently operate within a liminal stage of ESG maturity, in which cognitive alignment with sustainability and legitimacy-seeking motivations precede the organisational routinisation of ESG practices. Consequently, ESG engagement remains fragmented and, in some cases, potentially reversible.

The study contributes to sustainability transitions research by providing micro-level diagnostic evidence on ESG integration in SMEs and by conceptualising ESG adoption as a process of organisational learning under institutional complexity. The findings highlight the need for capability-building initiatives, proportionate regulatory support, and intermediary infrastructures capable of translating regulatory requirements into actionable organisational practices for resource-constrained firms.

Keywords – Sustainable Corporate Governance; SMEs; ESG; Organisational Learning; Institutional Complexity; Sustainability Transitions.

Paper type – Academic Research Paper

Sommario

Governance societaria sostenibile e adozione dei criteri ESG nelle PMI italiane: consapevolezza, barriere e percorsi di apprendimento organizzativo. – Le transizioni verso la sostenibilità richiedono meccanismi di governance e di apprendimento in grado di tradurre le pressioni esterne in cambiamento organizzativo. I criteri ESG (Environmental, Social and Governance) e la spinta normativa europea (CSRD; Decreto legislativo italiano 125/2024) possono quindi operare non solo come requisiti di rendicontazione, ma anche come fattori abilitanti la transizione per le piccole e medie imprese (PMI), per le quali le evidenze restano limitate, soprattutto in Italia.

Questo studio esplorativo analizza le percezioni e l'integrazione degli ESG nelle PMI italiane, con particolare attenzione a driver, barriere e assetti di governance. I dati sono stati raccolti tramite un questionario strutturato somministrato a 82 PMI dei settori manifatturiero, agroalimentare e dei servizi nel Nord Italia (Lombardia, Emilia-Romagna e Veneto). Alle analisi descrittive è stata affiancata un'interpretazione qualitativa dei commenti aperti, per cogliere i processi di costruzione di significato e le dinamiche di apprendimento.

I risultati mostrano una consapevolezza ESG in crescita, ma disomogenea. La maggior parte delle imprese riconosce la sostenibilità come strategicamente rilevante, ma poche hanno istituzionalizzato gli ESG in routine formali, ruoli e sistemi di misurazione. Reputazione e legittimità relazionale emergono come i principali driver, mentre i vincoli di capacità (mancanza di competenze), i costi percepiti e l'incertezza normativa rappresentano le barriere più rilevanti. Le imprese con una governance più formalizzata riportano livelli più elevati di integrazione ESG e aspettative più forti di benefici legati alla sostenibilità. Nel complesso, il quadro indica una fase liminale di maturità ESG, in cui l'adozione cognitiva e la ricerca di legittimità superano la routinizzazione, lasciando l'impegno frammentato e ancora potenzialmente reversibile.

Lo studio contribuisce con evidenze diagnostiche a livello micro alla ricerca sulle transizioni verso la sostenibilità, inquadrando l'integrazione ESG come apprendimento organizzativo in condizioni di complessità istituzionale. Le implicazioni sottolineano la necessità di rafforzare le capacità, di un supporto alla rendicontazione proporzionato e di azioni coordinate tra scienza, policy e pratica, incluse infrastrutture intermedie che traducano la complessità regolatoria in routine operative per PMI con risorse limitate.

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1 Introduction

In recent years, growing attention to Environmental, Social and Governance (ESG) criteria has significantly reshaped how firms conceptualise and operationalise sustainability and corporate social responsibility. From a sustainability transitions perspective, ESG can be interpreted as part of a broader socio-institutional transformation, providing a cognitive and organisational infrastructure through which firms frame, prioritise, and routinise sustainability concerns. Although ESG-related research has expanded rapidly, recent reviews highlight persistent gaps in understanding how these processes unfold within small and medium-sized enterprises (SMEs), particularly beyond large-corporation settings and Anglo-Saxon institutional contexts (Seow, 2026).

Corporate sustainability – once largely confined to the ethical and value-oriented domain of corporate social responsibility (CSR) – has increasingly become a structuring principle of corporate governance and business strategy. This shift is supported by an evolving regulatory landscape and by intensifying institutional, financial, and reputational pressures. More broadly, it reflects changing managerial expectations and a reconfiguration of governance arrangements under conditions of institutional complexity and accelerating sustainability transition dynamics. For SMEs, this transition is particularly demanding, as sustainability is increasingly understood not only as a normative expectation but as an organisational imperative requiring sustained learning, coordination, and adaptive capabilities.

The adoption of the Corporate Sustainability Reporting Directive (CSRD) and its transposition into Italian law through Legislative Decree No. 125/2024 mark a significant turning point in the governance of corporate sustainability. Sustainability reporting is no longer merely a voluntary practice but is increasingly configured as a regulatory and managerial requirement that progressively extends to small and medium-sized enterprises (SMEs) as well.

Within this evolving regulatory landscape, the literature has yet to fully explain how internal organisational arrangements mediate external institutional pressures, particularly in SMEs characterised by limited organisational formalisation and strong entrepreneurial imprinting. The resulting gap appears to stem less from a lack of interest in ESG among SMEs than from a limited understanding of how ESG-related awareness translates into organisational routines, governance structures, and operational practices.

To address this limitation, this study introduces the concept of a “liminal stage of ESG maturity.” The notion is intended to capture an intermediate condition situated between symbolic engagement and the full institutionalisation of sustainability practices. More specifically, the liminal stage refers to a situation in which awareness and legitimacy-oriented responses develop more rapidly than the

stabilisation of governance routines, measurement systems, and organisational capabilities. Under such conditions, sustainability engagement may remain fragile, fragmented, and potentially reversible.

This regulatory transition is accompanied by a deeper cultural shift: sustainability is no longer merely a matter of regulatory compliance but increasingly represents a strategic variable influencing corporate reputation, access to finance, investor attractiveness, and long-term competitiveness (Eccles & Klimenko, 2019; Friede, Busch, & Bassen, 2015). More broadly, this shift reflects a reconfiguration of firms' value creation logics, whereby non-financial considerations are progressively integrated into managerial decision-making and governance for sustainability. However, recent studies emphasise that this integration remains uneven, particularly among SMEs, which frequently lack the organisational infrastructures necessary to stabilise sustainability-oriented practices (Tsang, Fan, & Feng, 2023; Minutiello, Tettamanzi, & Murgolo, 2026).

The academic literature consistently highlights a pronounced asymmetry in the diffusion of ESG principles between large corporations and SMEs (Spence, 2016; Cantele & Zardini, 2018). Recent empirical evidence confirms that ESG disclosure and reporting practices remain significantly less structured in SMEs than in large firms, primarily due to limited internal infrastructures, capability constraints, and disproportionate cost burdens (Shalhoob & Hussainey, 2023). Large corporations, driven by transparency requirements and financial market pressures, tend to embed ESG considerations within formal planning and reporting systems. By contrast, SMEs-while increasingly recognising the strategic relevance of sustainability-often display lower levels of organisational formalisation, a strong dependence on entrepreneurial values, and more fragmented approaches to sustainability management (Del Baldo, 2020). Recent empirical contributions further suggest that this asymmetry cannot be explained solely by differences in firm size but also reflects unequal access to capabilities, intermediaries, and governance support structures (Tsang, Fan, & Feng, 2023). As a consequence, many SMEs experience an implementation gap between the cognitive endorsement of ESG principles and their effective organisational routinisation.

Within this framework, the present study examines how Italian small and medium-sized enterprises (SMEs) perceive, interpret, and manage ESG criteria, with particular attention to the role of governance arrangements, motivational drivers, and organisational barriers. Specifically, the study investigates how firms translate institutional and market pressures into internal learning processes and corresponding adaptations in governance structures.

From this perspective, the study pursues two interrelated objectives:

- To explore the level of ESG awareness and literacy among Italian SMEs;
- To assess the extent to which these firms perceive ESG criteria as a lever for strategic competitiveness rather than merely as a regulatory constraint.

Both objectives are framed through an organisational learning perspective, focusing on how awareness, interpretation, and routinisation evolve within SMEs under conditions of institutional pressure.

Accordingly, the study is guided by the following research question:

RQ1 – How do Italian SMEs perceive ESG criteria, and which governance – and learning – related factors influence their ability to integrate these criteria into corporate strategy and organisational routines?

This question addresses the micro-foundations of sustainability transitions by emphasising learning and governance mechanisms rather than compliance outcomes alone.

From this overarching question derives a more operational sub-question:

RQ1a – What are the main drivers and perceived barriers shaping ESG adoption among Italian SMEs, and how do these perceptions vary according to firm size and governance configuration?

This sub-question supports the identification of enabling and constraining conditions across heterogeneous SME contexts.

The Italian context is particularly relevant in this respect, as small and medium sized enterprises account for more than 90% of the national productive system and therefore constitute a crucial empirical setting in which to observe how sustainability pressures are translated into organisational practices. Examining ESG integration within Italian SMEs therefore provides a valuable opportunity to understand how sustainability transitions unfold in economic systems characterised by dense networks of smaller firms and relatively limited organisational formalisation.

Adopting an empirical descriptive research design, the study draws on data collected through a structured questionnaire administered to a sample of 82 firms. The analysis aims to contribute to the academic debate on the relationship between governance and corporate sustainability by providing diagnostic evidence on the degree of ESG maturity among SMEs and on the trajectories through which sustainability related practices evolve within these organisations. Methodologically, the study seeks to generate diagnostic insights into SMEs' transition readiness rather than to establish causal relationships. This approach is consistent with sustainability science perspectives that emphasise the complexity and multi-level nature of socio organisational transformations.

Despite growing academic attention to ESG and corporate sustainability, the existing literature still presents several important limitations. First, empirical investigations remain predominantly focused on

large corporations, while SMEs, particularly in continental European contexts, remain comparatively underexplored. Second, the relationship between governance configurations, ESG adoption and organisational learning remains theoretically fragmented, with limited integration across these strands of research. Third, sustainability transition scholarship has only partially engaged with firm level governance and learning mechanisms as micro dynamics shaping transition processes.

This study seeks to address these gaps by contributing to the debate on Sustainable Corporate Governance in Italian SMEs through an empirical analysis that conceptualises ESG as an organisational learning infrastructure and governance as a translation mechanism linking external institutional pressures, internal organisational routines and the development of future oriented capabilities. Rather than attempting to reconcile multiple overarching theoretical frameworks, the study adopts a focused learning-oriented perspective and highlights how governance structures may enable or constrain the stabilisation and institutionalisation of sustainability practices within SMEs.

In this regard, the paper offers three interconnected contributions:

- First, it provides a conceptual contribution by formalising the notion of a *liminal stage of ESG maturity* as an intermediate phase in organisational sustainability transitions.
- Second, it offers an empirical contribution by presenting diagnostic evidence on governance arrangements, organisational learning processes, and capability constraints among Italian SMEs.
- Third, it advances a science policy practice contribution by identifying the conditions under which support instruments and intermediary initiatives may facilitate SMEs' transition pathways beyond symbolic ESG adoption.

The paper is structured as follows. Section 2 reviews the relevant literature. Section 3 outlines the research design and methodological approach. Section 4 presents and discusses the empirical findings. Section 5 concludes by outlining the implications for research, practice, and policy, with particular attention to the science policy practice interface.

From an epistemological perspective, the study adopts a diagnostic and interpretive stance. The objective is not to provide causal explanations but to generate context sensitive and action relevant knowledge aimed at identifying the enabling and constraining conditions shaping sustainability transitions at the organisational level. This positioning aligns with sustainability science traditions that emphasise reflexive and problem-oriented inquiry into real world transition processes.

2 Literature

2.1 Literature identification and analytical focus

This study is grounded in an exploratory and interpretive research perspective aimed at understanding how Italian small and medium sized enterprises (SMEs) perceive and translate Environmental, Social and Governance (ESG) criteria into organisational routines and governance arrangements. Rather than focusing solely on the presence of sustainability practices, the analysis examines how sustainability related pressures are interpreted and translated into organisational responses, including learning processes, the development of routines, and adaptations in governance structures.

To support the development of the theoretical framework, a structured narrative review was conducted between January and March 2025 in order to identify the principal scholarly contributions addressing ESG and SMEs. The bibliographic search was performed using the Scopus, Web of Science, and Google Scholar databases. The initial search yielded 112 potentially relevant publications. Following a screening of titles and abstracts to assess their relevance to SMEs and ESG governance, 73 articles were retained for full text examination. Of these, 39 publications were considered directly relevant to the research focus and were subsequently used to inform the construction of the theoretical framework.

Although the review was not conceived as a fully systematic literature review, the structured screening procedure ensured thematic coherence and analytical transparency. The search strategy employed the following keywords: ESG, sustainability reporting, corporate governance, SMEs, responsible management, family business, and corporate social responsibility in SMEs. Publications written in English or Italian and published between 2005 and 2024 were considered. Particular attention was devoted to studies examining the relationship between sustainability, governance, organisational performance, and learning processes within small firm contexts.

The purpose of the review was therefore to map dominant themes and identify conceptual gaps in the literature, rather than to provide a comprehensive systematic review with meta analytical synthesis.

