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- Tourism innovation and entrepreneurial small firms
- How eco-entrepreneurs are transforming Italian tourism sector
- Sustainability and environmental certifications in Italian tourism
- Circular economy in the tourism industry
- Youth, entrepreneurship, and tourism in peripheral areas
- Founders' education, intellectual capital, and business models
- Job crafting, work meaningfulness and coworking spaces
- Sustainability disclosure in SMEs

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EDITORIAL
INNOVATION AND ENTREPRENEURIAL SMALL FIRMS IN THE TOURISM SECTOR

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Keywords: *Tourism SMEs, Innovation Ecosystems, Sustainable Tourism, Entrepreneurial Capabilities, Territorial Development.*

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Abstract

Purpose: *This editorial introduces and contextualizes the thematic framework underpinning the Special Issue on innovation and entrepreneurial small firms in the tourism sector. It examines how entrepreneurship, sustainability transitions, digital transformation, youth engagement, and circular models are reshaping tourism ecosystems, with a specific focus on the role of small firms and peripheral territories.*

Design/methodology/approach: *The editorial summarizes and discusses the five contributions included in the Special Issue, highlighting their collective insights into eco-entrepreneurship, sustainability communication, circular economy adoption, youth-driven development, and the influence of founders' educational backgrounds on intellectual capital and business models.*

Findings: *The contributions show how innovation in tourism SMEs is a relational and context-dependent phenomenon emerging from the interplay of entrepreneurial values, human capital, territorial identity, and institutional frameworks.*

Practical and social implications: *The findings underscore key levers for sustainable and inclusive tourism growth, including improved governance, communication capacity, territorial networking, youth empowerment, and cross-disciplinary competencies.*

Originality of the study: *The editorial frames innovation in small tourism firms as a multi-actor, ecosystem-based and place-sensitive process.*

Tourism is experiencing profound structural transformations driven by rapid technological advancements (Hjalager, 2010; Gretzel et al., 2020), evolving sustainability imperatives, demographic shifts, and increasingly fragmented consumer expectations. Recent scholarships have highlighted how artificial intelligence, data analytics, and digital ecosystems (Boes et al., 2016; Ardito et al., 2019) are reshaping competitive structures and enabling new forms of personalised and efficient service delivery. Parallel to digital transformation, sustainability has become a strategic and ethical imperative (Font & McCabe, 2017), influencing governance arrangements, business models, and visitors' choices. Moreover, crises such as COVID-19 (Sigala, 2020) have further exposed vulnerabilities in tourism systems, accelerating the need for resilience, adaptability, and collaborative capacity. These dynamics are not isolated but intersect in ways that challenge traditional tourism models and call for innovative responses from firms, institutions, and territories.

Within this transforming landscape, small tourism firms occupy a central yet complex position (Jones & Haven-Tang, 2005; Thomas et al., 2011). Their embeddedness in local contexts allows them to act as custodians of territorial identity and as agile innovators capable of anticipating or adapting to emerging trends. At the same time, their limited financial, organizational, and managerial resources make them particularly vulnerable to systemic shocks and institutional fragmentation. This tension, between potential and constraint, defines much of the contemporary debate on tourism SMEs.

The broader research agenda reflected in the current Special Issue responds to these challenges by examining the drivers and barriers of innovation in tourism, especially considering the role of SMEs, from multiple angles, including: the management of eco-entrepreneurship and sustainable practices in hospitality; the use of sustainability certifications and related tourist perceptions; the main drivers and constraints of circular economy adoption in tourism SMEs; youth engagement and entrepreneurship in peripheral regions; the role of founders' educational backgrounds in shaping tourism business models and intellectual capital.

The first contribution, concerning *eco-entrepreneurship and sustainable innovation in hospitality* (by Simone Splendiani, Ginevra Testa, Luca Giraldi, and Chiara Mencarelli), highlights how environmentally oriented entrepreneurs operationalise sustainability through actions such as resource optimisation, local sourcing, waste reduction (Fuller et al., 2005; Martini et al., 2017), and guest education. These practices are grounded in strong value-driven motivations and a commitment to local heritage. Yet eco-entrepreneurs encounter systemic barriers, including regulatory complexity, high investment costs, and limited market awareness, that limit the scalability of their initiatives. Although eco-entrepreneurship may represent a crucial lever for accelerating sustainable transitions in tourism, the analysis underscores the need for more coordinated governance frameworks capable of aligning policy objectives with entrepreneurial efforts.

The second contribution deals with *sustainability certifications and tourist behaviour* (by Luca Giraldi, Guido Capanna Piscè, and Luca Olivari) investigates a persistent inconsistency in sustainable tourism: although many travellers express concern for environmental impacts, this rarely translates into booking behaviour. The study shows that while sustainability awareness is widespread, knowledge of certification schemes remains limited (Font & McCabe, 2017). As a result, certifications often fail to influence decision-making. The article emphasises the importance of transparent, credible, and educational communication strategies that make sustainability legible and meaningful to tourists. For SMEs, communication thus becomes a strategic capability essential for bridging the gap between supply and demand.

The third contribution (by Alex Almici, Luisa Bosetti, Raffaella Cassano, Tommaso Fornasari, and Francesca Gennari) offers a systematic review of *circular economy (CE) adoption in tourism firms*. It identifies drivers and barriers across governance, stakeholder relationships, and innovation. While initiatives such as recycling, reuse, and resource reduction have gained some traction, CE practices often remain fragmented and insufficiently integrated into strategic planning. The findings indicate that systemic circular models require stronger leadership, cross-sector collaboration, and continuous organisational learning. Given their flexibility and proximity to local ecosystems, SMEs are well positioned to experiment with CE approaches, provided that enabling institutional conditions are in place.

The fourth contribution (by Elisabetta Savelli, Alessio Travasi, Giada, Pierli, and Federica Murmura) explores the role of *young people as emerging agents of innovation in peripheral territories*. Survey results show that youth possess strong attachment to place (Yachin & Ioannides, 2020) and perceive tourism as a promising sector for local revitalisation. However, structural constraints - including inadequate infrastructure, limited cultural offerings, and scarce networking opportunities - hinder their entrepreneurial engagement. The study stresses the importance of policy interventions that enhance mobility, enrich cultural life, strengthen territorial networks, and cultivate youth capabilities. Empowering young residents is essential for activating tourism-driven development pathways in marginal regions.

Finally, the fifth contribution (by Vincenzo Vignieri) examines how founders' *educational backgrounds shape business models* (Mariani & Wirtz, 2023) *and intellectual capital* in cultural and creative organisations. Creativity, relational networks, technological adaptability, and cross-disciplinary competencies emerge as central components enabling firms to design compelling value propositions and sustain organisational resilience. The study also highlights the role of higher education institutions in fostering entrepreneurial ecosystems through knowledge transfer, partnerships, and academic spin-offs.

Taking together, these contributions reveal how innovation emerges not solely from technological adoption but from the interaction among values, identities, capabilities, and territorial ecosystems. Across their diversity, the papers converge on a shared understanding of innovation as a relational, contextual, and multi-scalar process. Innovation emerges from interactions among entrepreneurs, communities, institutions, and visitors; it is shaped by territorial identity, social capital, and governance arrangements. Human capital, particularly youth competencies and founders' educational backgrounds, functions as a strategic resource supporting adaptability and resilience.

This ecosystemic understanding of innovation suggests tourism firms, especially SMEs, the need to act along three interconnected strategic directions.

First, strengthening governance structures, managerial capabilities, and organisational learning processes is essential to enable SMEs to cope with the growing complexity of digital and sustainable innovation. Given their limited resources, small tourism firms often struggle to internalise technological change and sustainability requirements (Pencarelli et al., 2019) Enhancing governance capacity may allow SMEs to better integrate digital tools, sustainability standards, and innovation practices into coherent business strategies, rather than adopting them in a fragmented or reactive manner. Organisational learning, in this sense, becomes a critical mechanism through which firms can absorb external knowledge, adapt to regulatory and market pressures, and build long-term resilience.

Second, empowering youth and local communities emerges as a pivotal lever for fostering inclusive, place-based development. SMEs are deeply embedded in their territories and can act as gateways for mobilising local human capital, cultural resources, and social networks. By engaging young people not only as employees but also as co-creators, entrepreneurs, and community actors, small tourism firms can contribute to reversing demographic decline, stimulating local innovation, and reinforcing territorial identity. Community empowerment further enhances legitimacy, trust, and collective commitment, all of which are crucial for sustaining tourism development in peripheral and marginal areas.

Third, cultivating cross-disciplinary competencies, creativity, and technological adaptability is increasingly vital for sustaining resilient business models. Innovation in tourism SMEs rarely stems from specialised technological expertise alone; rather, it emerges from the combination of creative capabilities, relational skills, digital literacy, and contextual knowledge. Cross-disciplinary competencies enable small firms to design distinctive value propositions, combine cultural and technological resources, and respond flexibly to changing visitor expectations (Del Chiappa & Fotiadis, 2019). In this perspective, adaptability becomes less a function of scale and more a function of cognitive and organisational openness.

Taken together, these dynamics suggest that small tourism firms should be understood not merely as economic units, but as ecosystem builders capable of contributing to cultural vitality, social cohesion, and environmental stewardship within their territories. Their capacity to innovate, collaborate, and leverage territorial identity positions them as key intermediaries between local communities, institutions, and markets. As such, SMEs play a decisive role in shaping the future trajectories of tourism, particularly in contexts where development depends on balancing economic viability with social and cultural sustainability.

Within this framework of complex and multi-dimensional innovation, sustainability emerges as a central and unifying theme. Sustainable transformation is not reducible to the adoption of environmentally friendly practices; rather, it depends on integrated governance arrangements, inter-organisational collaboration, and the capacity to mobilise shared visions across heterogeneous stakeholders. For tourism SMEs, sustainability represents both a strategic orientation and a collective endeavour, requiring alignment between entrepreneurial values, institutional frameworks, and territorial aspirations. Only through coordinated action and collaborative governance can sustainability move from an individual commitment to a systemic transition.

Finally, this Special Issue opens several promising avenues for future research. Further studies are needed to deepen understanding of how tourism SMEs build and sustain innovation capabilities over time, particularly under conditions of uncertainty and resource scarcity. Comparative and longitudinal research could shed light on the evolution of entrepreneurial ecosystems and the role of governance in enabling or constraining innovation. Moreover, greater attention might be paid to micro-level processes, such as learning, identity construction, and value formation, underpinning sustainable and digital transformation in small firms. By embracing methodological plurality and cross-disciplinary perspectives, future research can continue to advance a more context-sensitive understanding of innovation in tourism entrepreneurship.

References

Ardito, L., Cerchione, R., Del Vecchio, P., & Raguseo, E. (2019). Big data in smart tourism: Challenges, issues and opportunities. *Current Issues in Tourism*, *22*(15), 1805–1809. *https://doi.org/10.1080/13683500.2019.1612860*

Boes, K., Buhalis, D., & Inversini, A. (2016). Smart tourism destinations: Ecosystems for tourism destination competitiveness. *International Journal of Tourism Cities*, *2*(2), 108–124. *https://doi.org/10.1108/IJTC-12-2015-0032*

Del Chiappa, G., & Fotiadis, A. (2019). Research areas and emerging challenges in small and medium tourism enterprises. *Piccola Impresa/Small Business*, (1), 9–17. *https://doi.org/10.14596/pisb.326*

Font, X., & McCabe, S. (2017). Sustainability and marketing in tourism: Its contexts, paradoxes, approaches, challenges, and potential. *Journal of Sustainable Tourism*, *25*(7), 869–883. *https://doi.org/10.1080/09669582.2017.1301721*

Fuller, D., Buultjens, J., & Cummings, E. (2005). Ecotourism and indigenous microenterprise formation in northern Australia: Opportunities and constraints. *Tourism Management*, *26*(6), 891–904. *https://doi.org/10.1016/j.tourman.2004.04.006*

Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2020). Smart tourism: Foundations and developments. *Electronic Markets*, *30*(1), 179–188. *https://doi.org/10.1007/s12525-015-0196-8*

Hjalager, A. M. (2010). A review of innovation research in tourism. *Tourism Management*, *31*(1), 1–12. *https://doi.org/10.1016/j.tourman.2009.08.012*

Jones, E., & Haven-Tang, C. (2005). Tourism SMEs, service quality and destination competitiveness. In E. Jones & C. Haven-Tang (Eds.), *Tourism SMEs* (pp. 1–24). CABI. *https://doi.org/10.1079/9780851990118.0001*

Mariani, M., & Wirtz, J. (2023). A critical reflection on analytics and artificial intelligence–based analytics in hospitality and tourism management research. *International Journal of Contemporary Hospitality Management*, *35*(8), 2929–2943. *https://doi.org/10.1108/IJCHM-08-2022-1006*

Martini, U., Buffa, F., & Notaro, S. (2017). Community participation, natural resource management and the creation of innovative tourism products: Evidence from Italian Networks of Reserves in the Alps. *Sustainability*, *9*(12), 2314. *https://doi.org/10.3390/su9122314*

Pencarelli, T., Cioppi, M., Curina, I., & Forlani, F. (2019). The impact of Web 2.0 on the marketing processes of restaurant businesses. *Piccola Impresa/Small Business*, (1), 60–84. *https://doi.org/10.14596/pisb.315*

Sigala, M. (2020). Tourism and COVID-19: Impacts and implications for advancing and resetting industry and research. *Journal of Business Research*, *117*, 312–321. *https://doi.org/10.1016/j.jbusres.2020.06.015*

Splendiani, S., & Forlani, F. (2023). *Il turismo dei cammini*. Franco Angeli.

Thomas, R., Shaw, G., & Page, S. J. (2011). Understanding small firms in tourism: A perspective on research trends and challenges. *Tourism Management*, *32*(5), 963–976. *https://doi.org/10.1016/j.tourman.2011.02.003*

Yachin, J. M., & Ioannides, D. (2020). “Making do” in rural tourism: The resourcing behaviour of tourism micro-firms. *Journal of Sustainable Tourism*, *28*(7), 1003–1021. *https://doi.org/10.1080/09669582.2020.1715993*

RESEARCH ARTICLES

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HOW ECO-ENTREPRENEURS ARE TRANSFORMING ITALIAN TOURISM SECTOR: EVIDENCE FROM THE HOSPITALITY INDUSTRY

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Abstract

Purpose. *This study investigates eco-entrepreneurship within Italy's hospitality sector, examining the motivations, practices, impacts, and challenges eco-entrepreneurs experience. It aims to enrich the discourse on sustainable tourism and ecological entrepreneurship in Italy.*
Design/methodology/approach. *The research employs a multiple-case study methodology to focus on six small-scale enterprises in the Italian hospitality industry. Data collection comprised semi-structured interviews with key informants, supplemented by secondary data analysis. The interviews were coded and analysed using NVivo 14 to extract meaningful insights.*
Findings. *The research reveals that personal commitment, environmental responsibility, and local heritage preservation are key drivers for eco-entrepreneurs. Key sustainable practices include resource conservation, waste management, and promoting local products. Transitioning to sustainable operations has been found to enhance reputation and customer trust, although the economic benefits of these initiatives remain unclear. The primary challenges identified are high investment costs, complex regulatory landscapes, and the need for targeted marketing to sensitise consumers towards sustainable options.*
Practical and Social Implications. *The findings highlight potential policy interventions to simplify the certification process and provide economic incentives for eco-friendly practices. Eco-entrepreneurs effectively demonstrate how sustainability in hospitality can engage local communities and influence consumer behaviour towards eco-conscious travel, thereby driving broader societal shifts towards sustainability.*
Originality of the study. *This research contributes to the limited empirical literature on eco-entrepreneurship within Italy's largely small-scale hospitality sector. It underscores the sector's potential to serve as a model for sustainable tourism practices, offering insights that could be applied to other regions and industries.*

1. Introduction

Tourism is a cornerstone of economic development worldwide, but its rapid expansion has raised significant concerns about environmental degradation and resource consumption. As global awareness of sustainability grows, pressure on the tourism sector, and particularly on the hospitality industry, has increased to mitigate environmental impact while supporting local communities (Thompson et al., 2017; Gast et al., 2017).

In this context, eco-entrepreneurship has emerged as a vital catalyst for change. Eco-entrepreneurs distinguish themselves by integrating environmental responsibility and social values into their business models, thereby promoting innovative solutions aimed at balancing profitability with ecological stewardship (Anci & Haznedar, 2017). By championing sustainable practices, these entrepreneurs not only transform their operations but can also influence broader shifts towards sustainability across the tourism sector.

Although research on sustainable tourism and the rise of entrepreneurship has proliferated in recent years (Purnomo et al., 2020; Aquino et al., 2018), most studies remain focused at the international or theoretical level. Therefore, there is a notable gap in empirical research examining how eco-entrepreneurial practices materialise in specific national contexts, particularly in countries where tourism is both economically significant and culturally distinctive.

Based on these considerations, Italy represents a unique context for an investigation of this type. As one of the world's leading tourist destinations, Italy is renowned for its rich cultural heritage and environmental assets. Furthermore, the Italian hospitality sector is characterised by a high prevalence of small and medium-sized enterprises (SMEs), which, due to their size and flexibility, are often well-positioned to implement innovative and sustainable business practices (Lordkipanidze et al., 2005). However, these businesses also face distinct challenges, including regulatory complexities, high investment costs, and limited consumer awareness relating to sustainability.

Against this background, the present study investigates how eco-entrepreneurs are reshaping Italy's tourism sector, with a particular emphasis on small-scale enterprises within the hospitality industry. Adopting a multiple-case study approach, the research seeks to address the following questions:

(RQ1) What are the defining characteristics and motivations of eco-entrepreneurs in the Italian hospitality sector?

(RQ2) What obstacles and opportunities do they encounter, both generally and in the Italian context?

To answer the two research questions, the study addresses four key areas:

- Entrepreneurial profile: identify characteristics and motivations of

these eco-entrepreneurs;
- Sustainable practices: examine the specific sustainable practices they implement;
- Outcome and impact: assess the results and impacts of these initiatives on their business;
- Challenges and opportunities: explore the primary obstacles and opportunities they encounter, both generally and within the Italian context.

By focusing on Italy as an empirical field, this study aims to enrich the literature on sustainable tourism and eco-entrepreneurship, providing new evidence and practical insights. The findings offer implications for policymakers, practitioners, and researchers seeking to support the growth of sustainable business models in tourism-dependent regions. The remainder of the paper is structured as follows: Section 2 reviews relevant literature, Section 3 outlines the methodology, Section 4 presents empirical findings, Section 5 discusses key implications, and Section 6 concludes with recommendations for future research.

2. Literature review

2.1 Eco-Entrepreneurship in Tourism: Concepts, Characteristics, and Context

Eco-entrepreneurship, frequently termed "ecopreneurship," refers to entrepreneurial activities that integrate economic objectives with environmental and social considerations (Kummitha, 2021; Mananda & Sudiarta, 2024). Within tourism studies, the relevance of eco-entrepreneurship has grown significantly, responding to the mounting imperative for environmental sustainability and the transformation of the tourism economy. Eco-entrepreneurs distinguish themselves by prioritising both environmental stewardship and economic outcomes, differentiating them from traditional entrepreneurs who often pursue profit as the primary goal (Mananda & Sudiarta, 2024).

Central to contemporary definitions is the notion that eco-entrepreneurs seek to innovate in products, services, and business models to reduce environmental impact and foster local economic development (Gast et al., 2017; Rahmawati et al., 2023). Their motivations extend beyond commercial opportunity, encompassing personal values, ethical commitments, and responses to societal demands for more sustainable tourism products (Cohen & Winn, 2007; Kummitha, 2020). Several studies highlight that the intent to address environmental concerns, such as climate change, biodiversity loss, and local resource depletion, acts as a powerful drive for both the creation and operation of eco-entrepreneurial ventures (Schaltegger, 2002;

Mananda & Sudiarta, 2024).

Effective eco-entrepreneurship in tourism can be evaluated using several frameworks. For example, Ekamati (2017) identifies four core criteria: environmental awareness, marketing aptitude for eco-friendly products, responsiveness to local demand for sustainable goods, and the pursuit of profitability grounded in ecological values. These dimensions illustrate how eco-entrepreneurs embed stewardship principles into market-driven activities, ultimately contributing to both environmental and economic objectives (Thompson et al., 2017).

Further conceptual nuance is provided by Kainrath (2009), who delineates three foundational elements: eco-innovation, eco-commitment, and eco-opportunity. Eco-innovation encompasses the development of products, services, and technologies that address specific ecological problems (Gast et al., 2017; Rahmawati et al., 2023). Eco-commitment refers to embedding sustainability within core business operations, policies, and strategies (Schaltegger, 2002). Eco-opportunity, meanwhile, concerns the ability to recognise and capitalise on ecological trends, accessing niche markets for environmentally responsible offerings (Schaltegger, 2002).

Therefore, in the tourism context, a successful eco-entrepreneurship approach is multifaceted (Thompson et al., 2017) and includes key components such as:

- Stakeholder Engagement: Integrating local communities, policymakers, and businesses to ensure initiatives are contextually grounded and enjoy broad support (Thompson et al., 2017).
- Economic Viability: Ensuring sustainable operations are also financially robust, thereby fostering long-term adoption and the scaling of green practices (Gast et al., 2017).
- Environmental Education: Enhancing ecological literacy among staff, tourists, and host communities, which can improve decision-making around resource use and conservation (Thompson et al., 2017).
- Overtourism Management: Implementing strategies to control visitor flow and safeguard environmental and cultural resources (Thompson et al., 2017).

Moreover, Mananda and Sudiarta (2024) synthesises emerging best practices, emphasising the importance of green product development, technological innovation, sustainable resource management, community involvement, metrics for environmental performance, and strategic partnerships.

From an organisational perspective, Schaltegger (2002) stresses the necessity for broad-based managerial competencies, including integrating sustainability into corporate strategies, developing eco-friendly services, and embedding environmental considerations across all organisational levels. These skills, aligned with ongoing performance assessment, help ensure that eco-entrepreneurial activities are both impactful and adaptable

(Thompson et al., 2017).

The contextual environment, particularly the attitudes of resident and host communities, plays a significant role in facilitating or constraining eco-entrepreneurial ventures. Community support and sensitivity to environmental requirements are frequently cited as prerequisites for successful implementation of sustainable initiatives in tourism (Anci & Haznedar, 2017).

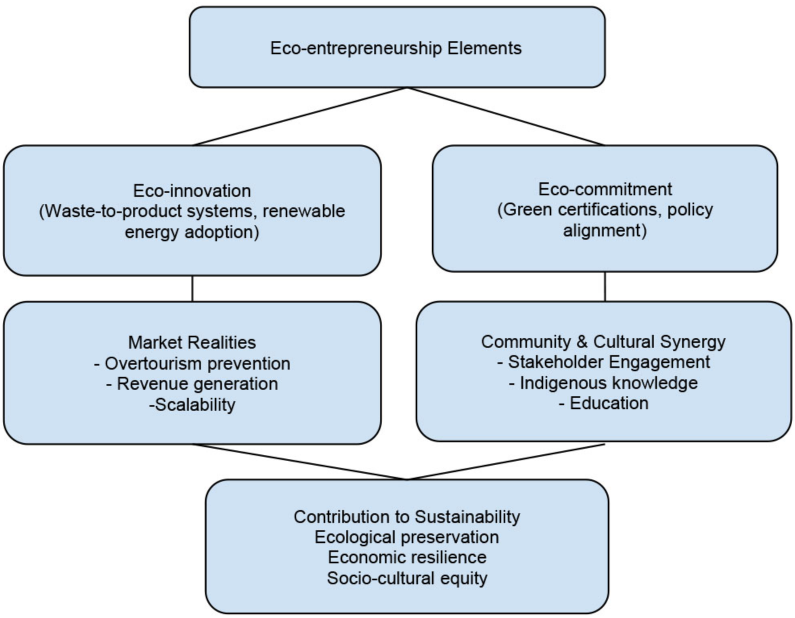
Thus, eco-entrepreneurship in tourism is characterised by:

- The integration of environmental and economic goals;
- A commitment to innovation and sustainability in both process and product;
- Proactive stakeholder and community engagement;
- And the use of managerial practices that operationalise ecological values.

By adhering to these principles, tourism eco-entrepreneurs are better positioned to foster resilient, sustainable destinations that balance profitability with environmental and social well-being (Gast et al., 2017; Rahmawati et al., 2023; Thompson et al., 2017).

The relationship between eco-innovation, eco-commitment, and contextual factors is illustrated in Figure 1.

Figure 1. Conceptual diagram



Source: Author's elaboration.

2.2 Barriers, Obstacles, and Challenges to Ecopreneurship

Entrepreneurs who integrate ecological and social values into their business activities face various barriers and obstacles that can hinder the creation and growth of successful eco-sustainable ventures. According to Linnanen (2002), one main challenge facing eco-entrepreneurs is spreading environmental awareness among consumers, a necessary step in shifting consumption patterns in favour of environmentally sustainable products and services. However, this cultural and behavioural shift depends on the consumers' knowledge and willingness to purchase goods that may have higher upfront costs but offer longer-term environmental benefits (Gast et al., 2017; Pastakia, 2002).

In addition to environmental awareness, another critical barrier Linnanen (2002) highlighted is the difficulty of attracting funding. Eco-startups typically require substantial upfront investments in technology, innovation, and research and development (R&D), but often have slower or lower returns in the short term (Gibbs, 2006; Lordkipanidze et al., 2005). Investors seeking immediate gains may be reluctant to provide capital when payoffs depend on consumer education, emerging technologies, or policy changes (Mananda & Sudiarta, 2024). As a result, eco-entrepreneurs may struggle with high-risk perceptions and a lack of specialised funding mechanisms willing to accept elongated timelines for environmental products and services.

Lordkipanidze et al. (2005) propose a deeper taxonomy of barriers grouped according to their nature:

- Economic and Social Barriers. These include a general lack of start-up funding sources, high tax rates, administrative red tape, and negative societal attitudes toward entrepreneurship, especially in rural or conservative communities. These challenges are amplified when communities are unaccustomed to innovation or harbour scepticism about "green" business practices.
- Learning-Process Barriers. Eco-entrepreneurs frequently encounter low levels of expertise among local populations, stakeholder resistance to change (stemming from community conservatism), and limited institutional understanding of the potential benefits of sustainability initiatives such as ecotourism (Lordkipanidze et al., 2005). Without external support structures or comprehensive training programs, these firms may struggle to acquire the knowledge and skills needed to compete and scale effectively (Baxter, 2004).
- Market Barriers. Lack of communication channels and promotional efforts preclude eco-enterprises from informing customers about their offerings. Marketing sustainable goods often requires more consumer ed-

ucation, which results in additional costs not incurred by conventional businesses (Pastakia, 2002). Eco-entrepreneurs must also demonstrate tangible environmental value in a market driven by price, convenience, and habitual purchasing patterns (Gibbs, 2006).

Additional concerns involve whether a company typically partakes in scientific and environmental R&D that addresses its core operations (Gast et al., 2017). In that case, the organisation might include its environmental goals and their economic implications in public communication, such as financial reports or marketing campaigns. An ecopreneur's transparency capacity influences consumer trust and stakeholder engagement (Schaltegger, 2002). Moreover, the ultimate "market effect" of eco-innovation warrants careful examination: it is helpful to analyse how a firm's innovation captures market share compared to its industry average and whether competitors replicate its green innovations (Schaltegger, 2002).

Focusing on startup experiences, Schick et al. (2002) note several internal and external impediments to sustainable business pursuits: lack of accessible information on eco-friendly business processes, limited ecological knowledge among management advisors, low awareness of green market potential among entrepreneurs, and scarce public funds or incentives for sustainable enterprise development. Baxter (2004) finds that within organisational settings, further challenges arise from inadequate motivation or capacity building for Environmental Management Systems (EMSs). Businesses may perceive EMS adoption as burdensome, citing insufficient supervision, mentoring, or training on environmental best practices.

Beyond these organisational hurdles, Schaltegger (2002) maintains that an eco-entrepreneur's ultimate challenge is structural: achieving economic success while transforming consumption patterns and market structures to yield an absolute decrease in environmental impact. Ecopreneurs do so by relentlessly searching for, refining, and commercialising business ideas intended to alleviate ecological degradation. Success depends on linking environmental solutions to verifiable market opportunities, effectively communicating their green value propositions, and demonstrating profitability even in the face of long payback periods (Gibbs, 2006). Networked partnerships, with local communities, government agencies, or established industry peers, can facilitate knowledge exchange, logistic synergies, and risk-sharing, expanding the eco-entrepreneurs' potential for lasting impact (Mananda & Sudiarta, 2024).

In conclusion, barriers to ecopreneurship intersect finance, consumer perceptions, community readiness, institutional frameworks, and overall market inertia. However, as this literature underscores, overcoming these hurdles can lead eco-entrepreneurs to reshape current production and consumption systems to pursue a more sustainable and socially equitable economic landscape. Eco-entrepreneurship is both a catalyst for creative disruption and an illustration of the possible synergy between ecological responsibility and commercial viability.

3. Methodology

3.1 Research aims

To meet the exploratory objective of the research, the study adopts a methodology based on multiple case studies. Multiple case studies are an appropriate research method for thoroughly understanding a phenomenon and are a widely adopted methodology in the tourism literature (Çakar & Aykol, 2021; Tasci et al., 2020)

Despite the growing academic debate on the topic, an in-depth qualitative analysis is still lacking. Therefore, we pursued the multiple case methodology precisely to build solid empirical evidence and compare what is being achieved by different cases with each other, contributing holistically to theoretical development (Dooley, 2002). The case study method is particularly well-suited to complex topics such as innovative strategies, sustainability best practices, and complex tourism offerings with multiple stakeholders involved. All of which fully fit the definition of eco-entrepreneurs adopted in the manuscript (Tasci et al., 2020).

3.2 Case Study Selection

Combining inclusion and exclusion criteria led to the selection of the most suitable cases for the analysis: 1) through the use of the OTA Booking platform, structures recognised for their focus on sustainability were chosen, and 2) hotel chains were excluded precisely to prefer only companies with an entrepreneurial figure.

Starting in 2024, accommodations to meet the Booking platform's sustainability criteria must have earned a sustainability certificate from one of the certifying bodies listed on the platform (booking.com). Many sustainability certifications come from accredited bodies, e.g., Green Key[1], Green Pearls[2], GSTC[3], and EU Ecolabel[4].

Across Italy, Booking recognition for sustainability was achieved by 32

[1] https://greenkeyglobal.com/eco-rating/
[2] https://www.greenpearls.com/
[3] https://www.gstcouncil.org/gstc-criteria/gstc-industry-criteria/
[4] https://environment.ec.europa.eu/publications/tourist-accommodation-user-manual_en

structures that we contacted via e-mail to agree on availability to conduct the interviews. A total of six accommodations were interviewed, which were founded by their entrepreneur from 1995 to the most recent 2021. Table 1 provides an overview of the profiles of the six interviewed structures and the six key informants, i.e., entrepreneurs. Table 1 shows that the structures are located in five regions in north-central Italy and that most of the facilities have achieved GSTC certification, criteria aimed at fostering a common understanding of sustainable tourism (GSTC, 2025).

Table 1. Company and Entrepreneur profile.

Company	**Company A**	**Company B**	**Company C**	**Company D**	**Company E**	**Company F**
Category	Agritourism	3-star Hotel	3-star Hotel	3-star Hotel	Guesthouse	3-star hotel
Year of foundation	2021	1995	2009	2012	2016	2003
Room	50	37	23	12	6	21
Environmental certificate	GSTC criteria	GSTC criteria	GSTC criteria	Green Pearls	EU Ecolabel	Green Key (FFE)
Entrepreneur's age	25>40	55>70	40>55	40>55	55>70	40>55
Entrepreneur gender	M	F	F	F	F	F

Source: Author's elaboration.

An earlier step, compared to the conduct of the 6 interviews, involved a focus group with 7 experts in the field, which enabled us to understand better the dynamics and peculiarities of the subject matter covered, allowing us to draft and formulate the questions included in the interview protocol, not only based on the relevant literature but also on the empirical evidence that emerged from this opportunity for discussion with experts in the field.

Therefore, the study proceeded with six semi-structured interviews with open-ended questions conducted with the key informants of each company selected, i.e., the entrepreneurial figure, to discuss in depth their vision and motivation.

The interviews were conducted using the Microsoft Teams platform, recorded, and transcribed with the consent of the interviewees. They lasted, on average, about 40 minutes and were conducted between December 2024 and February 2025.