The literature review reveals three main interpretative strands.

First, ESG is conceptualised as a lever for legitimacy and reputational positioning, through which firms respond to growing societal and institutional expectations regarding responsible business conduct (Eccles & Klimenko, 2019; Spence, 2016).

Second, ESG is increasingly framed as a strategic instrument for managing risk and fostering innovation, enabling firms to anticipate regulatory changes, improve operational resilience, and develop new competitive capabilities (Friede, Busch & Bassen, 2015; Galbreath, 2019).

Third, sustainability in SMEs is frequently interpreted as a cultural and relational phenomenon shaped by entrepreneurial values, local embeddedness, and stakeholder relationships within territorial contexts (Del Baldo, 2020; Cantele & Zardini, 2018).

Taken together, these strands suggest that sustainability trajectories in SMEs often evolve through intermediate and non-linear phases, in which cognitive awareness and legitimacy seeking precede the routinisation, formalisation, and measurement of sustainability practices. This interpretation is consistent with the notion of a liminal stage of ESG maturity developed in the present study.

The review also confirms that empirical research focusing specifically on Italian SMEs remains relatively limited and is predominantly qualitative in orientation. This gap further underscores the relevance of the present investigation, which seeks to provide diagnostic evidence on how perceptions, constraints, and governance arrangements shape the current positioning of SMEs with respect to ESG integration.

2.2 ESG, sustainability transitions and organisational governance

Over the past two decades, the international literature on Environmental, Social and Governance (ESG) criteria has expanded considerably, reflecting the growing attention of academic, financial, and institutional communities to sustainability as a driver of competitiveness, legitimacy, and long-term value creation. In parallel, the field of sustainability science has increasingly conceptualised sustainability related transformations as complex socio organisational processes requiring integrative and systems-oriented perspectives rather than isolated managerial adjustments (Sahle, Wiek, Lang, & Westley, 2025). Recent systematic reviews confirm that, despite the rapid expansion of ESG research, scholarship addressing SMEs remains fragmented and comparatively under theorised, particularly with regard to organisational learning processes and governance mechanisms (Seow, 2026). From this perspective, firm level ESG trajectories can be interpreted not merely as managerial responses but as micro level processes that contribute to broader sustainability transition dynamics.

A landmark contribution in this field is the meta analysis conducted by Friede, Busch and Bassen (2015), which synthesised evidence from more than two thousand empirical studies and identified a predominantly positive relationship between ESG performance and financial outcomes. Their findings suggest that sustainability should not be regarded as a cost but rather as a potential source of long term competitive advantage. Subsequent analyses, including those promoted by the *Principles for Responsible Investment* (2024) and the work of Eccles and Klimenko (2019), further demonstrate that the integration of ESG criteria into managerial practices enables firms to reduce operational risk, improve organisational efficiency, and strengthen stakeholder trust. At the same time, ESG integration contributes to the accumulation of reputational capital and facilitates access to sustainable financial

markets. Within this perspective, ESG integration may therefore be understood as a process through which sustainability considerations become progressively embedded within organisational decision making and strategic governance.

A growing body of research has also emphasised the institutional and governance dimensions as critical preconditions for effective sustainability integration. Aguilera, Rupp, Williams and Ganapathi (2007) interpret the adoption of ESG related practices as an evolutionary expression of organisational responsibility in which social legitimacy becomes a structural component of competitive success. In a similar vein, Baumann-Pauly and Scherer (2012) and Spence (2016) highlight the importance of decision making transparency, stakeholder participation, and inclusive governance arrangements as key conditions for the credibility and coherence of sustainability policies, particularly within smaller organisations. More recent contributions extend this perspective by explicitly linking governance arrangements to processes of organisational learning and adaptive capacity under sustainability related pressures (Xia, 2022; Zhu, Zhi, & Fang, 2025). Consistent with these insights, sustainability science emphasises that governance for sustainability involves the coordination of actors, rules, and knowledge across organisational and societal domains. Such coordination requires mechanisms that extend beyond traditional compliance oriented approaches (Wiek, Ness, Brand, Schweizer-Ries, & Farioli, 2025). Within this framework, governance can be interpreted as a translation mechanism through which external institutional pressures are aligned with internal organisational routines and learning processes.

More recently, scholars have highlighted that sustainability operates within a context of increasing institutional complexity in which economic, ethical, and regulatory logics coexist and may occasionally conflict (Greenwood, Raynard, Kodeih, Micelotta, & Lounsbury, 2011). The co-existence of these multiple institutional logics helps explain why ESG adoption does not follow uniform trajectories but is instead shaped by cultural, sectoral, and territorial factors. In such contexts, governance assumes a mediating role by translating external expectations into organisational practices and enabling firms to construct multiple forms of legitimacy (Freeman & Dmytriiev, 2021). Resilience oriented perspectives further emphasise that adaptive governance and organisational learning are essential capabilities for navigating such complexity and preventing processes of decoupling or merely symbolic adoption (Sahle, Wiek, Lang, & Westley, 2025). From a sustainability transitions perspective, adaptive governance supports the iterative adjustment of organisational routines under conditions of uncertainty, thereby increasing the likelihood that emerging sustainability practices become stabilised rather than remaining fragile or reversible.

2.3 ESG adoption in SMEs: constraints, capabilities and intermediaries

When the focus shifts to the context of small and medium sized enterprises (SMEs), the literature reveals a more nuanced and heterogeneous picture. Early studies suggested that SMEs tend to interpret sustainability primarily in value based and relational terms rather than through a strategic or financial lens (Jenkins, 2006; Spence, 2016). More recent empirical evidence qualifies this view, indicating that although relational and value based orientations remain significant, SMEs are increasingly exposed to strategic and regulatory drivers that challenge predominantly informal approaches to ESG integration (Tsang, Fan, & Feng, 2023; Minutiello, Tettamanzi, & Murgolo, 2026). Lepoutre and Heene (2006) observed that socially responsible behaviour in SMEs is frequently informal and strongly dependent on entrepreneurial values. However, more recent research indicates that when SMEs receive support from institutional actors, trade associations, or training programmes, they are able to develop more structured sustainability practices oriented towards innovation and operational improvement (Galbreath, 2019). Additional empirical evidence suggests that firm size moderates the relationship between ESG initiatives and performance outcomes, with larger SMEs generally better positioned to establish governance mechanisms and capture ESG related benefits (Chen, Zhang, & Elston, 2026).

The asymmetry between large corporations and SMEs is therefore not merely a matter of organisational scale. Rather, it reflects unequal access to internal capabilities, external support structures, and governance infrastructures. From a sustainability transitions perspective, such infrastructures play a crucial role in enabling organisational learning, evaluation, and the stabilisation of emerging practices, particularly in experimental and resource constrained organisational environments (Luederitz et al., 2017). Empirical research further demonstrates that structured capability building initiatives significantly enhance sustainability integration among SMEs operating in resource constrained sectors (Tsang, Fan, & Feng, 2023). In this context, intermediary organisations and collaborative infrastructures perform an important enabling function by reducing capability constraints and supporting SMEs in moving beyond ad hoc or purely symbolic forms of ESG engagement (Wiek, Ness, Brand, Schweizer-Ries, & Farioli, 2025).

Within the Italian context, which remains comparatively underexplored in the international literature, the contributions of Cantele and Zardini (2018) and Del Baldo (2020) confirm these tendencies. Their studies show that SMEs frequently interpret sustainability both as a reputational resource and as a response to growing pressures arising from supply chains, financial institutions, and European regulatory frameworks. The introduction of the Corporate Sustainability Reporting Directive and its transposition into Italian law through Legislative Decree No. 125 of 2024 represents a significant turning point, transforming sustainability reporting from a largely voluntary practice into an increasingly institutionalised regulatory requirement. Nevertheless, recent studies emphasise that

sustainability reporting frameworks may generate disproportionate administrative and measurement burdens for SMEs, particularly in the absence of simplified standards and dedicated support infrastructures (Setyaningsih, Widjojo, & Kelle, 2024). This suggests that the principal challenge for SMEs lies not only in acquiring technical ESG knowledge, but also in embedding sustainability within governance arrangements and organisational decision-making routines.

Overall, the literature indicates that barriers to ESG adoption in SMEs are associated with fragmented practices, limited organisational capabilities, and weak measurement systems. At the same time, opportunities for sustainability integration emerge through processes of organisational learning, institutional intermediation, and collaborative governance. From this perspective, ESG engagement in SMEs can be interpreted as a developmental pathway whose stabilisation depends less on regulatory compliance alone and more on the formation of capabilities and the availability of governance support mechanisms.

2.4 Family governance, organisational learning and the liminal stage of ESG maturity

A substantial body of research has focused specifically on family-owned firms, introducing the concept of responsible ownership (Berrone, Cruz, Gomez-Mejia, & Larraza-Kintana, 2010). Although this perspective is well established rather than emergent, recent reviews emphasise its continued relevance for understanding ESG engagement within family SMEs (Hughes et al., 2025). In this literature, family ownership is interpreted not as a structural constraint but as a potential enabling condition for sustainability, owing to shared values, long term orientation, and strong relational capital. This interpretation is consistent with the findings of Cantele and Zardini (2018) and Del Baldo (2020), who argue that family governance can act as a catalyst for ESG practices when accompanied by increasing managerialisation and the development of organisational learning mechanisms. Accordingly, the present study does not focus exclusively on family SMEs but considers different governance configurations, including family-based ones, as potential moderators shaping organisational learning processes and the routinisation of ESG practices.

Recent scholarship has also advanced a practice based and cognitive approach to sustainability, often referred to as sustainability as practice. This perspective conceptualises sustainability not as a static outcome but as an emergent organisational process unfolding through everyday practices and decision making activities (Whittington, 2006; Jarzabkowski, Bednarek, Burke, & Spee, 2021). In dialogue with organisational learning theory (Argyris & Schön, 1996), this approach interprets ESG integration as a multi-level learning process through which firms progressively connect economic, environmental, and social objectives within governance routines. Systematic reviews further confirm that organisational learning represents a central mechanism linking governance structures, leadership practices, and ESG

performance outcomes (Xia, 2022; Zhu, Zhi, & Fang, 2025). Similarly, agenda setting contributions within sustainability science call for research designs capable of capturing learning dynamics and cross actor interactions in real world sustainability transitions (Sahle, Wiek, Lang, & Westley, 2025; Wiek, Ness, Brand, Schweizer-Ries, & Farioli, 2025).

Building on these perspectives, this study introduces the concept of a liminal stage of ESG maturity as an intermediate phase within organisational sustainability transitions. During this stage, SMEs demonstrate increasing awareness of sustainability issues and growing legitimacy oriented intentions, yet they lack the organisational capabilities, routines, and measurement infrastructures required for stable institutionalisation. As a consequence, ESG engagement often remains person dependent, fragmented, and only weakly embedded within governance structures. Conceptually, the notion of a liminal stage helps explain the persistence of an implementation gap in which cognitive alignment and perceived relevance develop more rapidly than organisational capacity. Under such conditions, transition trajectories remain uneven and potentially reversible. Unlike symbolic adoption, which implies deliberate decoupling between discourse and practice, the liminal stage reflects genuine engagement that remains constrained by capability limitations and incomplete governance structures.

Within this framework, the present study investigates how Italian SMEs perceive ESG principles, which factors influence their adoption, and how governance arrangements may function either as catalysts or as constraints in the transition towards more integrated sustainability practices. Rather than testing causal hypotheses, the study provides diagnostic evidence on the organisational conditions under which liminal ESG engagement may evolve into more stabilised sustainability practices.

3 Materials and methods

This section outlines the empirical design of the study, describing the characteristics of the sample, the structure of the questionnaire, and the analytical strategy adopted for interpreting the data.

The methodological framework combines quantitative and qualitative approaches in order to explore the perceptions, motivations, and organisational practices of Italian SMEs with regard to ESG adoption. Consistent with perspectives in sustainability science, the study adopts a diagnostic orientation. Its objective is to identify the enabling and constraining conditions that shape SMEs' transition readiness and influence the stabilisation of ESG related routines in contexts of institutional change.

The research design, data collection procedures, and analytical methods are presented in the following subsections.

3.1 Sample selection and description

The empirical phase of the research was conducted between June and September 2025 through the administration of a structured questionnaire to a sample of 82 Italian small and medium sized enterprises. The questionnaire was distributed via electronic mail and subsequently followed by direct contact with owners or senior managers in order to ensure informed and reliable responses. The aim of the survey was to collect comparable data on key organisational variables related to sustainability, including firm size, sector, governance configuration, and strategic orientation. These variables are treated as transition relevant organisational conditions that may enable or constrain the routinisation of ESG practices and the development of organisational learning pathways.

The participating firms operate in the manufacturing sector (42%), the agri food sector (33%), and the service sector (25%). Most firms are located in the regions of Lombardy, Emilia Romagna, and Veneto, which are characterised by well-established industrial districts and highly integrated production networks. The selection of these territories follows a criterion of empirical relevance, as they represent areas with a high density of SMEs and a strong industrial tradition. From a sustainability science perspective, territorial embeddedness is analytically significant because local networks and supply chain relationships may act as intermediary structures that shape information flows, legitimacy pressures, and organisational learning processes.