3.3 Data collection and data analysis

The interview protocol included a series of open-ended questions designed to bring out valuable insights and explore the following themes

(Table A1 in Appendix):

1) Motivation and entrepreneurial vision;
2) Adoption of sustainable practices;
3) Impact and results from such initiatives;
4) Challenges and opportunities for eco-entrepreneurs.

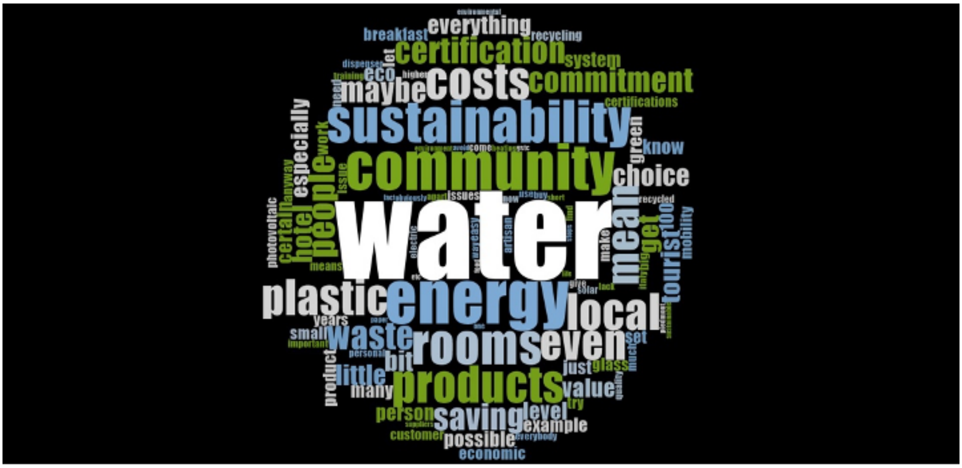
These primary data were supplemented by secondary data from collecting material published by the structures on their respective websites, directly on the Booking platform, or other communication channels. This data was used to assess specific aspects of the structure, such as the foundation year and the certifications achieved, to learn about companies' commitment to the issue in advance.

The interviews were coded using NVivo 14 software through content analysis, a methodology that allows large volumes of extended textual data to be coded reproducibly and systematically (Krippendorff, 2018). Coding was carried out using an inductive, manual approach, and all authors were operationally involved, confronting each other only in case of disagreement. The codebook used for coding interviews is presented in Table A2 in the Appendix.

4. Findings

The interviews' coding revealed several essential themes, including eco-entrepreneurs' commitment to the environment and the community in which they work. Many initiatives are taken to preserve natural resources that are relevant and scarce in certain territories, such as water and energy. Figure 2 highlights the words most discussed by the 6 key informants interviewed.

Figure 2. Word Cloud

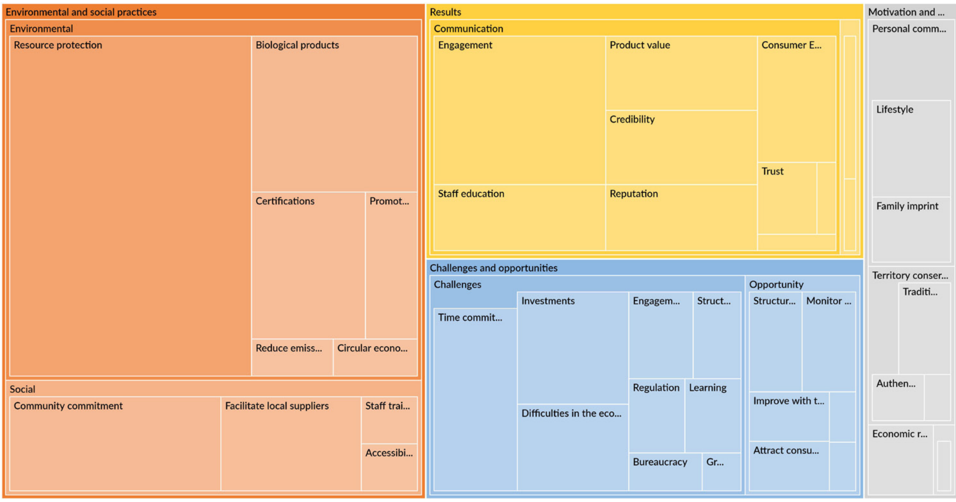


Source: Author's elaboration.

For example, water saving is a particularly key issue for all 6 key informants, who have moved, for example, to use water purifiers precisely to "*turn waste into a resource*" (Company A). Concerning plastic, the eco-entrepreneurs are actively engaged in reducing all single-use packaging and other items typically made of plastic, favouring the use of materials such as glass and wood wherever possible. "*We have replaced all the glass things, even the hangers in the rooms are made of wood*" (Company C).

Figure 3 provides an overview of the most frequently discussed and coded topics in the interviews, according to the codebook created with NVivo 14. This figure highlights the relevance and number of topics discussed in the interview, in particular the multiple environmental and social practices implemented by eco-entrepreneurs and the expected results, the opportunities and challenges arising from these initiatives, and the motivations that drove these entrepreneurs to go down this path.

Figure 3. Hierarchy Chart



Source: Author's elaboration.

4.1. Eco-entrepreneurs' motivations

Table 2 shows that the primary motivations for an entrepreneur to be an eco-entrepreneur derive mainly from personal commitment, particularly from one's sensibility, the lifestyle one leads, and the upbringing transmitted by one's family regarding values. In addition to this personal commitment, there is also the desire to contribute to conserving the resources and heritage of one's land, preserving traditions and authenticity. As argued by Company A, "*For me, sustainability is not just environmental sustainability,* *but sustainability as an entrepreneur and as a human being as an inhabitant of the land"*.

Company D, *"Saving on water, also highlights attention to the territory, which, as we know, is a big problem, especially in our region. This is very important because our region is, unfortunately, one of the regions that has dealt with drought a lot in recent years. So let's say that my dad wanted, for economic and ecological reasons, to try to limit it as much as possible. It's the least that should be done, especially considering that in our region, all the structures are old; therefore, it's not easy to find structures with a low environmental impact"*.

Table 2 shows that the motivation for eco-entrepreneurship does not stem from a drive from the market. It requires no special attention from the entrepreneur and is only weakly driven by purely economic reasons.

Table 2. Motivation and eco-entrepreneur vision

	Economic reasons	Market demand	Personal commitment	Family imprint	Lifestyle	Territory conservation	Authenticity	Cultural heritage	Traditions preservation
Company A	0%	0%	40,7%	29,07%	11,63%	9,3%	2,33%	1,16%	5,81%
Company B	40%	40%	20%	0%	0%	0%	0%	0%	0%
Company C	0%	0%	66,67%	0%	33,33%	0%	0%	0%	0%
Company D	1,55%	0%	44,19%	28,68%	12,4%	13,18%	0%	0%	0%
Company E	0%	0%	50%	47%	3%	0%	0%	0%	0%
Company F	0%	0%	10,17%	0%	0%	47,46%	1,69%	0%	40,68%

Source: Author's elaboration.

4.2. Eco-entrepreneurs' environmental and social causes

Table 3 shows how eco-entrepreneurs are committed to adopting environmentally oriented practices and are particularly attentive to their impact on the local community at the social level. To achieve this, for example, they use organic products - 0 km products - precisely to convey to the public and emphasise home production and self-production, e.g. of wine, oil, meat and more, as evidenced by *"We here at our place, in addition to giving tourist services, we are also organic producers of oil, wine, meat, milk, vegetables, etc. etc."* (Company A). In addition to producing such resources, they prefer products from local suppliers in the area when it is impossible.

Key informants are committed to conserving resources such as water (using collectors and purifiers), energy (using renewable energy sources, LED lighting, and electric car charging stations), and performing recycling collection. *"The fact that we have garbage with recycling collection in the rooms means that we are teaching the people who work in the hotel what it means to differentiate and not waste everything"* (Company D).

In addition, Company A and F are also mainly active in encouraging sustainable mobility of both their employees and their guests, encouraging them to walk or bike to work or take public transportation "*I have employees who come when it's not raining to work on foot or by bike, but not because I force them*" (Company A) and stimulating experiences such as walking or biking "There is a bike path that crosses the town that comes from Austria" (Company C).

From the point of view of commitment to social issues, eco-entrepreneurs are all engaged in the community where they reside, particularly by favouring products from local suppliers or supporting local societies (schools, universities, and sports centres) to promote the welfare of the community in which they live and in which their economic activity is located.

Table 3. Environmental and social practices

	ENVIRONMENT							SOCIAL		
	Biological products	Certifications	Circular economy	Promoting sustainable mobility	Reduce emissions	Resource protection	Accessibility	Community commitment	Facilitate local suppliers	Staff training
Company A	5,97%	0,75%	6,72%	20,9%	0%	28,36%	0%	20,9%	8,96%	7,46%
Company B	0%	10,5%	0%	0%	0%	75,63%	0,42%	8,4%	5,04%	0%
Company C	20,95%	2,86%	0%	0,95%	0,95%	60,95%	0%	13,33%	0%	0%
Company D	32,91%	20,25%	0%	0%	0%	25,63%	0%	14,87%	6,33%	0%
Company E	11,49%	14,94%	0%	0%	0%	58,62%	0%	14,94%	0%	0%
Company F	19,26%	0%	0%	33,26%	0,66%	24,07%	0,44%	8,75%	13,57%	0%

Source: Author's elaboration.

4.3. Eco-entrepreneurs' results

From the point of view of the main results, Table 4 shows that the main objective is related to the engagement of consumers and employees in advancing the eco-entrepreneur's mission. The communication conveyed on social media and other platforms about the practices and commitment adopted by the facilities leads to increased engagement but also to increased credibility and company reputation as the product offered is perceived as one of value, quality, unique, and original as claimed by Company A "*our sustainability, sustainable engagement, and an increase in value of the product we offer and the services we provide*".

Table 4. Results from sustainable and social initiatives

	AWARNESS									ECONOMIC	
	Attracting more sensitive consumers	Consumer Education	Credibility	Engagement	Life-long business	Product value	Reputation	Staff education	Trust	Revenues	Savings
Company A	9,69%	2,64%	11,89%	24,23%	3,52%	35,68%	5,73%	3,96%	0%	2,64%	0%
Company B	0%	36,36%	0%	63,64%	0%	0%	0%	0%	0%	0%	0%
Company C	0%	0%	0%	44,57%	0%	0%	7,61%	44,57%	3,26%	0%	0%
Company D	0%	12,26%	30,32%	9,68%	0%	0%	16,77%	19,35%	4,52%	0%	7,1%
Company E	0%	44,58%	15,66%	19,28%	0%	0%	7,23%	13,25%	0%	0%	0%
Company F	0%	9,69%	5,94%	51,56%	0%	17,5%	5,63%	8,13%	1,56%	0%	0%

Source: Author's elaboration.

Thus, transparent communication enhances the value of the product offered by increasing the trust of the parties involved. Transparent communication can attract an increasingly sensitive audience to the issue, getting them more involved. External and internal communication of the sustainable and social practices implemented by companies allows both the public and staff to be educated, enabling them to achieve greater involvement and motivation toward the pursuit of the common goal. On the other hand, economic aspects, savings, and revenue are considered less related and difficult to evaluate for the initiatives undertaken by companies.

4.4. Eco-entrepreneurs' opportunities and challenges

Table 5 highlights some significant opportunities, such as developing collaborations with other facilities to find guidance and comparison on the initiatives the company advocates: "*Environmental education, waste and emission management, collaboration and partnerships with supply chains and other parties, measurement of environmental performance and sustainability*" (Company A). For example, Company B: "*I use the collaboration of experienced people, people who are dedicated solely and exclusively to the knowledge of all the legislation and everything there is to do for sustainability*".

Technology is also a key opportunity in that it enables more excellent monitoring of consumption data, resulting from the use of, for example, home automation technology, which allows greater control, attracting consumers who are increasingly attentive and sensitive to the issue "*introduce a concept of data monitoring that even especially in our industry, there is little data collection, there is not this sharing of data even at the public level that the hotelier is never returned*" (Company F).

Table 5. Eco-entrepreneurs' opportunities

	OPPORTUNITIES					
	Structures collaboration	New trends	Monitor consumptions	Improve with the use of technology	Growth	Attract consumers
Company A	0%	0%	0%	13,24%	0%	32,35%
Company B	10,87%	0%	0%	0%	42,39%	0%
Company C	22,73%	0%	0%	2,27%	0%	0%
Company D	0,54%	0%	0%	0%	0%	0%
Company E	0%	0%	1,05%	0%	0%	0%
Company F	0%	5%	21,25%	2,5%	0%	43,75%

Source: Author's elaboration.

However, multiple obstacles eco-entrepreneurs face along their way, shown in Table 6, aspects related to the increased time needed to be spent to achieve certifications, structural limitations that make it more challenging to transform old structures into sustainable ones, the problematic assessment of economic return in addition to the need to overcome high investments, complex bureaucracy, and regulations that are not well unified as claimed by Company B "*In short, it is a path that asks for your time and commitment and sometimes you say but who makes me do it? Several times, I have been asked if there is feedback, that is, if the client notices that you are greener than someone else, no client has ever asked me to be greener, let alone complimented me.*"

Table 6. Eco-entrepreneurs' challenges

	CHALLENGES								
	Time commitment	Structural limitations	Regulation	Learning	Investments	Growth	Engagement of staff and consumers	Difficulties in the economic returns evaluation	Bureaucracy
Company A	0%	0%	2,94%	15,44%	19,12%	16,91%	0%	0%	0%
Company B	26,09%	0%	4,35%	11,96%	4,35%	0%	0%	0%	0%
Company C	15,91%	0%	0%	0%	0%	0%	6,82%	52,27%	0%
Company D	36,22%	6,49%	1,08%	0%	0%	0%	10,81%	16,22%	28,65%
Company E	15,79%	8,42%	0%	0%	40%	0%	6,32%	28,42%	0%
Company F	7,5%	0%	0%	0%	12,5%	0%	0%	7,5%	0%

Source: Author's elaboration.

Therefore, considerable efforts are still required regarding the learning involvement and education of both staff and the public.

5. Discussions

Empirical findings underscore how personal commitment, environmental responsibility, and local heritage conservation drive eco-entrepreneurs in Italy's hospitality sector. This aligns with the literature, where Kummitha (2020) and Anci and Haznedar (2017) suggest that eco-entrepreneurs are motivated by a blend of ecological aspirations and community well-being. Schaltegger (2002) similarly notes that personal motivations significantly shape entrepreneurial objectives.

Isaak (2002) argued that eco-entrepreneurship is an existential endeavour in which ideals of sustainability give meaning to entrepreneurial activities. Company D echoed this sentiment, emphasising the importance of addressing local environmental challenges like drought. The lack of market-driven demand for sustainable practices and the minimal influence of direct economic incentives corroborate Linnanen's (2002) findings, positing that eco-entrepreneurs are more driven by environmental stewardship than financial and economic gain from such initiatives.

Eco-entrepreneurs adopt many sustainable practices, predominantly in resource conservation, waste management, and promoting local products. These efforts are consistent with the framework proposed by Ekawati (2017), which highlights environmental awareness and responsiveness to community demands as critical indicators of eco-entrepreneurship.

Eco-innovation, such as using renewable energy and converting organic waste, illustrates the implementation of Kainrath's (2009) elements of eco-innovation and eco-commitment. These may include practices reported by interviewees, such as encouraging sustainable mobility and the use of organic products, which resonate with Schaltegger (2002) and Lordkipanidze et al. (2005), who emphasise precisely the promotion of innovative solutions and ethical commitment in eco-entrepreneurial ventures.

Collaborative engagement with local communities and stakeholders, as described by Thompson et al. (2017), is evident in the approach of eco-entrepreneurs who prioritise local supply chains and community welfare while also supporting local associations related to education, sports and the well-being of the community in which they operate This demonstrates the deep embeddedness of eco-entrepreneurial activities in their social and geographical contexts, reinforcing Pastakia's (1998) assertion on the importance of territorial and community support.

Key outcomes of sustainable initiatives include enhanced reputation and increased consumer and employee engagement. As Schaltegger (2002) and Mananda & Sudiarta (2024) indicate, transparent and clear communication of sustainable practices helps strengthen credibility and trust, elevating the perceived value and quality of eco-tourism services.

However, the economic benefits remain ambiguous and challenging to quantify, reflecting Linnanen's (2002) observation on the non-financial success metrics prevalent among eco-entrepreneurs. Aquino et al. (2018) noted that educational impact on consumers and staff, fostering greater sensitivity to environmental issues, can lead to socio-cultural benefits in the long term.

Regarding the first research question, the empirical analysis confirms that all six respondents can be qualified as eco-entrepreneurs, albeit with some specific characteristics. First of all, these are companies that Isaak (2002) would define as "green companies", as they have become sustainable during their activity and not from their birth. Furthermore, following Walley and Taylor's (2002) typological classification, we could define the analysed cases as similar to the so-called "ethical mavericks", influenced by personal experience, family, or friendship networks. Finally, they are all driven by challenging environmental projects (Schaltegger, 2002) related to certification. Indeed, all respondents demonstrate their personal and environmental commitments, innovative practices, and alignment with community and ecological values, as Kummitha (2020) and Schaltegger (2002) theorised.

Addressing the second research question, the main challenges identified include high initial investment costs, regulatory complexity, difficulty quantifying economic returns, and the need to educate consumers (due to a lack of awareness). These obstacles confirm the broader barriers to eco-entrepreneurship discussed in the literature (Linnanen, 2002; Lordkipanidze et al., 2005; Gast et al., 2017). For instance, intricate regulatory requirements and fragmented sustainability certifications complicate the path for eco-entrepreneurs, corroborating Mananda and Sudiarta's (2024) findings on the obstacle posed by an incohesive policy landscape where coordination is complex. Structural limitations of older buildings also make it arduous to retrofit sustainable practices, which also resonates with Schick et al.'s (2002) observations on the internal and external barriers to sustainable business practices.

Thus, exploring eco-entrepreneurship within Italy's hospitality sector highlights the intersection between theoretical insights and empirical realities. The motivations, practices, and impacts observed among eco-entrepreneurs corroborate and extend the existing literature. At the same time, the challenges underscore the need for supportive policy measures, enhanced consumer education, and cohesive sustainability frameworks. The findings contribute valuable empirical evidence to the sustainable tourism discourse and underscore the pivotal role of eco-entrepreneurs in driving ecological and socio-economic resilience in the tourism sector.

6. Conclusions

This study aimed to contribute to the expanding body of research focusing on supply-side sustainable tourism by exploring eco-entrepreneurship within the Italian hospitality sector.

Several research objectives were pursued, such as delineating the characteristics and motivations of eco-entrepreneurs in the Italian hospitality sector, examining the sustainable practices they have adopted, evaluating their achievements, and identifying the challenges and opportunities they have encountered. Through this exploration, the research provides valuable insights into how eco-entrepreneurial initiatives can advance broader sustainable tourism goals.

The entrepreneurs interviewed are eco-entrepreneurs, primarily driven by ethical and personal motivations. They integrate their personal beliefs into economic activities, even when short-term business benefits are not immediately apparent. These businesses are predominantly family-owned, small, or micro-enterprises, reflecting the prevalent structure within the Italian hospitality sector. This corporate feature facilitates the manifestation of eco-entrepreneur characteristics, which are less likely to be observed in more managerially structured hospitality businesses.

Environmental certifications play a pivotal role. They serve as a fundamental guide for entrepreneurs' orientation towards sustainability, even though obtaining them is often particularly complex and expensive, as well as still too little recognised by the public.

The identified limitations and barriers align with those previously documented by other researchers but appear even more pronounced within the Italian context. Notably, a lack of market awareness hinders the effective implementation of marketing strategies, e.g., sustainability communication and green practices development. Additionally, the complexity of certification procedures and the substantial investments required pose significant challenges for businesses with limited resources.

Therefore, this research, while affirming the impact of eco-entrepreneurship on sustainable tourism development, raises research questions that deserve further investigation. The necessity for longitudinal and comparative studies, currently lacking and representing a primary limitation of this research, is evident. Comparative analyses could enrich the empirical data to address critical research questions. Specifically, comparisons could be developed:

- Across socio-economic-cultural contexts: examining how diverse social, economic, and cultural contexts foster and support eco-entrepreneurship and how cultural factors influence eco-entrepreneur characteristics;
- Across legislative contexts: investigating how tourism regulations influence the need or opportunity to establish an ecologically oriented business;
- Across market contexts: assessing how consumer awareness of sustainability issues impacts eco-entrepreneurial policies;

- Across entrepreneurial activities within the tourism sector: analysing how tourism activity of belonging (accommodation, restaurants, tour operating, etc.) influences eco-entrepreneurship characteristics.

Research on eco-entrepreneurship in tourism necessitates continued and expanded efforts. Beyond the study of entrepreneurial motivations, typologies, and characteristics, understanding the drivers that can be leveraged to optimise the role of eco-entrepreneurs in the ecological transition, a critical imperative for all regions, and the pursuit of enhanced ecological equilibrium within the tourism sector will become increasingly crucial, particularly from a public policymaking perspective.

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References

Anci, Z.N., & Haznedar, H.A. (2017). A research towards determining the ecotourism and eco-entrepreneurship potential of Nazarey. *International Journal of Contemporary Economics and Administrative Sciences*, 7(3-4), 15-41. http://ijceas.com/index.php/ijceas/article/view/185/0

Aquino, R. S., Lück, M., & Schänzel, H. A. (2018). A conceptual framework of tourism social entrepreneurship for sustainable community development. *Journal of Hospitality and Tourism Management*, 37, 23–32. https://doi.org/10.1016/j.jhtm.2018.09.001

Baxter, M. (2004). *Taking the first in environmental management. ISO Management Systems*, 13.

Çakar, K., & Aykol, Ş. (2021). Case study as a research method in hospitality and tourism research: A systematic literature review (1974–2020). *Cornell Hospitality Quarterly*, 62(1), 21-31. https://doi.org/10.1177/1938965520971281

Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing*, 22(1), 29–49. https://doi.org/10.1016/j.jbusvent.2004.12.001

Dooley, L. M. (2002). Case Study Research and Theory Building. *Advances in Developing Human Resources*, 4(3), 335–354. https://doi.org/10.1177/1523422302043007

Ekawati, N.W., Kertiyasa, N.N., Giantari, G.A.K., & Sariyathi, N.K. (2017). Ecopreneurship and Green Innovation for the Success of New Spa Products. *Journal of Business and Retail Management Research*, 11(3), 13-24.

Gast, J., Gundolf, K., & Cesinger, B. (2017). Doing business in a green way: A systematic review of the ecological sustainability entrepreneurship literature and future research directions. *Journal of Cleaner Production*, 147, 44–56. https://doi.org/10.1016/j.jclepro.2017.01.065

Gibbs, D. (2006). Sustainability Entrepreneurs, Ecopreneurs and the Development of a Sustainable Economy. *Greener Management International*, 2006(55), 63–78. https://doi.org/10.9774/gleaf.3062.2006.au.00007

GSTC (2025) *GSTC Industry Criteria for Hotels* https://www.gstcouncil.org/gstc-criteria/gstc-industry-criteria-for-hotels/

Isaak, R. (2002). The Making of the Ecopreneur. *Greener Management International*, 2002(38), 81–91. https://doi.org/10.9774/gleaf.3062.2002.su.00009

Kainrath, D. (2009). *Ecopreneurship in theory and practice: A proposed emerging framework for ecopreneurship*. Saarbrücken: LAP LAMBERT Academic Publishing.

Krippendorff, K. (2018). *Content analysis: An introduction to its methodology*. Sage publications.

Kummitha, H. R. (2020). Eco-Entrepreneurs Organizational Attitude towards Sustainable Community Ecotourism Development. *DETUROPE - The Central European Journal of Tourism and Regional Development*, 12(1), 85–101. https://doi.org/10.32725/det.2020.005

Kummitha, H.R. (2021). Can Ecopreneurs Contribute to Ecotourism Development: A Comparative Study of the Pre- and Post-establishment Periods of Kabani (Ecopreneur Organisation). *Asia-Pacific Journal of Innovation in Hospitality and Tourism*, 10(1), 1-21.

Linnanen, L. (2002). An Insider's Experiences with Environmental Entrepreneurship. *Greener Management International*, 2002(38), 71–80. https://doi.org/10.9774/gleaf.3062.2002.su.00008

Lordkipanidze, M., Brezet, H., & Backman, M. (2005). The entrepreneurship factor in sustainable tourism development. *Journal of Cleaner Production*, 13(8), 787–798. https://doi.org/10.1016/j.jclepro.2004.02.043

Mananda I.G.P.B.S., & Sudiarta, I.N. (2024). The Role of Ecopreneurship in Bali's Sustainable Tourism Development: Insights into Government Policy, Tourist Awareness and Preferences. Jou*rnal of Environmental Management and Tourism*, 15(1), 119. https://doi.org/10.14505/jemt.v15.1(73).10

Pastakia, A. (1998). Grassroots ecopreneurs: change agents for a sustainable society. *Journal of Organizational Change Management*, 11(2), 157–173. https://doi.org/10.1108/09534819810212142

Pastakia, A. (2002). Assessing Ecopreneurship in the Context of a Developing Country. *Greener Management International*, 2002(38), 93–108. https://doi.org/10.9774/gleaf.3062.2002.su.00010

Purnomo, M., Sam', N. A., & Raharja, S.U.J. (2020). Visualisation of development of ecopreneurship in tourism. *World Review of Entrepreneurship, Management and Sustainable Development*, 16(4), 380. https://doi.org/10.1504/wremsd.2020.109981

Rahmawati, R., Handayani, S. R., Suprapti, A. R., Airawaty, D., & Latifah, L. (2023). Green Entrepreneurship Based On Local Characteristics and Culture To Support Sustainable Eco-Tourism: A Case Study. *Journal of Intercultural Communication*, 66–75. https://doi.org/10.36923/jicc.v23i1.71

Schaltegger, S. (2002). A Framework for Ecopreneurship. *Greener Management International*, 2002(38), 45–58. https://doi.org/10.9774/gleaf.3062.2002.su.00006

Schick, H., Marxen, S., & Freimann, J. (2002). Sustainability issues for start-up entrepreneurs. *Greener Management International*, (38), 59-70.

Tasci, A. D. A., Wei, W., & Milman, A. (2020). Uses and misuses of the case study method. *Annals of Tourism Research*, 82, 102815. https://doi.org/10.1016/j.annals.2019.102815

Thompson, B. S., Gillen, J., & Friess, D. A. (2017). Challenging the principles of ecotourism: insights from entrepreneurs on environmental and economic sustainability in Langkawi, Malaysia. *Journal of Sustainable Tourism*, 26(2), 257–276. https://doi.org/10.1080/09669582.2017.1343338

Walley, E. E. (Liz), & Taylor, D. W. (David). (2002). Opportunists, Champions, Mavericks...? *Greener Management International*, 2002(38), 31–43. https://doi.org/10.9774/gleaf.3062.2002.su.00005

Appendix. Table A1 – Interview Protocol

Topic	Question
Background	Accommodation data (year of foundation, number of rooms, employees and certifications obtained)
Motivation and entrepreneurial vision	1.What motivated you to start a sustainability journey in your organisation? 2. What goals have you defined to achieve?
Adopting sustainable practices	3. What specific actions have you implemented to ensure the structure becomes sustainable? 4. How do you promote your sustainable philosophy? Which role does it play in your promotion on social media? 5. How have you involved your staff in implementing these actions? 6. Have you met any difficulties in implementing these practices? If yes, which ones?
Impact/Results	7. Which impact has the implementation of these practices made?
Challenges and Opportunities	8. What are the biggest challenges for a hotel entrepreneur in managing a sustainable accommodation? 9. What opportunities do you perceive in the future of an accommodation that fully applies the principles of sustainable tourism?

Appendix. Table A2 – Codebook

Name	Files	References
MOTIVATION AND ENTREPRENEUR VISION	1	27
Economic reasons	1	3
Market demand	1	1
No clients request	1	1
Personal commitment	1	14
Family imprint	1	4
Lifestyle	1	6
Territory conservation	1	9
Authenticity	1	2
Cultural heritage	1	1
Traditions preservation	1	4
ENVIRONMENTAL AND SOCIAL PRACTICES	1	120
Environmental	1	91
Biological products	1	17
Certifications	1	11
Circular economy	1	2
Promoting sustainable mobility	1	5
Reduce emissions	1	2
Resource protection	1	54

Energy	1	21
Waste	1	19
Water	1	12
Social	1	29
Accessibility	1	2
Community commitment	1	15
Facilitate local suppliers	1	10
Staff training	1	2
RESULT	1	64
Communication	1	61
Attracting more sensitive consumers	1	1
Consumer Education	1	7
Credibility	1	8
Engagement	1	18
Life-long business	1	1
Product value	1	8
Reputation	1	7
Staff education	1	8
Trust	1	3
Economic	1	3
Revenues	1	1
Savings	1	2
CHALLENGES AND OPPORTUNITIES	1	60
Challenges	1	44
Bureaucracy	1	2
Difficulties in the economic returns evaluation	1	7
Engagement of staff and consumers	1	4
Growth	1	1
Investments	1	9
Learning	1	3
Regulation	1	3
Structural limitations	1	3
Time commitment	1	11
Opportunity	1	16
Attract consumers	1	3
Growth	1	1
Improve with the use of technology	1	3
Monitor consumptions	1	4
New trends	1	1
Structures collaboration	1	4

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BRIDGING AWARENESS AND BOOKING BEHAVIOUR: A CRITICAL ANALYSIS OF SUSTAINABILITY AND ENVIRONMENTAL CERTIFICATIONS IN ITALIAN TOURISM

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Abstract

Purpose. *This study aims to explore the influence of green certifications and eco-friendly practices on holiday decisions among Italian tourists, examining whether these environmental credentials genuinely impact travel choices in the increasingly sustainability-conscious tourism sector.*
Design/methodology/approach. *The methodology employed consisted of structured quantitative survey instruments administered to over 300 Italian respondents. Analysis included descriptive and inferential statistics, structural equation modelling (SEM) to investigate underlying causal relationships, and cluster analysis to identify distinct consumer segments.*
Findings. *The results of the study demonstrate the pivotal function of tourism and services in the economic development of peripheral regions. There is a notable interest among young people in the advancement of these areas. Nevertheless, the analysis reveals critical concerns pertaining to mobility, inadequate infrastructure, and a paucity of cultural events and networking prospects. The aspiration to reside in these areas is frequently impeded by the perception of limited employment and business prospects.*
Practical and Social implications. *The findings highlight a significant gap between the respondents' support for eco-friendly practices and booking behaviours. Despite broad sustainability awareness, several travellers lack a clear understanding of environmental certifications. Tourism businesses need to enhance communication about their environmental initiatives, and regulatory bodies should reassess their strategies for promoting sustainable tourism. Effective consumer education and clear communication of the benefits of sustainability certifications are pivotal.*
Originality of the study. *This research breaks new ground by examining the dual facets of awareness levels and the influence of sustainability certifications on holiday choices. It identifies critical areas for improvement, such as better consumer education, streamlined certification communication, and targeted engagement strategies, providing valuable insights for hospitality businesses to leverage sustainability as a competitive advantage.*

1. Introduction

Sustainability stands among the foremost societal concerns of our time, impacting a multitude of industries and imposing substantial challenges to the prospects of future generations. In particular, the phenomenon of climate change has been recognised as one of the most pressing global environmental threats, significantly disturbing ecosystems, threatening biodiversity, and undermining socio-economic stability worldwide (IPCC, 2022). Notably, tourism, being one of the fastest-growing global industries, represents both a contributor to and a casualty of these climatic alterations (Font & McCabe, 2017). As a primary socioeconomic pillar for many countries, tourism impacts not only national and local economies but also local environmental quality, cultural heritage, and community well-being (Page & Duignan, 2023). Hence, rethinking tourism models with a sharper alignment to sustainability has become urgently necessary for industry stakeholders and academicians alike (Hall et al., 2013).

The increasing recognition of tourism's role, both positively as a driver of sustainable development and negatively as a source of environmental degradation, has led to sustained academic and practical discourse around the concept of sustainable tourism (Butler, 2018). According to the World Tourism Organisation (UNWTO), sustainable tourism involves practices that respond suitably to current economic, social, and environmental imperatives without sacrificing opportunities for future generations (Canton, 2021). This conception emphasises economic efficiency, responsible ecological management, and the central importance placed on social equity and cultural sensitivity across the tourist experience (Ryan, 2002). Despite broad agreement on the importance of sustainable principles, a persistent gap has been identified in translating widespread theoretical understanding and conceptual awareness into actionable consumer behaviours in the tourism sector (Font & McCabe, 2017).