The sample was constructed through a combination of convenience sampling and the snowball sampling technique. The initial firms contacted subsequently referred other companies operating within the same territorial ecosystem. Although this approach does not ensure full statistical representativeness, it is appropriate for exploratory studies aimed at reconstructing perceptual and behavioural patterns rather than generating statistically generalisable inferences (Yin, 2018). The use of non-probabilistic sampling inevitably limits statistical generalisation; however, this limitation is consistent with the diagnostic purpose of the study. Rather than estimating population parameters, the research seeks to identify recurring configurations of awareness, constraints, and governance arrangements that are theoretically meaningful for understanding organisational transition dynamics.

The effective response rate reached 68%, indicating a satisfactory level of participation when compared with similar surveys involving SMEs. The dimensional composition of the sample is as follows: 46% micro enterprises with fewer than ten employees, 39% small enterprises employing between ten and forty-nine employees, and 15% medium sized enterprises employing between fifty and two hundred and forty-nine employees. While this distribution reflects the actual predominance of micro and small firms in the Italian economy, it should not be interpreted as statistically balanced across size categories.

With regard to governance structures, 64% of the firms in the sample are family owned, whereas 36% display more formalised managerial arrangements. For the purposes of this study, the term family owned refers to firms in which ownership and top management are predominantly controlled by members of the same family. By contrast, the expression “more formalised managerial arrangements” refers to the presence of structured governance roles, such as non-family managers with decision making authority, formal boards, or clearly assigned ESG responsibilities, irrespective of ownership concentration. This distinction does not imply that family firms necessarily lack organisational formalisation; rather, it enables an exploratory comparison across different governance configurations.

3.2 Questionnaire design and administration

The questionnaire was explicitly designed to operationalise the core constructs of the theoretical framework. In particular, the instrument translates the three dimensions of the proposed liminal stage of ESG maturity, namely cognitive alignment, organisational structuring, and institutional embedding, into measurable survey items. Items D1 to D3 capture the cognitive dimension of ESG adoption and refer respectively to awareness, ESG literacy, and perceived strategic relevance. Items D4 and D5 operationalise the motivational and constraint related mechanisms through which external pressures and internal organisational values interact. Item D6 addresses the degree of organisational institutionalisation and serves as a proxy for governance based routinisation. Finally, items D7 and D8 capture perceived reinforcement mechanisms that sustainability transitions research identifies as critical for the stabilisation of emerging sustainability practices.

This explicit alignment between theoretical constructs and survey items strengthens the coherence between the conceptual framework, the empirical design, and the analytical strategy, while clarifying how abstract theoretical dimensions are translated into observable variables.

Prior to the main data collection phase, a pilot test was conducted with five firms operating in different sectors in order to assess the semantic clarity of the questions and the internal coherence of the questionnaire structure. The pilot phase led to minor linguistic revisions aimed at improving readability and reducing potential interpretative ambiguities. It also confirmed that the items were able to capture the three key dimensions of ESG engagement addressed in this study, namely cognitive awareness, motivational drivers and barriers, and organisational institutionalisation.

The final questionnaire consists of eight closed and semi structured questions organised into three thematic areas, as summarised in Table 1. The instrument was designed to capture a progressive sequence from awareness to motivations and organisational structuring, thereby approximating the transition of SMEs from symbolic engagement with sustainability towards more routinised and institutionally embedded ESG practices.

Table 1 – Structure and purpose of the questionnaire

Thematic Area	Questions	Content and analytical purpose
Awareness and knowledge of ESG criteria	D1-D3	To measure the level of ESG literacy, the main sources of information, and the strategic perception of sustainability as a lever for competitiveness.
Drivers and barriers to adoption	D4-D6	To identify motivational factors (reputation, supply chain, credit, values) and obstacles (costs, competences, regulatory clarity), as well as to verify the presence of dedicated organisational structures.
Perceived impacts and future prospects	D7-D8	To assess perceived benefits (reputation, efficiency, risk reduction) and expectations regarding the future mandatory nature of ESG reporting.

Source: Authors' elaboration

The questionnaire employed five-point Likert scales and multiple-choice options, complemented by open comment fields designed to capture qualitative nuances and individual motivations. These qualitative responses were used to explore how respondents frame ESG, whether primarily as a compliance requirement, a strategic opportunity, or a learning process. In this way, qualitative insights complemented the quantitative patterns emerging from the survey.

The instrument progressively investigates respondents' knowledge, motivations, and perceptions regarding ESG related issues. The purpose of each item is described below in order to clarify its contribution to construct operationalisation.

The initial section assesses awareness and literacy. Respondents were asked to indicate how familiar they considered themselves with ESG principles and their relevance to their business activities (D1). A second question explored the main sources through which respondents obtained information on ESG

criteria (D2). A third question (D3) examined whether sustainability is perceived as a strategic factor for future competitiveness. Taken together, items D1 to D3 provide a proxy for cognitive adoption and information channels, which sustainability transitions research frequently identifies as important preconditions for the subsequent routinisation of sustainability practices.

The second section investigates motivations and perceived barriers. Question D4 asks respondents to identify the main drivers motivating the integration of ESG criteria, including reputational considerations, supply chain pressures, access to credit, ethical values, and regulatory compliance. Question D5 explores the principal barriers perceived by firms, such as implementation costs, lack of internal expertise, regulatory uncertainty, and limited organisational resources. Question D6 examines whether the firm has formally appointed a sustainability officer or established an internal working group responsible for sustainability related initiatives. Items D4 to D6 therefore operationalise the translation mechanism described in the conceptual framework, namely the process through which external pressures and internal motivations interact with organisational capacity and governance arrangements.

The final section focuses on perceived impacts and future expectations. Question D7 captures perceived benefits associated with ESG adoption, including improved reputation, operational efficiency, employee retention, reduced legal risk, and improved access to financial resources. Question D8 investigates respondents' expectations regarding the future relevance of ESG reporting, particularly whether it is likely to become mandatory or strategically essential within the next five years. These items capture perceived reinforcement mechanisms that may contribute to the stabilisation of ESG practices beyond purely symbolic engagement.

Overall, the sequence of the eight questions provides a structured representation of SMEs' sustainability maturity by integrating cognitive, motivational, and organisational dimensions. The questionnaire design, informed by established references such as Spence (2016) and Cantele and Zardini (2018), ensures consistency with the international literature and enhances comparability with other empirical studies addressing ESG adoption in SMEs. From a sustainability transitions perspective, the sequence approximates a pathway progressing from awareness to organisational translation and potential stabilisation of sustainability practices. This structure supports the interpretation of SMEs' positioning within a liminal stage of ESG maturity.

For methodological transparency, Table 2 presents a detailed overview of the questions included in the survey, specifying for each item the type of measurement scale employed and its analytical purpose. This table clarifies the operationalisation of the constructs and enhances the replicability of the research design.

Table 2 – Questionnaire items and analytical purpose

Questions	Scale / type of responses	Analytical purpose
D1 - How familiar do you consider yourself with ESG principles and their relevance to your company?	Likert scale (1-5)	To assess the level of ESG literacy and individual awareness of sustainability issues.
D2 - From which sources have you obtained information on ESG criteria? (specialised media, clients, financial institutions, consultants, trade associations, EU regulations).	Multiple choice	To identify the main channels of learning and information about sustainability.
D3 - Do you consider sustainability a strategic factor for your firm's future competitiveness?	Likert scale (1-5)	To measure the perception of ESG as a strategic lever for development and innovation.
D4 - What are the main motivations driving your firm to adopt ESG practices? (reputation, client demands, access to credit, ethical values, regulatory compliance).	Multiple choice	To identify the primary drivers underlying the adoption of sustainable practices.
D5 - What barriers do you consider most relevant to implementing ESG policies? (costs, lack of competences, regulatory uncertainty, limited resources).	Multiple choice	To capture the perceived barriers to sustainability implementation in SMEs.
D6 - Does your company have a person or working group formally dedicated to sustainability?	Closed question (yes/no + optional description)	To evaluate the degree of organisational formalisation and the presence of internal ESG structures.
D7 - Which benefits do you consider most significant as a result of adopting ESG practices? (reputation, operational efficiency, employee retention, reduced legal risk, improved access to credit).	Multiple choice	To explore perceptions of the positive effects generated by ESG integration.
D8 - Do you believe ESG reporting will become mandatory or strategically relevant for your firm within the next five years?	Likert scale (1-5)	To analyse expectations regarding the regulatory and strategic evolution of sustainability in SMEs.

Source: Authors' elaboration

3.3 Analytical strategy and data interpretation

The data collected were analysed using a quantitative descriptive approach aimed at identifying the main trends within the sample. Descriptive statistics, including frequencies, means, and cross tabulations, were used to summarise the distribution of responses across the survey items. The analytical strategy was explicitly descriptive and exploratory in nature. For clarity, the term “patterns” refers to observable occurrences and distributional differences across variables and subgroups, rather than to statistically tested correlations or causal relationships. No inferential statistical models were estimated and no causal relationships were tested. This analytical choice is consistent with the exploratory and interpretive orientation of the research questions, which are designed to identify emerging configurations rather than to test predefined hypotheses.

The analytical phase was organised in two stages.

First, a data cleaning and validation phase ensured the completeness of responses and the internal consistency of the dataset.

Second, an exploratory subgroup analysis was conducted by comparing results across three classification variables: firm size, economic sector, and governance structure, distinguishing between family based and more formalised managerial arrangements. These subgroup comparisons are descriptive and exploratory in nature. The analysis focuses on distributional patterns and mean differences across categories without estimating statistical models. The objective is to identify indicative differences that support analytical interpretation rather than statistical inference. In particular, subgroup comparisons were used to explore whether greater governance formalisation and larger firm size are associated with higher levels of ESG routinisation, in line with the conceptual framework and with expectations concerning organisational transition readiness.

Consistent with the exploratory design of the study, the term association is used in a descriptive sense only and refers to observable differences in response patterns across subgroups. No correlation coefficients or regression models were estimated.

In parallel, the open-ended comments provided by respondents were analysed through a qualitative content analysis procedure following the approach proposed by Krippendorff (2018). An initial phase of open coding was conducted to identify recurrent themes related to motivations, perceived constraints, and interpretations of ESG, including compliance oriented, opportunity driven, and learning oriented framings. In a second step, these themes were grouped into higher order categories aligned with the analytical dimensions of the study, namely cognitive alignment, organisational structuring, and perceived reinforcement mechanisms. Coding was conducted independently by two researchers and subsequently compared to ensure interpretative consistency. Discrepancies were discussed and resolved through iterative refinement of the category definitions. This procedure enhances transparency and

strengthens the credibility of the qualitative analysis. The qualitative component was used primarily to contextualise and interpret the quantitative trends rather than to generate independent explanatory claims.

Given the exploratory design and the relatively limited sample size of eighty-two firms, inferential statistical modelling such as regression analysis was not pursued. The objective of the analysis was not hypothesis testing but the identification of diagnostically relevant configurations consistent with the research questions.

The integration of quantitative and qualitative evidence follows the principle of methodological triangulation, which enhances interpretative depth and strengthens the internal coherence of findings (Eisenhardt, 1989). In the present study, triangulation does not aim to cross validate causal claims but rather to enrich the diagnostic interpretation of the patterns emerging from the survey. From a sustainability science perspective, triangulation strengthens diagnostic insight by linking measurable trends with meaning making processes and by clarifying how governance and learning dynamics are perceived and narrated by organisational actors.

The objective of the analysis was therefore not statistical generalisation but the identification of emerging patterns interpreted as recurring configurations of attitudes, barriers, and drivers related to ESG adoption. The use of descriptive statistics is thus consistent with the epistemological positioning of the study as diagnostic and interpretive rather than explanatory. The combination of numerical data and narrative evidence enables a more nuanced understanding of the relationship between sustainability, governance, and strategy in Italian SMEs.

Consistent with sustainability science approaches, the empirical design prioritises the exploration of organisational learning processes and governance perceptions over causal inference, with the aim of capturing how SMEs interpret and enact sustainability under conditions of uncertainty and institutional change (Sahle, Wiek, Lang, & Westley, 2025). In this respect, the study contributes diagnostic evidence to the science policy practice interface by identifying areas in which capability bottlenecks and governance related learning constraints are most likely to slow the stabilisation of ESG practices.

4 Results

This section presents the findings of the empirical survey conducted among the eighty-two Italian small and medium sized enterprises that participated in the study, with the aim of examining their perceptions of ESG principles and the extent to which these principles are integrated into their managerial practices. The analysis is primarily based on descriptive statistical elaborations,

complemented by a qualitative interpretation of the open ended comments provided by respondents. Consistent with the exploratory and descriptive design of the research, the findings are presented as indicative patterns rather than as statistically generalisable results.

The results are organised according to the three thematic areas addressed in the questionnaire, as summarised in Table 3: awareness and knowledge of ESG criteria; drivers and barriers shaping ESG adoption; and perceived impacts together with future expectations. This structure facilitates the reconstruction of SMEs' current positioning with regard to ESG integration while avoiding any implication of a linear or causal progression.

Given the cross-sectional nature of the study, the analysis captures the present configurations of firms' attitudes and organisational practices rather than changes occurring over time.

Table 3 – Summary of main descriptive findings

Dimension	Main finding	Percentage / Value
ESG knowledge (D1)	Partial knowledge	61%
ESG knowledge (D1)	Good knowledge	23%
ESG knowledge (D1)	Comprehensive knowledge	5%
Strategic relevance (D3)	Fairly/very relevant	71%
ESG action	Systematic sustainability/reporting actions already initiated	18%
Main driver (D4)	Corporate reputation	68%
Main barrier (D5)	Lack of specific competences	62%
Formal ESG role (D6)	Presence of formal role/structure	17%
Main perceived benefit (D7)	Enhanced reputation	74%
Regulatory expectations (D8)	ESG reporting very likely to become mandatory	63%

Source: Authors' elaboration

4.1 Level of awareness and knowledge of ESG criteria

The analysis remains descriptive in nature. Exploratory comparisons across firm size and governance structure are used solely to identify possible differences within the sample rather than to establish statistically tested relationships.

The analysis of the first three questions (D1 to D3) reveals a pattern of increasing yet still incomplete awareness of ESG issues. When asked about their overall knowledge of ESG criteria, 61%

of firms reported having a partial understanding, 23% indicated a good level of knowledge, and only 5% reported a comprehensive understanding. The remaining 11% declared that they had no knowledge of ESG principles. These frequencies suggest that ESG considerations are present within the cognitive horizon of firms, although levels of literacy vary substantially across the sample.

These findings are consistent with the trend identified by Spence (2016) and Del Baldo (2020), according to which sustainability in SMEs is often interpreted more as a value-based orientation than as a structured set of managerial practices. The results therefore indicate that value based endorsement does not necessarily translate into formalised organisational routines or measurement systems.

A disaggregated analysis by firm size shows that medium sized enterprises employing between fifty and two hundred and forty-nine employees reported an average ESG knowledge score of 3.7 out of 5, which is higher than the scores recorded among small enterprises with an average of 2.9 and micro enterprises with an average of 2.4. This size related variation is consistent with recent evidence indicating that firm size moderates the relationship between ESG initiatives and performance outcomes, with larger firms being better positioned to structure governance mechanisms and capture ESG related benefits (Chen, Zhang, & Elston, 2026). Although no inferential statistical tests were conducted, this pattern suggests that greater organisational complexity may be associated with higher levels of ESG familiarity.

With regard to information channels (D2), the most frequently cited sources were business associations, mentioned by 58% of respondents, followed by clients and supply chain partners at 46%, external consultants at 35%, and financial institutions at 31%. Only 19% of firms identified European regulation as their primary source of ESG related information. This distribution indicates the predominance of relational and network based channels of information diffusion rather than direct institutional communication.

Regarding the perceived strategic relevance of sustainability (D3), 71% of firms stated that ESG principles are fairly or very relevant for their future competitiveness. However, only 18% reported having already initiated systematic sustainability initiatives or formal reporting activities. This discrepancy between declared awareness and concrete organisational action suggests the presence of an implementation gap. Within the sample, cognitive recognition of ESG relevance appears to exceed the level of organisational formalisation.

Taken together, these findings indicate that awareness of ESG principles is increasing among SMEs, yet cognitive familiarity with sustainability issues still exceeds the degree of organisational embedding observed in the sample.

4.2 Drivers and barriers to the adoption of ESG practices

The second thematic area of the questionnaire (D4 to D6) examines the motivations and obstacles influencing the adoption of ESG practices. The results are interpreted as descriptive evidence of the enabling and constraining conditions observed within the sample.

With regard to the main drivers (D4), 68% of respondents identified corporate reputation as the primary motivating factor, followed by the improvement of reputation among clients and supply chain partners (57%) and facilitated access to credit (36%). A smaller proportion of firms (28%) associated sustainability primarily with the ethical and cultural values of the organisation itself. The configuration of responses suggests that considerations related to external legitimacy currently play a more prominent role than internally articulated strategic rationales.

The empirical evidence therefore indicates that, for many SMEs in the sample, ESG engagement is predominantly reputational in nature and does not necessarily imply the existence of integrated managerial systems or structured sustainability governance.

Turning to perceived barriers (D5), respondents identified the following main obstacles:

- lack of specific competences (62%)
- implementation costs (51%)
- regulatory ambiguity (33%)
- limited time and human resources (28%)

The prevalence of competence related barriers over purely financial constraints suggests that knowledge and skill gaps constitute a central bottleneck in the implementation of ESG practices. Some sectoral differences also emerge at a descriptive level. Manufacturing firms more frequently emphasised economic and investment related constraints, whereas service firms more often referred to competence gaps and difficulties associated with measurement and reporting.

With regard to Question D6, which investigates the presence of roles or organisational structures formally dedicated to sustainability, only 17% of firms reported having established such a formal position, for example an ESG manager, an internal sustainability team, or a designated officer. In 49% of cases, responsibility for sustainability related issues was assigned directly to the entrepreneur or to the chief administrative officer, while 34% of firms reported having no dedicated function at all. This distribution indicates that ESG responsibilities are often centralised and person dependent rather than embedded within formal governance structures.

Overall, the evidence suggests that ESG adoption within the sample is primarily driven by reputational and relational incentives, while its practical implementation is constrained by limited competences and relatively weak organisational formalisation.

4.3 Perceived impacts and future prospects

The final thematic area of the questionnaire (D7 to D8) examined firms' perceptions of the benefits associated with ESG adoption as well as their expectations regarding its future relevance.

A total of 74% of firms identified enhanced corporate reputation as the principal benefit associated with ESG adoption, followed by stronger customer loyalty (52%), improved operational efficiency (31%), and facilitated access to bank or public financing (28%). Only 12% of respondents mentioned reduced legal or regulatory risk as a tangible advantage. These responses suggest that ESG is predominantly interpreted through a reputational and relational lens rather than through a compliance oriented perspective.

A descriptive comparison across governance configurations indicates that firms characterised by more formalised managerial governance reported a higher average perceived impact score (3.9 out of 5) compared with family governed firms (3.1 out of 5). Interestingly, family owned firms, despite exhibiting lower levels of formal organisational structuring on average, often reported a stronger value based commitment to sustainability and a clearer alignment between ESG orientation and long term organisational identity. This pattern suggests that family governance may function as an initial motivational catalyst for sustainability engagement even when formal governance structures remain limited. Although this difference is descriptive and not statistically tested, the evidence suggests that governance formalisation may be associated with a stronger perception and capture of ESG related benefits.

With regard to Question D8, 63% of respondents considered it very likely that ESG reporting will become mandatory within the next five years, while 22% regarded this development as likely. Only 15% expressed scepticism. These responses indicate a widespread awareness of the evolving regulatory trajectory surrounding ESG reporting.

From a qualitative perspective, several firms expressed concern that new regulatory frameworks may be excessively complex for SMEs and may require technical competences that are not yet widely available within the local consulting market. These concerns are consistent with recent empirical evidence indicating that sustainability reporting requirements may impose disproportionate administrative and measurement burdens on SMEs, particularly in the absence of simplified standards and dedicated external support infrastructures (Setyaningsih, Widjojo, & Kelle, 2024). These qualitative insights reinforce the interpretation that capability constraints, rather than resistance in principle, represent a central challenge in the implementation of ESG practices.

Taken together, these findings suggest that many SMEs recognise the strategic relevance of ESG and anticipate increasing regulatory pressures, yet still lack the organisational capabilities required for stable and systematic implementation.

4.4 Discussion of results

From a sustainability science perspective, the empirical findings may be interpreted as indicative configurations of organisational positioning within broader sustainability transitions. Although the study adopts a cross sectional design and does not capture changes over time, it provides insight into how SMEs currently interpret and operationalise ESG related pressures. Rather than reflecting a linear progression towards sustainability, ESG adoption emerges as a non linear and learning intensive process shaped by governance arrangements, institutional pressures, and organisational sense making.

The empirical evidence both confirms and extends insights emerging from the existing literature, outlining an evolutionary configuration in which sustainability in Italian SMEs develops as a process of organisational learning. In this study, learning dynamics are observed through patterns of awareness, perceived barriers, and governance arrangements rather than through measured performance outcomes.

Consistent with perspectives that interpret governance as a system of strategic learning, the data suggest that firms adopt ESG practices not merely as a reaction to external pressures but as the gradual outcome of internal cognitive reframing. In many cases, this reframing involves a shift from an initial ethical or reputational understanding of sustainability towards a more managerial and operational interpretation. However, the evidence indicates that such cognitive change does not automatically translate into institutionalised routines, as illustrated by the limited presence of formal ESG roles, monitoring systems, and evaluative infrastructures within the firms studied.

This configuration can be interpreted along three interconnected analytical dimensions.

First, a cognitive dimension, linked to the uneven diffusion of ESG knowledge and literacy across firms, particularly between micro enterprises and medium sized enterprises.

Second, an organisational dimension, characterised by limited formalisation of roles, responsibilities, and processes specifically dedicated to sustainability management.

Third, a relational dimension, grounded in interactions with clients, financial institutions, and business associations, which emerge as important channels for the diffusion and interpretation of ESG related practices.

Taken together, these dimensions describe a patterned configuration rather than a verified causal pathway. The sequence frequently observed in the data, consisting of cognitive uptake followed by partial organisational structuring and relational mediation, suggests that ESG engagement often remains dependent on informal coordination and individual initiative.

Overall, the results indicate that ESG adoption among Italian SMEs is multidimensional and heterogeneous. In many cases it is driven primarily by reputational and relational pressures rather than by fully articulated strategic planning processes. This finding is consistent with prior research highlighting SMEs' value based orientation towards sustainability, yet the evidence also reveals

emerging attempts at organisational structuring, particularly among firms characterised by more formalised governance arrangements.

In relation to the existing literature, the findings both confirm and refine previous evidence. Consistent with the observations of Spence (2016), Italian SMEs frequently interpret sustainability as a relational value and a reputational resource. At the same time, the presence of competence related bottlenecks and limited routinisation points to structural constraints that extend beyond purely symbolic adoption.

Moreover, although intangible resources such as knowledge, relational capital, and entrepreneurial values appear to play an important role, the findings suggest that these resources require organisational conversion mechanisms, including defined roles, established routines, and evaluative infrastructures, in order to translate awareness into stabilised practices. In the absence of such mechanisms, ESG engagement risks remaining person dependent and potentially reversible.

The limited presence of formal governance structures and dedicated competences indicates that many firms operate in what this study conceptualises as a liminal stage of ESG maturity. In this stage, firms recognise the directionality of sustainability transitions and internalise legitimacy related expectations, yet governance routines and evaluative systems remain only partially developed. This conceptualisation does not imply a deterministic pathway of transition but rather provides an analytical lens through which the coexistence of awareness, motivation, and structural fragility within the sample can be interpreted.

In summary, the results suggest that ESG integration in Italian SMEs is shaped less by compliance logic alone than by the interaction between governance structures, organisational learning capacity, and capability constraints. This helps explain why ESG engagement within the sample often appears meaningful and intentional, yet remains partial and only weakly institutionalised.

5 Conclusions

This research set out to explore how Italian small and medium sized enterprises perceive and adopt ESG criteria in the context of recent regulatory transformations and the growing strategic relevance of sustainability within the European economic landscape. From a sustainability science perspective, the study provides diagnostic insight into SMEs' transition readiness by examining the micro level mechanisms through which external sustainability pressures are translated, only partially translated, or remain insufficiently embedded within organisational routines.

Addressing the research question concerning how Italian SMEs perceive ESG criteria and which factors influence their capacity to integrate them into corporate strategy and governance, the findings suggest that sustainability adoption in SMEs is best understood as a nonlinear configuration rather than as a linear progression. In many cases, awareness and willingness to comply with sustainability expectations precede the organisational and managerial capabilities required for systematic implementation. This misalignment does not necessarily indicate resistance to sustainability but rather reflects a structural gap between cognitive engagement and the institutionalisation of organisational routines.

The empirical results indicate that Italian SMEs broadly recognise the relevance of ESG principles in both reputational and competitive terms, yet frequently encounter difficulties in translating these principles into structured managerial practices. Sustainability is perceived simultaneously as a value and as a strategic opportunity, while also being associated with operational uncertainty and administrative burden. The coexistence of high perceived relevance and limited routinisation suggests that ESG engagement often occupies an intermediate and potentially reversible position within firms' governance configurations.

Differences across firms further highlight the importance of organisational structure. Larger firms and those characterised by more formalised governance arrangements tend to display higher levels of ESG knowledge and organisational structuring. Micro and small enterprises, by contrast, more frequently remain anchored to an ethical and relational interpretation of sustainability centred on entrepreneurial values and local legitimacy. This pattern suggests that governance formalisation acts as an enabling condition for the routinisation of ESG practices, whereas value based engagement alone does not necessarily lead to institutionalisation.