In pursuit of bridging this gap between consumer awareness and behaviour, environmental certifications and eco-friendly labels have become increasingly prevalent within the hospitality sector as practical tools communicating sustainability commitments (Lesar et al., 2023). Environmental certifications represent authoritative criteria frameworks designed to evaluate and promote sustainable practices within tourism operations, hospitality services, and travel destinations (Franz & Cruz, 2024). The implementation of these certifications, such as ISO 21401:2019 and EU Ecolabel, provides businesses with guidance on sustainability practices, fosters operational transparency, and assures consumers of verified eco-friendly services (Pratt & Zivrali, 2024). However, several challenges constrain the utility and effectiveness of tourism sustainability certifications. Among these, market confusion due to certification proliferation, limited consumer knowledge, perceptions of greenwashing, and ineffective communication strategies have been found to reduce the transformative potential of sustainability standards (Elhoushy et al., 2025; Escoto et al., 2022).

While the existing literature extensively documents the conceptual importance of sustainable tourism (Gössling & Hall, 2019) and recognises the valuable role of certification schemes (Chrysikopoulos et al., 2024), investigations remain limited regarding how individual tourists respond to and utilise these certifications in practice, particularly within the context of the Italian tourism market. This gap in the literature reflects a call for further research into actual consumer awareness levels, their perceptions of certifications, and the direct influence these factors exhibit in their accommodation booking decisions and travel behaviours.

Thus, this research aims to narrow the identified gap by critically analysing how environmental certifications impact Italian tourists' awareness and effective booking behaviours. Specifically, the purpose is to investigate the actual level of consumer understanding regarding sustainability certifications, explore how hospitality businesses can better communicate these credentials, and identify strategies to increase consumer engagement with certified accommodations. To achieve these goals, the current study sets out the following research questions:

RQ1. What is the level of awareness and understanding among travellers regarding sustainability certifications in the hospitality industry?

RQ2. How can hospitality businesses effectively communicate the benefits of sustainability certifications to potential guests?

RQ3. What marketing strategies can increase consumer engagement with and preference for sustainability-certified accommodations?

The manuscript is structured as follows: after the introduction, the next section provides an in-depth literature review that identifies existing research, critically discusses the role and evolution of sustainability certification practices in tourism, and highlights persisting challenges. Subsequent sections describe the methodological approach of empirical research, the findings of the study, and the discussion regarding the theoretical and practical implications. Finally, the manuscript concludes by summarising key insights, acknowledging the present limitations, and suggesting future research directions.

2. Literature review

2.1 The Evolution and Impact of Sustainability Certifications

The tourism and hospitality industry has evolved remarkably in its sustainable practices since the early 1990s. This transformation stems from heightened environmental consciousness among business guests, who expect businesses to take concrete action on environmental and social issues. As the industry adapts to these expectations, sustainability certifications have emerged as vital tools that establish and validate environmental standards across hospitality businesses (Lesar et al., 2023).

The inception of sustainability certification in tourism dates to the early 1990s, beginning with voluntary environmental certification programs (Valenciano-Salazar et al., 2022). Font and Buckley (2001) noted that the field evolved from basic eco-labels to complex integrated systems (Nakaishi & Chapman, 2024). Establishing the Global Sustainable Tourism Criteria (GSTC) in 2008 marked a pivotal development, creating the first worldwide framework for sustainable tourism standards (Franz & Cruz, 2024).

The current certification landscape encompasses various frameworks operating at different levels (Chrysikopoulos et al., 2024). The ISO certification framework has notably influenced the hospitality sector through two primary standards: ISO 14001:2015 Environmental Management System and ISO 21401:2019 Tourism and Related Services - Sustainability Management System for Accommodation Establishments (Firoiu et al., 2019). Research by Testa et al. (2014) indicates significant environmental improvements through the implementation of ISO 14001:2015. More recent studies by de Paula et al. (2021) demonstrate that ISO 21401:2019 provides a thorough framework explicitly designed for accommodation establishments. Their findings reveal that properties adhering to ISO 21401:2019 perform better across environmental, social, and economic sustainability aspects. Furthermore, Goubran (2019) highlights that this standard helps properties align with the UN Sustainable Development Goals, with certified properties typically reducing energy and waste.

Another relevant certification for the tourism sector is the European Union's Eco-Management and Audit Scheme (EMAS). Established by the European Commission in 1993, it can be applied to a wide range of industries and sectors (García-Álvarez & de Junguitu, 2023), and it has been the subject of various studies (Ociepa-Kubicka et al., 2021; Murmura et al., 2021; García-Álvarez & de Junguitu, 2023) that highlighted the positive impact of this certification in promoting sustainability practices (García-Álvarez & de Junguitu, 2023).

Challenges and Future Directions in Sustainability Certifications

The GSTC has established itself as the global reference point for sustainable tourism certification. Its criteria for destinations and industries form the foundation for numerous certification schemes. Elhoushy et al. (2025) argue that this standardisation has advanced sustainable practices across the sector.

Regional certification programs have also emerged, such as the EU Ecolabel for tourist accommodation services, the Nordic Swan Ecolabel, and Travelife certification (Rodríguez-García et al., 2023). These regional schemes often incorporate local considerations while maintaining consistency with global standards (Iodice et al., 2025).

The financial benefits of sustainability certification are well-documented. Additionally, Martínez García de Leaniz et al. (2018) found that environmentally conscious travellers are 30% more likely to choose certified properties.

However, several obstacles persist. Small and medium-sized enterprises often face substantial costs in implementing and maintaining certification standards (Escoto et al., 2022). The proliferation of certification schemes has also led to market confusion and potential dilution of standards (Bennett, 2022).

The field continues to evolve with technological advancements and changing market requirements. Fakir & Baydeniz (2024) suggest that blockchain technology could revolutionise the verification and monitoring of sustainability certifications, enabling immediate tracking and improved transparency.

There is also increasing coordination between certification schemes and the UN Sustainable Development Goals (SDGs) (Ikram et al., 2021). This alignment promotes greater standardisation and comparability across frameworks despite the complexity of measuring and verifying impacts (Srivastava, 2024).

This examination reveals the multifaceted nature of sustainability certification in tourism and hospitality (Koseoglu et al., 2021). While certification offers significant advantages, questions about standardisation, accessibility, and impact measurement remain. The evolution of digital technologies and emerging global sustainability frameworks promises to transform certification systems into more refined and holistic tools (Feroz et al., 2021). The key to their effectiveness is balancing rigorous standards with practical implementation, thereby enabling meaningful certification across the diverse landscape of tourism and hospitality businesses (Khater et al., 2024).

3. Methodology

3.1 Research Aims

This study investigates how eco-friendly practices and environmental certifications influence consumer choices in Italy's hospitality sector. Specifically, it explores whether awareness and credibility of sustainability certifications affect booking preferences and loyalty among Italian travellers. Data were collected through a structured questionnaire distributed between September and December 2024. The research followed a three-phase process: instrument design, data collection, and statistical analysis (Taherdoost, 2021).

3.2 Instrument Design

A structured questionnaire was developed following an extensive review of the literature on sustainable tourism, green marketing, and consumer behaviour (Tasci et al., 2021). The instrument consisted of four main sections: (i) Demographics and travel habits, (ii) awareness of sustainability certifications, (iii) perceived sustainable practices, and (iv) willingness to pay a premium for certified accommodations.

Question types included dichotomous, multiple-choice, and five-point Likert-scale items. A pre-test with 20 participants assessed clarity, logic, and content validity. Revisions were made to improve question flow and remove ambiguities.

Three psychometric scales were developed and tested for reliability:

- Awareness of sustainability certifications (5 items): Cronbach's $\alpha = 0.84$
- Perception of sustainable practices (6 items): $\alpha = 0.81$
- Willingness to pay a premium (4 items): $\alpha = 0.83$
- Each scale demonstrated strong internal consistency and conceptual coherence.

3.3 Data Collection

The questionnaire was administered online over six weeks via social media and mailing lists. A convenience sampling method targeted adult Italian travellers who had taken at least one leisure or business trip in the past two years. A total of 311 valid responses were collected.

3.4 Data Analysis Strategy

Data were analysed using the statistical software JASP and the Lavaan package for SEM in R. The analytical strategy included descriptive statistics, regression analysis, Structural Equation Modelling (SEM), and cluster analysis.

3.4.1 Descriptive and Inferential Statistics

Descriptive statistics (means, standard deviations, and frequencies) were used to summarise demographic variables and sustainability attitudes. Inferential analyses included chi-square tests and Pearson's correlation to explore associations between variables.

3.4.2 Regression Analysis and Structural Equation Modelling (SEM)

A multiple linear regression model was used to identify predictors of prioritisation of certified accommodations, measured on a five-point Likert scale. Independent variables included: (i) age, gender, and education level, (ii) how frequently the respondent travelled, (iii) whether the respondents engaged in sustainable actions, (iv) the respondents' awareness and perception of certification credibility, and (v) the respondents' exposure to sustainability-related information during travel planning.

To test mediation effects, a Covariance-Based Structural Equation Modelling (CB-SEM) approach was used. The SEM model included three latent constructs:

- Hotel Sustainability Efforts: perceived environmental performance and sustainability education.
- Certification Credibility: transparency, trustworthiness, and perceived authority of certification schemes.
- Consumer Loyalty: likelihood of repeat bookings and positive word-of-mouth based on certification.
- Model fit was assessed using standard indices:
- Comparative Fit Index (CFI) ≥ 0.95.
- Tucker-Lewis Index (TLI) ≥ 0.94.
- Root Mean Square Error of Approximation (RMSEA) ≤ 0.05.
- Standardised Root Mean Square Residual (SRMR) ≤ 0.08.
- Indirect and direct effects were evaluated, and all path coefficients were tested for statistical significance.

3.4.3 Cluster Analysis

A K-means clustering technique was employed to segment consumers based on their sustainability awareness, behavioural patterns, and certification preferences. Before clustering, all relevant variables (measured on

Likert scales) were standardised as z-scores to ensure comparability.

To determine the optimal number of clusters, the Elbow Method was used by plotting the within-cluster sum of squares (WCSS) across 2–10 cluster solutions. The analysis indicated an optimal four-cluster model. The clustering results were later interpreted and validated in relation to the regression and SEM findings.

4. Findings

4.1 Respondents' Attitudes and Behaviour Towards Sustainability

The statistical analysis of respondents' socio-demographic and travel characteristics provides critical insights into sustainability preferences in the hospitality sector. Table 1 presents a comprehensive demographic profile of the sample (N = 311).

Table 1: Demographic profile of the Sample (N=311)

Characteristic	Frequency (n)	Percentage (%)
Age Group		
12-27	103	32.2
28-39	83	26.5
40-55	73	23.3
56+	52	16.9
Gender		
Male	168	53.7
Female	141	45.7
Non-binary/Prefer not to say	2	0.6
Education		
Primary school certificate	3	1
Lower secondary school diploma	22	7
High school diploma	120	39
Bachelor's degree	98	31.30
Master's degree / single-cycle degree	49	15.70
Master's degree / PhD	19	6.10
Occupation		
Student	45	14.5
Employed	190	61.1
Self-employed	30	9.6
Unemployed	31	10.0
Retired	15	4.8

Source: Authors' elaboration.

Respondents reported an average of 2.64 trips per year (SD = 2.06), reflecting considerable variation in travel frequency. Leisure travel was more prevalent (M = 3.50, SD = 1.05) than business travel (M = 2.10, SD = 1.15), and the overall travel frequency averaged 3.30 (SD = 1.00). The mean value for travel companions (M = 2.80, SD = 0.95) indicated a moderate tendency toward group travel. (Refer to Table 2.)

Table 2: Summary of Travel-Related Characteristics (N=311)

Travel-Related Characteristic	**Mean**	**Standard Deviation**
Average number of trips per year	2.64	2.06
Frequency of business travel (Likert scale)	2.10	1.15
Frequency of leisure travel (Likert scale)	3.50	1.05
General travel frequency (Likert scale)	3.30	1.00
Travel companion (coded response)	2.80	0.95

Source: Authors' elaboration.

Table 3 summarises respondents' self-reported engagement in sustainable behaviours. The highest mean score was for turning off lights (M = 4.1), followed by waste segregation (M = 3.8) and towel reuse (M = 3.7), indicating a generally moderate-to-high environmental consciousness while travelling.

Table 3 - Sustainable travel behaviour

Sustainable Behaviour	**Mean Score (1-5 Scale)**	**Standard Deviation**
Public Transport Usage	3.4	1.13
Towel Reuse	3.7	1.02
Turning Off Lights	4.1	0.85
Local and Organic Product Consumption	3.6	1.07
Waste Segregation	3.8	0.95

Source: Authors' elaboration.

Table 4 details consumer expectations from certified accommodations. The most highly rated attribute was a lower environmental impact (M = 4.14), followed by sustainability education and awareness (M = 3.88). These findings suggest that while eco-credentials are essential, communication of such efforts also plays a vital role in shaping consumer preferences.

Table 4: Consumers' Expectations from Certified Accommodation

Expectation	Mean Rating (1-5 Scale)	Standard Deviation	Notes
Lower Environmental Impact	4.14	0.87	Highest rating, critical eco-friendly practices
Education and Awareness	3.88	0.92	Important for clear communication
Social Responsibility	3.73	1.03	Moderate-high value on accountability
Enhanced Services and Comfort	3.22	1.10	Valued but secondary compared to sustainability

Source: Authors' elaboration.

Overall, the data indicate that consumers value both the substance (actual practices) and the communication (certification, education) of sustainability. This dual emphasis underpins the statistical models tested in subsequent sections.

4.2 Regression Analysis Results

To identify key predictors of prioritisation of certified accommodations, a multiple linear regression analysis was conducted. The model explained a substantial portion of the variance (adjusted $R^2 = 0.41$, $F = 27.8$, $p < 0.001$). The most influential predictor was exposure to sustainability education ($\beta = 0.56$, $t = 6.98$, $p < 0.01$), followed by certification credibility perceptions ($\beta = 0.34$, $t = 4.71$, $p < 0.01$). A weaker but still significant effect was found for younger age (18–34 years; $\beta = 0.26$, $t = 3.13$, $p < 0.05$). Gender and education level did not yield statistically significant results. These findings suggest that sustainability education and perceived credibility are key levers in encouraging sustainable accommodation choices.

4.3 Structural Equation Modelling Results

Structural Equation Modelling (SEM) was used to test the hypothesised mediation model, in which perceived certification credibility mediates the relationship between perceived sustainability efforts and customer loyalty. The SEM model demonstrated good fit to the data: $\chi^2 = 138.56$, $df = 78$, $p < 0.001$; CFI = 0.96; TLI = 0.94; RMSEA = 0.048; SRMR = 0.045.

The analysis confirmed that perceived sustainability efforts had a significant positive effect on certification credibility ($\beta = 0.69$, $p < 0.001$), and certification credibility in turn positively influenced customer loyalty ($\beta = 0.63$, $p < 0.001$). The indirect effect of sustainability efforts on loyalty through certification credibility was also significant (indirect effect = 0.43, $p < 0.001$). These results support the hypothesised mediation model and suggest that hotels can enhance consumer loyalty by clearly demonstrating their certification legitimacy and environmental responsibility.

Additionally, hotels certified under globally recognised frameworks (e.g., ISO 21401:2019, GSTC) scored significantly higher in consumer confidence than those with lesser-known certifications (Durband, 2021).

4.4 Cluster Analysis Results

Table 5 below summarises the average values of key demographic, behavioural, and sustainability-related variables for each cluster.

Table 5: Consumer Clusters - Average values of key variables per cluster

Key Variables	Cluster 1	Cluster 2	Cluster 3	Cluster 4
Average trips per year	2.1	2.8	3.4	2.9
Sustainable behaviour (overall mean)	2.7	3.2	4.4	3.8
Willingness to pay premium (1-5 mean)	2.2	3.1	4.3	3.7
Importance is placed on certification	1.9	3.0	4.5	3.9

Source: Authors' elaboration.

The clustering procedure using K-means resulted in 4 clearly distinguished consumer segments:

Cluster 1 ('Unaware Travellers'; n=30, 9.6%) showed the lowest average sustainability engagement (avg=2.7).

Cluster 2 ('Price-Conscious Pragmatists'; n=82, 26.4%) presented moderate sustainability awareness (avg=3.2).

Cluster 3 ('Sustainability Advocates'; n=151, 48.6%), the largest group, exhibited the highest level of awareness and sustainable behaviour (avg=4.4).

Cluster 4 ('Balanced Idealists'; n=50, 16.1%) displayed moderate-to-high scores but showed flexibility and balancing of sustainability with comfort (avg=3.8).

The examination of consumer clusters uncovered clear patterns in sustainable travel preferences, with notable variations across different age groups and income brackets.

Through detailed analysis, we identified four distinct groups of respondents, each demonstrating unique perspectives and preferences regarding sustainability in the hospitality sector.

A statistical approach was employed using K-Means clustering, as described in section 3.4.2 of the methodology, to identify these clusters. The analysis was conducted on standardised numerical data from survey responses, focusing on sustainability awareness, behavioural patterns, and decision-making priorities. In order to determine the optimal number of clusters, the Elbow Method (Ketchen & Shook, 1996) was employed by plotting the within-cluster sum-of-squares (WCSS) against a range of possible cluster numbers (from 2 to 10). The optimal solution was identified at the elbow point, where the addition of further clusters led only to minimal improvement in cluster homogeneity. Finally, the data used for clustering were standardised (converted to z-scores) before applying the K-means algorithm, ensuring the comparability of variables measured on different scales. The data was pre-processed by removing missing values and standardising the numerical features to ensure comparability. The final model grouped respondents into four distinct clusters (Table 6) based on their behavioural similarities, providing meaningful insights into sustainability preferences among travellers.

Table 6: Consumer Clusters Breakdown

Cluster	Name	Size	Key Characteristics
Cluster 1	Unaware Travellers	30 (9.6%)	Low sustainability awareness, cost-driven decisions
Cluster 2	Price-Conscious Pragmatists	82 (26.4%)	Moderate sustainability awareness, prioritise price and comfort
Cluster 3	Sustainability Advocates	151 (48.6%)	Highly informed, strongly prioritise sustainability
Cluster 4	Balanced Idealists	50 (16.1%)	Well-informed, flexible approach to sustainability

Source: Authors' elaboration.

The cluster segmentation reinforces the findings from the regression and SEM analyses. For instance, Cluster 3 ('Sustainability Advocates') aligns with respondents who reported high awareness, strong engagement in sustainable practices, and high willingness to pay for certified accommodations - a profile consistent with the influence of education and certification credibility shown in earlier models. In contrast, Cluster 1 ('Unaware Travellers') reflects the low-engagement consumer segment, which lacks exposure to sustainability messaging and places limited trust in certifications. These results support the central hypothesis that educational exposure and perceived certification credibility are key drivers of sustainable tourism behaviour.

While a significant portion of respondents (Cluster 3) are highly committed to sustainable tourism, others balance sustainability with practical concerns (Clusters 2 and 4), and a minority (Cluster 1) show little interest in the subject. These insights can inform hospitality providers how to tailor their offerings and communication strategies to appeal to different traveller segments.

Younger travellers (18-34 years old) exhibit a higher awareness and preference for sustainability-certified accommodations, whereas older travellers demonstrate less familiarity. Furthermore, most travellers do not actively seek out certified accommodation when booking, suggesting that awareness alone does not translate into behaviour change.

The analysis identified two primary consumer segments: sustainability-driven travellers, who prioritise certifications and sustainable practices, and experience-driven travellers, who consider sustainability secondary to comfort and amenities. The former group demonstrated a higher willingness to pay a premium for certified accommodation, aligning with findings from Martínez García de Leaniz et al. (2018), which showed that environmentally conscious travellers are 30% more likely to choose certified properties.

Table 7 illustrates that sustainability-driven travellers emphasise certifications and eco-friendly practices and are significantly more inclined to pay a premium for certified accommodation. This reinforces the notion that environmental credentials substantially influence consumer choice in the hospitality sector.

Table 7: Consumer Segments – Willingness to Pay Premium for Certified Accommodation

Consumer Segment	Mean Premium Payment Rating (out of 5)	Standard Deviation	Key Characteristics
Sustainability-driven travellers	4.10	0.65	Prioritise certifications and sustainable practices; be environmentally conscious; be 30% more likely to choose certified properties (Martínez García de Leaniz et al., 2018).
Experience-driven travellers	3.45	0.80	Value comfort and amenities over sustainability; view sustainability as secondary in the decision process.

Source: Authors' elaboration.

Findings highlight that perceived certification credibility significantly influences consumer trust and booking decisions. Regression analysis shows that travellers who receive clear sustainability messaging are more likely to prioritise certified accommodations. However, many hotels fail to communicate their sustainability initiatives effectively, leading to consumer confusion. Respondents ranked transparency, storytelling, and visible certification logos as effective ways to build trust. Additionally, findings suggest that education about sustainability initiatives during the booking process (e.g., through OTAs, hotel websites, and social media) can increase engagement.

The findings indicate that digital engagement, influencer partnerships, and incentive-based strategies can enhance consumer preference for certified accommodations.

Lastly, the study outlines targeted marketing strategies to engage the two primary traveller segments, sustainability-driven and experience-driven consumers:

Personalised digital campaigns targeting younger, eco-conscious travellers.

Gamification and reward systems, such as discounts for choosing sustainable options.

Integration with online travel agencies (OTAs), ensuring sustainability certifications are prominently displayed.

Authenticity in messaging to combat scepticism and prevent greenwashing.

5. Discussions

This study examined how sustainability certifications and eco-friendly practices influence accommodation preferences among Italian travellers. The findings demonstrate that although many consumers express positive attitudes towards sustainability, certifications alone exert limited influence on booking behaviour. This suggests that awareness and perceived credibility, rather than certification status per se, are the primary drivers of sustainable choice.

Consistent with prior research (Martínez García de Leaniz et al., 2018), the regression analysis revealed that exposure to sustainability education and perceived certification credibility are the strongest predictors of preference for certified accommodations. SEM results (Section 4.3) confirmed the mediating role of certification credibility between perceived sustainability efforts and consumer loyalty. These findings reinforce the importance of transparent, trustworthy communication in hospitality sustainability strategies, an area where many businesses currently fall short.

Despite the presence of sustainability messaging, most respondents displayed limited familiarity with certification standards, including ISO 21401:2019 and GSTC. This gap in consumer understanding mirrors the well-known “attitude–behaviour gap” (Juvan & Dolnicar, 2014), where pro-environmental intentions do not translate into action due to information asymmetries, trust issues, or convenience trade-offs. This points to an urgent need for clearer consumer education and more visible, engaging certification communication, for instance, through OTAs, hotel websites, or booking platforms.

Notably, demographic variables such as gender and education level had little predictive value, while younger consumers (18–34) showed significantly higher engagement. This supports research suggesting generational divides in sustainability preferences (Tata et al., 2023) and signals opportunities for targeted digital campaigns aimed at eco-conscious millennials and Gen Z.

Cluster analysis (Section 4.4) further supports this segmentation: Cluster 3, the sustainability advocates, exhibited high awareness, behavioural engagement, and willingness to pay a premium for certified accommodations. Conversely, Cluster 1, the unaware travellers' segment, demonstrated low engagement, limited trust, and minimal responsiveness to sustainability claims. These distinctions underscore the need for differentiated marketing strategies: while some travellers respond to environmental messaging, others prioritise comfort and value, necessitating a balance between sustainability and service quality (Jones et al., 2016).

The findings also draw attention to potential credibility risks, including greenwashing (Papagiannakis et al., 2024), where superficial adoption of certification can erode trust. If certification schemes are to maintain relevance, more vigorous enforcement and transparency mechanisms are essential. Hospitality providers and certifiers must work collaboratively to ensure that sustainability claims are both substantive and verifiable.

Finally, this research contributes to the broader literature on sustainable tourism by combining psychometric measurement, SEM, and behavioural segmentation to reveal the nuanced ways in which awareness, trust, and education shape sustainable consumer behaviour. Future studies should explore how technological innovations (e.g., blockchain-based verification) enhance certification credibility and reduce consumer scepticism. Longitudinal research would also be valuable in tracking how consumer attitudes evolve over time and in response to changing environmental or regulatory contexts.

6. Conclusions and implications

This study explored how awareness and credibility of sustainability certifications influence accommodation choices among Italian travellers. Drawing on survey data and robust statistical modelling (regression, SEM, and cluster analysis), we answered three core research questions concerning awareness (RQ1), the mediating role of certification credibility (RQ2), and communication strategies for promoting sustainable accommodations (RQ3).

Regarding RQ1, the overall awareness of sustainability certifications is moderate, with significant variability across age groups. Younger travellers (18–34) demonstrated greater engagement and familiarity with labels such as ISO 21401:2019 and the EU Ecolabel, while older respondents showed limited awareness. This finding underscores the need for targeted educational campaigns to make certification schemes more recognisable and relevant across generations (Kim, 2025; Reiser & Simmons, 2005).

For RQ2, the SEM analysis confirmed that certification credibility significantly mediates the relationship between hotels' perceived sustainability efforts and consumer loyalty ($\beta = 0.63$, $p < 0.001$). This reinforces the findings of Agu et al. (2024), affirming that credibility and transparency are essential to building trust and influencing booking behaviour.

Concerning RQ3, the findings suggest actionable strategies for hospitality providers and certifying bodies. Effective communication should: (i) clearly articulate the environmental and social impact of certifications, (ii) use storytelling and real-life examples to increase emotional engagement, (iii) incorporate infographics and videos to simplify complex information, and (iv) ensure visibility of certification details on booking platforms (Bowden & Mirzaei, 2021).

Marketing strategies should include digital campaigns targeted at younger travellers, partnerships with influencers, gamification and reward systems, and integration with online travel agencies (Kreeger et al., 2025). Importantly, messaging must remain authentic to avoid greenwashing (Papagiannakis et al., 2024).

Despite generally favourable attitudes toward sustainability, the findings reveal a persistent attitude–behaviour gap (Juvan & Dolnicar, 2014). Many travellers value certifications in theory but do not actively prioritise them when booking. Bridging this gap requires not only transparent communication but also engaging, educational experiences embedded in the guest journey.

This study contributes to the growing literature on sustainable tourism by empirically validating the influence of certification credibility on consumer behaviour and offering a typology of traveller segments (Seyfi et al., 2023; Sthapit et al., 2024). It also highlights the importance of rigorous certification systems such as EMAS, which offer both environmental transparency and continuous improvement, thereby strengthening trust.

This study has several limitations that should be acknowledged. Firstly, a convenience sampling method was utilised, potentially resulting in a sample that may not fully represent all segments of travellers, thereby influencing the generalizability of our findings. Additionally, our sample size of approximately 300 respondents, though adequate for exploratory analysis, limits the precision and strength of inferential statistical conclusions. Furthermore, the cross-sectional design restricts assertions regarding causality and does not account for evolved perceptions and behaviours over time.

Future research employing longitudinal methods could provide deeper insights. Lastly, the reliance on self-reported data raises concerns of possible response biases, which could affect the accuracy of the findings. Despite these limitations, the study contributes valuable insights to the body of research on sustainability certifications in hospitality, yet acknowledging these constraints encourages cautious interpretation and points toward directions for refinement in future investigations.

References

Agu, E. E., Iyelolu, T. V., Idemudia, C., & Ijomah, T. I. (2024). Exploring the relationship between sustainable business practices and increased brand loyalty. *International Journal of Management & Entrepreneurship Research*, 6(8), 2463-2475. *https://doi.org/10.51594/ijmer.v6i8.1365*

Bennett, E. A. (2022). The efficacy of voluntary standards, sustainability certifications, and ethical labels. In *Research Handbook on global governance, business and human rights* (pp. 177-204). Edward Elgar Publishing. *https://doi.org/10.4337/9781788979832.00016*

Bowden, J., & Mirzaei, A. (2021). Consumer engagement within retail communication channels: an examination of online brand communities and digital content marketing initiatives. *European Journal of Marketing*, 55(5), 1411-1439. *https://doi.org/10.1108/EJM-01-2018-0007*

Butler, R. (2018). Sustainable tourism in sensitive environments: a wolf in sheep's clothing?. *Sustainability*, 10(6), 1789. *https://doi.org/10.3390/su10061789*

Canton, H. (2021). World Tourism Organization—UNWTO. In *The Europa Directory of International Organizations 2021* (pp. 393-397). Routledge.

Chrysikopoulos, S. K., Chountalas, P. T., Georgakellos, D. A., & Lagodimos, A. G. (2024). Green certificates research: bibliometric assessment of current state and future directions. *Sustainability*, 16(3), 1129. *https://doi.org/10.3390/su16031129*

de Paula, L. B., Gil-Lafuente, A. M., & Alvares, D. F. (2021). A contribution of fuzzy logic to sustainable tourism through a case analysis in Brazil. *Journal of Intelligent & Fuzzy Systems*, 40(2), 1851-1864. *https://doi.org/10.3233/JIFS-18919*

Durband, R. (2021). Establishing sustainability standards in tourism. In *Handbook for Sustainable Tourism Practitioners* (pp. 233-248). Edward Elgar Publishing. *https://doi.org/10.4337/9781839100895.00021*

Elhoushy, S., Elzek, Y., & Font, X. (2025). Sustainable tourism certification: a systematic literature review and suggested ways forward. *Journal of Sustainable Tourism*, 1-27. *https://doi.org/10.1080/09669582.2025.2487674*

Escoto, X., Gebrehewot, D., & Morris, K. C. (2022). Refocusing the barriers to sustainability for small and medium-sized manufacturers. *Journal of Cleaner Production*, 338, 130589. *https://doi.org/10.1016/j.jclepro.2022.130589*

Fakir, F. Z., & Baydeniz, E. (2024). *The Future of Blockchain in Tourism and Hospitality: Global Insights*. Taylor & Francis. *https://doi.org/10.4324/9781003521617-1*

Feroz, A. K., Zo, H., & Chiravuri, A. (2021). Digital transformation and environmental sustainability: A review and research agenda. *Sustainability*, 13(3), 1530. *https://doi.org/10.3390/su13031530*

Firoiu, D., Ionescu, G. H., Bădîrcea, R., Vochița, L., & Enescu, M. (2019). Sustainable development of mountain hotels through the implementation of international management standards: The Romanian case. *Sustainability*, 11(22), 6487. *https://doi.org/10.3390/su11226487*

Font, X., & McCabe, S. (2017). Sustainability and marketing in tourism: Its contexts, paradoxes, approaches, challenges and potential. *Journal of Sustainable Tourism*, 25(7), 869-883. *https://doi.org/10.1080/09669582.2017.1301721*

Font, X., & Buckley, R. C. (2001). *Tourism Ecolabelling: Certification and Promotion of Sustainable Management*. CABI Publishing.

Franz, H. C., & Cruz, A. R. (2024). Development of a maturity assessment model for sustainable tourism. *Current Issues in Tourism*, 1-16. *https://doi.org/10.1080/13683500.2024.2354531*

García-Álvarez, M., & de Junguitu, A. D. (2023). Shedding light on the motivations and performance of the eco-management and audit scheme (EMAS). *Environmental Impact Assessment Review*, 99, 107045. *https://doi.org/10.1016/j.eiar.2023.107045*

Goubran, S. (2019). On the role of construction in achieving the SDGs. *Journal of Sustainability Research*, 1(2). *http://dx.doi.org/10.20900/jsr20190020*

Gössling, S., & Hall, C. M. (2019). Sustainable tourism: A global perspective. *Journal of Sustainable Tourism*, *27*(7), 1047-1065.

Hall, C. M., Scott, D., & Gössling, S. (2013). The primacy of climate change for sustainable international tourism. *Sustainable Development*, 21(2), 112-121. *https://doi.org/10.1002/sd.1562*

Ikram, M., Zhang, Q., Sroufe, R., & Ferasso, M. (2021). Contribution of certification bodies and sustainability standards to sustainable development goals: an integrated grey systems approach. *Sustainable Production and Consumption*, 28, 326-345. *https://doi.org/10.1016/j.spc.2021.05.019*

Iodice, S., Batista e Silva, F., Romanillos, G., Moya-Gómez, B., Morrissey, A. M., Ala-Mutka, K., & Konitz-Budzowska, D. (2025). The Place and Role of Environmental Labels for Tourist Accommodations: A Survey-Based Characterisation for the European Union. *Tourism and Hospitality*, 6(1), 22. *https://doi.org/10.3390/tourhosp6010022*

IPCC, (2022). Climate Change 2022: *Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, 3056 pp., *https://doi.org/10.1017/9781009325844*

Jones, P., Hillier, D., & Comfort, D. (2016). Sustainability in the hospitality industry: Some personal reflections on corporate challenges and research agendas. *International Journal of Contemporary Hospitality Management*, 28(1), 36-67. *https://doi.org/10.1108/IJCHM-11-2014-0572*

Juvan, E., & Dolnicar, S. (2014). The attitude–behaviour gap in sustainable tourism. *Annals of Tourism Research*, 48, 76-95. *https://doi.org/10.1016/j.annals.2014.05.012*

Ketchen, D. J., & Shook, C. L. (1996). The application of cluster analysis in strategic management research: an analysis and critique. *Strategic management journal*, *17*(6), 441-458. *https://doi.org/10.1002/(SICI)1097-0266(199606)17:6<441::AID-SMJ819>3.0.CO;2-G*

Khater, M., Ibrahim, O., Sayed, M. N. E., & Faik, M. (2024). Legal frameworks for sustainable tourism: balancing environmental conservation and economic development. *Current Issues in Tourism*, 1-22. *https://doi.org/10.1080/13683500.2024.2404181*

Kim, Y. H. (2025). Sustainability in knowledge, education, and industry: A case of a hospitality and tourism program. *Journal of Hospitality & Tourism Education*, *37*(1), 67-77. *https://doi.org/10.1080/10963758.2023.2205144*

Koseoglu, M. A., Uyar, A., Kilic, M., Kuzey, C., & Karaman, A. S. (2021). Exploring the connections among CSR performance, reporting, and external assurance: Evidence from the hospitality and tourism industry. International *Journal of Hospitality Management*, 94, 102819. *https://doi.org/10.1016/j.ijhm.2020.102819*

Kreeger, J. C., Smith, S. J., & Parsa, H. G. (2025). Hotels and shared economy accommodations: an analysis of business traveler preferences. *Journal of Hospitality and Tourism Insights*. *https://doi.org/10.1108/JHTI-06-2024-0624*

Lesar, L., Weaver, D. B., & Gardiner, S. (2023). An updated framework for theoretical and practical engagement with sustainable tourism quality control tools. *Journal of Travel Research*, 62(2), 271–289. *https://doi.org/10.1177/00472875221115177*

Martínez García de Leaniz, P., Herrero Crespo, A., & Gómez López, R. (2018). Customer responses to environmentally certified hotels: The moderating effect of environmental consciousness on the formation of behavioral intentions. *Journal of Sustainable Tourism*, 26(7), 1160-1177. *https://doi.org/10.1080/09669582.2017.1349775*

Murmura, F., Bravi, L., & Santos, G. (2021). An assessment of the EMAS standard in developing an effective environmental strategy: an analysis of certified companies in Italy. *The TQM Journal*, *34*(6), 1600-1625. *https://doi.org/10.1108/TQM-07-2021-0219*

Nakaishi, T., & Chapman, A. (2024). Eco-labels as a communication and policy tool: A comprehensive review of academic literature and global label initiatives. *Renewable and Sustainable Energy Reviews*, 202, 114708. *https://doi.org/10.1016/j.rser.2024.114708*

Ociepa-Kubicka, A., Deska, I., & Ociepa, E. (2021). Organizations towards the evaluation of environmental management tools ISO 14001 and EMAS. *Energies*, *14*(16), 4870. *https://doi.org/10.3390/en14164870*

Page, S. J., & Duignan, M. (2023). Progress in Tourism Management: Is urban tourism a paradoxical research domain? Progress since 2011 and prospects for the future. *Tourism Management*, 98, 104737. *https://doi.org/10.1016/j.tourman.2023.104737*

Papagiannakis, G. E., Vlachos, P. A., Koritos, C. D., & Kassinis, G. I. (2024). Are publicly traded tourism and hospitality providers greenwashing?. *Tourism Management*, 103, 104893. *https://doi.org/10.1016/j.tourman.2024.104893*

Pratt, S., & Zivrali, E. (2024). Journal editors' views on altmetrics in tourism and hospitality research. *Anatolia*, 1-17. *https://doi.org/10.1080/13032917.2024.2446202*

Reiser, A., & Simmons, D. G. (2005). A quasi-experimental method for testing the effectiveness of ecolabel promotion. *Journal of Sustainable Tourism*, 13(6), 590-616. *https://doi.org/10.1080/09669580508668583*

Ryan, C. (2002). Equity, management, power sharing and sustainability—issues of the 'new tourism'. *Tourism Management*, 23(1), 17-26. *https://doi.org/10.1016/S0261-5177(01)00064-4*

Rodríguez-García, R., Ferrero-Ferrero, I., & Fernández-Izquierdo, M. Á. (2023). Analysis of integration of sustainability in sustainability certifications in the hotel industry. *Frontiers in Sustainability*, 4, 1116359. *https://doi.org/10.3389/frsus.2023.1116359*

Seyfi, S., Hall, C. M., Vo-Thanh, T., & Zaman, M. (2023). How does digital media engagement influence sustainability-driven political consumerism among Gen Z tourists?. *Journal of Sustainable Tourism*, 31(11), 2441-2459. *https://doi.org/10.1080/09669582.2022.2112588*

Srivastava, S., Iyer-Raniga, U., & Misra, S. (2024). Integrated approach for sustainability assessment and reporting for civil infrastructures projects: Delivering the UN SDGs. *Journal of Cleaner Production*, 459, 142400. *https://doi.org/10.1016/j.jclepro.2024.142400*

Sthapit, E., Prentice, C., Ji, C., Yang, P., Garrod, B., & Björk, P. (2024). Experience driven well being and purchase: An alternative model of memorable wine tourism experiences. International *Journal of Tourism Research*, 26(2), e2645. *https://doi.org/10.1002/jtr.2645*

Taherdoost, H. (2021). Data collection methods and tools for research; a step-by-step guide to choose data collection technique for academic and business research projects. *International Journal of Academic Research in Management (IJARM)*, *10*(1), 10-38.

Tasci, A. D., Fyall, A., & Woosnam, K. M. (2021). Sustainable tourism consumer: socio-demographic, psychographic and behavioral characteristics. *Tourism Review*, 77(2), 341-375. *https://doi.org/10.1108/TR-09-2020-0435*

Tata, E., Sharrock, M., & Westerlaken, R. (2023). Generation Z consumer behaviour and hotel branding: exploring the role of values, corporate identity and trust. *Research in Hospitality Management*, 13(1), 63-68.

Testa, F., Rizzi, F., Daddi, T., Gusmerotti, N. M., Frey, M., & Iraldo, F. (2014). EMAS and ISO 14001: the differences in effectively improving environmental performance. *Journal of Cleaner Production*, 68, 165-173. *https://doi.org/10.1016/j.jclepro.2013.12.061*

Valenciano-Salazar, J. A., André, F. J., & Martín-de Castro, G. (2022). Sustainability and firms' mission in a developing country: The case of voluntary certifications and programs in Costa Rica. *Journal of Environmental Planning and Management*, 65(11), 2029-2053. *https://doi.org/10.1080/09640568.2021.1950658*

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CIRCULAR ECONOMY IN THE TOURISM INDUSTRY: MAPPING DRIVERS AND BARRIERS THROUGH A SYSTEMATIC LITERATURE REVIEW

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Abstract

Purpose. *This study explores how the Circular Economy (CE) is conceptualized and implemented in the tourism sector, a service industry still marginally addressed in academic research on circular transitions.*
Design/methodology/approach. *Through a systematic literature review and qualitative content analysis of 64 journal articles, the paper identifies drivers and barriers that influence the CE adoption. These factors are classified into three dimensions: governance, stakeholder relations, and innovation.*
Findings. *While innovation and stakeholder relations are widely discussed in the literature, governance is significantly underexplored. Moreover, only few studies adopt a comprehensive perspective that integrates all three dimensions.*
Practical and Social implications. *From a managerial standpoint, the study provides insights for aligning internal capabilities with external enablers, especially for SMEs.*
Originality of the study. *The paper offers an analytical lens for understanding CE practices in service-based industries and stresses the need for more holistic approaches.*

1. Introduction

In recent years, the Circular Economy (CE) has emerged as a key paradigm in the transition towards more sustainable economic models of production and consumption. Unlike the traditional linear approach based on "take, make, dispose," the CE seeks to retain the value of products, materials, and resources within the system for as long as possible, minimizing waste and environmental impacts. While circular principles have been widely applied and studied in manufacturing, their implementation in service sectors – and particularly in the tourism industry – remains underexplored.

The tourism sector plays a vital role in global and local economies, generating employment, wealth, and territorial development. At the same time, it is responsible for significant environmental impacts due to intensive resource consumption, waste generation, and operational complexity (Voukkali et al., 2023). Applying CE principles to tourism may help reduce these impacts, support sustainable practices, and promote a regenerative approach to service design and delivery. However, the application of CE in services differs substantially from that in production: it relies less on physical product loops and more on optimizing and sharing resources, redesigning service processes, and strengthening interactions with users (Sehnem et al., 2019).

Despite the potential benefits, the transition to circularity in tourism is not straightforward. There is a risk that circular initiatives may be reduced to greenwashing or marketing tools, rather than being embedded into core business strategies (Opferkuch et al., 2023). To be effective and long-lasting, circular practices must be strategically designed and integrated with key organizational assets such as governance, stakeholder engagement, and innovation capabilities (Jones and Wynn, 2019).

In this paper, the term "tourism" is adopted as an umbrella concept that includes the hospitality industry, which represents one of its foundational pillars. This integrated view reflects the systemic nature of tourism flows and allows for a more comprehensive understanding of CE practices across the entire tourism ecosystem.

By uncovering how circular strategies are currently framed and implemented, this research aims to offer actionable insights for both scholars and practitioners seeking to align environmental ambitions with coherent business transformation. The findings may inform more effective policy and managerial frameworks, supporting a shift from superficial adoption to deeply rooted organizational change.

Building on this premise, the present review aims to identify and map the key criteria influencing decision-making processes in the implementation of CE practices, and to evaluate whether the existing academic literature presents a fragmented or integrated perspective.

To this end, we first identified the main drivers and barriers to the adoption of CE practices as discussed in the literature. These criteria were subsequently grouped into three foundational pillars – governance, stakeholder relations, and innovation – which, according to prior studies, are essential to supporting a strategic and integrated transition to circularity in the tourism sector.

Based on this approach, the paper aims to examine the extent to which current academic contributions reflect an integrated perspective, specifically investigating whether and how the literature addresses the interconnections among these three dimensions in the context of CE implementation within tourism firms. In particular, the paper will investigate the key criteria (both drivers and barriers) that influence CE decision-making processes in the tourism industry, addressing whether the academic literature adopts a fragmented or integrated perspective.

The paper is structured as follows: the next section presents the literature review as the foundation for the research question. This is followed by the research methodology, which aims to conceptualize the relevance of drivers and barriers associated with circular practices in the tourism sector. Subsequently, the findings and discussion are presented. The final section outlines the theoretical and managerial implications and offers directions for future research.

2. Literature review

The Circular Economy (CE) marks a transition from traditional linear production and consumption models to regenerative systems aimed at decoupling economic growth from resource consumption. This shift has gained urgency considering the growing resource scarcity, environmental degradation, and climate change.

As Homrich et al. (2018) observe, the CE offers a win–win approach to addressing resource scarcity and waste by reframing the potential value inherent in every stage of the value chain. In fact, upstream CE supports the efficient management of resources by enhancing production and consumption productivity, minimizing waste, and preserving the value of products and materials for as long as possible. Downstream, CE focuses on recovering and reintegrating materials with residual or intrinsic value back into the economic cycle, rather than disposing of them in landfills. Together, these upstream and downstream strategies capture the core of CE, enabling the closure of loops within product and material value chains.

Even if the concept of CE was introduced by Pearce and Turner (1990), the Ellen MacArthur Foundation (2013) popularized the concept thanks to the so-called "butterfly diagram". International standards also define

CE as the "economic system (by which a society organizes and allocates resources) that uses a systemic approach to maintain a circular flow of resources, by recovering, retaining or adding to their value, while contributing to sustainable development" (ISO 59010:2024). Even though the idea of circularity appears to be clear, concerns about its definition persist, sparking debate among the 221 existing definitions in academic literature (Kirchherr et al., 2023).

Furthermore, there is still no universally accepted scientific or technical language for the practical application of the CE concept. Starting from the traditional Reduce-Reuse-Recycle strategies, R-strategies vary from 3Rs to 10Rs (Potting et al., 2017). Zorpas's (2024) research reveals the existence of more than 100 Rs beyond the well-known principles of Reduce-Reuse-Recycle, each serving a unique function in shaping approaches to waste management and promoting circularity in the transition toward a low-carbon society.

While the CE has been extensively discussed in the context of product-based industries, its application in service-oriented sectors remains comparatively underexplored and calls for further studies. Understanding this gap is crucial, given the growing dominance of service economies worldwide. In essence, "service" is the fundamental logic of exchange based on the co-creation of value (Lusch and Vargo, 2014). Much of the current CE literature, in fact, tends to conceptualize services as extensions of tangible products. This perspective is particularly evident in frameworks like Product-as-a-Service (PaaS) and Product-Service Systems (PSS), which primarily focus on delivering physical goods through service-based models. Such an approach risks overlooking the potential of services as standalone contributors to circularity (Fehrer and Vargo, 2023).

R-strategies, on the other hand, can be applied not only to physical products but also to service sectors like tourism, IT, education, and healthcare. However, the intrinsic immateriality that characterizes services encounters several significant challenges, such as difficulties in defining and quantifying circularity, the absence of standardized frameworks for implementing circular practices, and the imperative to develop innovative business models (OECD, 2019). In addition – and even more in the service sector – the consumer plays a central role for the effectiveness of R-strategies. According to Zimmermann et al. (2024), consumer behavior can impact on circular performance in two main ways: the correct use of products during their use and at the end of their life cycle, and the willingness to consume products derived from circular processes and sources.

Among service industries, the tourism sector plays a key role, contributing approximately 3% to global GDP in 2023, with an estimated $8.6 trillion in traveler outlays in 2024 and 357 million jobs worldwide (UNWTO, 2024; McKinsey, 2024).

The tourism industry – consisting of activities involving the travel of individuals to locations beyond their everyday surroundings for different purposes – includes a broad range of economic and social activities that operate on a global scale, spanning multiple sectors and involving both goods and services. Within this framework, the hospitality industry holds a central role, serving as one of the key pillars upon which tourism relies. It plays a significant part in supporting tourism's contribution to the economy by offering essential services such as lodging, dining, transport, and leisure activities that are integral to the tourist experience (Sampaio et al., 2024).

The tourism sector emerges as a particularly relevant field for CE applications, due to its significant environmental footprint and its complex resource flows. Tourism is a global economic driver but also a significant source of waste, resource depletion, and environmental impact. This is due to the same definition of tourism that is the travel of individuals to destinations outside their usual place of residence, where they temporarily stay in unfamiliar natural, social, and cultural environments for leisure, business, or other purposes (WTO, 1995). Tourist transportation contributes to air pollution on a global scale, primarily through CO2 emissions from energy use, also leading to significant local air quality issues. In regions with dense tourist activity and popular natural attractions, waste disposal poses a significant challenge. Approximately 80% of tourists choose coastal destinations, contributing to the over 8 million tons of plastic that enter the oceans annually (UNEP, 2023). Furthermore, when the number of tourists exceeds a destination capacity the phenomenon of over-tourism occurs, that is, the excessive impact of tourism on a destination affecting the perceived quality of life of residents and/or the quality of visitor experiences in a negative way. According to a McKinsey report, approximately 80% of travelers visit just 10% of the world's tourist destinations. This concentration results in overcrowding, strained infrastructure, and environmental degradation in these areas (McKinsey, 2024). Moreover, short-term rentals account for about 25% of tourist accommodations in the EU, generating social issues such as an increase in rental prices for residents and workers.

Implementing the CE principles in the tourism industry can play a key role for the transition to a more sustainable world. Addressing these challenges through CE principles offers a promising pathway to mitigate tourism's environmental impacts while fostering more sustainable and regenerative travel practices. In fact, this sector is in the middle of multiple flows of resources, assets and commodities (as food, transport, and building sectors) being an enabler of value creation in multiple value chains and contributing to the preservation of natural resources and social development (Einarsson and Sorin, 2020). CE can play a central role also in the guest-host relationship, offering a way to involve and engage guests in ways that are not only environmentally meaningful but also enhance their experience by allowing them to contribute. In fact, tourists actively shape their experiences by selecting and combining various tourism products, services, activities, and attractions, as well as engaging with and interacting with them (Sørensen and Bærenholdt, 2020). However, despite growing recognition that resources are finite and the linear model is unsustainable, literature on CE in tourism is scarce and the tourism industry has yet to demonstrate a clear and decisive shift toward a more circular model (Alharethi et al., 2024).

Research by Costa et al. (2024) on the Portuguese hotel industry reveals that hotels prioritize the 3Rs and Repair as the core of their environmental strategies. Also, Strippoli et al. (2024) found that within the R-strategies, the main ones adopted in the tourism sector center around Reduce, Reuse, Recycle, and Recover. These approaches offer both environmental and economic benefits, including reduced greenhouse gas emissions, waste, and costs, as well as increased revenue and more sustainable resource management. According to the research by Li et al. (2024), which examines CE practices in the Chinese and European tourism industries, the most commonly adopted strategies relate to reducing energy consumption, sustainable water use, and waste management: namely, practices aligned with reduce and recycle principles. Following an extensive literature review, Kaszás et al. (2022) found that the interpretation and implementation of CE principles in the tourism industry primarily center on issues such as food waste, energy and water consumption, CO2 emissions, climate change, and global warming. These results confirmed the findings of previous research such as that of Maines da Silva et al. (2021), which showed that hotel chains' main strategies are Reduction, Recycling, and Reuse, indicating that there is a need to reduce food waste, reuse water, work with waste recycling alternatives at tourist destinations, and develop solutions that take into account the CE model as a self-regenerating system. Also, research by Arzoumanidis et al. (2020) revealed that the scientific literature offers varied interpretations of the concept of CE in the tourism industry, with no consensus on a clear definition, but a common focus on solutions related to waste and resource management, as well as energy and transport efficiency.

While most studies and tourism industry practices focus on the 3Rs, there is growing discussion around more innovative strategies such as Rethink (e.g., using unused areas of hotels for regenerative actions), Redesign (e.g., installing modular blocks as room furniture), and Repurpose (e.g., using organic waste to produce cleaning products) (Kaszás et al., 2022; Vardopoulos et al., 2023). Thus, implementing CE principles helps minimize waste and optimize resources, while delivering high-quality services and promoting a more sustainable tourist experience.

However, the transition to this new service model is not straightforward. While there is a lot of academic literature about drivers and barriers in CE initiatives (Bassi and Dias, 2019; Falcone, 2019; Kirchherr et al., 2018; Rizos et al., 2017; Scipioni, 2021), the tourism sector has received limited attention in this regard, highlighting the need for further research (Alharethi et al., 2024; Del Chiappa and Fotiadis, 2019).

Furthermore, approximately 80% of all tourism businesses are Small and Medium-sized Enterprises (SMEs) (Kukanja et al., 2020). This situation represents a major challenge in the transition to the CE, as it requires leveraging enabling factors while also acknowledging critical issues that may act as barriers. In particular, SMEs encounter distinct challenges in adopting CE practices, primarily due to constraints in resources and specialized expertise (Ahmadov et al., 2025; Salvioni et al., 2022). Previous research on SMEs revealed that these organizations can also benefit from adopting an integrated perspective on the transition to a CE, abandoning a fragmented approach which considers drivers and barriers as individual facilitating or obstructive elements, rather than as decision-support criteria related to the foundational pillars that the organization should oversee for a strategic transition to the CE. The long-term benefits and success of circular practices, in fact, require a strategic business approach based on the main assets of governance, relations with stakeholders, and innovation (Gennari, 2023). Previous studies on the CE in the context of SMEs have largely lacked such an integrated approach (Zhu et al., 2022), but recent studies tend to emphasize these elements as founding pillars for a transition towards more sustainable production and consumption models, also in small and medium enterprises.

Governance plays a central role in guiding decisions related to sustainable development and their implementation (Kirchherr et al., 2018), positioning it as a key driver of a holistic transition toward circularity. The implementation of corporate governance in SMEs can be challenging due to the absence of standardized business structures, variations in board composition, and limited strategic planning processes (Singh and Pillai, 2022). Furthermore, owners or managers of SMEs may hold varying perceptions of risk: high levels of risk aversion can impede the adoption of CE practices, considering the difficulty in the assessment of future benefits (Rizos et al., 2017). Nevertheless, governance would enable the CE performance of SMEs thanks to management and leadership engaged in establishing a circular culture and a strategic approach (Ahmadov et al., 2025).

Stakeholder expectations play a crucial role in shaping a successful strategy: activating relationships with stakeholders is necessary for joining forces and sharing the availability of different types of resources to effectively implement CE strategies and close the loop (Oberholzer and Sachs, 2023; Rizos et al., 2017; Salvioni and Almici, 2020). Different stakeholder groups play a critical role in influencing the adoption of CE within SMEs. Active engagement with these stakeholders not only supports the implementation of circular practices but also contributes to increasing stakeholder satisfaction and strengthening the firm's environmental legitimacy (Baah et al., 2021).

Innovation is both a cornerstone and a catalyst for CE, driven by disruptive technologies that have introduced transformations in products, processes, business models, and relationship management once unimaginable just a few decades ago (Skare et al., 2024; Suchek et al., 2021). Researchers (Saunila, 2020) emphasize the capacity to innovate of SMEs and the importance of multiple factors (e.g., leadership and organizational culture, owner characteristics, network integration, resources availability, market dynamics).

Tourism literature about SMEs cites these pillars as factors affecting firms' competitiveness, giving a different emphasis to them. Some studies focus primarily on leadership (Cong and Thu, 2021), relations and collaboration networks (Maziliauske, 2024), and innovation (Nguyen et al., 2021; Shi and Xiao, 2024). However, without a holistic and integrated vision of the pillars that must be jointly addressed for a strategic transition — one centered on long-term value creation — there is a risk that CE initiatives may be reduced to sporadic actions driven by external pressures, short-term needs, or immediate goals, or even result in greenwashing practices.

This research answers the call for a comprehensive understanding of the approach that the tourism sector has towards CE. In this context, this paper attempts to answer these research questions:

RQ1: What key criteria influence decision-making processes regarding the adoption of CE practices in the tourism industry, considering both drivers and barriers?

RQ2: Does the academic literature on CE in tourism adopt a fragmented or integrated perspective?

In order to address these research questions, a methodological approach that allows for a comprehensive exploration of governance, stakeholder relations, and innovation factors was deemed necessary. Given the fragmented and diverse nature of the existing literature, a systematic literature review combined with qualitative content analysis was chosen. This approach enables the identification of emerging patterns, contradictions, and gaps, and supports the conceptualization of a more integrated framework for CE adoption in the tourism sector.

3. Methodology

To address the research questions, we adopted a four-stage approach. First, a systematic literature review was conducted following the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol, ensuring transparency and replicability in the identification and selection of relevant studies. Second, the emerging criteria identified through the literature analysis were described and systematized. Third, these criteria were coded in three analytical pillars – governance, stakeholder relations, and innovation – thus enabling an analytical mapping. Finally, a comparative synthesis was carried out to assess the extent to which the literature provides an integrated and holistic view of CE adoption in tourism, identifying whether individual articles simultaneously address drivers and barriers across all three pillars.

3.1 PRISMA analysis

In order to investigate the main drivers and barriers influencing the adoption of CE practices in the tourism industry, we conducted a systematic literature review following the PRISMA protocol (Page et al., 2021).

The research was based on a systematic search carried out on the Scopus database, selected for its comprehensive coverage of peer-reviewed publications in relevant disciplines. The search was performed in January 2024, using specific keyword combinations: "circular economy" AND "tourism", "circular economy" AND "hospitality" applied to the title, abstract and keywords. Clear inclusion and exclusion criteria guided the selection process. Filters were applied to include only peer-reviewed journal articles available at the date of data extraction, written in English, and categorized under the subject areas of Business, Management and Accounting; Social Sciences; and Economics, Econometrics and Finance. Conversely, abstracts, editorials, book reviews, articles not accessible in full-text, and publications in languages other than English were excluded.

The selection of articles was conducted through a three-step process. First, an initial screening was performed to exclude articles without full-text availability. Second, titles and abstracts were reviewed to eliminate works that were clearly irrelevant to the research objectives. Third, the full texts of the remaining studies were examined in detail to assess their relevance more accurately. This process was documented through a PRISMA flow diagram.

From each selected study, relevant information was systematically extracted, including the authors, year of publication, type of study (framework and conceptual model, review, case study, business models), level of analysis (macro, meso – network and supply chain – micro), geographical focus, and research method adopted (qualitative, quantitative, mixed). This dataset provided the basis for identifying, categorizing, and analyzing the criteria according to the research questions guiding the study.

To ensure conceptual clarity and sectoral consistency, the scope of the review was limited to studies addressing private-sector tourism businesses, with a specific focus on the hospitality and accommodation subsector. While the term "tourism" encompasses a wide range of activities and organizations — including public bodies, cultural institutions, and destination management organizations — this study deliberately excluded those entities in order to focus on firm-level CE strategies within private enterprises.

This choice is not merely taxonomical but responds to the profound differences between public and private actors in how they approach circular economy initiatives. Private tourism businesses typically pursue CE practices as tools to enhance operational efficiency, reduce costs, and gain a competitive advantage by appealing to environmentally conscious consumers. In contrast, public institutions tend to embrace CE logics as part of broader efforts to promote systemic change, protect vulnerable ecosystems, and ensure long-term public welfare. Decision-making processes also differ substantially: private firms enjoy greater strategic and operational flexibility, while public organizations are often constrained by bureaucratic procedures, political accountability, and stakeholder pluralism.

Resource allocation and stakeholder engagement strategies further reflect these distinctions. Private actors have autonomy in deploying their resources and primarily target end customers, whereas public institutions must justify expenditures to political bodies and taxpayers, and engage with a broader range of stakeholders, including local communities and NGOs. Finally, public bodies both operate within and shape the regulatory environment, and their CE agendas may shift in response to political cycles, while private enterprises are more agile but also more exposed to market fluctuations.

3.2 Emerging criteria

After selecting the final sample of studies, the second stage of the methodology focused on answering RQ1. To address this question, a detailed analysis of each article was conducted to identify all criteria explicitly or implicitly mentioned as influencing the adoption of CE practices. Both drivers (i.e., enabling factors) and barriers (i.e., obstacles) were considered, regardless of whether they were discussed at an organizational, sectoral, or broader systemic level.

The analysis followed an inductive approach, allowing the criteria to emerge directly from the literature without imposing any predefined categorization. Each article was carefully reviewed in its entirety, and relevant elements were extracted manually. Particular attention was paid to capturing the authors' original wording and contextual nuances, to ensure an accurate and faithful representation of the identified factors.

The extracted criteria were initially described individually, with a focus on their definition, the mechanisms through which they influence decision-making, and their specific relevance within the hospitality industry context. Where similar or overlapping concepts were identified across different studies, they were grouped together through a process of thematic clustering, aiming to synthesize the information without losing the diversity of perspectives found in the literature.

This process resulted in a comprehensive and systematized list of key criteria, providing the foundation for the subsequent phases of the analysis. In the subsequent step of the research, the identified criteria were aggregated to develop an analytical mapping and structured categorization of the factors influencing the adoption of CE practices in the tourism industry, thereby enabling a more systematic interpretation of the findings.

3.3 Comparative synthesis

To address RQ2, a comparative synthesis of the classified criteria was carried out. This phase aimed to assess the extent to which individual studies offered a comprehensive and holistic approach to CE adoption, or whether they focused narrowly on specific dimensions.

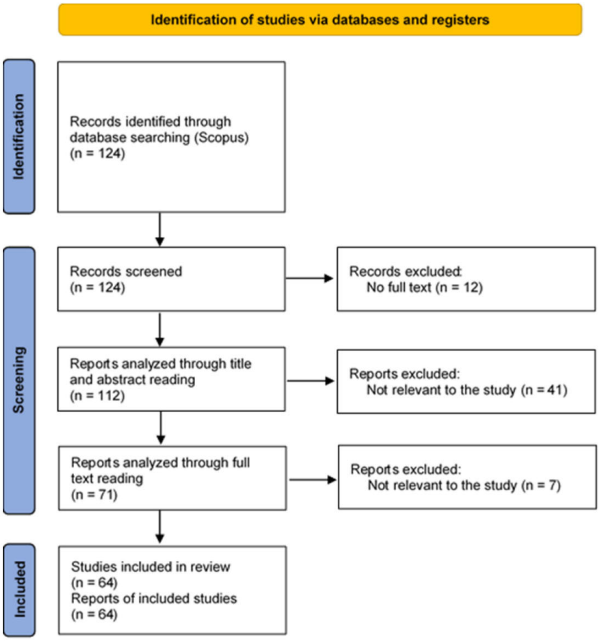
For each of the 64 articles included in the review, we examined whether the criteria discussed were associated with all three analytical pillars (governance, stakeholder relations, and innovation) or concentrated predominantly on one or two of them. Particular attention was paid to identifying whether a single article addressed multiple criteria simultaneously across the three dimensions, thus demonstrating an integrated understanding of the interdependencies involved in CE adoption processes.

Findings and discussion

4.1. Descriptive analysis

The systematic literature review initially considered 124 articles, selected according to the described methodology. A first screening was conducted to identify articles without full-text or not accessible through the Scopus database. In this phase, 12 articles were excluded. A second screening, based on titles and abstracts, enabled us to eliminate 41 articles, which were not relevant to our study. Finally, an in-depth analysis of the remaining full-text articles revealed that 7 were not specifically focused on the topics of the research project. For this reason, they were excluded from the systematic literature review (Fig. 1).

Fig.1. Identification of studies to include in the SLR according to PRISMA



Source: Authors' elaboration.

Therefore, the systematic literature review was performed on 64 articles, which covered a nine-year period, from 2016 to 2024 (Annex 1). However, most articles have appeared since 2019, indicating a relatively recent interest of scholars in the implementation of the CE by private businesses operating within the tourism industry. More exactly, 61 articles (95.3%) were published between 2019 and 2024, achieving a peak of 17 in 2022, while only 3 papers (4.7%) dated back to 2016-2018. The greater attention that circularity in tourism has raised in the current decade is probably due to the proliferation of laws, regulations, standards and guidelines on the CE at the global level, which can have a significant impact on firms.

As concerns the types of research adopted to analyze how the tourism industry addresses the CE, the systematic literature review showed a clear prevalence of the case study method, used in 30 articles (46.9%). This choice may be explained by the need to develop a genuine understanding of how hospitality and accommodation firms deal with a fairly new concept such as the CE. The literature review also emphasized the existence of frameworks and conceptual models aimed at explaining the role, characteristics and functioning of the CE in the tourism private sector. This approach was identified in 15 articles (23.4%), which tried to formalize the interactions between circularity and other relevant aspects for tourism firms. 11 review articles (17.2%) were also found, while 8 papers (12.5%) focused on circular business models in tourism.

Consistently with the high percentage of case studies emerging from the review, the majority of the articles (34, equal to 53.1%) presented micro-level analyses focused on specific firms. Only 12 studies (18.8%) contained meso-level analyses of networks and supply chains. The remaining 18 papers (28.1%) described the results of studies carried out at macro-level. Furthermore, 26 papers (40.6%) investigated the implementation of CE practices in the hospitality industry of a specific geographic area, such as a country.

According to the prevalence of case studies, most articles adopted a qualitative research methodology (44, equal to 68.8%), whereas a quantitative one was implemented in 17 studies (26.6%). Finally, 3 papers used a mixed methodology (4.7%).

4.2 Content analysis

The following presents the criteria identified in the literature, grouped according to whether they represent drivers, barriers, or take a mixed approach to the implementation of CE practices in the hospitality and accommodation subsector.