These findings both confirm and refine existing literature on sustainability in SMEs. While previous studies have emphasised the value driven and community oriented character of sustainability engagement among smaller firms, the present research introduces the concept of a liminal stage of ESG maturity as an analytical lens through which the observed implementation gaps can be interpreted. Rather than framing such gaps as managerial shortcomings, the notion of a liminal stage conceptualises them as a transitional organisational condition in which directionality is acknowledged but stabilisation mechanisms remain only partially developed.

The primary contribution of the study therefore lies in clarifying how governance configurations and capability constraints shape SMEs' current positioning along a continuum ranging from liminal to stabilised forms of ESG maturity. From a sustainability science perspective, this contribution provides a micro level explanation of how transition pressures interact with organisational learning processes and governance infrastructures within SMEs.

5.1 Theoretical implications

From a theoretical perspective, the study contributes to the debate on Sustainable Corporate Governance by repositioning governance not as a static structural attribute but as a dynamic learning and translation infrastructure. In this sense, governance can be understood as the organisational arena in which institutional pressures, internal values, and emerging routines are interpreted, negotiated, and progressively stabilised.

Rather than attempting to integrate multiple overarching theoretical frameworks, the study adopts a more focused interpretive perspective centred on organisational learning and governance adaptation. The findings suggest that ESG oriented change in SMEs unfolds through incremental learning processes operating at both cognitive and organisational levels. Intangible resources such as knowledge, shared values, and relational capital emerge as important enabling conditions. However, their effectiveness depends on the presence of organisational conversion mechanisms, including defined roles, routinised practices, and evaluative infrastructures capable of translating awareness into stabilised organisational behaviour.

The research further indicates that family governance, often described in the literature as resistant to formalisation, may function as a catalyst for early stage ESG engagement when accompanied by gradual managerialisation and collective learning processes. At the same time, the evidence suggests that in the absence of routinised governance mechanisms, value based engagement may remain person dependent and therefore vulnerable to discontinuity.

Conceptually, the introduction of the liminal stage of ESG maturity represents the principal theoretical contribution of the study. The liminal stage describes a transitional organisational condition characterised by three interrelated features: a high degree of cognitive alignment in terms of awareness and perceived relevance of ESG issues; a limited degree of organisational structuring in terms of roles, processes, and measurement systems; and only partial institutional embedding of sustainability practices within governance routines.

This conceptual framework helps explain why SMEs may simultaneously demonstrate commitment to sustainability while experiencing significant implementation fragility. It positions ESG adoption not as a binary shift between compliance and integration but as a gradual process of progressive stabilisation shaped by organisational learning and governance development.

In summary, sustainable governance in SMEs can be interpreted as a multi-level organisational learning process. ESG adoption evolves from initial awareness to routinisation through iterative adjustments shaped by governance arrangements and capability constraints. In doing so, the study contributes to sustainability science by offering a conceptually grounded micro level explanation of transition fragility and partial institutionalisation within SMEs.

5.2 Managerial and policy implications

The findings suggest that ESG adoption in SMEs requires a gradual and context sensitive approach. Sustainability needs to evolve from being interpreted primarily as a form of reputational signalling towards becoming embedded within organisational decision making routines.

Three operational directions emerge from the analysis.

First, competence development. Training initiatives targeting managers and entrepreneurs are essential in order to overcome capability bottlenecks and enable firms to move beyond symbolic forms of ESG engagement.

Second, institutionalisation of governance mechanisms. Even relatively simple organisational arrangements, such as the designation of ESG delegates or the establishment of cross functional teams, may help stabilise learning processes and reduce dependence on individual actors.

Third, development of evaluative infrastructures. Measurement tools and reporting routines allow firms to translate intentions into repeatable organisational practices, thereby facilitating the routinisation of sustainability related activities.

These operational directions correspond closely to the main bottlenecks identified in the empirical analysis, namely limited competences, weak organisational structuring, and uncertainty regarding regulatory complexity.

From a policy perspective, the evolution of the European regulatory framework, from the Non Financial Reporting Directive to the Corporate Sustainability Reporting Directive and its implementation through Italian Legislative Decree No. 125 of 2024, increases the formal expectations placed upon SMEs. Nevertheless, regulatory pressure alone is unlikely to produce stable and routinised forms of sustainability governance. Transition enabling infrastructures are required to support firms in adapting to these expectations. Such infrastructures may include simplified reporting templates, proportionate compliance models, accessible training programmes, and intermediary support mechanisms.

In this context, the potential role of sustainability auditors and financial institutions as translation actors becomes particularly significant. When operating as intermediaries rather than merely as evaluators, these actors may contribute to reducing capability bottlenecks and facilitating the routinisation of ESG practices.

From this perspective, sustainability should be understood not only as a regulatory requirement but also as a pathway towards organisational maturation, provided that governance infrastructures evolve alongside regulatory expectations.

5.3 Limitations and future research directions

As an exploratory and cross-sectional investigation, this study presents several limitations that should be acknowledged when interpreting the findings.

First, the use of non-probabilistic sampling limits the statistical generalisability of the results. This limitation is, however, consistent with the diagnostic purpose of the research. The objective was not to estimate population parameters but rather to identify theoretically meaningful configurations of awareness, constraints, and governance arrangements that characterise SMEs' current positioning with respect to ESG integration.

Second, the cross-sectional research design captures firms' positioning at a specific point in time and therefore does not allow observation of how ESG awareness, governance structures, and organisational routines evolve over time. Consequently, the study cannot assess whether firms move from liminal to more stabilised forms of ESG maturity, nor can it trace the temporal sequence through which such transitions may occur.

Third, the reliance on self-reported data introduces the possibility of perceptual bias. Respondents may overstate their level of awareness, strategic orientation, or degree of engagement with ESG related issues, particularly in a context where sustainability is increasingly associated with organisational legitimacy and managerial credibility. Social desirability bias may therefore affect certain responses, especially those relating to perceived relevance, values, and expected future commitments.

Fourth, the focus on Italian SMEs, and more specifically on firms located in northern regions characterised by dense production networks and well-established industrial districts, may limit the transferability of the findings to other institutional and territorial contexts. Differences in regulatory traditions, support infrastructures, and sectoral dynamics may influence ESG adoption pathways in ways that diverge from those observed in the present study.

Future research could address these limitations in several ways. Longitudinal research designs would allow scholars to observe whether SMEs move from liminal to more stabilised stages of ESG maturity under specific enabling conditions. Mixed method approaches could further deepen understanding of how organisational learning processes unfold within firms over time. Comparative studies between family and non-family SMEs may provide additional insight into the role of governance configurations in shaping ESG integration. Cross country comparisons would also be valuable in assessing the extent to which the patterns identified in the Italian context can be generalised to other SME environments.

Finally, future research could operationalise the concept of a liminal stage of ESG maturity as a measurable construct and empirically test its dimensions across larger samples, thereby strengthening its analytical robustness and extending its applicability within sustainability and governance research.

5.4 Concluding remarks

This research demonstrates that ESG adoption among Italian SMEs cannot be reduced to regulatory compliance alone. Rather, it reflects a process of organisational learning shaped by governance arrangements and by the capability constraints that firms face when attempting to translate sustainability principles into everyday practices.

The transition from declared commitment to enacted sustainability remains uneven and frequently incomplete. Many firms appear to occupy a liminal stage of ESG maturity characterised by three interrelated features: a growing awareness of sustainability issues and legitimacy oriented motivations; limited routinisation of sustainability practices within organisational processes; and governance arrangements that remain strongly dependent on individual actors rather than institutionalised structures.

The principal contribution of the study lies in clarifying this intermediate condition as a structurally intelligible phase within organisational sustainability transitions rather than as evidence of managerial failure.

From a sustainability science perspective, firm level ESG routines, once stabilised, may function as micro foundations of broader sustainability transitions. However, such stabilisation depends critically on the presence of enabling governance infrastructures, capability building processes, and intermediary support mechanisms.

In this sense, Sustainable Corporate Governance should be understood not only as a regulatory expectation but also as an organisational learning opportunity. Whether SMEs are able to move beyond liminal engagement ultimately depends both on their internal capacity and on the surrounding institutional ecosystem to convert awareness into structured, repeatable, and measurable governance practice.

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Generation Z and Perceptions in the Labor Market: The Employee Value Proposition

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Abstract

This study explores Generation Z respondents' perceptions within a labor market undergoing profound transformation, focusing on three dimensions potentially relevant to organizational attractiveness and the Employee Value Proposition: organizational flexibility, psychosocial well-being, and the adoption of Artificial Intelligence technologies. The empirical investigation was conducted on a sample of 193 Generation Z undergraduate students approaching graduation and recent graduates with prior work or internship experience. Data were collected through a questionnaire including sociodemographic/background information and exploratory Likert-scale items related to the three analytical dimensions. The findings provide exploratory and context-specific evidence on respondents' perception patterns. Organizational flexibility and psychosocial well-being emerged as highly valued dimensions, suggesting that flexible work arrangements, work-life balance, psychological support, burnout prevention, recognition, and the right to disconnect may represent relevant components of an EVP oriented toward younger workers. With regard to Artificial Intelligence, the results indicate the coexistence, at the aggregate level, of positive expectations regarding AI-related opportunities and moderate concerns regarding AI-related risks, rather than direct evidence of psychological ambivalence at the individual level. Additional subgroup analyses suggest no statistically significant gender differences, while disciplinary area appears to be associated only with limited differences in psychosocial well-being. Overall, the study offers preliminary insights into how flexibility, well-being,

and AI integration may inform the design and communication of organizational value propositions, while also highlighting the need for further research based on larger and more diversified samples and more robustly validated measurement instruments.

Keywords – Generation Z; Labor Market; Organizational Flexibility; Psychosocial Well-Being; Artificial Intelligence; Employee Value Proposition

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Sommario

Generazione Z e percezioni nel mercato del lavoro: l'Employee Value Proposition. – Questo studio esplora le percezioni dei partecipanti della Generazione Z all'interno di un mercato del lavoro in profonda trasformazione, concentrandosi su tre dimensioni potenzialmente rilevanti per l'attrattività organizzativa e la proposta di valore per i dipendenti (Employee Value Proposition – EVP): flessibilità organizzativa, benessere psicosociale e adozione di tecnologie di intelligenza artificiale. L'indagine empirica è stata condotta su un campione di 193 studenti universitari della Generazione Z prossimi alla laurea e neolaureati con precedenti esperienze lavorative o di tirocinio. I dati sono stati raccolti tramite un questionario che includeva informazioni sociodemografiche/di background e item esplorativi su scala Likert relativi alle tre dimensioni analitiche. I risultati forniscono evidenze esplorative e specifiche del contesto sui modelli di percezione dei partecipanti. La flessibilità organizzativa e il benessere psicosociale sono emersi come dimensioni altamente apprezzate, suggerendo che modalità di lavoro flessibili, equilibrio tra vita professionale e privata, supporto psicologico, prevenzione del burnout, riconoscimento e diritto alla disconnessione possono rappresentare componenti rilevanti di un'EVP orientata ai lavoratori più giovani. Per quanto riguarda l'Intelligenza Artificiale, i risultati indicano la coesistenza, a livello aggregato, di aspettative positive riguardo alle opportunità legate all'IA e di moderate preoccupazioni riguardo ai rischi ad essa correlati, piuttosto che prove dirette di ambivalenza psicologica a livello individuale. Ulteriori analisi di sottogruppo non evidenziano differenze di genere statisticamente significative, mentre l'area disciplinare sembra essere associata solo a differenze limitate nel benessere psicosociale. Nel complesso, lo studio offre spunti preliminari su come flessibilità, benessere e integrazione dell'IA possano influenzare la progettazione e la comunicazione delle proposte di valore organizzative, sottolineando al contempo la necessità di ulteriori ricerche basate su campioni più ampi e diversificati e su strumenti di misurazione validati in modo più rigoroso.

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1 Introduction

The transformation of the labor market over recent decades has assumed an unprecedented scope, driven by the simultaneous impact of digitalization, the increasing attention devoted to organizational well-being, and the emergence of a new generation of workers characterized by distinct values and expectations (Póznér & Kozák, 2025). The digitalization of firms and organizational processes has been largely enabled by the increasingly widespread adoption of Artificial Intelligence (AI) technologies, understood as systems capable of operating with varying levels of autonomy and generating outputs such as predictions, recommendations, or decisions that influence the environments with which they interact (European Parliament & Council, 2024). These transformations are reshaping not only organizational processes and managerial practices, but also the way current and prospective employees evaluate organizations as attractive places to work. Within this evolving context, Generation Z (Gen Z) constitutes a particularly relevant analytical lens for understanding the future trajectories of organizations. As this cohort progressively enters the labor market, recruitment and retention strategies have become central priorities within contemporary human resource management systems (Sicca, Di Virgilio, Scarozza, & Ferraro, 2024; Dutta, Mishra, & Varma, 2021). Gen Z has developed its work expectations in a context marked by digital acceleration, hybrid work arrangements, increasing attention to mental health, and growing exposure to AI-based technologies. Consequently, organizational attractiveness can no longer be understood only in terms of salary, job stability, or traditional career advancement, but must also be examined through the perceived capacity of organizations to offer flexible, supportive, and technologically adaptive work environments. This issue is particularly relevant for the Employee Value Proposition (EVP), which represents the overall set of benefits, values, meanings, and employment promises through which organizations seek to attract, retain, and engage current and potential employees (Kontos, Nikandrou, & Papachristopoulos, 2025). In contemporary labor markets, the EVP does not merely communicate what an organization offers; it also signals the extent to which organizational values, managerial practices, and technological choices are aligned with the expectations and identity schemas of target employees. For Gen Z, this alignment may be especially important, since younger workers tend to evaluate organizations not only according to instrumental benefits, but also according to perceived flexibility, psychological sustainability, ethical coherence, and opportunities for personal and professional development. Drawing on reports published by Eurofound (2022), the World Economic Forum (2023), and Deloitte (2025), this study identifies three key analytical variables through which Gen Z's perceptions of organizational attractiveness can be examined and compared with the EVP characterizing current organizational ecosystems. The first variable is organizational flexibility, including flexible working hours, hybrid work, remote working,

compressed workweek arrangements, autonomy, customizable working hours, and reduced exposure to excessive hierarchical control. This dimension is relevant because it captures the extent to which respondents value autonomy, individualized work arrangements, and more flexible forms of organizing work. The second variable is psychosocial well-being, which includes psychological well-being, work–life balance, support services, organizational culture and well-being, burnout prevention, recognition, peer support, and the right to disconnect. This dimension is central because organizational attractiveness increasingly depends on the perceived capacity of firms to protect mental health, sustain meaningful work, prevent burnout, and support positive interpersonal relationships. The third variable concerns perceptions of AI integration, including both perceived opportunities, such as efficiency, decision support, innovation, creativity, and personalized learning, and perceived risks, such as job substitution, technostress, surveillance, algorithmic opacity, and the possible weakening of human relationships at work. AI is therefore examined not only as a technological innovation, but also as a factor that may reshape how younger workers perceive the employment relationship and the credibility of the organizational value proposition. Based on this framework, the study advances the following exploratory research propositions:

P1. Gen Z respondents are expected to assign high perceived importance to organizational flexibility as a component of organizational attractiveness and EVP alignment.

P2. Gen Z respondents are expected to assign high perceived importance to psychosocial well-being as a component of organizational attractiveness and EVP alignment.

P3. Gen Z respondents are expected to report positive perceptions of AI-related opportunities, while also reporting concerns regarding AI-related risks.

P4. Perceptions of organizational flexibility, psychosocial well-being, AI-related opportunities, and AI-related risks may differ according to gender and disciplinary area.

Accordingly, the present study is guided by the following research questions: How do Gen Z respondents perceive organizational flexibility? How do they perceive psychosocial well-being? How do they evaluate the opportunities and risks associated with AI integration in organizational contexts? Finally, do these perceptions differ according to gender and disciplinary area? By addressing these questions, the study aims to contribute to the literature on Gen Z, organizational attractiveness, and EVP

by offering exploratory and context-specific evidence on the dimensions that younger workers may consider relevant when evaluating organizations as desirable employment contexts.

2 Literature review

2.1 Generational perceptions of organizational attractiveness: A continuous evolution

Over time, generational cohorts have progressively altered their preferences and perceptions regarding the factors that determine higher or lower levels of organizational attractiveness (Kelly, Elizabeth, Bharat, & Jitendra, 2016). However, these shifts should not be understood as abrupt transitions between discrete generational categories, but rather as part of a broader and continuous evolution in the relationship between individuals, organizations, and managerial systems. Generational differences in work-related expectations emerge within specific historical, institutional, and technological contexts; therefore, they should be interpreted alongside the transformation of managerial frameworks, employment relations, and HR practices rather than as isolated cohort effects. From this perspective, earlier managerial frameworks, commonly associated with Baby Boomers and early Gen X, were largely grounded in hierarchical structures, standardized career paths, compliance-oriented systems, and top-down coordination (Parry & Urwin, 2021). Within such organizational settings, Gen X, born between the mid-1960s and the early 1980s, was often associated with expectations related to employment continuity, clearly defined authority structures, and opportunities for hierarchical advancement (Parry & Battista, 2019). These preferences reflected not only generational characteristics, but also the dominant managerial logic of the period, in which organizational attractiveness was strongly linked to stability, internal career progression, and formalized organizational structures. As Millennials, born from the early 1980s to the mid-1990s, became increasingly prominent in the workforce, managerial and HR frameworks gradually moved toward more participative, developmental, and individualized approaches. Their expectations did not simply replace those of previous cohorts; rather, they reconfigured them by combining the search for employment stability with a stronger emphasis on professional growth, employability, feedback, mentoring, flexibility, and meaningful work (Twenge, 2023; Parry & Urwin, 2021). In this phase, organizational attractiveness became increasingly connected to the organization's capacity to support career development and employee engagement, while still providing a credible sense of security and continuity. Contemporary technological and social transformations have further intensified this evolutionary process for the generation born after 1995, namely Gen Z (Dolot, 2018). As Gen Z enters organizations while Millennials increasingly occupy managerial roles, many contemporary managerial frameworks are moving toward more

employee-centric, values-driven, flexible, and technology-integrated approaches. In this context, leaders are increasingly expected to manage intergenerational relationships, adapt leadership styles, foster autonomy and inclusion, support work-life balance, and respond to changing patterns of motivation, teamwork, and social interaction (Gabrielova & Buchko, 2021; Pichler, Kohli, & Granitz, 2021). Accordingly, the determinants shaping a positive perception of organizations among Gen Z – thereby influencing their perceived level of attractiveness – tend to favor those firms capable of integrating flexible work models, fostering psychological well-being, and incorporating AI technologies into organizational practices (Thomas & Sharma, 2025). At the same time, this evolutionary reading requires caution. Generational labels can be analytically useful, but they should not be treated as rigid or self-sufficient explanatory categories. Critical research warns that managerial frameworks based too heavily on broad generational classifications may oversimplify the complex interaction among age, period, cohort effects, and individual differences (Parry & Urwin, 2021). Therefore, generation should be understood as one interpretive lens among others, useful for identifying historically situated patterns in work expectations, but insufficient on its own to explain organizational attractiveness. This approach supports the interpretation of Gen Z preferences not as a radical break from previous cohorts, but as the latest stage in a cumulative transformation of managerial assumptions, HR practices, and employee–organization relationships.

2.2 The strategic role of Employee Value Proposition in the labor market

The EVP represents the human resource strategy adopted by organizations to attract, retain, and develop talent (Kontos, Nikandrou, & Papachristopoulos, 2025), constituting the overall value offering addressed to current and potential employees and designed in accordance with specific roles, target groups, and organizational needs. More specifically, the EVP can be understood as a system of tangible and intangible benefits, meanings, and values through which an organization presents itself as a desirable place to work. It encompasses a wide and heterogeneous set of variables, which are reflected in the organization's internal and external communication of its overall employment offering. However, the attractiveness generated by an EVP does not depend solely on the objective content of what is offered, but also on the extent to which such offerings resonate with individuals' identity schemas, namely their core values, self-definitions, professional aspirations, and life priorities. This identity-based dimension is central to understanding how the EVP translates into organizational attractiveness. Rynes and Barber (1990) emphasize the organization's ability to generate positive perceptions among job candidates by fostering the impression that the firm represents a desirable place to work. Subsequently, Morin (2006) identifies four main factors shaping organizational attractiveness: corporate reputation, candidate-organization alignment, interviewer behavior, and organizational values.

These contributions suggest that organizational attractiveness emerges not only from instrumental benefits or reputational strength, but also from the perceived congruence between individual identity schemas and the symbolic, normative, and cultural attributes communicated by the organization. Research on person-organization fit conceptualizes this mechanism as value congruence, namely the perceived match between individual and organizational values (Kristof-Brown, Schneider, & Su, 2023; Satzger & Vogel, 2023). When such congruence is high, individuals are more likely to perceive the organization as a place in which they can express valued aspects of the self, experience belonging and psychological safety, and pursue goals that are personally meaningful. In a further refinement, Fray, Morin, and Renaud (2015) distinguishes between perceived attractiveness, which depends on psychological variables and individual candidate potential, and identity-based attractiveness, which derives from organizational characteristics. This distinction is particularly relevant for the EVP, since it highlights that organizational attractiveness is shaped through the interaction between individual-level perceptions and organization-level value propositions. An effective EVP therefore operates as a mechanism of identity-value alignment: it translates organizational values into a coherent employment promise capable of connecting with the self-concepts, career expectations, and desired work identities of current and prospective employees. In this sense, signals of organizational values, such as inclusive workplace policies, CSR initiatives, sustainability commitments, or green certifications, may enhance perceived prestige and person-organization fit, thereby increasing attractiveness and employee loyalty (Guillot-Soulez, Saint-Onge, & Soulez, 2021). Similarly, when individuals perceive a strong alignment between who they are and what the organization stands for, this congruence can support identification, commitment, engagement, helping behavior, and innovative behavior (Subramanian, Billsberry, & Barrett, 2022; Cai, Zhu, & Jin, 2024). Organizations capable of developing an effective EVP are thus able to strengthen their positioning within the labor market (Kearney, Bruno, & Field, 2022), reducing employee turnover while enhancing retention, and playing a fundamental role in determining organizational attractiveness (Jiang et al., 2012). Moreover, the EVP exerts a positive effect on employee engagement by fostering strong emotional attachment, loyalty, and a willingness to exert discretionary effort in support of organizational success (Putri & Mayasari, 2025). Nevertheless, a critical understanding of EVP requires recognizing that identity–value congruence is not unambiguously beneficial in all circumstances. If interpreted too narrowly, value fit may reinforce excessive homogeneity, weaken diversity of perspectives, and limit critical thinking, particularly when attraction-selection-attrition dynamics lead organizations to privilege similarity over pluralism (Subramanian, Billsberry, & Barrett, 2022). Therefore, while congruence between individual identity schemas and organizational values represents a central mechanism through which EVP enhances organizational attractiveness, it must be carefully managed. A robust EVP should support authenticity,

shared purpose, and meaningful identification without becoming a mechanism of exclusion or rigid cultural sameness.

2.3 Organizational flexibility and psychosocial well-being

Organizational flexibility has emerged as a core component of contemporary digitalized work models (Chatterjee, Chaudhuri, & Vrontis, 2022), functioning as the mechanism through which technology affordances (TAs) enable organizations to implement flexible work arrangements – such as smart working, flexible working hours, and the compressed workweek – thereby fostering organizational excellence (Alfalah et al., 2025). Within workplace contexts, TAs enhance both in-role job performance and innovative job performance by increasing employee autonomy, focus, and opportunities for creative experimentation (Ishaq, Sarwar, Aftab, Franzoni, & Raza, 2024). Workplace flexibility also represents a key determinant of employee satisfaction, as it improves work-life balance by reducing work-family conflict and stress levels, while simultaneously contributing to psychosocial well-being (McNall, Masuda, & Nicklin, 2009; Salazar & Diego-Medrano, 2021). However, although organizational flexibility constitutes an important antecedent of psychosocial well-being within organizational settings, it is insufficient on its own to fully capture the multidimensional nature of the construct (Ryff, 1989). In organizational contexts, psychosocial well-being can be understood as a multidimensional condition that integrates emotional and mental health, positive affect and vitality, social connectedness, and the individual's perceived capacity to function meaningfully across work and life domains (Amodu, Agyare, Doe, & Abraham, 2025; Nunes, Proença, & Carozzo-Todaro, 2023). This definition moves beyond a narrow understanding of well-being as the mere absence of stress, anxiety, depression, or burnout, and instead includes both hedonic components, such as positive emotions and low strain, and eudaimonic components, such as meaning, personal growth, self-realization, purpose, and flourishing (Ryff, 1989; Sonnentag, Tay, & Shoshan, 2023; Węziak-Białowolska et al., 2023). This distinction is particularly important from a critical perspective. Research on workplace well-being has often privileged hedonic indicators, focusing primarily on positive affect, job satisfaction, low stress, or reduced exhaustion, while paying comparatively less attention to eudaimonic dimensions such as meaning, growth, authenticity, and the development of positive relationships (Ryff, 1989; Sonnentag, Tay, & Shoshan, 2023). Such reductionism risks producing a fragmented understanding of psychosocial well-being at work, in which employees may appear “satisfied” or “not stressed” while still lacking purpose, autonomy, relational quality, or opportunities for personal development. More comprehensive approaches therefore conceptualize well-being as “complete well-being” or flourishing, integrating multiple domains such as emotional and physical health, meaning and purpose, character, social connectedness, and financial security

(Węziak-Białowolska et al., 2023). In this sense, workplace spirituality, self-acceptance, and positive interpersonal relationships represent key dimensions of psychosocial well-being, since they capture the extent to which individuals experience work not only as a source of income or performance, but also as a context for meaning, belonging, and personal development (Das et al., 2024). From a methodological standpoint, psychosocial well-being should therefore be measured through multidimensional and validated instruments rather than through single-item or exclusively satisfaction-based indicators. In organizational research, psychosocial well-being is commonly assessed through validated self-report instruments capturing affective states, psychological distress, vigor, exhaustion, burnout, general well-being, and work engagement (Nunes, Proença, & Carozzo-Todaro, 2023; Sonnentag, Tay, & Shoshan, 2023). More integrated approaches also rely on multi-domain assessments based on flourishing theory, which capture broader dimensions such as emotional health, physical health, meaning, purpose, character, social relationships, and financial security (Węziak-Białowolska et al., 2023). At the organizational level, psychosocial safety climate and caring climate are typically measured through brief climate scales, which help explain variation in stress, exhaustion, engagement, and broader flourishing over time (Aust et al., 2023). These measures are particularly relevant because they show that psychosocial well-being is not only an individual condition, but also a work-related outcome shaped by job design, leadership practices, organizational climate, and HR policies. The outcomes associated with psychosocial well-being further confirm its strategic relevance for organizations. Higher levels of well-being and engagement, together with lower levels of burnout and psychological distress, are associated with better job performance, productivity, innovative behavior, organizational commitment, and retention. Conversely, poor psychosocial well-being is linked to turnover intentions, lower job satisfaction, reduced professionalism, lower safety outcomes, and higher organizational costs (Aust et al., 2023). Therefore, psychosocial well-being represents a strategic variable given its positive association with overall organizational outcomes (Diener, Suh, Lucas, & Smith, 1999). Within this framework, organizational flexibility should be interpreted as one important enabling condition rather than as a complete solution: flexible work arrangements may reduce stress and work–family conflict, but their contribution to employee well-being depends on whether they are embedded within broader organizational systems that promote psychological safety, meaningful work, positive relationships, autonomy, and sustainable performance.