The main factors that act as drivers in decisions concerning the EC can be traced back mainly to: the mental attitude of the subjects involved, the search for economic convenience thanks to a more effective management of resources and activities, and the will to cooperate, with particular regard to situations of disadvantage and geographical isolation of the companies that offer the tourist service.

For businesses in the hospitality industry, the success of CE strategies largely depends on guests' cultural readiness to embrace and actively engage with them. In this regard, a key element is the clients' mindset change, with a growing demand for sustainable tourism options such as eco-mobility, low-impact accommodations, and culturally authentic experiences either provided or supported by hotels and other accommodations (Annex 1: articles 7, 9, 10, 17, 27, 31, 32, 39, 41, 42, 46, 55, 59, 60, 64). On the supply side, eco-design plays a crucial role in boosting circularity by introducing reusable, recyclable, and easy-to-repair solutions — such as modular bricks or adaptable furnishings — into hotel facilities (Annex 1: articles 3, 4, 22, 33, 38, 44, 58). This ties directly into the driver of economic convenience, as circular practices often generate significant cost savings, an objective typically pursued by private firms. Improved energy efficiency, optimized resource use, and better waste management help reduce operational costs, while creative reuse of materials — such as upcycled or recycled furniture sourced from local households — adds both value and local identity (Annex 1: articles 1, 4, 7, 11, 14, 24, 31, 38, 39). A less visible but equally important factor is the employees' mindset change, which can be achieved through cross-functional training in sustainability practices and by rethinking traditional hierarchical structures in favor of new, participatory and incentive-based approaches (Annex 1: articles 7, 48, 61). At the operational level, energy management becomes a key enabler of circularity, focusing on reducing consumption through efficient technologies — like motion sensors, LED lighting, and solar heating systems — and increasing reliance on renewable energy sources such as wind power (Annex 1: articles 8, 17, 18, 29, 30, 33, 37, 42, 50, 55). Strategic procurement practices also play a role: changing hotels' purchasing behavior by prioritizing biodegradable, modular, repairable, and reusable products is essential (Annex 1: articles 3, 19, 30, 33). Lastly, in insular contexts, interisland cooperation emerges as a valuable strategy. By fostering collaboration between hotels located in islands that face similar environmental and logistical challenges — especially in transportation — CE initiatives can be more effectively implemented at the local level (Annex 1: article 59).

Despite the increasing attention to sustainability, the transition toward CE in the hospitality sector faces significant barriers, which form an interconnected system involving market dynamics, cost structures, regulatory gaps, supply chain complexity, and organizational culture.

On the demand side, a persistent obstacle is the consumers' low willingness to pay for CE offerings. While tourists express interest in sustainability, most are reluctant to spend more on circular products due to limited awareness of the impacts, high price sensitivity, and resistance to changing their habits (Annex 1: articles 9, 24, 27, 31, 39, 55, 57). These tendencies are reinforced by only niche markets for CE offerings, where demand remains too limited to scale up circular models. Closely tied to consumer behavior is the issue of perceived quality. Many tourism operators face a trade-off between sustainability and service quality, as guests may see circular practices — such as reduced water pressure from eco-showers — as service downgrades. This creates tension between offering environmentally responsible options and maintaining guest satisfaction (Annex 1: articles 9, 11, 16), which obviously remains a priority for all private businesses.

Economically, the cost structure of CE models represents a major hurdle. High initial investments, labor-intensive processes like waste treatment, and insufficient economies of scale make circular solutions financially burdensome (Annex 1: articles 1, 4, 7, 11, 14, 24, 31, 38, 39). Additionally, reverse logistics costs, associated with the return and processing of materials, further deter firms from adopting resource recovery systems (Annex 1: articles 19, 38, 44).

From a strategic perspective, businesses often lack the tools and information necessary to assess CE feasibility. The estimation of costs and benefits related to circular initiatives is complex and resource intensive. Even tools like Life Cycle Assessment (LCA), though valuable, are difficult to apply in practice, especially for small and medium enterprises (Annex 1: articles 2, 5, 11, 16, 27, 27, 39, 44). This is compounded by the inadequacy of existing technologies to support CE, which are often expensive, not user-friendly, or incompatible with heritage buildings and safety standards (Annex 1: articles 22, 31, 39, 60).

These economic and technological constraints are amplified by systemic weaknesses in governance. Many destinations suffer from limited government assistance (Annex 1: articles 5, 13, 34, 39), with limited financial incentives, CE policies, or training programs specifically tailored to tourism (Annex 1: articles 11, 13, 22, 28, 39, 43). Even when such measures exist, they are hampered by inefficient governmental structures, excessive bureaucracy, and fragmented regulations (Annex 1: article 39). A particularly critical area for hotels and other accommodations is the lack of government support in waste disposal, where poor enforcement and administrative burdens undermine proper circular waste management (Annex 1: articles 7).

Within the supply chain, the difficulty to empower the supply chain / value chain remains a persistent issue. The fragmented nature of the tourism sector, lack of certified suppliers, and weak collaboration mechanisms prevent the alignment of circular objectives across stakeholders (Annex 1: articles 2, 4, 20, 31, 39, 40, 54, 62, 63). This lack of coordination also results in poor transparency in the value chain, where the absence of traceability tools and information-sharing platforms makes circular planning nearly impossible (Annex 1: articles 22, 31, 39, 43, 54, 55).

On the human capital side, the lack of experts in CE to hire and the limited number of CE training opportunities prevent organizations from building the internal competencies needed to adopt and scale circular practices. At the same time, there is widespread resistance to organizational change (Annex 1: article 39). Hotel managers often operate under time pressure, within rigid hierarchies, with a mindset focused on short-term metrics like customer ratings, which discourages long-term strategic planning (Annex 1: articles 15, 27, 35, 39, 45). Similarly, shareholders' mindset induces owners and investors — especially under franchising models — to prioritize short-term returns over long-term sustainability (Annex 1: article 39).

The transition of hotels and other accommodations toward a CE is also shaped by a complex interplay of enabling drivers and persistent barriers which, as evidenced by the reviewed studies, often interact closely and are deeply interconnected across technological, environmental, organizational, and socio-political domains.

From a technological standpoint, access to advanced technology plays a key role in facilitating circular practices. Digital platforms, mobile apps, and other smart tools can promote reuse, upcycling, and sustainable behavior among tourists. However, these technologies are often employed to meet short-term needs and not integrated into long-term circular strategies (Annex 1: articles 9, 20, 22, 38, 52, 54, 61). To overcome this, technological support by experts becomes essential, especially as hospitality firms are typically end-users rather than developers of such technologies. Expert guidance enables more effective use of innovations like solar panels and wastewater treatment systems (Annex 1: articles 1, 4, 7, 36, 61, 62).

Yet, the effective deployment of technology must be supported by appropriate skills. A major barrier remains the lack of knowledge and expertise, including limited training in waste management, confusion around CE definitions, and inconsistent use of tools like LCA (Annex 1: articles 9, 16, 24, 27, 31, 44, 60). On the other hand, personal empowerment by managers, when present, enhances CE adoption by equipping decision-makers with a deeper understanding of key principles (Annex 1: article 7). This is closely tied to managers' environmental personal concern, where ecological awareness translates into more committed leadership (Annex 1: articles 6, 7, 14, 26, 27).

Organizational and stakeholder dynamics are another critical area that may either impede or facilitate the implementation of CE practices in private-sector tourism firms. The adoption of CE is often slowed by difficulties in establishing key partnerships and a multi-stakeholder approach, due to fragmented responsibilities and limited trust. Nevertheless, successful collaboration — such as between universities and businesses — can spark innovation and resilience (Annex 1: articles 2, 20, 27, 36, 39, 54, 62). Similarly, private–public cooperation fosters the integration of CE principles by aligning policy objectives with local business needs (Annex 1: articles 16, 20, 54, 55), while transparency in both corporate sustainability and financial practices builds trust and promotes accountability (Annex 1: articles 3, 9, 16, 43).

Local engagement is particularly important. The local community as a key actor is indispensable in creating socially inclusive and culturally embedded circular tourism, thus reinforcing the continuity of business operations in hospitality. Models such as ecovillages show how inclusion, shared decision-making, and co-creation can drive sustainability (Annex 1: articles 2, 7, 20, 21, 24, 27, 31, 33, 38, 42, 51, 52, 54, 58). Moreover, raising customers' awareness in waste management — through initiatives like doggy bags, responsible ordering, or shared platforms — helps tourists become active participants in CE (Annex 1: articles 11, 42, 55). Supporting this behavioral shift also involves promoting sustainable recognition (reputation) through certifications and heritage projects, which improve both image and impact (Annex 1: articles 2, 20, 22, 47, 56, 58).

Environmental management represents another major area of opportunity. Effective waste management is essential to circular tourism, involving sorting, reuse, upcycling, and adaptive reuse of buildings (Annex 1: articles 1, 12, 18, 19, 26, 30, 37, 38, 58, 60). Complementing this, water management measures such as low-flow appliances, rainwater harvesting, and sustainable treatment systems help reduce consumption and waste (Annex 1: articles 18, 23, 25, 30, 37, 44, 50, 53, 58). Likewise, the adoption of sustainable products — local, low-impact, and resource-efficient — enhances circularity while integrating cultural authenticity into the tourist experience (Annex 1: articles 9, 22, 24).

However, these strategies are often hampered by economic and structural concerns. Perceptions of financial risks deter investment in circular models, as these often involve high upfront costs and delayed returns (Annex 1: articles 16, 24, 39, 43, 60). At the same time, the economic damage perception linked to environmental degradation in tourist destinations should act as a warning, reinforcing the need for protection and restoration strategies (Annex 1: articles 22, 43, 54).

While circular investments may be risky, they can be incentivized through targeted policies that motivate hotels to adapt their behavior in view of potential cost savings or enhanced contributions to environmental preservation. For example, waste tariff policy — such as pay-as-you-throw schemes — can encourage hotels to reduce and sort waste (Annex 1: article 19). Broader public transport strengthening also supports CE by facilitating access to tourism services while reducing environmental pressure, particularly in remote or vulnerable destinations (Annex 1: article 59). Mobility and logistics are also critical levers. Promoting sustainable mobility through bike-sharing, e-shuttles, and electric vehicle services reduces resource use and supports cleaner travel (Annex 1: articles 3, 17, 49).

Ultimately, overcoming the barriers and leveraging the drivers of CE in tourism requires a coordinated, long-term commitment involving institutions, firms, local communities, and tourists. Building capacity, fostering cooperation, and aligning values are fundamental to achieving a truly circular, sustainable tourism model.

4.3 Mapping criteria and discussion

In order to examine the level of integration among the three elements identified as key pillars for a transition towards more sustainable production and consumption patterns, the criteria emerging from the literature review were assigned to the pillars based on the underlying mechanisms through which each enabling or hindering factor operated (Fig. 2). Specifically, the governance pillar encompasses criteria related to decision-making structures, public policies, regulatory mechanisms, and institutional coordination frameworks. This includes, for example, the presence of clear strategies, political support, and the establishment of guidelines or incentives that steer CE adoption at a systemic level (Kirchherr et al., 2018). The stakeholder relations pillar refers to the capacity of involved actors – such as businesses, local communities, institutions, customers, and other stakeholders – to collaborate, build mutual trust, align objectives, and coordinate actions. Criteria associated with this pillar include levels of participation, interorganizational dialogue, and the activation of collaborative networks (Freeman, 1994). Finally, the innovation pillar comprises factors linked to the development or implementation of new solutions, technologies, business models, or operational practices that support the transition toward circularity. This includes, for instance, digitalization, the experimentation of regenerative models, and the integration of sustainable practices into tourism operations (Skare et al., 2024).

Fig. 2. Mapping of criteria emerging from the literature analysis to the three pillars

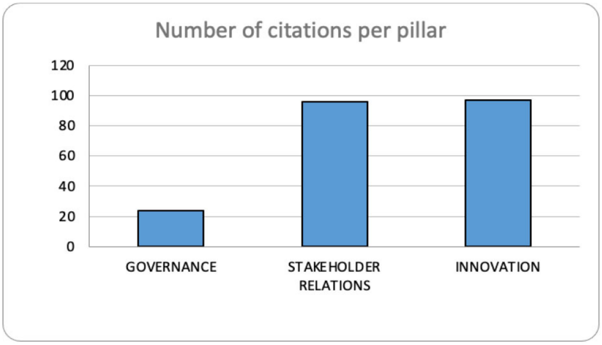
GOVERNANCE	STAKEHOLDER RELATIONS	INNOVATION
1. Government support	1. Personal empowerment by managers	1. Economic convenience
2. Government support in waste disposal	2. Managers' environmental personal concern	2. Cost structure
3. Lack of CE support by the government	3. Clients' mindset change	3. Estimation of costs and benefits
4. Inefficient governmental structures	4. Employees' mindset change	4. Trade-off between sustainability and service quality
5. Waste tariff policy	5. Shareholders' mindset change	5. Inadequacy of existing technologies to support CE
6. Private – public cooperation	6. Managers' mindset change	6. Technological support by experts
7. Public transport strengthening	7. Lack of experts on CE to hire and CE training offerings	7. Hotels' purchasing behavior and leasing solutions
8. Interisland cooperation	8. Local community as a key actor	8. Energy management
	9. Key partners & multi-stakeholder approach	9. Water management
	10. Economic damage perception	10. Waste management
	11. Financial risks	11. Eco-design
	12. Transparency	12. Sustainable mobility
	13. Transparency in the value chain	13. Access to advanced technology
	14. Raising customers' awareness in waste management	14. Reverse logistics costs
	15. Sustainable recognition (reputation)	15. Empower supply chain / value chain
	16. Only niche markets for CE offerings	16. Sustainable products
	17. Consumers' low willingness to pay for CE offerings	
	18. (Lack of) knowledge and expertise	

Source: Authors' elaboration.

This classification allowed for the organization and coherence of a multitude of heterogeneous elements, facilitating the interpretation of the underlying dynamics and providing an analytical foundation useful for assessing the degree of integration of the criteria present in the reviewed literature.

By analyzing the research findings, it emerges how literature does not adopt an integrated approach with reference to the main drivers and barriers across governance, stakeholder relations and innovation pillars (Fig. 3). In particular, the findings show a clear focus on the stakeholder relations and innovation pillars, which are the main dimensions where the circular economy topic has been addressed by the selected actors (private tourism firms); indeed, these two pillars have been investigated by scholars respectively 96 and 97 times, by citing some of the criteria explained in the findings' section.

Fig. 3. The CE criteria across the selected pillars



Source: Authors' elaboration.

In this regard, the literature mainly focuses on two dimensions – innovation and stakeholder relations – where firms and tourists play a relevant role in order to stimulate the diffusion of CE principles in tourism, by promoting innovation and the change of relevant stakeholders' mindset. The selected literature has demonstrated that tourist firms are aware that the diffusion of CE practices can be boosted by innovation and stakeholder relations. Innovation involves several aspects such as products, processes, business models and strategic thinking that should be continuously revised in order to achieve the competitive advantage, especially through disruptive innovations modifying the existing business models (Skare et al., 2024; Suchek et al., 2021). The development of innovative processes refers to the need – typical of private firms (specifically hotels and hospitality actors) – of creating a durable competitive advantage, in order to improve performance. Innovation is a driver for long-term success, facilitating the introduction of new services-products, the reduction of costs and the ability to ensure the continuous fulfilment of customers' expectations. The analyzed literature underlines the need for private tourism firms to integrate in their strategies the innovation goal, in order to acquire new markets and achieve high profitability according to sustainability conditions.

In this regard, tourist firms are required to create strategic alliances engaging all relevant parties and implementing eco-innovation principles; in this context, incremental innovation – which is typical of SMEs – should be replaced by radical innovation which makes the transition process shorter (Suchek et al., 2021). Innovation has been recognized as a typical SME's capability, contributing to create sustainable value, by revising the traditional business models, the operational processes and the firm's offering and by developing open-innovation initiatives engaging multiple partners to create high returns on research and development investments (Robayo-Acuña and Chams-Anturi, 2025; Saunila, 2020). In particular, open-innovation is strongly linked to the second pillar (stakeholder relations) as it is generally developed through a participatory process of social actors, in order to introduce new tourism products, according to CE principles.

Similarly, the effective transition from the linear model to the circular one requires the establishment of long-term relationships with the key-stakeholders, to obtain the resources needed and to effectively orient customers' behaviors towards CE principles (Oberholzer and Sachs, 2023; Rizos et al., 2017). To reach this goal, it is required to create value for all the relevant stakeholders, according to engagement, collaboration and continuous dialogue. In this context, hotels and hospitality actors play a relevant role, considering their autonomy and flexibility to decide how to invest the available resources for the establishment of long-lasting relationships with the relevant stakeholders. In particular, the possibility of selecting the ways and the resources to establish relationships with the stakeholders enables the exploitation of the contribution that the tourists' practices provide to the development of CE. Indeed, tourists are important co-producers of tourism experiences, as they can actively contribute to create the tourist's services (Sørensen and Baerenholdt, 2020). Thus, the implementation of effective CE strategies requires the establishment of a virtual loop between tourist firms and stakeholders, positively affecting the way of thinking, behaving and the availability of needed resources.

The above-stated evidence is also demonstrated by the limited number of articles (in total, only 11) where there is a cross-cutting attention for all the three selected pillars, but the highest emphasis is given to the innovation and stakeholder relations' dimensions. With reference to these pillars, the literature identifies the key-variables affecting – on a voluntary basis – the firms' and tourists' behaviors, according to conditions of increasing circularity and awareness.

By contrast, the governance – which mainly refers to external variables – is significantly neglected; the selected articles cite the criteria related to this pillar only 24 times. These findings demonstrate that literature neglects the importance of the role played by the governance in the development of CE good practices by hotels and hospitality actors. This evidence underlies, on the one hand, a limitation in terms of conceptual framework and, on the other hand, the need to develop a more integrated perspective, based on the recognition of the relevance of political and decision-making structures and regulatory framework. Indeed, the diffusion of best CE practices in the touristic industry cannot disregard the support that the public administration may provide, mainly in terms of economic incentives to the firms, training, cooperation between public and private, improvement of the infrastructures, reduction of inefficiencies and bureaucratic burden. This component plays a relevant role in enabling firms to develop successful innovative processes and orient the relations with stakeholders toward an effective safeguard of the ecosystem and the available natural resources. The findings related to the governance pillar are likely to be affected by the firm's size; indeed, the most of the private tourism firms are SMEs generally focused on the operational processes and the establishment of effective networks among the key-actors, neglecting, by contrast, the governance dimension which usually plays a relevant role in large companies to achieve sustainable development conditions (Rizos et al., 2017). There are several reasons underlying the low attention of SMEs to governance, including the lack of a strategic integrated perspective, the low-risk exposure, the weak board's circular culture, the limited enforcement of CG practices, and the lack of skilled boards (Singh and Pillai, 2022). SMEs are usually run by individual owners, without establishing formal corporate governance bodies and relying on family financial resources, in order to minimize risks (Romano et al., 2001).

Indeed, it has been observed how the adoption of CE practices by SMEs is generally slower and partial as compared to large corporations, which are facilitated by the availability of needed resources and are characterized by a more developed cultural system (Jain et al., 2024).

The lack of an integrated approach is also demonstrated by the different extent of the scholars' attention on the most investigated pillars; with reference to innovation and stakeholder relations, the number of citations of criteria are usually discordant with each other, underlying a perspective substantially focused only on a specific pillar (i.e., either innovation or stakeholder relations).

The findings obtained by analyzing the literature demonstrate the lack of a holistic and integrated perspective, which is needed for the transition toward the CE, in favor of a fragmented approach, facilitating the development of ineffective initiatives for the value creation over the long run. The creation of sustainable value requires the firms – referring to the hospitality sector – to develop integrated initiatives aimed at combining innovation, stakeholder engagement and decision-making processes.

Findings also demonstrate that the transition of private tourism businesses from linear to circular economy is gradual and not fast (Siegel et al., 2019); it requires a step-by-step process that mainly involves, at the beginning, the innovation and the stakeholder relations' pillars. The focus on the above-stated dimensions demonstrates how private tourism firms pay attention to efficiency, the improvement of profitability and the achievement of competitive advantage, by stimulating environmentally responsible consumers' behaviors.

These results also depend on the investigated tourist businesses' size, which is generally small or medium; indeed, SMEs are typically characterized by limited financial resources (Antony et al., 2016), and they usually neglect the corporate governance dimension (Kukanja et al., 2020). However, it has been underlined how SMEs are the key-actors for the effective transition from the linear economy model to the circular one. Thus, there is the urgent need that private tourism firms develop the needed capabilities and obtain the resources required to enable this shift by exploiting the well-known SMEs' attitude to develop sustainability practices (Ahmadov et al., 2025). However, the selected literature has underlined that the main efforts mainly refer to: the innovation of processes and business models in order to take advantage of the new opportunities to achieve competitive advantage; to develop long-lasting relationships with the key-stakeholders. In this regard, corporate culture is lacking mainly in terms of awareness that governance identifies a fundamental driver for taking decisions, facilitating the achievement of sustainable development conditions and circular economy principles. This aspect characterizes the SMEs, which are not always aware of the opportunities provided by CE transition (Gennari, 2023).

Hence, the transition process is still in progress, and it could be further improved in order to develop an integrated and cross-cutting perspective involving all three selected pillars, in order to transform the potential barriers into opportunities for creating value for the community. Only a holistic and aware approach addressing all three relevant pillars can facilitate the transition of tourism businesses - operating in the hospitality sector - from the linear model to the circular one, transforming the way of doing business and mitigating the related impact on environmental and social dimensions (Gennari, 2023).

5. Conclusion, limitations and future research directions

This study contributes to the academic debate on CE in the tourism sector. By conducting a systematic literature review and a qualitative synthesis of peer-reviewed articles, the paper moves beyond descriptive accounts of circular practices to uncover the mechanisms that shape decision-making processes within tourism firms. Through the classification of enabling and hindering factors along three key dimensions — governance, stakeholder relations, and innovation — this study highlights not only the multiplicity of elements involved but also the significant asymmetry in how they are treated within the literature. While innovation and stakeholder engagement are well-represented and thoroughly discussed, governance emerges as a notably underexplored domain. This gap is theoretically meaningful: it reflects a persistent bias toward firm-centric and behaviorally oriented analyses, which tend to overlook the structural and institutional conditions that enable circular transformation (Kirchherr et al., 2018). Such an imbalance risks reducing CE to a set of voluntary, market-driven initiatives rather than recognizing it as a systemic transition requiring coordinated and multi-level action across the public and private spheres.

The analytical lens proposed in this paper provides a contribution for future research aimed at building more integrated models of CE implementation in service-based industries. It reinforces the view that circularity should be understood not as a singular intervention or technical fix, but as a multidimensional transition, where governance mechanisms, stakeholder collaboration, and innovation dynamics are mutually reinforcing and must be activated in parallel. This perspective aligns with broader scholarly discussions on sustainability transitions, institutional change, and the co-evolution of business and policy systems (Markard et al., 2012).

Furthermore, the review responds to recent calls in the literature for a move away from fragmented and ad hoc interpretations of CE, toward more holistic and theory-informed approaches (Merli et al., 2018). It encourages scholars to revisit the conceptual underpinnings of circularity in tourism by drawing on insights from strategic management, organizational theory, and public governance. In particular, the findings suggest that advancing CE in this sector will require reframing it not only as an operational or managerial shift, but as a governance challenge — one that demands legitimacy, long-term vision, and cross-sectoral coordination.

Ultimately, this study offers both a diagnostic and a foundation: a map of the existing gaps in literature, and a call for more integrative frameworks that reflect the complexity and ambition of circular economy transitions in the tourism ecosystem.

From a managerial perspective, the findings highlight the importance of aligning internal capabilities (such as innovation and stakeholder engagement) with external enabling conditions (such as public incentives, regulatory clarity, and infrastructure support). For tourism firms — especially SMEs — this means recognizing that the success of CE practices depends not only on operational or technological improvements, but also on the ability to navigate and influence institutional frameworks. Managers are encouraged to adopt a more strategic approach that integrates circularity into core business models, cultivates collaborative networks, and engages with local communities.

Despite its contributions, the study presents several limitations. First, it is based on a literature sample retrieved in early 2024 and exclusively from the Scopus database, which, while comprehensive, may exclude relevant studies indexed elsewhere or published in other languages. Second, the analysis focuses only on peer-reviewed journal articles, potentially overlooking practical insights from industry reports, grey literature, or policy documents. Third, the classification of criteria into the three pillars — although grounded in theoretical reasoning — inevitably involves a degree of interpretative subjectivity.

Future studies should aim to deepen the exploration of governance-related factors in CE implementation, particularly in tourism. This includes examining how policy design, institutional arrangements, and multilevel governance models can enable or hinder circular strategies. Considering that the present research focuses its analysis on private companies in the tourism sector, a future area of research could adopt a more holistic approach to the contextual environment — from sectoral, political-legislative, social, economic, and technological perspectives — in which these companies operate. Such factors can significantly influence the type and extent of governance, stakeholder relationships, and innovation, especially when it comes to implementing a CE business approach in a given territory.

References

Ahmadov, T., Durst, S., Gerstlberger, W., & Kraut E. (2025). SMEs on the way to a circular economy: Insights from a multi-perspective review. Management Review Quarterly, 75(1), 289–322. https://doi.org/10.1007/s11301-023-00380-2

Alharethi, T., Abdelhakim, A., & Mohammed, A. (2024). Drivers and barriers towards circular economy in rural tourism destinations: a case study of Tunis village. Egyptian Journal of Tourism and Hospitality, 5(3), 639–656. https://doi.org/10.3390/tourhosp5030038

Antony, J., Vinodh, S., & Gijo, E. V. (2016). Lean Six Sigma for small and medium enterprises: A practical guide. Boca Raton, FL: CRC Press.

Arzoumanidis, I., Mancini, E., Walker, A. M., Petti, L., & Raggi, A. (2020). Towards a definition of circular tourism: a literature review. In B. Esposito, O. Malandrino, M. R. Sessa, & D. Sica (Eds.), Le scienze merceologiche nell'era 4.0, Conference proceedings AISME (pp. 44–52).

Baah, C., Afum, E., Agyabeng-Mensah, Y., & Opoku, Agyeman D. (2021). Stakeholder influence on adoption of circular economy principles: Measuring implications for satisfaction and green legitimacy. Circular Economy and Sustainability, 2(1), 91–111. https://doi.org/10.1007/S43615-021-00093-2

Bassi, F., & Dias, J. G. (2020). Sustainable development of small- and medium-sized enterprises in the European Union: A taxonomy of circular economy practices. Business Strategy and the Environment, 29(6), 2528–2541. https://doi.org/10.1002/bse.2518

Cong, L.C., & Thu, D. A. (2021). The competitiveness of small and medium enterprises in the tourism sector: The role of leadership competencies. Journal of Economics and Development, 23(3), 299–316. https://doi.org/10.1108/JED-06-2020-0080

Costa, B., Rodrigues, S., & Santos, N. (2024). The implementation of the circular economy R-principles and strategies: The Portuguese hotel industry perspective. Proceedings of the 7th International Conference on Tourism Research, 7(1), 57–66. https://doi.org/10.34190/ictr.7.1.2065

Del Chiappa, G., & Fotiadis, A. (2019). Research areas and emerging challenges in small and medium tourism enterprises. Piccola Impresa Small Business, 1. https://doi.org/10.14596/pisb.326

Ellen MacArthur Foundation (2013). Towards the circular economy. Vol. 2: Opportunities for the consumer goods sector.

Einarsson, S., & Sorin, F. (2020). Circular economy in travel and tourism: A conceptual framework for a sustainable, resilient and future proof industry transition. CE360 Alliance. https://circulareconomy.europa.eu/platform/sites/default/files/circular-economy-in-travel-and-tourism.pdf

Falcone, P. M. (2019). Tourism-based circular economy in Salento (South Italy): A SWOT-ANP analysis. Social Sciences, 8(7), Article 216. https://doi.org/10.3390/socsci8070216

Fehrer, J.A., & Vargo, S. L. (2023). Rethinking service in a circular economy. Journal of Service Management Research, 7(3), 130–146. https://doi.org/10.5771/2511-8676-2023-3-130

Freeman, R. E. (1994). The politics of stakeholder theory. Business Ethics Quarterly, 4(4), 409–421. https://doi.org/10.2307/3857340

Gennari, F. (2023). The transition towards a circular economy. A framework for SMEs. Journal of Management and Governance, 27(4), 1423–1457. https://doi.org/10.1007/s10997-022-09653-6

Homrich, A. S., Galvão G., Abadia, L. G., & Carvalho, M. M. (2018). The circular economy umbrella: Trends and gaps on integrating pathways. Journal of Cleaner Production, 175, 525–543. https://doi.org/10.1016/j.jclepro.2017.11.064

International Organization for Standardization. (2024). Circular economy - Guidance on the transition of business models and value networks (ISO Standard No. 59010:2024). ISO.

Jain, N.K., Panda, A., & Arghode, V. (2024). Tourism’s circular economy: Opportunities and challenges from an integrated theoretical perspective. Business Strategy Environment, 33, 6172–6186. http:// doi.org/10.1002/bse.3802

Jones, P., & Wynn, M. G. (2019). The circular economy, natural capital and resilience in tourism and hospitality. International Journal of Contemporary Hospitality Management, 31(6), 2544–2563. https://doi.org/10.1108/IJCHM-05-2018-0370

Kaszás, N., Keller, K., & Birkner, Z. (2022). Understanding circularity in tourism, Society and Economy. 44(1), 65–82. https://doi.org/10.1556/204.2021.00025

Kirchherr, J., Piscicelli, L., Bour, R., Kostense-Smit, E., Muller, J., Huibrechtse-Truijens, A., & Hekkert, M. (2018). Barriers to the circular economy: Evidence from the European Union (EU). Ecological Economics, 150, 264–272. https://doi.org/10.1016/j.ecolecon.2018.04.028

Kirchherr, J., Yang, Nan-Hua N., Schulze-Spüntrup, F., Heerink, M. J., & Hartley, K. (2023). Conceptualizing the circular economy (Revisited): An Analysis of 221 Definitions, Resources, Conservation and Recycling, 194, Article 107001. https://doi.org/10.1016/j.resconrec.2023.107001

Kukanja, M., Planinc, T., & Sikosec, M. (2020). Crisis management tourism in SMEs during the Covid-19 Pandemic, Organizacija, 53(4). https://doi.org/10.2478/orga-2020-0023

Li, K., Cipolletta, G., Andreola, C., Eusebi, A.L., Kulaga, B., Cardinali, S., & Fatone, F. (2024). Circular economy and sustainability in the tourism industry: Critical analysis of integrated solutions and good practices in European and Chinese case studies. Environment, Development and Sustainability, 26(7), 16461–16482. https://doi.org/10.1007/s10668-023-03395-7

Lusch, R. F., & Vargo, S. L. (2014). Service-dominant logic: Premises, perspectives, possibilities. Cambridge University Press.

Maines da Silva, P., Maines da Silva, L., & Soares Echeveste, S. (2021). Circular Economy in Tourism and Hospitality: Analysis of Scientific Production on the Theme. European Journal of Tourism, Hospitality and Recreation, 11(1): 45–53. https://doi.org/10.2478/ejthr-2021-0005

Markard, J., Raven, R., & Truffer, B. (2012). Sustainability transitions: An emerging field of research and its prospects. Research Policy, 41(6), 955–967. https://doi.org/10.1016/j.respol.2012.02.013

Maziliauske, E. (2024). Innovation for sustainability through co-creation by small and medium-sized tourism enterprises (SMEs): Socio-cultural sustainability benefits to rural destinations. Tourism Management Perspectives, 50, Article 101201, https://doi.org/10.1016/j.tmp.2023.101201

McKinsey (2024). The state of tourism and hospitality 2024. McKinsey Global Publishing.

Merli, R., Preziosi, M., & Acampora, A. (2018). How do scholars approach the circular economy? A systematic literature review. Journal of Cleaner Production, 178, 703–722. https://doi.org/10.1016/j.jclepro.2017.12.112

Nguyen, Van K., Natoli, R., & Divisekera, S. (2021). Innovation and productivity in tourism small and medium enterprises: A longitudinal study. Tourism Management Perspectives, 38, 100804. https://doi.org/10.1016/j.tmp.2021.100804.

Oberholzer, S., & Sachs, S. (2023). Engaging Stakeholders in the Circular Economy: A Systematic Literature Review. In: Kujala, J., Heikkinen, A., & Blomberg, A. (eds) Stakeholder Engagement in a Sustainable Circular Economy. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-031-31937-2_3

OECD (2019). Business Models for the Circular Economy: Opportunities and Challenges for Policy, OECD Publishing: Paris. https://doi.org/10.1787/g2g9dd62-en

Opferkuch, K., Walker, A. M., Lindgreen, E. R., Caeiro, S., Salomone, R., & Ramos, T. B. (2023). Towards a framework for corporate disclosure of circular economy: Company perspectives and recommendations. Corporate Social Responsibility and Environmental

Management, 30(5), 2457–2474. https://doi.org/10.1002/csr.2497

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ, 372, n71. https://doi.org/10.1136/bmj.n71

Pearce, D. W., & Turner, R. K. (1990). Economics of natural resources and the environment. Hemel Hempstead, UK: Harvester Wheatsheaf.

Potting, J., Hekkert, M.P., Worrell, E., & Hanemaaijer, A. (2017). Circular economy: Measuring innovation in the product chain. Policy Report. PBL Netherlands Environmental Assessment Agency The Hague. https://www.pbl.nl/uploads/default/downloads/pbl-2016-circular-economy-measuring-innovation-in-product-chains-2544.pdf

Rizos, V., Tuokko, K., & Behrens, A. (2017). The circular economy: A review of definitions, processes and impacts. CEPS Research Report No. 2017/09, Brussels. https://circulareconomy.europa.eu/platform/sites/default/files/rr2017-08_circulareconomy_0.pdf

Robayo-Acuña, P. V., & Chams-Anturi, O. (2025). Open innovation in hospitality and tourism services: a bibliometric analysis. International Journal of Innovation Science, 17(2), 394–418. https://doi.org/10.1108/IJIS-07-2023-0157

Romano, C. A., Tanewski, G. A., & Smyrnios, K. X. (2001). Capital structure decision making: a model for family business. Journal of Business Venturing, 16(3), 285–310. https://doi.org/10.1016/S0883-9026(99)00053-1

Salvioni, D. M., & Almici, A. (2020). Transitioning toward a circular economy: The impact of stakeholder engagement on sustainability culture. Sustainability, 12(20), Article 8641. https://doi.org/10.3390/su12208641

Salvioni, D. M., Bosetti, L., & Fornasari, T. (2022). Implementing and monitoring circular business models: An analysis of Italian SMEs. Sustainability, 14(1), Article 270. https://doi.org/10.3390/su14010270

Sampaio, C., Sebastião, J. R., & Farinha, L. (2024). Hospitality and Tourism Demand: Exploring Industry Shifts, Themes, and Trends. Societies, 14(10), Article 207. https://doi.org/10.3390/soc14100207

Saunila, M. (2020). Innovation capability in SMEs: A systematic review of the literature. Journal of Innovation & Knowledge, 5(4), 260–265. https://doi.org/10.1016/j.jik.2019.11.002

Scipioni, S., Russ, M., & Niccolini, F. (2021). From barriers to enablers: The role of organizational learning in transitioning SMEs into the circular economy. Sustainability, 13(3), Article 1021. https://doi.org/10.3390/su13031021

Sehnem, S., Vazquez-Brust, D., Pereira, S. C. F., & Campos, L. M. S. (2019). Circular economy: Benefits, impacts and overlapping. Supply Chain Management: An International Journal, 24(6), 784–804. https://doi.org/10.1108/SCM-06-2018-0213

Shi, J., & Xiao Y. (2024) Research on the pathways to high-quality development of tourism SMEs: A perspective of value assigned by quality, standards and brand. Heliyon, 10(23), Article e39772. https://doi.org/10.1016/j.heliyon.2024.e39772

Siegel, R., Antony, J., Garza-Reyes, J. A., Cherrafi, A., & Lameijer, B. (2019). Integrated green lean approach and sustainability for SMEs: From literature review to a conceptual framework. Journal of Cleaner Production, 240, Article 118205 https://doi.org/10.1016/j.jclepro.2019.118205

Singh, K., & Pillai, D. (2022), Corporate governance in small and medium enterprises: A review. Corporate Governance, 22(1), 23–41. https://doi.org/10.1108/CG-10-2020-0470

Skare, M., Gavurova, B., & Rigelsky, M. (2024). Quantification of the impact of innovations in industry and infrastructure for sustainable circular economy production and consumption. Journal of Innovation & Knowledge, 9(1), Article 100456. https://doi.org/10.1016/j.jik.2023.100456

Sørensen, F., & Bærenholdt, J. O. (2020). Tourist practices in the circular economy. Annals of Tourism Research, 85, Article 103027. https://doi.org/10.1016/j.annals.2020.103027.

Strippoli, R., Gallucci, T., & Ingrao, C. (2024). Circular economy and sustainable development in the tourism sector – An overview of the truly-effective strategies and related benefits. Heliyon, 10(17), Article e36801. https://doi.org/10.1016/j.heliyon.2024.e36801

Suchek, N., Fernandes, C.I., Kraus, S., Filser, M., & Sjögrén, H. (2021). Innovation and the circular economy: A systematic literature review. Business Strategy and the Environment, 30(8), 3686-3702. https://doi.org/10.1002/bse.2834

UNEP (2023, June 10). How can tourism fix its plastic problem? United Nations Environment Programme. https://www.unep.org/news-and-stories/story/how-can-tourism-fix-its-plastic-problem

UNWTO (2024). International Tourism to Reach Pre-Pandemic Levels in 2024. UNWTO: Madrid.

Vardopoulos, I., Giannopoulos, K., Papaefthymiou, E., Temponera, E., Chatzithanasis, G., Goussia-Rizou, M., Karymbalis, E., Michalakelis, C., Tsartas, P., & Sdrali, D. (2023). Urban buildings sustainable adaptive reuse into tourism accommodation establishments: A SOAR analysis. Discover Sustainability, 4(1), Article 50. https://doi.org/10.1007/s43621-023-00166-2

Voukkali, I., Papamichael, I., Loizia, P., & Zorpas, A. (2023). The importance of KPIs to calibrate waste strategy in hospitality sector. Energy Nexus, 11, Article 100211. https://doi.org/10.1016/j.nexus.2023.100211

WTO (1995). Collection of Tourism Expenditure Statistics. Technical Manual No. 2. World Tourism Organization, 10.

Zhu, B., Nguyen, M., Sarm Siri, N., Malik, A. (2022). Towards a transformative model of circular economy for SMEs. Journal of Business Research, 144(4), 545–555. https://doi.org/10.1016/j.jbusres.2022.01.093

Zimmermann, R., Inês, A., Dalmarco, G., & Moreira, A. C. (2024). The role of consumers in the adoption of R-strategies: A review and research agenda. Cleaner and Responsible Consumption, 13, Article 100193. https://doi.org/10.1016/j.clrc.2024.100193

Zorpas, A. A. (2024). The hidden concept and the beauty of multiple "R" in the framework of waste strategies development reflecting to circular economy principles. Science of The Total Environment, 952, Article 175508. https://doi.org/10.1016/j.scitotenv.2024.175508

Annex 1

Ahmed, M. F., Mokhtar, M. B., Lim, C. K., Hooi, A. W. K., & Lee, K. E. (2021). Leadership roles for sustainable development: The case of a Malaysian green hotel. Sustainability, 13(18), Article 10260. https://doi.org/10.3390/su131810260

Anastasiadis, F., & Alebaki, M. (2021). Mapping the Greek wine supply chain: A proposed research framework. Foods, 10(11), Article 2859. https://doi.org/10.3390/foods10112859

Axhami, M., Ndou, V., Milo, V., & Scorrano, P. (2023). Creating value via the circular economy: Practices in the tourism sector. Administrative Sciences, 13(7), Article 166. https://doi.org/10.3390/admsci13070166

Basile, V., Capobianco, N., & Vona, R. (2021). The usefulness of sustainable business models: Analysis from oil and gas industry. Corporate Social Responsibility and Environmental Management, 28(6), 1801–1821. https://doi.org/10.1002/csr.2153

Belliggiano, A., Garcia, E. C., Labianca, M., Valverde, F. N., & De Rubertis, S. (2020). The "eco-effectiveness" of agritourism dynamics in Italy and Spain: A tool for evaluating regional sustainability. Sustainability, 12(17), Article 7080. https://doi.org/10.3390/su12177080

Bhagtani, N. (2022). Hotel general managers' quality of life and its impact on organisational sustainability and corporate social responsibility initiatives. Worldwide Hospitality and Tourism Themes, 14(3), 286–299. https://doi.org/10.1108/WHATT-02-2022-0022

Bittner, N., Bakker, N., & Long, T. B. (2024). Circular economy and the hospitality industry: A comparison of the Netherlands and Indonesia. Journal of Cleaner Production, 444, Article 141253. https://doi.org/10.1016/j.jclepro.2024.141253

Borysova, O., Gryniuk, O., Mykhailenko, T., Shparaha, T., & Hryniuk, T. (2022). Global trends in tourism and imperatives of the circular economy in the context of sustainable environmental development of states. Review of Economics and Finance, 20, 196–202. https://doi.org/10.55365/1923.x2022.20.23

Bosone, M., & Nocca, F. (2022). Human circular tourism as the tourism of tomorrow: The role of travellers in achieving a more sustainable and circular tourism. Sustainability, 14(19), Article 12218. https://doi.org/10.3390/su141912218

Bux, C., & Amicarelli, V. (2023). Circular economy and sustainable strategies in the hospitality industry: Current trends and empirical implications. Tourism and Hospitality Research, 23(4), 624–636. https://doi.org/10.1177/14673584221119581

Camilleri, M. A. (2021). Sustainable production and consumption of food. mise-en-place circular economy policies and waste management practices in tourism cities. Sustainability, 13(17), Article 9986. https://doi.org/10.3390/su13179986

Cordova-Buiza, F., Paucar-Caceres, A., Quispe-Prieto, S. C., Rivera-Garré, A. P., Huerta-Tantalean, L. N., Valle-Paucar, J. E., Ponce de León-Panduro, C. V., & Burrowes-Cromwell, T. (2022). Strengthening collaborative food waste prevention in Peru: Towards responsible consumption and production. Sustainability, 14(3), Article 1050. https://doi.org/10.3390/su14031050

Cornejo-Ortega, J. L., & Chávez Dagostino, R. M. (2020). The tourism sector in Puerto Vallarta: An approximation from the circular economy. Sustainability, 12(11), Article 4442. https://doi.org/10.3390/su12114442

Corsini, F., Gusmerotti, N. M., Testa, F., & Borghini, A. (2022). The role of cognitive frames towards circular economy practices in SMEs. Sinergie, 40(2), 41–61. https://doi.org/10.7433/S118.2022.03

Costa, B. J. F., Rodrigues, S. C. S. F., da Silva, C. S., & Pacheco, M. P. M. (2022a). Circular economy and the Portuguese hotel industry – Awareness, attitude, and impact on the organisational performance. Journal of Global Business and Technology, 18(2), 60–85. https://gbata.org/wp-content/uploads/2023/06/JGBAT_Vol18-2-FullText.pdf

Costa, J., Montenegro, M., & Gomes, J. (2022b). Sustainability as a measure of tourism success: The Portuguese Promotional Tourism Boards' view. Worldwide Hospitality and Tourism Themes, 14(1), 65-71. https://doi.org/10.1108/WHATT-10-2021-0131

Costa, B. J. F., Rodrigues, S. C. S. F., & Pacheco, P. M. (2020). Circular economy and the tourism industry. Journal of Global Business and Technology, 16(1), 45–61. https://gbata.org/wp-content/uploads/2020/08/JGBAT_Vol16-1-FullText.pdf

del Vecchio, P., Malandugno, C., Passiante, G., & Sakka, G. (2022). Circular economy business model for smart tourism: The case of Ecobnb. EuroMed Journal of Business, 17(1), 88-104. https://doi.org/10.1108/EMJB-09-2020-0098

Diaz-Farina, E., Díaz-Hernández, J. J., & Padrón-Fumero, N. (2023). A participatory waste policy reform for the hotel sector: evidence of a progressive Pay-As-You-Throw tariff. Journal of Sustainable Tourism, 33(4), 697–718. https://doi.org/10.1080/09669582.2023.2273760

Falcone, P. M. (2019). Tourism-based circular economy in Salento (South Italy): A SWOT-ANP Analysis. Social Sciences, 8(7), Article 216. https://doi.org/10.3390/socsci8070216

Florido, C., Jacob, M., & Payeras, M. (2019). How to carry out the transition towards a more circular tourist activity in the hotel sector. The role of innovation. Administrative Sciences, 9(2), Article 47. https://doi.org/10.3390/admsci9020047

Gatti, M. P., & Indrigo, A. (2020). The roads, tracks, paths, and ropeways of the first world war: An opportunity to preserve, maintain, and valorize alpine landscape. Sustainability, 12(3), Article 1157. https://doi.org/10.3390/su12031157

Girard, L. F., & Nocca, F. (2017). From linear to circular tourism. Aestimum, 70, 51–74. https://doi.org/10.13128/Aestimum-21081

González-Arnedo, E. A., Izquierdo-Gascón, M., & Rubio-Gil, Á. (2022). Ecovillages as a development model and the case of api-tourism in sustainable settlements. PASOS Revista de Turismo y Patrimonio Cultural, 20(5), 1143–1161. https://doi.org/10.25145/j.

pasos.2022.20.077
Gretzel, U., Murphy, J., Pesonen, J., & Blanton, C. (2020), Food waste in tourist households: A perspective article, Tourism Review, 75(1), 235–238. https://doi.org/10.1108/TR-05-2019-0170
Gruia, R., Florescu, G.-I., Gaceu, L., Oprea, O. B., & Ţane, N. (2021). Reducing environmental risk by applying a polyvalent model of waste management in the restaurant industry. Sustainability, 13(11), Article 5852. https://doi.org/10.3390/su13115852
Guerra, R. J. d. C., & Gonçalves, E. C. C. (2024). Co-creation of sustainable tourism and hospitality experiences: Education and organizations in search of new business models. Sustainability, 16(1), Article 321. https://doi.org/10.3390/su16010321
He, J., & Mai, T. H. T. (2021). The circular economy: A study on the use of Airbnb for sustainable coastal development in the Vietnam Mekong delta. Sustainability, 13(13), Article 7493. https://doi.org/10.3390/su13137493
Jaroszewska, M., Chaja, P., & Dziadkiewicz, A. (2019). Sustainable energy management: Are tourism SMEs in the South Baltic region ready? International Journal of Sustainable Energy Planning and Management, 24, 75–84. https://doi.org/10.5278/ijsepm.3342
Jones, P., & Wynn, M. G. (2019). The circular economy, natural capital and resilience in tourism and hospitality. International Journal of Contemporary Hospitality Management, 31(6), 2544–2563. https://doi.org/10.1108/IJCHM-05-2018-0370
Joshi, S., Sharma, M., & Kler, R. (2020). Modeling circular economy dimensions in agri-tourism clusters: Sustainable performance and future research directions. International Journal of Mathematical, Engineering and Management Sciences, 5(6), 1046–1061. https://doi.org/10.33889/IJMEMS.2020.5.6.080
Julião, J., Gaspar, M., & Alemão, C. (2020). Consumers' perceptions of circular economy in the hotel industry: Evidence from Portugal. International Journal of Integrated Supply Management, 13(2-3), 192–209. https://doi.org/10.1504/IJISM.2020.107849
Kaszás, N., Keller, K., & Birkner, Z. (2022). Understanding circularity in tourism. Society and Economy, 44(1), 65–82. https://doi.org/10.1556/204.2021.00025
Khalifa, A. A., Ibrahim, A.-J., Amhamed, A. I., & El-Naas, M. H. (2022). Accelerating the Transition to a Circular Economy for Net-Zero Emissions by 2050: A Systematic Review. Sustainability, 14(18), Article 11656. https://doi.org/10.3390/su141811656
Khan, O., Bellini, N., Daddi, T., & Iraldo, F. (2022). Effects of behavioral intention and dynamic capabilities on circular economy adoption and performance of tourism SMEs. Journal of Sustainable Tourism, 31(8), 1777–1796. https://doi.org/10.1080/09669582.2022.2066683
Loureiro, S. M. C., & Nascimento, J. (2021). Shaping a view on the influence of technologies on sustainable tourism. Sustainability, 13(22), Article 12691. https://doi.org/10.3390/su132212691
Lu, S.-H., Ngo, T.-S., & Tran, H. T. T. (2024). Exploring a hierarchical model for circular economy transition through launching green marketing. Sustainable Development, 32(3), 2119–2138. https://doi.org/10.1002/sd.2768
Martín, J. M. M., Martínez, S. C., Martínez, J. M. G., & Soriano, D. E. R. (2022). Qualitative analysis on the driving force behind upcycling practices associated with mobile applications: Circular economy perspective. Operations Management Research, 15(3-4), 647–661. https://doi.org/10.1007/s12063-022-00269-5
Martínez-Cabrera, J., & López-del-Pino, F. (2021). The 10 Most Crucial Circular Economy Challenge Patterns in Tourism and the Effects of COVID-19. Sustainability, 13(9), Article 4940. https://doi.org/10.3390/su13094940
Matteucci, V. (2020). How can the hospitality industry increase corporate value aligned with sustainable development goals? Case examples from Hilton, Meliá and Sun. Worldwide Hospitality and Tourism Themes, 12(5), 509–523. https://doi.org/10.1108/WHATT-06-2020-0043
Münster, M. B. (2024). Adaptive reuse: Atmospherics in buildings repurposed as coffee

shops. Sustainability, 16(4), Article 1585. https://doi.org/10.3390/su16041585

Nocca, F., Bosone, M., De Toro, P., & Fusco Girard, L. (2023). Towards the human circular tourism: Recommendations, actions, and multidimensional indicators for the tourist category. Sustainability, 15(3), Article 1845. https://doi.org/10.3390/su15031845

Noll, D., Wiedenhofer, D., Miatto, A., & Singh, S. J. (2019). The expansion of the built environment, waste generation and EU recycling targets on Samothraki, Greece: An island's dilemma. Resources, Conservation and Recycling, 150, Article 104405. https://doi.org/10.1016/j.resconrec.2019.104405

Oarga-Mulec, A., Turk, J., Gerbec, P., Jenssen, P. D., Malovrh Rebec, K., & Valant, M. (2023). Life cycle assessment of black and greywater treatment solutions for remote and sensitive areas. Sustainability, 15(4), Article 3832. https://doi.org/10.3390/su15043832

Pamfilie, R., Firoiu, D., Croitoru, A.-G., & Ioan Ionescu, G. H. (2018). Circular economy – A new direction for the sustainability of the hotel industry in Romania? Amfiteatru Economic, 20(48), 388–404. https://doi.org/10.24818/EA/2018/48/388

Pongsakornrungsilp, P., & Pongsakornrungsilp, S. (2023). Mindful tourism: Nothing left behind – creating a circular economy society for the tourism industry of Krabi, Thailand. Journal of Tourism Futures, 9(3), 366–380. https://doi.org/10.1108/JTF-01-2021-0001

Ramos, D., & Malta, A. (2023). The use of the circular economy and adaptive reuse in a tourism context in the preservation of Gandaresa identity and culture. Journal of Tourism and Development, 44, 353–363. https://doi.org/10.34624/rtd.v44i0.34654

Renfors, S.-M., & Wendt, T. (2024). Restaurants without bins: How does a circular restaurant operate? Sustainability, 16(6), Article 2312. https://doi.org/10.3390/su16062312

Rivera Aguilar, J. E., Zang, L., & Fushimi, S. (2022). Towards sustainability in hospitality operations: how is quality of life and work–life balance related? Worldwide Hospitality and Tourism Themes, 14(3), 274–285. https://doi.org/10.1108/WHATT-02-2022-0019

Rodríguez-Antón, J. M., & Alonso-Almeida, M. d. M. (2019). The circular economy strategy in hospitality: A multicase approach. Sustainability, 11(20), Article 5665. https://doi.org/10.3390/su11205665

Rudan, E. (2023). Circular economy of cultural heritage – Possibility to create a new tourism product through adaptive reuse. Journal of Risk and Financial Management, 16(3), Article 196. https://doi.org/10.3390/jrfm16030196

Saura, J. R., Ribeiro-Soriano, D., & Palacios-Marqués, D. (2024). Adopting digital reservation systems to enable circular economy in entrepreneurship. Management Decision, 62(8), 2388–2408. https://doi.org/10.1108/MD-02-2022-0190

Scheepens, A. E., Vogtländer, J. G., & Brezet, J. C. (2016). Two life cycle assessment (LCA) based methods to analyse and design complex (regional) circular economy systems. Case: Making water tourism more sustainable. Journal of Cleaner Production, 114, 257–268. https://doi.org/10.1016/j.jclepro.2015.05.075

Serra, M., Antonio, N., Henriques, C., & Afonso, C. M. (2021). Promoting Sustainability through Regional Food and Wine Pairing. Sustainability, 13(24), Article 13759. https://doi.org/10.3390/su132413759

Sørensen F., & Bærenholdt J. O. (2020). Tourist practices in the circular economy. Annals of Tourism Research, 85, Article 103027. https://doi.org/10.1016/j.annals.2020.103027

Stombelli, V. M. (2020). Corporate Social Responsibility in hospitality: Are sustainability initiatives really sustainable? Case examples from CitizenM, Lefay and Six Senses. Worldwide Hospitality and Tourism Themes, 12(5), 525–545. https://doi.org/10.1108/WHATT-06-2020-0041

Tedesco, S., Montacchini, E., & Insinna, L. (2022). Experimenting with new ways of circular and participatory design: The case study of a traditional Sicilian architecture transformed for experiential tourism. Sustainability, 14(3), Article 1360. https://doi.org/10.3390/su14031360

Tomassini, L., & Cavagnaro, E. (2022). Circular economy, circular regenerative processes, agrowth and placemaking for tourism future. Journal of Tourism Futures, 8(3), 342–345.

https://doi.org/10.1108/JTF-01-2022-0004

Valls, J.-F., Mota, L., Vieira, S. C. F., & Santos, R. (2019). Opportunities for slow tourism in Madeira. Sustainability, 11(17), Article 4534. https://doi.org/10.3390/su11174534

Vardopoulos, I., Giannopoulos, K., Papaefthymiou, E., Temponera, E., Chatzithanasis, G., Goussia-Rizou, M., Karymbalis, E., Michalakelis, C., Tsartas, P., & Sdrali, D. (2023). Urban buildings sustainable adaptive reuse into tourism accommodation establishments: A SOAR analysis. Discover Sustainability, 4, Article 50. https://doi.org/10.1007/s43621-023-00166-2

Vargas-Sánchez, A. (2021). The new face of the tourism industry under a circular economy. Journal of Tourism Futures, 7(2), 203-208. https://doi.org/10.1108/JTF-08-2019-0077

Vargas-Sanchez, A. (2023). Toward a circular tourism industry: The importance of a start-up ecosystem. Worldwide Hospitality and Tourism Themes, 15(6), 625–632. https://doi.org/10.1108/WHATT-09-2023-0111

Vatansever, K., Akarsu, H., & Kazançoğlu, Y. (2021). Evaluation of transition barriers to circular economy: A case from the tourism industry. International Journal of Mathematical, Engineering and Management Sciences, 6(3), 824–846. https://doi.org/10.33889/ijmems.2021.6.3.049

Yang, W., & Lin, Y. (2022). Research on the interactive operations research model of e-commerce tourism resources business based on big data and circular economy concept. Journal of Enterprise Information Management, 35(4/5), 1348–1373. https://doi.org/10.1108/JEIM-12-2020-0520

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YOUTH, ENTREPRENEURSHIP, AND TOURISM IN PERIPHERAL AREAS

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Abstract

Purpose. *The present study analyses the role of young people in entrepreneurship and tourism in peripheral Italian areas, with a particular focus on the Marche region. The objective of the study is to understand the degree of attachment of young people to the territory, their perceptions of local resources, and the barriers that hinder their active involvement in the tourism and entrepreneurial development of these areas.*
Design/methodology/approach. *The research is grounded in a quantitative survey conducted through a structured questionnaire, administered to a sample of 313 young individuals (aged 18-35) residing in the Basso Appennino Pesarese and Ancona area (ABPA). The analysis explores four key areas: development priorities, mobility models, community involvement, and the enhancement of the local tourism offer.*
Findings. *The results of the study demonstrate the pivotal function of tourism and services in the economic development of peripheral regions. There is a notable interest among young people in the advancement of these areas. Nevertheless, the analysis reveals critical concerns pertaining to mobility, inadequate infrastructure, and a paucity of cultural events and networking prospects. The aspiration to reside in these areas is frequently impeded by the perception of limited employment and business prospects.*
Practical and Social implications. *The study provides valuable indications for the formulation of public policies and the development of local strategies, suggesting actions to enhance infrastructure, promote youth entrepreneurship and integrate local communities and tourism. The strengthening of social networks and the active involvement of young people are identified as pivotal elements for the economic and social sustainability of peripheral regions.*
Originality of the study. *The present paper makes a contribution to the ongoing debate on the development of peripheral areas. It achieves this by highlighting the active role of young people in the local economy, as demonstrated through tourism and entrepreneurship. The empirical analysis it presents offers novel perspectives for understanding territorial dynamics in marginal contexts.*

1. Introduction

In Italy, tourism has traditionally been concentrated in a few iconic areas, such as major art cities (Rome, Florence, Venice) and renowned seaside destinations (Amalfi Coast, Sardinia, Cinque Terre). However, this concentration frequently causes issues of overcrowding and environmental impact while creating significant disparities between central regions and more peripheral areas (PAs), which risk exclusion from tourist flows and losing strategic resources for their development.

PAs - often overlooked compared to more famous destinations - represent a fundamental component of Italy's tourism landscape. These areas, characterized by historic villages, unspoiled natural landscapes, and authentic cultural traditions, provide an invaluable heritage, deserving of attention and enhancement. They have been identified as key drivers for regional and national development, being potentially fertile ground for entrepreneurial growth (Barca et al., 2014; Roundy, 2019; Scott, 2006). Specifically, economic studies on the entrepreneurial ecosystems of small towns associate PAs with large metropolitan areas, as they can leverage their available resources, local networks, and the benefits of community-driven actions supporting entrepreneurship (Wiggins and Proctor, 2001; Barca et al., 2014; Pezzi and Urso, 2016; Prashantham and Battacharyya, 2020; Roundy, 2019).

These areas hold immense potential for sustainable and authentic tourism by promoting unique experiences connected to nature, local traditions, and gastronomic initiatives. In this respect, tourism can serve as a catalyst for social and economic regeneration, addressing challenges such as depopulation and unemployment.

Realizing this potential requires collaborative efforts from institutions, local communities, and tourism operators. Investments in infrastructure, marketing, and community engagement are essential, with particular attention to involving youth as key-drivers of innovation and entrepreneurship. Young people, indeed, due to their creativity and innovation ability, can become promoters of sustainable and attractive solutions for tourism development. Hence, they should be encouraged to participate in entrepreneurial initiatives capable of enhancing the artistic, cultural, gastronomic, and natural capital characterizing these areas.

To achieve this, it is necessary to investigate not only the economic and entrepreneurial initiatives undertaken by young people living in PAs, but also their attachment to the territory, perceptions of local resources, primary needs, and interest in promoting tourism development.

The aim of this study is to explore these aspects to understand what can improve young people's attachment to PAs and direct involvement in their economic, social, and tourism development. Specifically, the study seeks to investigate: (i) the perceptions of young people regarding the cultural, natural, and social heritage of PAs, as well as their level of attachment to the territory; (ii) their interest and willingness to engage in entrepreneurial initiatives related to tourism and local traditions; and (iii) the perceived deficiencies in essential and collective services (e.g., infrastructure, transportation, business support, digital connectivity) that hinder retention and active engagement.

The study relies on a survey based on a structured questionnaire administered to a sample of 313 individuals aged 18-35 living in a selected area of the Marche region. This area meets the typical criteria for defining a PA, as it is significantly distant from the main centers offering essential services such as education, healthcare, and mobility; characterized by the presence of significant environmental and cultural resources; and shaped by a heterogeneous landscape, resulting from the natural and anthropogenic dynamics influencing it over time (Barca et al., 2014).

The research has significant implications both from a scientific perspective and for managerial and policy considerations. On the one hand, it actively contributes to the scientific debate on the development and strengthening of PAs - topics increasingly central to political and social discourse - by elucidating opportunities and limitations associated with living in such areas, as well as the real entrepreneurial and tourism opportunities they present. On the other hand, it offers valuable insights for designing policies aimed at stimulating youth entrepreneurship and fostering the engagement of younger generations in the revitalization and economic, social, and tourism-related renewal of PAs.

The rest of the paper is structured as follows: Section two reviews the literature on young people, peripheral areas, and tourism while in Section three, the research methodology is outlined. Section four presents the survey results. Finally, the fifth and sixth sections are dedicated to the discussion and conclusion, respectively.

2. Literature review

2.1 Young people and PAs: challenges and opportunities

Peripheral Areas (PAs) are "spaces and places" characterized by greater backwardness and a lower level of development compared to what typically defines a modern society (Korsgaard, 2015a). They have been variously defined in the literature (e.g., "remote areas": Ardener, 2012; "inner areas": Barca et al., 2014; Servillo et al., 2017; "rural areas": OECD, 2006, 2019; Pugh and Dubois, 2021; Woods and McDonagh, 2011) and analyzed across multiple disciplinary fields (Pezzi and Urso, 2016; Pugh and Dubois, 2021). From a sociological perspective, research has mainly focused on issues of exclusion and social marginalization resulting from geographic peripherality (Herrschel, 2017). In contrast, the economic perspective often highlights the dual nature of PAs, emphasizing both the limited economic opportunities in terms of innovation and access to essential resources such as technology, capital, and labor (Prashantham and Bhattacharyya, 2020) and their potential to serve as triggers of regional and national development by fostering entrepreneurship (Barca et al., 2014; Roundy, 2019; Scott, 2006).

Despite their potential, PAs have long suffered the effects of urbanization, which since the 19th century has led to an increasing abandonment of rural municipalities and historic villages, resulting in severe consequences, including service reduction, financial distress, and social degradation. Recent data on Italian demographic dynamics estimates an overall population decline by 2030 (from 58.9 to 57.9 million) and confirms that depopulation will primarily affect the country's smaller urban areas, predicting an 80% population drop in rural municipalities (ISTAT, 2023). Notably, in the Marche region, this trend mirrors national dynamics, with the inland areas (e.g., Urbino: -8.1%, Ascoli Piceno: -7.6%, Macerata: -4.5%) experiencing greater population decline compared to coastal cities such as Ancona (-2.8%), Fano (-2.2%), and San Benedetto del Tronto (-0.7%).

This phenomenon is largely due to ongoing social, economic, and technological changes, causing the emergence of new values, expectations, and consumption models, particularly among younger generations. Today's youth are increasingly informed, guided by interests such as sustainability and social participation, and oriented towards mobility as an opportunity to acquire essential skills, experience different cultures, engage actively in society, and improve career prospects (Borojević et al., 2023). These trends reflect new lifestyle habits and reduce the attractiveness of PAs, leading to resident outmigration, youth unemployment, and a lack of entrepreneurial activity.

Nonetheless, entrepreneurship could play a key role in fostering the economic growth of PAs (Korsgaard et al., 2015b), even in a context of increasing global competition (Woods and McDonagh, 2011) and economic crisis (Sánchez-Zamora et al., 2014; Sánchez-Zamora and Gallardo-Cobos, 2020).

The central role of entrepreneurship in regional development processes has been recognized in the literature (Reid, 1987; Gladwin et al., 1989; Malecki, 1993; Huggins and Thompson, 2015; Korsgaard et al, 2015a; Korsgaard et al, 2015b; Bacq et al., 2022; Travasi and Mutignani, 2023). On "rural" entrepreneurship, an important contribution comes from Korsgaard et al. (2015b), emphasising the role that place has on the organisational structure of the enterprise and its role at the local level. Unlike space, a mere set of resources in the profit-making process, place also includes strong social and cultural components that are intertwined with the organisational structure and modus operandi of the firm itself, making its activities unique and not replicable in other territories (Korsgaard et al, 2015b; Zamagni and Venturi, 2017; Wright et al., 2022). The territory in turn receives benefits from this link in terms of economic development, increased resilience, and containment of depopulation.