2.4 The role of Artificial Intelligence on organizational attractiveness and retention

AI can be defined as the set of systems designed to operate with varying levels of autonomy and capable of generating outputs such as predictions, recommendations, or decisions that influence the environments with which they interact (European Parliament & Council, 2024). The introduction of AI

systems within organizations entails a reconfiguration of processes, roles, and expectations (Köchling, Wehner, & Ruhle, 2025). In this sense, AI should not be understood merely as a technological tool, but as an organizational variable capable of reshaping how work is designed, how HR practices are delivered, and how the employment relationship is perceived by both current and prospective employees. Within HR processes, AI provides tools that may enable personalization, workload reduction, data-driven decision-making, and the creation of more flexible and inclusive work environments. In particular, the adoption of AI in recruiting, onboarding, employee development, and talent management can enhance organizational attractiveness, especially among younger talent, while also improving retention by fostering more engaging, responsive, and tailored work experiences (Thomas & Sharma, 2025; Stone, Lukaszewski, & Johnson, 2024; Köchling, Wehner, & Ruhle, 2025; Rožman, Oreški, & Tominc, 2023; Zirar, 2023). As such, AI emerges as an additional variable to be incorporated into the internal and external communication of the organization's overall value proposition. Consistent with the literature reviewed, Table 1 summarizes the main determinants and impacts of AI on the EVP, organizational attractiveness, and employee retention.

Table 1 – AI determinants and impacts on EVP, organizational attractiveness and retention

AI/EVP factor	Impact on Gen Z	Effect on organizational attractiveness and retention	Sources
AI-Driven personalization	Individual empowerment	Increased organizational attractiveness	Rožman, Oreški, & Tominc, 2023; Thomas & Sharma, 2025; Zirar, 2023.
Transparency and governance	Trust and security	Better retention	Ateeq et al., 2025; Malik, Budhwar, & Kazmi, 2023; Zirar, Ali, & Islam, 2023; Charlwood & Guenole, 2022.
Automation and support	Stress reduction	Engagement and retention	Cramarenco, Burcă-Voicu, & Dabija, 2023; Rožman, Oreški, & Tominc, 2023; Thomas & Sharma, 2025.
Job replacement fear	Anxiety and resistance	Turnover risk	Bankins, Ocampo, Marrone, Restubog, & Woo, 2024; Malik, Budhwar, & Kazmi, 2023; Zirar, Ali, & Islam, 2023; Köchling, Wehner, & Ruhle, 2025.

Source: Authors' elaboration

However, the contribution of AI to organizational attractiveness and retention is not automatic. From the employee perspective, perceptions of AI represent a critical factor, as positive perceptions may facilitate adoption, upskilling, engagement, and openness to technological change, whereas negative perceptions may give rise to resistance, cynicism, anxiety, and increased turnover intentions (Ateeq et al., 2025; Bankins, Ocampo, Marrone, Restubog, & Woo, 2024; Cramarenco, Burcă-Voicu, & Dabija, 2023; Lee, Scheepers, Lui, & Ngai, 2023; Malik, Budhwar, & Kazmi, 2023; Rožman, Oreški, & Tominc, 2023; Yu, Xu, & Ashton, 2023; Charlwood & Guenole, 2022). Positive perceptions of AI are more likely to emerge when integrated technologies are perceived as instruments of empowerment, personalization of the work experience, enhanced flexibility, and support for individual capabilities rather than as mechanisms of surveillance, replacement, or control (Valtonen, Saunila, Ukko, Treves, & Ritala, 2025). Organizations that adopt personalization – and engagement – oriented strategies, including those enabled by AI, are therefore perceived as more attractive by Gen Z (Thomas & Sharma, 2025). At the same time, a critical reading of the literature shows that employers' and managers' attitudes toward AI are also ambivalent. While AI is often associated with efficiency gains, improved decision-making, and strategic value creation, its implementation raises concerns related to trust, transparency, ethical risks, job displacement, and loss of control. Research on organizational decision-making shows that managers' attitudes and intentions toward AI are shaped not only by perceived benefits, but also by a “dark side” of AI, including personal concerns and fears about its impact on jobs (Cao, Duan, Edwards, & Dwivedi, 2021). Similarly, multilevel research indicates that acceptance of AI among managers and workers depends on perceived usefulness, ease of use, compatibility with existing practices, and, crucially, trust in AI systems (Bankins, Ocampo, Marrone, Restubog, & Woo, 2024). In recruitment, perceived technological complexity may discourage AI adoption, while technological competence and regulatory support can facilitate it (Enholm, Papagiannidis, Mikalef, & Krogstie, 2021). Qualitative evidence from senior managers in finance and high-tech firms further identifies barriers such as lack of trust and transparency, perceived loss of power and control, and ethical concerns when AI is used for automated decision-making (Booyse & Scheepers, 2023). In HR and talent management, although many organizations recognize the strategic value of AI, managerial adoption often remains cautious, partial, and incomplete (Zirar, 2023). Therefore, the role of AI within the EVP should be interpreted through a balanced perspective. On the one hand, AI can strengthen organizational attractiveness by signaling innovation, personalization, flexibility, and developmental support. On the other hand, if AI is perceived as opaque, intrusive, unfair, or threatening, it may undermine trust and weaken the organization's employment promise. The evidence summarized in Table 1 suggests that AI contributes positively to EVP, organizational attractiveness, and retention only when its implementation is transparent, ethically governed, aligned

with employee needs, and embedded in HR practices that enhance rather than diminish human agency. In this sense, AI becomes attractive not simply because it is technologically advanced, but because it is perceived as useful, trustworthy, empowering, and coherent with the organization's broader value proposition.

3 Methodology

The aim of the analysis is to examine how Gen Z respondents perceive organizational flexibility, psychosocial well-being, and AI integration in relation to organizational attractiveness and EVP alignment. The study adopts a quantitative research approach with a descriptive and exploratory design, in which data are collected at a single point in time. This methodological choice allows for capturing a snapshot of participants' opinions and preferences, without the intention of observing changes over time. The research design is non-experimental, as it does not involve the direct manipulation of independent variables but is instead limited to measuring respondents' perceptions. Data were collected through a questionnaire composed of two parts. The first part collected sociodemographic and background information, including age, gender, field of study, level of education, prior work or internship experience, and exposure to or training in AI (Table 2). The second part included 28 Likert-scale items related to the theoretical dimensions of the study (Table 3): organizational flexibility, psychosocial well-being, and AI integration. The Likert-scale section was adapted from Magano et al. (2020) and organized into four analytical item sets: organizational flexibility, psychosocial well-being, AI-related opportunities, and AI-related risks.

Table 2 – Structure of the questionnaire: Sociodemographic and background information

Preliminary section	Collected data	Survey instrument
Sociodemographic and background data	Age, gender, field of study, level of education prior work experience, exposure to or training in AI.	Open-ended question

Source: Questionnaire adaptation (Magano et al., 2020)

Table 3 – Structure of the questionnaire for the items (n=28)

No.	Dimension	Subdimension	Item code	Item wording	Survey instrument
1	Organizational flexibility	Flexible working hours	OF1	I consider it essential to be able to manage my working hours autonomously.	<i>Likert scale 1-5</i>
2		Hybrid work	OF2	I prefer hybrid work models that combine on-site and remote work.	<i>Likert scale 1-5</i>
3		Remote working	OF3	The possibility of working remotely increases my productivity.	<i>Likert scale 1-5</i>
4		Compressed workweek	OF4	The four-day workweek is an effective model.	<i>Likert scale 1-5</i>
5		Autonomy	OF5	Decision-making autonomy increases my sense of responsibility.	<i>Likert scale 1-5</i>
6		Customizable working hours	OF6	I value customizable working hours more positively than fixed working hours.	<i>Likert scale 1-5</i>
7		Control climate	OF7	Excessive hierarchical control reduces my motivation.	<i>Likert scale 1-5</i>
8	Psychosocial well-being	Psychological well-being	PWB1	Psychological well-being should be an organizational priority.	<i>Likert scale 1-5</i>
9		Work–life balance	PWB2	I feel more productive when work-life balance is protected.	<i>Likert scale 1-5</i>
10		Support services	PWB3	The organization should provide psychological support services.	<i>Likert scale 1-5</i>
11		Culture and well-being	PWB4	Organizational culture affects my state of well-being.	<i>Likert scale 1-5</i>

12		Burnout prevention	PWB5	Burnout prevention should be a structural organizational practice.	<i>Likert scale 1-5</i>
13		Personal recognition	PWB6	Recognition of personal contribution supports my motivation.	<i>Likert scale 1-5</i>
14		Peer support	PWB7	Peer support contributes to my well-being at work.	<i>Likert scale 1-5</i>
15		Right to disconnect	PWB8	The right to disconnect is essential for my balance.	<i>Likert scale 1-5</i>
16	AI integration	AI as opportunity	AIO1	I believe that AI improves the efficiency of work processes.	<i>Likert scale 1-5</i>
17		AI as opportunity	AIO2	The use of AI frees up time for higher value-added activities.	<i>Likert scale 1-5</i>
18		AI as opportunity	AIO3	AI can support more informed and timely decision-making.	<i>Likert scale 1-5</i>
19		AI as opportunity	AIO4	I am interested in acquiring specific skills in AI.	<i>Likert scale 1-5</i>
20		AI as opportunity	AIO5	I believe that AI fosters innovation and creativity.	<i>Likert scale 1-5</i>
21		AI as opportunity	AIO6	AI can personalize learning and development pathways.	<i>Likert scale 1-5</i>
22		AI as opportunity	AIO7	I feel comfortable using AI-based tools.	<i>Likert scale 1-5</i>
23		AI as risk	AIR1	I fear that AI may replace certain human tasks.	<i>Likert scale 1-5</i>
24		AI as risk	AIR2	The intensive use of technologies generates information overload.	<i>Likert scale 1-5</i>
25		AI as risk	AIR3	AI may reduce the quality of human relationships at work.	<i>Likert scale 1-5</i>

26	AI as risk	AIR4	The lack of transparency of algorithms concerns me.	<i>Likert scale 1-5</i>
27	AI as risk	AIR5	The use of AI may increase the perception of surveillance.	<i>Likert scale 1-5</i>
28	AI as risk	AIR6	I experience technostress when using digital tools for prolonged periods.	<i>Likert scale 1-5</i>

Source: Questionnaire adaptation (Magano et al., 2020)

Distributed via the mailing list of a university association among undergraduate students and recent graduates belonging to Gen Z with at least one prior work or internship experience, the questionnaire yielded a final sample of 193 respondents after the exclusion of seven incomplete or out-of-scope questionnaires (with a clear majority of participants originating from the Molise region, Italy). The sample comprised 58.5% women ($n = 113$), 39.4% men ($n = 76$), and 2.1% individuals identifying with other gender categories ($n = 4$). The mean age of respondents was 23.4 years ($SD = 2.7$), with the age distribution concentrated primarily within the 21–25 age range (65%). With regard to educational background, 72% of participants were enrolled in undergraduate or master's degree programs, while 28% had already completed their university studies. The predominant disciplinary areas were Economics and Management (42%), Engineering and Computer Science (27%), Social and Human Sciences (19%), and Medicine (12%). Given the non-probabilistic and geographically concentrated nature of the sample, with a clear majority of participants originating from the Molise region, the findings should be interpreted as exploratory and context-specific rather than generalizable to the entire Gen Z population.