As a result of this, the entrepreneurial potential of PAs lies in the valorization of "untapped territorial capital" (Barca et al., 2014), including both material and immaterial factors such as:

- Historical and artistic heritage: from north to south, Adriatic to Tyrrhenian, every part of Italy boasts unique historical significance. Beyond famous urban centers, many small settlements (villages, castles, abbeys) hold high artistic and cultural value.
- Semi-natural systems: Unused agricultural and forest land is a vital resource not only for primary industries but also for tourism, as seen in agritourism and nature reserves.
- Territorial and community stewardship: Preserving artistic and natural capital requires involving local populations as custodians of their territory, rather than relying solely on sporadic public interventions.
- Craftsmanship and artisanal know-how: Artisanal excellence flourishes in PAs, often featuring specialized small districts and brands of European relevance.

This territorial capital provides a foundation for new entrepreneurial initiatives capable of revitalizing PAs. Furthermore, recent studies identify promising opportunities for demographic recovery in these areas. The urban migration trend has slowed in recent years, partly due to the COVID-19 pandemic, which spurred population relocation and a reassessment of the better lifestyle that PAs can offer (Teti, 2022).

The younger generations appear to hold the greatest potential for these areas, showing resilience in seeking opportunities locally rather than migrating to metropolitan centers or abroad (Teti, 2017; 2022; Barbera et al., 2022). Their efforts to reduce disparities with dynamic centers through personal initiatives and institutional dialogue (Cersosimo and Donzelli, 2020) highlight the possibility of revitalizing PAs.

A recent Italian study (Barbera and De Rossi, 2021) revealed the emergence of a new perception of these territories by the young population. They are increasingly capable of providing a simple lifestyle, closer to nature and community, thereby rekindling the desire to remain or return to live in inner areas. The majority of them wish to stay and develop their personal and professional lives there. Specifically, 67% of respondents expressed a desire to remain in their current territory, 70% completed their education there, and 65% entered the workforce locally. Young people strongly believe in the importance of continuing to plan their futures in these areas. Among the primary reasons, there is a strong connection to the community (65%), the opportunity for more meaningful social interactions

(68%), and a higher quality of life (79%). Therefore, what emerges is a renewed vision of PAs among younger generations, driven by a heightened sensitivity to social and relational dynamics. This perspective fuels their desire to remain in their places of origin and to channel their skills into enhancing and revitalizing these territories.

However, successfully engaging youth in the entrepreneurial revitalization of PAs is a complex process depending on several interconnected dynamics including fostering youth engagement in local economies and strengthening public-private collaboration. These aspects are essential for supporting long-term employment opportunities and creating resilient networks that provide businesses, particularly start-ups, with access to critical resources and innovation pathways (Roundy, 2019). A pivotal factor in this process is improving services for residents. The decline of PAs is both a cause and consequence of reduced public services and economic degradation. Reversing this trend is essential to sustain the recent slowdown in urban migration and prevent renewed outflows toward major urban centers. In fact, enhancing public services can improve quality of life, define a settlement's identity, and boost its external appeal. Therefore, addressing primary (e.g., mobility, utilities) and secondary needs (e.g., administrative, cultural, recreational services) is essential for fostering youth attachment to their territories and strengthening their role in promoting local economy and tourism revitalization (Vendemmia and Lanza, 2022).

2.2 The tourism offering of PAs: A focus on the Marche Region

From a theoretical perspective, PAs have been variously defined and interpreted, resulting in blurred boundaries and making their precise identification challenging. A possible geographic-spatial delimitation can be established by referring to the so-called "inner areas", which are significantly distant from major centers providing essential services such as education, healthcare, and mobility. These areas are also distinguished by their rich environmental and cultural resources and by landscapes shaped over time by both natural and human influences (Barca et al., 2014).

The identification criterion for these areas is exclusively based on services' availability. Specifically, a municipality is classified as a "hub" if it simultaneously meets the following conditions: (i) it offers a comprehensive range of secondary education (including at least one scientific or classical high school and at least one technical or vocational institute); (ii) it has at least one hospital with a first-level emergency department; and (iii) it has at least a "silver-tier" railway station. Surrounding these hubs are other municipalities, categorized based on their travel time to the nearest hub.

The significance of these areas within the Italian context is considerable.

Nearly 4,000 municipalities - approximately half of the total - fall within inner areas. These territories cover about 60% of the national land area and are home to approximately 13.4 million people, or around 22% of the resident population in 2021.

As for the Marche region, on which this study focuses, it has a high percentage of municipalities classified as inner areas (46.3% of the total), accounting for 17.5% of the region's population. The Marche region was among the first to adopt the National Strategy for Inner Areas (SNAI), launched in 2014 by the Ministry for Territorial Cohesion. One of these areas is particularly relevant for its extension, namely "Appennino Basso Pesarese e Anconetano" (ABPA). It was among the first three areas to be established in the Marche Region during the 2014-2020 period. Covering an approximate total area of 1,000 km², it encompasses parts of the provinces of Pesaro-Urbino and Ancona. Specifically, ABPA includes ten municipalities: Acqualagna, Apecchio, Cagli, Cantiano, Piobbico, Frontone, Serra Sant'Abbondio, Pergola, Arcevia, and Sassoferrato.

This area is a highly attractive tourist destination, offering a rich combination of historical, cultural, gastronomic, and natural assets. Despite a contraction in hospitality infrastructure between 2019 and 2022 - marked by a decline of approximately 100 beds in hotels and over 1,000 in non-hotel accommodations – the area has experienced a notable increase in tourist arrivals (+32%) and total overnight stays (+30%). This growth has been driven by a rising preference for domestic destinations, targeted promotional initiatives, and a significant expansion of professionally managed rental accommodations (from 35 to 68 units). Additionally, international tourism has fully recovered, with foreign arrivals in 2022 surpassing pre-pandemic levels (Osservatorio del Turismo, 2024).

Culturally, this area boasts a wealth of historic sites, museums, and religious landmarks. Acqualagna is renowned for its Truffle Museum, Arcevia for its network of medieval castles, and Cagli for its rich religious heritage. Cantiano highlights the historical Via Flaminia, while Sassoferrato and Serra Sant'Abbondio offer notable ancient and religious sites. Coordinated efforts to integrate these attractions through structured itineraries could enhance the region's appeal, offering visitors immersive and diverse experiences.

A vibrant calendar of cultural and gastronomic events further strengthens the region's tourist attractiveness. Historical reenactments, such as the Palio del Re in Acqualagna and the Palio della Rocca in Serra Sant'Abbondio, alongside major religious celebrations like La Turba in Cantiano, preserve local traditions while fostering social cohesion. At the same time, food festivals, including the National White Truffle Fair and the Alogastronomy Festival in Apecchio, promote regional specialties and stimulate the local economy. These events not only extend the tourism season but also drive economic benefits in hospitality, dining, and artisanal crafts.

Finally, the area's natural landscapes further enrich its tourism offering, with diverse outdoor activities ranging from hiking (notably in the Gola del Furlo Natural Reserve, featuring ten scenic trails) to rock climbing (Monte di Montiego), canyoning (Forra del Presale, along the Candigliano River), and speleology (Monte Petrano and Monte Montiego protected areas). These activities attract nature enthusiasts while supporting sustainable tourism and environmental conservation.

By leveraging its diverse cultural heritage, dynamic event programming, and extensive outdoor opportunities, the ABPA region provides excellent possibilities for entrepreneurial initiatives and interventions aimed at strengthening its position as a premier destination, which offers visitors an authentic and multifaceted experience while fostering economic growth and environmental stewardship.

3. Methodology

3.1 Instrument and data collection

Data for this study have been collected through a self-administered questionnaire distributed over the timeframe January-October 2024.

The questionnaire was divided into five sections. The first concerns the socio-demographic characteristics of the respondents. The second explores the expectations and employment prospects of the peripheral area (i.e. ABPA), focusing on activities that could contribute to its development. The third deals with habits, services, and mobility within the area. The fourth section examines community ties and participation in local activities and initiatives. Finally, the fifth section focuses on tourism, analysing the activities and services that can promote the growth of the PA and increase its attractiveness. The items were rated on a five-point Likert scale of importance and/or agreement.

In order to validate the survey, the questionnaire was submitted to a pilot sample consisting of 10 randomly selected young residents of the ABPA area for each generational cohort. This process enabled us to verify the clarity and comprehensibility of the questions. Overall, 33 responses were collected. The feedback obtained led to only minor adjustments in the questionnaire design. After incorporating these changes, the final version was distributed to young people living in the peripheral area.

The Computer Assisted Web Interviewing (CAWI) method was used for data collection, enabling an online distribution of the questionnaire. The channels employed were social networks and instant messaging applications, including Facebook, Instagram, and WhatsApp. The online survey facilitates quick and inexpensive acquisition of information while ensuring anonymity and facilitating data cleaning and analysis (Lefever et al., 2007). As stated by Sills and Song (2002), this method is also effective in reaching connected and technologically savvy populations.

A total of 313 responses were obtained.

3.2 Sampling and data processing

The study focused on younger generations aged 18-35 (i.e., adult Z-ers and Millennials) who currently reside or have previously lived in the ABPA area. As previously underlined, these groups, while being the primary drivers of PAs depopulation, could play a particularly active role in promoting and revitalizing the socio-economic landscape of these territories (Barbera and De Rossi, 2021). Moreover, young people are the demographic most engaged in qualified educational pathways, which foster advanced and innovative skills essential for employment and for stimulating new entrepreneurial ventures. For instance, digital natives from Gen-Z are particularly inclined to developing competencies related to the emerging skills in the field of digital communication, which are increasingly in demand in the current economic landscape (Cantamesse and Ferrero, 2022).

Table 1 shows that the respondents are mainly females (63.3%), while males are 35.1% and 1.6% do not identify with any gender. Most belong to the 24-26 age group (24.6%) and reside in the peripheral area (79.6%). The sample is well-educated, with 49.8% having a high school diploma, 25.2% having a bachelor's degree and 15.0% having a master's degree. As regards occupation, the majority work as employees or manual workers (45.0%). Participants mostly live with their parents and brother(s)/sister(s) (58.8%).

This sample profile highlights the socio-demographic diversity of the respondents, although with an irregular distribution in terms of gender and educational attainment. While this does not ensure statistical representativeness of the broader youth population in the analysed area, the study is conceived as an exploratory analysis. As such, it relies solely on descriptive statistical techniques investigating the young people's perception of services and opportunities in the peripheral area where they live, their attachment to the territory and their involvement in local and tourism-related initiatives.

By means of these data, the objective is not to generalize findings, but rather to offer preliminary insights into the perceptions and involvement of young people in tourism and entrepreneurship in peripheral areas, providing a basis for future, more comprehensive research (Sandelowski, 2000).

Table 1. Sample profile (N=313)

		n	%
Gender			
	Male	110	35.1
	Female	198	63.3
	Prefer not to say	5	1.6
Age (years)			
	18-20	24	7.7
	21-23	58	18.5
	24-26	77	24.6
	27-29	53	16.9
	30-32	40	12.8
	33-35	61	19.5
Primary residence in the Peripheral Area			
	Yes	249	79.6
	No	64	20.4
Education			
	Secondary School graduation	17	5.4
	High School graduation	156	49.8
	Bachelor's degree	79	25.2
	Master's degree	47	15.0
	Postgraduate degree	14	4.5
Occupation			
	Student	91	29.1
	Working student	33	10.5
	Employee, Manual worker	141	45.0
	Entrepreneur, Freelancer	29	9.3
	Manager, Executive	1	0.3
	Unemployed	18	5.8
Family composition			
	Alone	33	10.5
	With parents and brother(s)/sister(s)	184	58.8
	With husband/wife	14	4.5
	With partner	53	16.9
	With friends/roommates	27	8.6
	Other	2	0.6

Source: Authors's elaboration.

4. Findings

4.1. Priorities for development in the ABPA Area

Table 2 presents the respondents' opinions on the economic activities deemed as fundamental for the development of the area where they live. Tertiary sector (health, schools, public/private offices, and services, etc.) and tourism constitute priorities for the enhancement of the area, with mean values of 4.29 and 4.21, respectively. Cultural and recreational activities (4.06) are also recognized as important fields of improvement. Cultural events, festivals and recreational spaces, indeed, can foster social interaction among young people while enhancing the artistic heritage and local traditions (Mahon and Hyyryläinen, 2019; Tait et al., 2019). By contrast, the industrial sector appears less relevant, recording a mean of 3.40.

Overall, these findings suggest that interventions aimed at improving the quality of life and attractiveness of the area are considered crucial by younger. Tourism, along with recreational and cultural activities, assumes a central role in emphasizing the distinctive characteristics and unique potential of peripheral areas (García-Delgado et al., 2020), including ABPA, offering them a new identity and an important development opportunity.

Table 2. Opinions of the sample on key economic activities for the development of the ABPA area- Likert scale 1-5

	Mean	**St. dev.**
Industry	3.40	1.89
Handcrafts	3.73	1.54
Tourism and accommodation activities	4.21	1.78
Cultural and recreational activities	4.06	1.44
Trade	3.74	2.19
Agriculture	3.99	1.46
Tertiary sector (health, schools, public/private offices, and services, etc.)	4.29	1.85

Source: Authors' elaboration.

4.2. Leisure activities and mobility patterns

The most common leisure activities among the younger demographic surveyed include dining at restaurants or farmhouses (3.74) and going to pubs, clubs, and discos (3.58) (Table 3). This is followed by city walks (3.36) and outdoor excursions (3.29). The prevalence of these activities highlights the affordance of local culinary traditions and nature experiences in peripheral areas, without necessitating long or demanding journeys. Indeed, these are also among the activities that require minimal travel distances (Table 4). On the other hand, shopping (3.85) and cinema and entertainment (3.62) imply the need to travel to more central areas. Young people in peripheral areas are often forced to move to urban centres or larger areas to participate in these activities, as they are concentrated in contexts with greater availability of dedicated services and facilities (Vendemmia and Lanza, 2022).

Table 3. Frequency of participation in leisure activities- Likert Scale 1-5

	Mean	St. dev.
Shopping	2.65	1.45
Town/city walk	3.36	1.86
Outdoor walk/hike	3.29	2.00
Activities in sports centres	2.81	1.93
Cinema and entertainment	2.62	1.51
Fairs/festivals/concerts	3.03	1.49
Public parks and gardens	2.75	1.14
Restaurant/farmhouse with friends/relatives	3.74	1.50
Pubs/clubs/discos	3.58	1.61

Source: authors' elaboration.

Table 4. Frequency of travelling outside municipality for leisure activities- Likert Scale 1-5

	Mean	St. dev.
Shopping	3.85	1.79
Town/city walk	2.71	1.72
Outdoor walk/hike	2.66	1.28
Activities in sports centres	2.62	1.49
Cinema and entertainment	3.62	1.39
Fairs/festivals/concerts	3.48	1.56
Public parks and gardens	2.28	1.63
Restaurant/farmhouse with friends/relatives	3.47	1.54
Pubs/clubs/discos	3.30	1.72

Source: Authors' elaboration.

As reported in Table 5, the sample primarily relies on personal transportation to access leisure activities and services. While automobile usage prevails (4.52), public transport (1.75) and bicycles (1.65) are marginal options. This is largely due to the insufficient availability of infrastructure and collective transport systems (Table 6). Notably, limited and inflexible schedules (3.99) and the paucity of public transport services nearby (3.80) are significant barriers to accessing more distant services and activities. The absence of adequate connections may influence the daily choices of young people and their involvement in social and cultural interactions by directing them towards easily accessible initiatives (Bernard, 2019). It further increases the risk of social isolation, reducing opportunities for individuals lacking a car to access educational, professional, and recreational experiences (Székely and Novotný, 2022).

Table 5. Means of transport used to access services and leisure activities- Likert Scale 1-5

	Mean	**St. dev.**
Cars	4.52	1.41
Motorcycle/scooter	1.70	2.64
Bicycle	1.65	1.88
On foot	3.03	1.73
Bus/public transport	1.75	2.66
Sharing travel with friends/relatives	2.91	1.81

Source: authors' elaboration.

Table 6. Barriers to accessing services and leisure activities related to mobility and transportation- Likert Scale 1-5

	Mean	**St. dev.**
Limited and/or inflexible public transport schedules	3.99	1.59
Absence/shortage of public transport services near my municipality	3.80	1.64
Absence/shortage of parking near services/leisure activities	2.87	1.71
Absence/shortage of bicycle lanes	3.30	1.84
Absence/shortage of shared transport services (car sharing, etc.)	3.23	1.86

Source: Authors' elaboration.

4.3. Community engagement and participation in local initiatives

The young respondents feel part of the community in which they live (3.29) (Table 7) and demonstrate a greater interest in participating in environmental (2.46), tourist (2.35) and artistic-cultural (2.33) events in the territory (Table 8). However, the low mean values might reflect a perception of limited provision or lack of local initiatives, which hinder a broader engagement among the young population. The scarcity of events and exhibitions (3.58) and the lack of places of socialization and interest (3.41) emerge, in fact, as central concerns (Table 9). This suggests that current initiatives still fail to fully respond to the needs and expectations of younger generations in the ABPA area.

Table 7. Community engagement and interpersonal ties – Likert Scale 1-5

	Mean	**St. dev.**
I live in a community I feel part of, characterised by strong interpersonal ties among people living in it	3.29	1.65
I live in a community where, apart from family and friends, I have no strong relationships or ties with others	2.49	2.18
I live in a community to which I do not feel I belong, where individuals prioritise their interests over the common good	2.39	2.11

Source: Authors' elaboration.

Table 8. Participation in activities organised by local associations or groups- Likert Scale 1-5

	Mean	**St. dev.**
Artistic and cultural	2.33	2.59
Environment and nature	2.46	2.51
Tourism	2.35	2.11
Political, party or trade union-related	1.65	1.43
Humanitarian or social	2.27	2.09
Youth or student-related	2.19	2.11
Youth forum and council	1.65	1.47
Local cultural association	2.16	2.64
Youth center	1.74	1.14

Source: Authors' elaboration.

Table 9. Perceived issues within the ABPA area- Likert Scale 1-5

	Mean	**St. dev.**
Lack of places for social interaction and points of interest	3.41	2.10
Scarcity of events and exhibitions	3.58	1.62
Lack of personal and collective services	3.45	1.54
Distant to access services	3.31	1.69
Scarcity of green areas	2.11	2.53
Excessive noise	1.69	1.73
Excessive traffic	1.70	1.78
Lack of parking spaces	2.39	2.55
Poor maintenance of roads, public spaces, and buildings	3.35	2.03
Lack of public safety	2.47	2.13

Source: Authors' elaboration.

4.4. Enhancing tourism in the ABPA area

Tourism in peripheral areas offers significant development opportunities, due to their natural and cultural heritage (Ivona et al., 2021). According to the young individuals under investigation, several activities and services are important to promote and foster the attractiveness of the territory (Table 10). These include infrastructure (4.38), accommodation facilities (4.29), and communication and promotion strategies (4.28). Additionally, the accessibility of services to people with disabilities (4.27), trail systems (4.26) and artistic and cultural events (4.25) are other important areas of intervention. For instance, providing well-marked trails could enhance the natural landscape of PAs and enrich the tourist experience, creating a strong relationship between visitors and the local area (Beltramo et al., 2021). Nevertheless, actions aimed at improving the tourist offer need to be strengthened. In particular, Table 11 indicates the need to focus on infrastructural aspects (4.30), communication and promotion activities (4.18), accessibility (4.11) and artistic-cultural initiatives (4.08). This emphasizes the importance of defining an integrated strategy that combines the accessibility of the territory with the effective promotion of local resources, fostering sustainable and inclusive tourism (Di Bella et al., 2019).

Table 10. Importance of the following activities and services for the promotion of tourism in the ABPA area- Likert scale 1-5

	Mean	St. dev.
Accommodation facilities (overnight stay/food and beverage outlets, etc.)	4.29	1.36
Handcrafts	3.62	1.85
Cultural and artistic events/initiatives	4.25	1.33
Food and wine events/initiatives	4.22	2.15
Infrastructure (roads, connections, transport, etc.)	4.38	1.28
Accessibility of services for people with disabilities	4.27	1.68
Flexibility in opening hours	3.92	1.41
New territorial networks (associations for the promotion and protection of the area, etc.)	3.92	1.86
Spaces for open-air activities (sports, picnics, etc.)	4.08	1.40
Marked/maintained trails for trekking, hiking, walking, etc.	4.26	1.37
Bicycle lanes	3.84	1.52
Communication and promotion activities	4.28	1.35

Source: Authors' elaboration.

Table 11. Enhancement of the following activities and services for the promotion of tourism in the ABPA area- Likert scale 1-5

	Mean	St. dev.
Accommodation facilities (overnight stay/food and beverage outlets, etc.)	4.01	1.81
Handcrafts	3.61	1.84
Cultural and artistic events/initiatives	4.08	1.85
Food and wine events/initiatives	4.00	1.77
Infrastructure (roads, connections, transport, etc.)	4.30	1.34
Accessibility of services for people with disabilities	4.11	1.71
Flexibility in opening hours	3.75	1.52
New territorial networks (associations for the promotion and protection of the area, etc.)	3.88	1.43
Spaces for open-air activities (sports, picnics, etc.)	3.80	1.98
Marked/maintained trails for trekking, hiking, walking, etc.	3.88	1.87
Bicycle lanes	3.79	2.09
Communication and promotion activities	4.18	1.37

Source: Authors' elaboration.

5. Discussions

The research findings highlight the centrality of the tourism and services sector in the development process of the ABPA area. Two basic directions emerge from the analysis of development priorities: (i) the need to strengthen infrastructures and essential services to improve the quality of local life; and (ii) the potential of youth entrepreneurship linked to tourism and cultural activities as a driver of economic and social growth (Korsgaard et al., 2015a; Roundy, 2019). In this specific scenario, tourism is seen as an opportunity to enhance territorial resources and differentiate the local economic offer, but this requires an integrated approach that combines infrastructure investments with promotion and innovation initiatives (García-Delgado et al., 2020). In fact, the strong attachment of young residents to their territories and their interest in tourism-related initiatives reflect a form of "embedded entrepreneurship" (Korsgaard et al., 2015b), where economic activities are deeply intertwined with local identity and social relations. This lends support to the notion that peripheral areas have the capacity to instigate endogenous development processes when local actors – most notably younger generations – are empowered to transform territorial capital into entrepreneurial opportunities. Moreover, these results serve to reinforce the notion of territorial embeddedness as a catalyst for local regeneration, thereby establishing a linkage between the micro-level of individual entrepreneurial intentions and the macro-level of regional development dynamics (Wright et al., 2022; Bacq et al., 2022).

The leisure habits and mobility patterns of young residents highlight the difficulty of accessing leisure and cultural services, which are largely concentrated in urban centers. Dependence on private transport and deficiencies in public services are significant barriers to active participation in the social and cultural life of the community. These findings confirm the need to improve integrated mobility solutions (such as car sharing or on-demand transport) and infrastructure connections to reduce feelings of marginalization and promote social interaction, fostering a sense of belonging and participation in local initiatives (Bernard, 2019; Székely and Novotný, 2022). This is consistent with the literature that associates social capital, collective identity and local collaboration with the resilience of inner areas (Pugh and Dubois, 2021; Vendemmia and Lanza, 2022). The limited participation of youth in community activities, despite their high sense of belonging, reveals a discrepancy between potential and realization, which resonates with the challenges delineated in theories of rural innovation and social entrepreneurship (Huggins and Thompson, 2015; Bacq et al., 2022). It is therefore essential to strengthen horizontal cooperation and institutional support to transform this latent potential into tangible socio-economic outcomes. This aligns with recent studies emphasizing that youth-driven entrepreneurship can act as a bridge between social cohesion and local development (Teti, 2022; Splendiani et al., 2023).

Results highlight that participation in community activities among young people is limited, despite a relatively high sense of community belonging. The perceived scarcity of events, the lack of dedicated spaces, and the limited supply of cultural and tourism initiatives further emerge as critical elements that hinder greater local inclusion and activism. This perception suggests a lack of coordination between local actors (public and private) and the absence of collaborative networks, which prevent the creation of an attractive and dynamic cultural and tourist offering. However, extant literature highlights the pivotal role of social networks and collaboration between public and private actors as mechanisms to enhance participation and entrepreneurial dynamism in peripheral areas (Korsgaard et al., 2015b; Mahon and Hyyryläinen, 2019; Bacq et al., 2022).

In the context of tourism enhancement, there is an imperative to develop an integrated offer, encompassing adequate accommodation facilities, well-organized tourist routes and effective communication. Consistent with prior research (Beltramo et al., 2021), the interviewees recognize the importance of infrastructure and territorial promotion as key elements to attract visitors and stimulate new entrepreneurial initiatives. However, the lack of adequate services and an effective territorial marketing strategy risk limiting the region's attractive potential (Di Bella et al., 2019), as emerged for the ABPA area. Overall, the results suggest that a coordinated action between local stakeholders, policy makers and entrepreneurs is crucial to enhance tourism as a development driver.

According to the findings, given the potential of the ABPA area in terms of natural, cultural, and landscape resources, as well as the emergence of a strong bond between the local community and entrepreneurial initiatives, the "lifestyle entrepreneurship" model identified by Splendiani et al. (2023) along the Via Francigena could also serve as a useful reference point for this context. Entrepreneurs motivated by personal passions and strong local roots can generate forms of social innovation and contribute to the creation of more resilient and sustainable local business networks. This approach, based on lifestyle choices rather than profit objectives, could stimulate the enhancement of local resources and promote more authentic and participatory tourism, in line with the sustainable development objectives of peripheral areas.

In fact, the development of a collaborative and inclusive tourism model, capable of integrating the diverse needs of young people and promoting local resources, is essential for overcoming barriers to active participation and youth entrepreneurship.

6. Conclusions and implications

The present study contributes to the expansion of understanding of how youth engagement and sense of place can serve as key dimensions in models of socio-economic development of inner areas. By empirically illustrating the connection between attachment to place, perceived infrastructural deficiencies, and entrepreneurial motivation, it integrates existing frameworks on rural entrepreneurship and place-based development (Korsgaard et al., 2015a; Barca et al., 2014). In particular, this research sets out to explore the perceptions and perspectives of young residents in the ABPA area with regard to their involvement in the economic and tourism development of the region. The results confirm that tourism and services represent key sectors for the revitalization of the area, but they also highlight structural challenges that must be addressed in order to foster greater involvement of the youth population and sustainable growth.

The results identified infrastructural deficiencies and restricted accessibility to services as the principal critical issues, which have a detrimental effect on the quality of life and economic opportunities available. The scarcity of adequate public transport and the necessity to travel to urban centers to access essential goods and services have the effect of diminishing the attractiveness of peripheral areas for the younger generation. Concurrently, the perceived paucity of cultural events and social interaction spaces curbs the active involvement of young people in the local community, thereby reducing opportunities for interaction and the development of entrepreneurial projects. This aligns with prior research on PAs (Mahon and Hyyryläinen, 2019; Székely and Novotný, 2022), confirming the urgent need for public and private interventions enhancing mobility solutions, local amenities, and cultural and social infrastructure to retain young populations, stimulate community engagement, and create a more dynamic environment for innovation and entrepreneurship. Indeed, the area's growth potential is significant. Young residents show a strong sense of belonging to the area and a growing interest in sustainable development models based on the valorization of local natural, cultural and gastronomic resources. As suggested by Korsgaard et al. (2015b) and Bacq et al. (2022), the promotion of experiential tourism and youth entrepreneurship initiatives can be an important lever to counter depopulation and strengthen the local economic fabric.

The implications for public policy suggest the need for integrated strategies that combine infrastructure improvements, enhanced public services and incentives for youth entrepreneurship. In particular, policymakers should prioritise investment in accessible and reliable transport systems, recognising that mobility is essential to enable young residents to participate in cultural and tourist activities and access job opportunities. Furthermore, the development of flexible and innovative services, such as on-demand transport or community mobility initiatives, could effectively address the critical issues of access to mobility that have emerged in the ABPA area. To support youth entrepreneurship, targeted financial instruments, mentoring programmes and business incubators specifically designed for the tourism sector should be implemented. These initiatives could help overcome the lack of confidence and entrepreneurial skills that often discourage young people from starting new businesses. Furthermore, greater coordination between institutions, businesses and local communities is essential to foster a more favourable environment for growth, in which tourism is not only an economic factor but also a tool for strengthening the social and cultural capital of peripheral areas. (Di Bella et al., 2019). In this context, it is also important to invest in strategic communication of the area's potential, promoting its natural, cultural and landscape resources through local marketing campaigns, events and participatory initiatives involving young people and local stakeholders. Finally, participatory governance mechanisms that actively involve young people in decision-making processes related to tourism and local development would empower them and ensure that policies are truly aligned with their needs and aspirations.

In conclusion, the future of ABPA depends on the ability to enhance local resources through a participatory and sustainable approach. The engagement of younger generations can play a crucial role in this process, but this requires targeted interventions that facilitate their active involvement and the creation of concrete opportunities for the development of the territory.

From a theoretical standpoint, this study enhances the extant literature on the socio-economic development of peripheral regions by substantiating the assertion that entrepreneurship in such contexts is not merely an economic phenomenon, but rather a socially embedded process. The evidence collected serves to reinforce the theoretical link between place attachment and entrepreneurial embeddedness, demonstrating that the sense of belonging and community participation exhibited by young people can act as catalysts for local regeneration. This contributes to extending the frameworks proposed by Barca et al. (2014) and Korsgaard et al. (2015b), providing empirical support for the idea that territorial capital can be mobilised through youth-driven initiatives and socially oriented entrepreneurship. Furthermore, by situating the findings within the perspective of sustainable and inclusive development, the study advances the debate on the multidimensional nature of rural innovation, suggesting that future research should further investigate the interplay between social, cultural, and economic dimensions of entrepreneurship in rural areas.

Although the paper offers interesting insights into youth entrepreneurship in tourism in peripheral areas, the study presents some limitations. First, the exclusive focus on the peripheral ABPA area precludes the generalisability of the findings to other peripheral areas characterised by different socio-economic contexts. Future studies could include different peripheral areas in the analysis in order to identify similarities and differences in the entrepreneurial development opportunities of these territories. Furthermore, while the quantitative survey was able to provide a clear overview of the phenomenon under investigation, it would be useful in the future to supplement the analysis with qualitative methodologies (e.g., in-depth interviews or focus groups). This combined approach would allow for a deeper understanding of the social, cultural and institutional dynamics that influence youth entrepreneurship, thus providing a more comprehensive picture of development processes in peripheral areas.

References

Ardener, E. (2012). “Remote areas” Some theoretical considerations. HAU: Journal of Ethnographic Theory, 2(1), 519-533.

Bacq, S., Hertel, C., & Lumpkin, G. T. (2022). Communities at the nexus of entrepreneurship and societal impact: A cross-disciplinary literature review. Journal of Business Venturing, 37(5), 106231. https://doi.org/10.1016/j.jbusvent.2022.106231

Barbera, F., & De Rossi, A. (2021). Metromontagna: Un progetto per riabitare l’Italia. Roma: Donzelli editore.

Barbera, F., Cersosimo, D., De Rossi, A., & l’Italia, A. R. (2022). Contro i borghi: Il Belpaese che dimentica i paesi. Roma: Donzelli editore.

Barca, F., Casavola, P., & Lucatelli, S. (2014). A strategy for inner areas in Italy: definition, objectives, tools and governance. Materiali Uval Series, 31, 2014.

Beltramo, R., Peira, G., & Bonadonna, A. (2021). Creating a tourism destination through local heritage: The stakeholders’ priorities in the Canavese Area (Northwest Italy). Land, 10 (3). https://doi.org/10.3390/land10030260

Bernard, J. (2019). Families and local opportunities in rural peripheries: Intersections between resources, ambitions and the residential environment. Journal of Rural Studies, 66, 43-51. https://doi.org/10.1016/j.jrurstud.2019.01.025

Borojević, T., Petrović, N., Radaković, J. A., Glomazić, H., Radojičić, M., Milenković, N., ... & Maletič, M. (2023). Youth participation for sustainable value creation: the role and prioritization of SDGs. Sustainability, 15(23), 16456. https://doi.org/10.3390/su152316456

Cantamesse, M., & Ferrero, G. (2022). Digital marketing strategy: Analisi, strategia e comunicazione sui media digitali. London, England: Pearson.

Cersosimo, D., & Donzelli, C. (2020). Manifesto per riabitare l’Italia: Con un dizionario di parole chiave e cinque commenti di Tomaso Montanari, Gabriele Pasqui, Rocco Sciarrone, Nadia Urbinati, Gianfranco Viesti. Roma: Donzelli editore.