As shown in Table 4, internal consistency was assessed through Cronbach's alpha for the four item sets corresponding to organizational flexibility, psychosocial well-being, AI-related opportunities, and AI-related risks. The coefficients did not reach conventional thresholds for satisfactory internal consistency. This result suggests that the items should not be interpreted as interchangeable indicators of single unidimensional latent constructs. Rather, they capture heterogeneous but theoretically related facets of the broader dimensions under investigation. Accordingly, and in line with the exploratory nature of the study, the subsequent analysis was conducted primarily at the item and subdimension level, while aggregate mean scores were used only as descriptive summaries and interpreted with caution.

Table 4 – Internal consistency diagnostics of the item sets

Scale	Item code	Number of items	Cronbach's α	Internal consistency
Organizational flexibility	OF1–OF7	7	0.083	Low internal consistency
Psychosocial well-being	PWB1–PWB8	8	0.078	Low internal consistency
AI integration (opportunity)	AIO1–AIO7	7	-0.010	Low internal consistency
AI integration (risk)	AIR1–AIR6	6	-0.019	Low internal consistency

Source: Authors' elaboration based on survey data

An exploratory factor analysis was subsequently conducted on the 28 Likert-scale items related to the theoretical dimensions of the study, as summarized in Table 5. Before factor extraction, the suitability of the data was assessed using the Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity. Bartlett's test was significant, $\chi^2(378) = 451.34$, $p = 0.006$, indicating that the correlation matrix was not an identity matrix. However, the KMO value of 0.428 was below the commonly recommended threshold for a robust factor analysis. Moreover, the exploratory four-factor solution explained 23.84% of the total variance and did not produce a factor structure fully consistent with the expected theoretical dimensions. Consequently, the results of the factor analysis were interpreted as preliminary diagnostic evidence rather than as a definitive validation of the adapted instrument. The theoretical organization of the item sets was therefore retained on the basis of the literature and the exploratory aims of the study, while the empirical results were interpreted primarily at the item and subdimension level. Future studies should refine the measurement instrument and confirm its dimensional structure using larger and more diversified samples.

Table 5 – Exploratory factor analysis diagnostics

Indicator	Result
KMO	0.428
Bartlett's test	$\chi^2(378) = 451.34$
p-value	0.006
Number of extracted factors	4
Total variance explained	23.84%

Source: Authors' elaboration based on survey data.

Mean scores were interpreted using descriptive intervals applied to the five-point Likert scale. Since the scale ranged from 1 to 5, the interval width was calculated as $(5 - 1) / 5 = 0.80$. Accordingly, values between 1.00 and 1.80 were interpreted as very low, values between 1.81 and 2.60 as low, values between 2.61 and 3.40 as moderate, values between 3.41 and 4.20 as high, and values between 4.21 and 5.00 as very high. These thresholds were used exclusively as descriptive interpretive ranges and not as statistically validated cut-off points (Table 6).

Table 6 – Mean scores and descriptive interpretation of Likert-scale items

No.	Dimension	Subdimension	Item code	Mean scores (Likert 1-5)	Interpretation
1	Organizational flexibility	Flexible working hours	OF1	4.11	High perceived importance
2		Hybrid work	OF2	3.95	High perceived importance
3		Remote working	OF3	3.93	High perceived importance
4		Compressed workweek	OF4	3.85	High perceived importance
5		Autonomy	OF5	4.20	High perceived importance
6		Customizable working hours	OF6	4.10	High perceived importance
7		Control climate	OF7	4.18	High perceived importance
8	Psychosocial well-being	Psychological well-being	PWB1	4.18	High perceived importance
9		Work–life balance	PWB2	4.16	High perceived importance
10		Support services	PWB3	4.19	High perceived importance
11		Culture and well-being	PWB4	4.13	High perceived importance
12		Burnout prevention	PWB5	4.32	Very high perceived importance
13		Personal recognition	PWB6	4.30	Very high perceived importance

14		Peer support	PWB7	4.26	Very high perceived importance
15		Right to disconnect	PWB8	4.18	High perceived importance
16	AI integration	AI as opportunity	AIO1	3.85	High perceived agreement
17		AI as opportunity	AIO2	3.81	High perceived agreement
18		AI as opportunity	AIO3	3.76	High perceived agreement
19		AI as opportunity	AIO4	3.83	High perceived agreement
20		AI as opportunity	AIO5	3.76	High perceived agreement
21		AI as opportunity	AIO6	3.80	High perceived agreement
22		AI as opportunity	AIO7	3.75	High perceived agreement
23		AI as risk	AIR1	3.64	High perceived concern
24		AI as risk	AIR2	3.22	Moderate perceived concern
25		AI as risk	AIR3	3.22	Moderate perceived concern
26		AI as risk	AIR4	3.10	Moderate perceived concern
27		AI as risk	AIR5	3.23	Moderate perceived concern
28		AI as risk	AIR6	3.37	Moderate perceived concern

Source: data elaboration

The mean results reported in Table 6 provide a preliminary descriptive overview of respondents' perceptions of organizational flexibility, psychosocial well-being, and AI integration. For ease of interpretation, Table 7 reports the aggregate mean scores for the main dimensions. With regard to organizational flexibility, all subdimensions showed high mean scores, ranging from 3.85 to 4.20. The highest scores were recorded for autonomy ($M = 4.20$), control climate, understood as sensitivity to excessive hierarchical control ($M = 4.18$), flexible working hours ($M = 4.11$), and customizable working hours ($M = 4.10$). Hybrid work, remote working, and the compressed workweek also showed high

values. Overall, these findings suggest that flexibility is perceived not only as the possibility of working remotely, but as a broader set of organizational practices related to autonomy, time management, and reduced excessive control. Psychosocial well-being recorded the highest mean scores. In particular, burnout prevention ($M = 4.32$), personal recognition ($M = 4.30$), and peer support ($M = 4.26$) reached very high levels of perceived importance. Psychological well-being, work–life balance, support services, culture and well-being, and the right to disconnect also showed high values. These results suggest that respondents attach particular relevance to organizational conditions capable of supporting psychological health, recognition, positive relationships, and the sustainability of the work–life relationship. For AI integration, items related to opportunities showed high values, ranging from 3.75 to 3.85, indicating a generally positive perception of AI’s potential in terms of efficiency, decision support, innovation, and personalization. Items related to AI risks showed lower scores: AIR1 reached a high value ($M = 3.64$), while the remaining risk items fell within the moderate range, between 3.10 and 3.37. Therefore, the data suggest the coexistence, at the aggregate level, of positive expectations toward AI and moderate concerns regarding its possible risks. This result should not be interpreted as direct evidence of psychological ambivalence at the individual level, which would require specific measures. Overall, the results indicate strong relevance attributed to organizational flexibility and especially psychosocial well-being, while AI emerges as a more complex and nuanced dimension. However, the findings should be considered preliminary and specific to the sample analyzed.

Table 7 – Descriptive aggregate scores of the main dimensions

Dimension	No.	Mean scores (Likert 1-5)	SD	Interpretation
Organizational flexibility	193	4.05	0.28	High perceived importance
Psychosocial well-being	193	4.21	0.23	Very high perceived importance
AI opportunities	193	3.79	0.30	High perceived agreement
AI risks	193	3.30	0.34	Moderate perceived concern

Source: Authors’ elaboration based on survey data.

Gender differences were explored by comparing women and men through Welch’s t-tests (Table 8). Respondents identifying with other gender categories were reported only descriptively due to the small size of this subgroup. The results did not show statistically significant differences between women and men for organizational flexibility, psychosocial well-being, AI opportunities, or AI risks. Effect

sizes were negligible, suggesting that, within the analyzed sample, gender was not substantially associated with differences in perceptions of the dimensions considered.

Table 8 – Gender differences in the main dimensions

Dimensions	Women M	Men M	t	p	Cohen's d
Organizational flexibility	4.05	4.04	0.13	0.893	0.02
Psychosocial well-being	4.21	4.23	-0.81	0.420	-0.12
AI opportunities	3.78	3.82	-0.83	0.409	-0.13
AI risks	3.30	3.30	-0.03	0.973	-0.01

Source: Authors' elaboration based on survey data

A further analysis was conducted to examine whether respondents' perceptions varied according to disciplinary area. One-way ANOVAs were performed on the four aggregate dimensions. As summarized in Table 9, the results did not show statistically significant differences for organizational flexibility, AI opportunities, or AI risks. A significant difference emerged only for psychosocial well-being, $F(3, 189) = 3.22$, $p = 0.024$, $\eta^2 = 0.049$. Tukey's post-hoc comparison indicated that respondents from Social and Human Sciences assigned a higher mean score to psychosocial well-being than respondents from Economics and Management. However, the effect size was small, and given the limited size of some subgroups, this result should be interpreted with caution.

Table 9 – Differences by disciplinary area

Dimensions	F	p	η^2	interpretation
Organizational flexibility	0.60	0.619	0.009	Not significant
Psychosocial well-being	3.22	0.024	0.049	Significant, small effect
AI opportunities	1.38	0.251	0.021	Not significant
AI risks	0.65	0.582	0.010	Not significant

Source: Authors' elaboration based on survey data

4 Discussion and managerial implications

The findings provide exploratory evidence on how Gen Z respondents perceive organizational flexibility, psychosocial well-being, and AI integration in relation to organizational attractiveness and EVP alignment. Overall, P1 and P2 are descriptively supported at the item and subdimension level, as respondents assigned high or very high importance to the facets related to organizational flexibility and psychosocial well-being. P3 is also supported in a cautious sense, since respondents reported high perceived agreement with AI-related opportunities and moderate concern regarding AI-related risks. However, this pattern should be interpreted as the coexistence of positive expectations and concerns at the aggregate level, not as direct evidence of psychological ambivalence. P4 received only partial support: no significant gender differences emerged, while disciplinary area was associated with a significant difference only in psychosocial well-being. These findings suggest that the EVP aimed at younger workers should not be designed around isolated benefits, but around an integrated employment promise combining flexibility, psychological sustainability, ethical technology adoption, and human-centered management. In particular, the high scores recorded for burnout prevention, recognition, peer support, and the right to disconnect indicate that respondents attach relevance not only to work arrangements, but also to the broader quality of the organizational environment.

From a managerial perspective, the findings offer several indications for organizations seeking to strengthen their attractiveness among younger workers. First, flexibility should be communicated and implemented as a multidimensional organizational practice, including not only remote or hybrid work, but also autonomy, customizable working hours, and reduced excessive hierarchical control. Second, psychosocial well-being should be embedded structurally within HR policies rather than treated as an occasional welfare initiative. Practices such as burnout prevention, psychological support, recognition systems, peer support, and the right to disconnect may contribute to a more credible and attractive EVP. Third, AI integration should be managed and communicated carefully. While respondents recognize AI-related opportunities, they also express moderate concerns regarding job substitution, technostress, surveillance, and algorithmic opacity. Organizations should therefore accompany AI adoption with transparent communication, clear governance policies, employee involvement, and training initiatives aimed at strengthening AI-related competencies. In this sense, AI may enhance organizational attractiveness only when it is perceived as useful, trustworthy, supportive, and aligned with human-centered work design.

5 Limitations and future research

This study has several limitations. First, the research design is cross-sectional and non-experimental; therefore, the findings cannot support causal claims regarding the relationship between the analyzed dimensions and organizational attractiveness. Second, the sample is non-probabilistic, geographically concentrated, and composed of undergraduate students approaching graduation and recent graduates with prior work or internship experience. As a result, the findings should be interpreted as exploratory and context-specific rather than generalizable to the entire Gen Z population. Third, the internal consistency diagnostics and the exploratory factor analysis suggest caution in treating the item sets as validated unidimensional scales. Cronbach's alpha values did not reach conventional thresholds for satisfactory internal consistency, indicating that the items capture heterogeneous but theoretically related facets rather than interchangeable indicators of single latent constructs. Moreover, the low KMO value and the limited variance explained by the four-factor solution suggest that the dimensional structure of the adapted instrument requires further refinement and validation. Future studies should therefore replicate the analysis using larger and more diversified samples and apply confirmatory factor analysis to test the measurement model more robustly. Fourth, the interpretation of AI-related perceptions should be considered preliminary. The coexistence of positive expectations and moderate concerns at the aggregate level does not constitute direct evidence of psychological ambivalence at the individual level. Future research should include specific measures of ambivalence and examine how AI-related attitudes evolve over time as younger workers gain more direct experience with AI-based organizational systems.

6 Conclusions

This study explored Gen Z respondents' perceptions of organizational flexibility, psychosocial well-being, and AI integration in relation to organizational attractiveness and EVP alignment. The findings suggest that flexibility and psychosocial well-being are highly valued by the analyzed sample, while AI integration is perceived as a more complex dimension involving both opportunities and concerns. The study contributes to the debate on Gen Z and organizational attractiveness by showing that younger workers' evaluations of employment contexts may be shaped by an integrated set of expectations concerning autonomy, psychological sustainability, technological innovation, transparency, and human-centered management. However, given the exploratory design, the restricted sample, the low

internal consistency of the item sets, and the preliminary evidence emerging from the factor analysis, the results should be interpreted with caution and primarily at the item and subdimension level. Future research should further refine and validate the measurement instrument and examine these relationships across broader and more heterogeneous samples.

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