Di Bella, A., Petino, G., & Scrofani, L. (2019). The Etna macro□region between peripheralization and innovation: Towards a smart territorial system based on tourism. Regional Science Policy & Practice, 11(3), 493-508. https://doi.org/10.1111/rsp3.12176

García-Delgado, F. J., Martínez-Puche, A., & Lois-González, R. C. (2020). Heritage, tourism and local development in peripheral rural spaces: Mértola (Baixo Alentejo, Portugal). Sustainability, 12(21). https://doi.org/10.3390/su12219157

Gladwin, C. H., Long, B. F., Babb, E. M., Beaulieu, L. J., Moseley, A., Mulkey, D., & Zimet, D. J. (1989). Rural entrepreneurship: One key to rural revitalization. American Journal of Agricultural Economics, 71(5), 1305-1314. https://doi.org/10.2307/1243127

Herrschel, T. (2017). Metropolitanization of the State: Towards Inequality in Democratic Voice. Fordham Urb. LJ, 45, 1197.

Huggins, R., & Thompson, P. (2015). Entrepreneurship, innovation and regional growth: a network theory. Small business economics, 45(1), 103-128. https://doi.org/10.1007/s11187-015-9643-3

ISTAT (2023). Popolazione residente e dinamica della popolazione - Anno 2023. Retrieved from: https://www.istat.it/comunicato-stampa/popolazione-residente-e-dinamica-della-popolazione/

Ivona, A., Rinella, A., Rinella, F., Epifani, F., & Nocco, S. (2021). Resilient rural areas and tourism development paths: A comparison of case studies. Sustainability, 13(6). https://doi.org/10.3390/su13063022

Korsgaard, S., Ferguson, R., & Gaddefors, J. (2015a). The best of both worlds: how rural entrepreneurs use placial embeddedness and strategic networks to create opportunities, Entrepreneurship & regional development, 27(9-10), 574-598. https://doi.org/10.1080/08

985626.2015.1085100
Korsgaard, S., Müller, S., & Tanvig, H. W. (2015b). Rural entrepreneurship or entrepreneurship in the rural–between place and space, International Journal of Entrepreneurial Behavior & Research, 21(1), 5-26. https://doi.org/10.1108/ijebr-11-2013-0205
Lefever, S., Dal, M., & Matthíasdóttir, Á. (2007). Online data collection in academic research: advantages and limitations, British Journal of Educational Technology, 38(4), 574-582. https://doi.org/10.1111/j.1467-8535.2006.00638.x
Mahon, M., & Hyyryläinen, T. (2019). Rural arts festivals as contributors to rural development and resilience, Sociologia Ruralis, 59(4), 612-635. https://doi.org/10.1111/soru.12231
Malecki, E. J. (1993). Entrepreneurship and Regional Development. International Regional Science Review, 16(1-2), 119-153. https://doi.org/10.1177/016001769401600107
OECD (2006). The New Rural Paradigm: Policies and Governance. Organisation for Economic Co-operation and Development. Retrieved from: https://doi.org/10.1787/9789264023918-en
OECD (2019). OECD Regional Outlook 2019: Leveraging Megatrends for Cities and Rural Areas. Organisation for Economic Co-operation and Development. Retrieved from: https://doi.org/10.1787/9789264312838-en
Osservatorio del turismo (2024). Il turismo nelle Marche. Retrieved from: https://www.regione.marche.it/Entra-in-Regione/Marche-Turismo/Osservatorio-del-turismo
Pezzi, M.G., & Urso, G. (2016). Peripheral areas: conceptualizations and policies. Introduction and editorial note. Italian Journal of Planning Practice, 6(1), 1-19.
Prashantham, S., & Bhattacharyya, S. (2020). MNE–SME co-innovation in peripheral regions. Journal of International Business Policy, 3(2), 134-153. https://doi.org/10.1057/s42214-019-00037-6
Pugh, R., & Dubois, A. (2021). Peripheries within economic geography: Four problems and the road ahead of us, Journal of Rural Studies, 87, 267-275. https://doi.org/10.1016/j.jrurstud.2021.09.007
Reid, J. N. (1987). Entrepreneurship as a community development strategy. In L. J. Beaulie (Ed.), The rural south in crisis: Challenges for the future. Boulder, CO: Westview Press.
Roundy, P. T. (2019). It takes a village to support entrepreneurship: Intersecting economic and community dynamics in small town entrepreneurial ecosystems. International Entrepreneurship and Management Journal, 15(4), 1443-1475. https://doi.org/10.1007/s11365-018-0537-0
Sánchez-Zamora, P., & Gallardo-Cobos, R. (2020). Territorial cohesion in rural areas: An analysis of determinants in the post-economic crisis context. Sustainability, 12(9), 3816. https://doi.org/10.3390/su12093816
Sánchez-Zamora, P., Gallardo-Cobos, R., & Ceña-Delgado, F. (2014). Rural areas face the economic crisis: Analyzing the determinants of successful territorial dynamics. Journal of Rural Studies, 35, 11-25. https://doi.org/10.1016/j.jrurstud.2014.03.007
Sandelowski, M. (2000). Whatever happened to qualitative description?. Research in nursing & health, 23(4), 334-340. https://doi.org/10.1002/1098-240x(200008)23:4%3C334::aid-nur9%3E3.0.co;2-g
Scott, A. J. (2006). Creative cities: Conceptual issues and policy questions. Journal of urban affairs, 28(1), 1-17. https://doi.org/10.1111/j.0735-2166.2006.00256.x
Servillo, L., Atkinson, R., & Hamdouch, A. (2017). Small and medium□sized towns in Europe: conceptual, methodological and policy issues. Tijdschrift voor economische en sociale geografie, 108(4), 365-379. https://doi.org/10.1111/tesg.12252
Sills, S. J., & Song, C. (2002). Innovations in survey research: An application of web-based surveys, Social Science Computer Review, 20(1), 22-30. https://doi.

org/10.1177/089443930202000103

Splendiani, S., Forlani, F., Picciotti, A., & Presenza, A. (2023). Social Innovation Project and Tourism Lifestyle Entrepreneurship to Revitalize the Marginal Areas. The Case of the via Francigena Cultural Route. Tourism Planning & Development, 20(5), 938-954. https://doi.org/10.1080/21568316.2022.2161616

Székely, V., & Novotný, J. (2022). Public transport-disadvantaged rural areas in relation to daily accessibility of regional centre: Case study from Slovakia. Journal of Rural Studies, 92, 1-16. https://doi.org/10.1016/j.jrurstud.2022.03.015

Tait, R., Kail, A., Shea, J., McLeod, R., Pritchard, N., & Asif, F. (2019). How can we engage more young people in arts and culture. NPC. Retrieved from: https://www.thinknpc.org/wp-content/uploads/2019/08/Arts-Engagement-Report-2019-web.pdf

Teti, V. (2017). Quel che resta: l'Italia dei paesi, tra abbandoni e ritorni. Roma: Donzelli editore.

Teti, V. (2022). La restanza. Torino: Giulio Einaudi Editore.

Travasi, A., & Mutignani, F. (2023). Rural Entrepreneurship and the Craving for Organic Food: Two Interrelated Market Dimensions. Evidence from a Single Case Study. International Journal of Economic Behavior (IJEB), 13(1), 133-148. https://doi.org/10.14276/2285-0430.4272

Vendemmia, B., & Lanza, G. (2022). Redefining marginality on Italian Apennines: An approach to reconsider the notion of basic needs in low density territories. Region: the Journal of ERSA, 9(2), 131-148. https://doi.org/10.18335/region.v9i2.430

Wiggins, S., & Proctor, S. (2001). How special are rural areas? The economic implications of location for rural development. Development policy review, 19(4), 427-436. https://doi.org/10.1111/1467-7679.00142

Woods, M., & McDonagh, J. (2011). Rural Europe and the world: Globalization and rural development. European Countryside, 3(3), 153. https://doi.org/10.2478/v10091-012-0001-z

Wright, A. L., Irving, G., Zafar, A., & Reay, T. (2022). The Role of Space and Place in Organizational and Institutional Change: A Systematic Review of the Literature, Journal of Management Studies, 1-36. https://doi.org/10.1111/joms.12868

Zamagni, S., & Venturi, P. (2017). Da spazi a luoghi, Aiccon Short paper, 13. Retrieved from: https://www.aiccon.it/wp-content/uploads/2017/06/short-paper-13-1.pdf

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HOW DOES THE EDUCATIONAL BACKGROUND OF CULTURAL AND CREATIVE ORGANIZATION FOUNDERS INFLUENCE INTELLECTUAL CAPITAL AND BUSINESS MODELS? EVIDENCE FROM THE ARCHAEOLOGICAL FIELD

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Abstract

Purpose. *This work investigates how the educational background of founders of cultural and creative organizations affects the relationship between intellectual capital and business models.*
Design/methodology/approach. *A narrative literature review revealed a lack of studies in arts and humanities focusing on the relationship between intellectual capital and business models. The empirical investigation involved three case studies of three SMEs operating in the archaeological field, demonstrating that educational background significantly influences these relationships.*
Findings. *The analysis identifies four key factors: creativity, network relationships, cross-disciplinary competencies, and adaptability to new technologies. Firstly, creativity serves as a driving force in the early stages of a start-up. Secondly, strong network relationships can provide access to external knowledge and resources, enhancing key assets. Thirdly, collaboration with partners enables organizations to adapt to evolving conditions, such as technological advancements, impacting both human and structural capital. Lastly, cross-disciplinary competencies allow for a multidisciplinary approach to problem-solving, fostering internal skill development. The findings suggest that educational background equips SMEs founders with the tools to create a compelling value proposition by leveraging cultural and creative organizations intellectual capital.*
Practical and Social implications. *Higher education institutions can encourage entrepreneurship by involving students in knowledge-transfer projects, like academic spin-offs.*
Originality of the study. *The study provides insights into four directions associated with the effects of cultural and creative organizations founders educational background on the relationships between intellectual capital and business model.*

1. Introduction

The cultural and creative industry calls for highly talented individuals who can innovate, inspire, and drive the evolution of artistic expression and cultural heritage. That is because cultural and creative organizations (CCOs) "have their origin in individual creativity, skills, and talent and with a potential for wealth and job creation through the generation and exploitation of intellectual property" (DMCS UK, 2001, p. 3). Thereby, artists, academics, filmmakers, musicians, and writers, to name a few, bring their ingenuity to CCOs.

Such creativity reflects the educational background (EB) of CCO founders, which emerges from their personal history of acquiring knowledge, skills, values, and understanding through training, research, experience, or practice, supporting intellectual, technical, and social development. This educational foundation contributes significantly to the intellectual capital (IC) of CCOs, which is recognized as a crucial asset for organizational development (Comunian & Gilmore, 2015).

IC outlines the knowledge embedded in the human resources, the organizational system, and the relationships an organization has with its stakeholders' network. Such a view of IC profiles three components, i.e., the "human capital, structural capital, and relational capital" (Guthrie et al., 2012, p. 70). In this perspective, the three components of IC can be regarded as the result of effective organizational routines, compounding people's competencies and skills (Amit & Schoemaker, 1993; Schendel, 1994), which, in turn, support the organization in building up structural (e.g., patents, organizational culture, technologies, and dataset) and relational (e.g., user satisfaction, partnerships, and company image) assets.

The reality of big tech giants offers vivid examples of how the EB of founders has influenced the development of specific knowledge assets that ultimately appear to be decisive for organizational success. For instance, the founders of Netflix, Reed Hastings and Marc Randolph thanks to their background in computer science, leveraged Netflix value creation and capture through personalization/recommendation and subscription, respectively. YouTube's former CEO, Susan Wojcicki, holds degrees in history, literature, economics, and business administration. This diverse educational background allowed her to sustain YouTube's business model (BM) through user creativity, community engagement, and commercials for monetization. These instances demonstrate that founders EB is critical for BM design, especially in those industries in which IC is a cornerstone for success.

Literature on SMEs corroborates such evidence (Cosenz & Bivona, 2021a; Le et al., 2024). Scholarly research shows that founders' educational background (EB) shapes the components of IC and BM (Baden-Fuller &

Mangematin, 2013; Edvinsson & Malone, 1997a; Quintero-Quintero et al., 2021; Schiuma, 2017a; Secundo et al., 2018; Teece, 2010a), boosting value creation and capture processes of CCOs (Bini et al., 2016; Bowman & Ambrosini, 2000; Lepak et al., 2007).

Although management and organizational studies concur that founders' personal background influences corporate culture (Schein E., 2010; Schein E. H., 1983), the literature debates whether the people belonging to teams, as opposed to individual entrepreneurs who shape the formation of new business ventures (Klotz et al., 2014).

Such a dyadic approach limits our understanding of how personal traits of founders impact business development. Specifically, among the several aspects profiling CCOs founders background, we explore founders EB to understand how their education paths, professional experiences, and socio-cultural values impact the human, relational and structural capital of an organization (i.e., IC), and the way it creates and delivers value (i.e., BM). The literature investigating the relationships between IC and BM is scant in arts and humanities (Benneworth & Jongbloed, 2009; Gilmore & Comunian, 2016), while it is abundant in life sciences (Steen et al., 2010), physical sciences, and engineering (Landry et al., 2006; O'Shea et al., 2005; Pazos et al., 2012). Such a gap limits our comprehension of the enabling conditions of IC when approaching BM design in CCOs.

Therefore, we ask: how does the EB of CCO founders influence the relationship between IC and BM? To make this question the thrust of this article, we posit that founders' EB influences the relationships between IC and BM, especially for CCOs, whose success is contingent on creativity, talent, and partnerships. This influence manifests in how EB nurtures human, structural, and relational capital – positioning IC as a strategic determinant of value creation processes – and in its role in generating widely applicable resources and capabilities that reinforce CCOs' value propositions and support sustainable business model innovation.

From a methodological point of view, we used a convenience sample of three CCOs operating in the archaeological field. For each organization (level of analysis), we collected primary data through semi-structured interviews addressed to CCOs founders (unit of analysis) and a review of documents, including journal articles, company reports and projects, videos, and websites.

Our study offers empirical evidence showing that founders' EB significantly shapes the formation of IC, holding explanatory power for BM design. We respond to our study findings with theoretical implications, rendering CCO founders EB as a field hosting "creativity", "network relationships", "cross-disciplinarity", and "adaptability to technological innovation" as factors influencing the relationships between IC and BM. Such a novel conceptualization advances our understanding of how founders' personal background influences corporate culture, offering new insights into the conditions under which a specific subset of individual characteristics, which in our case is the EB, impacts IC and BM, nearing the related body of knowledge, from an organizational culture perspective (Schein E. H., 1983).

Practical implications suggest that would-be CCO founders consider "creativity", "network relationships", "cross-disciplinarity", and "adaptability to technological innovation" as enabling conditions of IC, when approaching BM design.

After the introduction, section 2 provides our narrative literature review on the relationship between CCO founders EB, IC, and BM. This sets the stage to appreciate the influence of IC on BM design through the BM canvas, in section 3. While an account of the research design and methods is provided in section 4, section 5 presents the analysis of three case studies of CCOs operating in the archaeological field. Section 6 discusses our study findings. Closing thoughts, implications, research limitations, and further potential development conclude the work in section 7.

2. Investigating the relationships among educational background, intellectual capital and business model in cultural and creative organizations

The effects of business founders background in shaping organizational culture and firm performance have been widely studied in both organizational and management studies. In our view, the findings from this body of knowledge are remarkable for CCOs due to the critical role of IC for effective BM design in this industry.

Among the several aspects profiling CCOs founders' background, we focus on the EB. In this article, we regard CCOs founders EB as the result of a systematic process of acquiring knowledge, skills, values, and understanding – through various methods, such as training, research, or experience in an area of study or specialization – which foster intellectual, social, and personal development of individuals and groups (Cremin, 1976).

Literature shows that people with formal education in business, engineering, or social sciences may shape organizations differently. Organizational studies suggest that business education tends to emphasize structured decision-making and market-driven strategies (Hambrick & Mason, 1984), while technical background often fosters innovation-driven cultures (Ensley & Hmieleski, 2005). Differences in founders' EB also resonate in managerial studies, noting that leadership style and decision-making routines can be agile and risk-taking or rigid and hierarchical, depending on the organizational culture (Baron et al., 1999). Explanations could be found in the variance among founders' socio-cultural values, whereas individual-ism may emphasize autonomy and competition, while collectivism prioritizes teamwork and shared responsibility (Breuer et al., 2018).

As CCO founders EB shape organizational culture, it can be regarded as a source of erudition in organizations (Kyser & Hill, 2016; Schein E., 2010), which helps develop human, structural, and relational capital (Edvinsson & Malone, 1997b). Evidence shows that the success of CCOs is rooted in the EB of founders, given the imprint of educational experiences on entrepreneurial creative identities (Steyaert & Hjorth, 2006). That is because formal education, such as degrees in fine arts, design, or creative writing, provide people with specialized knowledge and skills, which may become a valuable asset for generating and executing creative ideas (Baima et al., 2020).

As Hesmondhalgh and Pratt (2005) remarked, training, whether in the arts, media, or cultural studies, equips individuals with conceptual, methodological, or technical skills necessary for producing high-quality cultural and creative products. Scholars also noted that EB moderates recruitment, training, and retention of employees (Hitt et al., 2001) and that founders' learning attitude influences the formalization of knowledge management practices (Nonaka & Takeuchi, 1995). These findings corroborate the idea that the CCO founders EB provide artistic and technical foundations to design a unique value proposition (Crupi et al., 2021; Paoloni et al., 2020).

Literature shows that participation in prior networks and founders reputation are considered drivers of social capital and strategic alliances (Nahapiet & Ghoshal, 1998), extending the impact of EB on IC well beyond human knowledge and structural assets. Besides providing competencies and skills, education is conducive to networking and collaborations, which are essential for success in every market and even more in the cultural and creative industry. In line with this idea, Bilton (2007) highlighted that educational institutions can get people in contact with valuable partners, create joint ventures, and provide access to resources that are not available in the organization and might not be attained otherwise (Vignieri, 2020). This is expected to enable CCOs to be part of networks with industry professionals, peers, and mentors, fostering the exchange of ideas and innovations, which are fundamental in the creative field. As a result of networking activities, education provides individuals with diverse cross-disciplinary insights into different subjects (Sternberg, 2003). Creative entrepreneurs with knowledge in multiple fields can apply insights from one domain to create novel solutions and products, opening their organizations to new market opportunities and approaches to problem-solving (Chesbrough, 2019).

Findings show that CCO founders' EB is a significant source of IC, providing artistic and technical foundations to help execute creative ideas, guide talented teams, and build collaboration across borders. These insights indicate that the influence of CCO founders EB permeates the BM, defining how such organizations create, deliver, and capture value (Amit

& Zott, 2001; Teece, 2010a). This implies that founders' knowledge and experiences are critical to supporting the development of "a shared understanding of how their business venture will generate value" (Cosenz & Noto, 2018; Zott & Amit, 2010a), which eventually synthesizes into a value proposition (Carlile, 2004; Spee & Jarzabkowski, 2009). For instance, CCO founders with a background in finance prioritize BM scalability, when considering innovation (Chandler & Hanks, 1994; Zott & Amit, 2010b), while socially conscious ones care about integrating environmental and social considerations into their BM (Stubbs & Cocklin, 2008).

In this sense, IC and BM are mutually influenced by founders EB (Elia et al., 2017). This means that personal traits, such as educational attainment, professional experience, and socio-cultural values (Schein E., 2010; Schein E. H., 1983), sustain learning (Argyris & Schön, 1996) and growth in and of organizations (Barnabè et al., 2013; Kaplan R. S. & Norton, 2004).

Literature on IC and BM nuances such implications. First, formal education, training, and experiences support the development of specialized knowledge, effective organizational routines, and boundary-spanning behaviors (i.e., the three components of IC). Second, the consolidated learning outcome of formal education, training, and professional experiences represent the petri dish of feasible BMs (Bowman & Ambrosini, 2000; Elia & Lerro, 2020; Teece, 2010b). Third, as CCO founders creativity, technical skills, and experiences guide BM design with experience, routines, and partnerships, an effective value proposition requires that knowledge, skills, and networks be extended (Cosenz & Bivona, 2021a; Cosenz & Noto, 2018). This indicates that founders EB moderates the relationships between IC and BM.

IC is decisive in harnessing BM to achieve superior performance (Baima et al., 2020). A proper endowment of human, structural, and relational resources may help CCO founders and organizational teams spot gaps and frame innovation challenges impeding the design of an effective value proposition in the cultural and creative industry. IC can help CCO founders devise value propositions that are unique, innovative, and differentiated from competitors, increasing user satisfaction and loyalty. IC can improve business efficiency and reduce costs in production, distribution, and marketing (D'Amato, 2021) or diversify revenue streams through new services that complete customer needs, sustaining economic growth and reducing dependence on a single revenue source (Vidyarthi & Tiwari, 2019).

IC may provide resources to address critical questions bearing on the start-up and development phases of a CCO. What problems and needs do we aim to address? How do we identify, reach, inform, communicate, and maintain relationships with specific customer segments? What partnerships do we need to manage that can complement or enhance our value proposition? Considering our current value proposition cost structure and revenue streams, how do we pursue the economic equilibrium?

Appreciating the effects of CCO founders EB on the relationships between IC and BM entails framing CCOs value creation and capture (Amit & Zott, 2015). This is the object of the next section.

2. Framing value creation and capture of cultural and creative organizations through the business model canvas

In their book, "Business Model Generation", Osterwalder and Pigneur (2010, p. 14) state that "a business model describes the rationale of how an organization creates, delivers, and captures value". However, authors contended different interpretations and functions, particularly when studies and analysis move from a conceptual to an operational level (Cosenz & Noto, 2018; Wirtz et al., 2016).

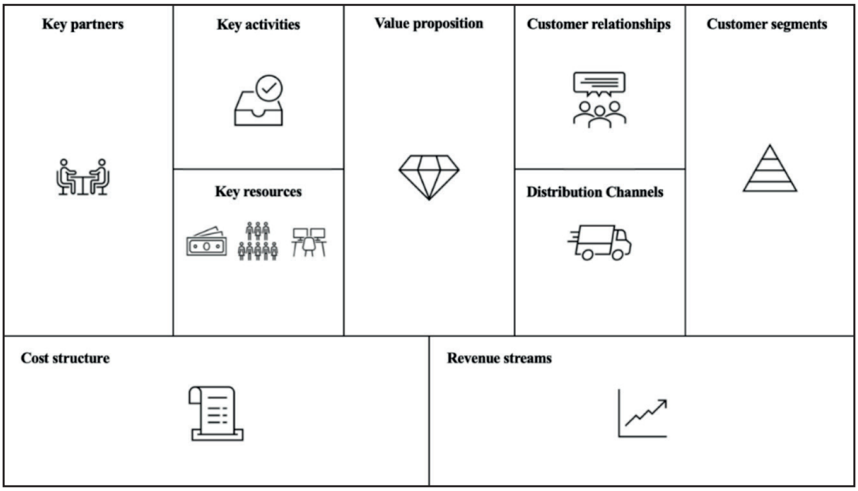
The literature on BM is wide and covers several domains, with studies disseminated in the fields of business strategy (Teece, 2010b; Zott & Amit, 2010a), technologies and innovation management (Kohler & Nickel, 2017; Massa & Tucci, 2014), and social issues, such as the use of environmentally friendly technologies (Girotra & Netessine, 2013; Schaltegger et al., 2012), and fight against deep poverty (Seelos & Mair, 2007). Though the body of knowledge is immense, Massa et al. (2017, p. 537) critically organized major conceptualizations of BM in three interpretations. First, viewing BM as an attribute of a firm means interpreting empirical manifestations of a real organization in terms of similarity/distinction on relevant strategic variables (e.g., resources, capabilities, activities, processes, partnerships, and performance), which can be adopted to identify archetypes (e.g., freemium, multi-sided platform, razor-and-blade) (Casadesus-Masanell & Zhu, 2010; Chesbrough, 2010). The second interpretation defines BM as a cognitive or linguistic schema through which managers can address "Peter Drucker's age-old questions: Who is the customer? And what does the customer value? […] How do we make money in this business? What underlying economic logic explains how we can deliver value to customers at an appropriate cost?" (Magretta, 2002, p. 4). Research on the nature of business models as a cognitive/linguistic schema is primarily focused on the interpretation of these models by members of an organization and their impact on social interactions (Chesbrough, 2002; Martins et al., 2015). Third, interpreting BM as a formal conceptualization means expecting that it could provide a "blueprint of how a company does business. It is the translation of strategic issues, such as strategic positioning and strategic goals, into a conceptual model that explicitly states how the business functions" (Osterwalder et al., 2005, p. 3).

The latter conceptualization of BM refers to a detailed and systematic plan or design that outlines project specifications, layout, and key elements through visual representations (Bowman & Ambrosini, 2000; Teece, 2010b). A commonly used BM representation is the Business Model Canvas (BMC) (Osterwalder & Pigneur, 2010), which incorporates the critical elements needed to characterize a business idea. As BMs "are not just for business" (Kaplan S., 2011), such visual representations are considered to be a dependable method "for describing many organizations" (Cosenz & Noto, 2018, p. 129; Gassmann & Frankenberger, 2014), including CCOs (Schiuma, 2017b).

The BMC configures a practical tool that can help entrepreneurs, such as CCOs founders, to move their entrepreneurial focus from "the product" to "the value" they offer in order to account for value creation (i.e., addressing user needs), distribution (i.e., service distribution channels), and capturing (i.e., revenue streams, pricing strategies, and cost structure). By doing this, the BMC provides CCO founders with the means to design, test, communicate, and picture their creative ideas in structured and systematic ways through nine building blocks – as shown in Figure 1. At the core of the BMC stands the "value proposition", which describes what problems the organization addresses, what benefits it provides, and why users should opt for its bundle of products and services over those of competitors. An organization relies on partnerships with a network of suppliers and other allies to make such a value offering. This is captured by the component "key partners", describing with whom the organization cooperates, what kind of relationships it has, and what benefits it gains from them. Both "key resources" and "key activities" are instrumental to value generation, distribution, and capture. The "key resources" component clusters the most important assets (i.e., physical, intellectual, human, and financial resources) that the business needs to build up to operate properly. This leads to the "key activities" component, clustering critical activities within specific organizational functions, i.e., production, marketing, sales, and post-sales support, among the relevant ones. While the component "customer segments" clusters service users into groups according to some dimensions, such as needs, age, location, or specific behavior (e.g., loyalty), "distribution channels" indicate how the organization delivers and sells its products and services, as well as reaches, informs, and entertains "relationships with customer", individually and as a group.

From an economic perspective, on the one side, "revenue streams" account for the revenues generated from each customer segment, depending on pricing strategies and payment methods used. On the other side, "cost structure" accounts for the incurred costs (e.g., fixed and variable costs) affecting the profitability of the creative undertaking.

Figure 1. The Business Model Canvas



Source: Osterwalder & Pigneur, 2010.

Practitioners and researchers in various fields and industries have widely adopted the BMC, thanks to the advantages granted to such a visual aid. The canvas offers a holistic and systemic view of the main organizational processes through its nine building blocks rather than focusing on isolated aspects or functions. This facilitates communication and collaboration among teams (e.g., production, marketing, and finance) around different options (Gross et al., 2021), enabling creativity, innovation (Hoch & Brad, 2020), and experimentation (Lara Machado et al., 2023; Solaimani & Bouwman, 2012). By doing this, BMC helps align value propositions with customer needs and embody external environment and trends (e.g., technological innovation) in dynamic environments (Kouptsov & Srai, 2023).

As the BMC reveals the connections between the IC and BM, it can be helpful to identify how CCO founders' EB influences IC and BM.

3. Research design, methods, and data

To illustrate how CCO founders EB influence the relationships between IC and BM, we adopted a qualitative research methodology.

Within the SMEs research domain, qualitative research methods have gained substantial traction (Eisenhardt, 1989; Piperopoulos, 2010), offering deep insights into how the personal qualities of entrepreneurs critically influence the long-term survival, growth trajectories, and overall performance of SMEs (Curran & Blackburn, 2001; Storey, 2016).

Qualitative research methods offer powerful tools for exploring the SMEs research domain by enabling researchers to gain a nuanced understanding of how and why specific aspects related to entrepreneurial ventures unfold, what outcomes they produce, and what profiles warrant deeper investigation in future studies (Rossman & Rallis, 2017; Saunders et al., 2007). That is because qualitative data provide rich, detailed accounts that reveal the complexity of SMEs organizational life within the evolving context of (Amaratunga et al., 2002).

Our research methodology is based on two main phases. In the first phase, we developed a narrative literature review to investigate the relations among CCO founder personal traits, IC, and BM, showing that the EB moderates such mutual relationships. To this end, we selected top journal articles and well-known referenced works, based on their relevance to our research question, their publication in quality journals, and their contribution to the theoretical and empirical understanding of the three main concepts employed in this work, i.e., EB, IC, and BM (Baima et al., 2020; Gilmore & Comunian, 2016; Hambrick & Mason, 1984; Hoch & Brad, 2020; Osterwalder & Pigneur, 2010; Petty & Guthrie, 2000; Schein E., 2010; Schein E. H., 1983; Zott & Amit, 2010a).

In the second phase, findings from the literature review informed the design of our case studies, which portray three CCOs operating in the field of archaeology. The case study method provides in-depth understanding of complex phenomena, which are supported by primary data and compelling narratives that can be more engaging and persuasive than statistics alone (Eisenhardt, 1989; Stake, 2005).

For each case study, we employed multiple sources of evidence (Saunders et al., 2007; Yin, 2013), including primary and secondary data. This data comprises semi-structured interviews with CCO founders, scientific articles, company documents, press articles, and media. Table 1 lists the interviewees, semi-structured interview questions, and secondary sources.

From an analytical perspective, we adopted the BMC as a tool for analyzing how a specific subset of individual characteristics, which in our case is the EB of CCO founders, impacts IC and BM. Specifically, we framed EB as the academic qualifications and training of founders that drive knowledge development, resource allocation, and value creation and capture in CCOs. Therefore, the key variables contained by the BMC helped us to map the interplay between EB, IC, and BM, highlighting how founders' personal traits influence CCOs value creation and capture processes.

Table 1. A quantitative report of interviews, an outline of the semi-structured interview format, and a list of secondary sources of evidence

<table>
<tr><th colspan="3">Primary data sources</th></tr>
<tr><th>Case study</th><th>Interviewee</th><th>Questions</th></tr>
<tr><td>Archeòtipo</td><td>Co-founder 1
Co-founder 2</td><td rowspan="3">• If you had to present Archeòtipo to potential investors, what are the main objectives, and the products/services offered?
• Concerning this, what customer needs are met?
• Looking at the competitor, how does your offer differ?
• Who are the main partners and/or stakeholders involved in your business? Among these, which ones would you define as essential for business operations?
• Regarding these activities, could you describe some activities and processes relevant to the business routines?
• In carrying out these activities, what resources are essential to enable your products/services to meet your customers' needs?
• Who are your primary customers (individuals and/or organizations), and what kind of relationships do you have with them? What activities do you develop to find new ones?
• From an economic point of view, could you describe the cost structure?
• What are the revenue streams?
• Could you tell me about the critical aspects and limitations of the business project?</td></tr>
<tr><td>Archeofficina</td><td>Co-founder 1</td></tr>
<tr><td>Digital media curation agency</td><td>Co-founder 1</td></tr>
<tr><th colspan="3">Secondary data sources</th></tr>
<tr><td colspan="3">• Valenti, M., & Salzotti, F. 2017. For a participatory culture: the experience of Archeòtipo srl and the Poggibonsi Archaeodrome. In M. Cerquetti (Ed.), Bridging theories, strategies and practices in valuing cultural heritage: 243–260. Macerata: eum - edizioni università di macerata.
• Company website
• Other company documents (e.g., project for the spin-off)
• Archeopop
• Social media pages
• Videos
• Pictures</td></tr>
</table>

Source: Authors' elaboration.

In the next section, three CCOs operating in the field of archaeology will be analyzed.

5. The analysis of three cultural and creative organizations operating in the field of archaeology through the Business Model Canvas

In particular, the cases portray 1) a former university spin-off; 2) a co-operative of archaeologists; and 3) a digital media curation agency for cultural heritage.

5.1 Archeòtipo from archaeological research to living history to the public

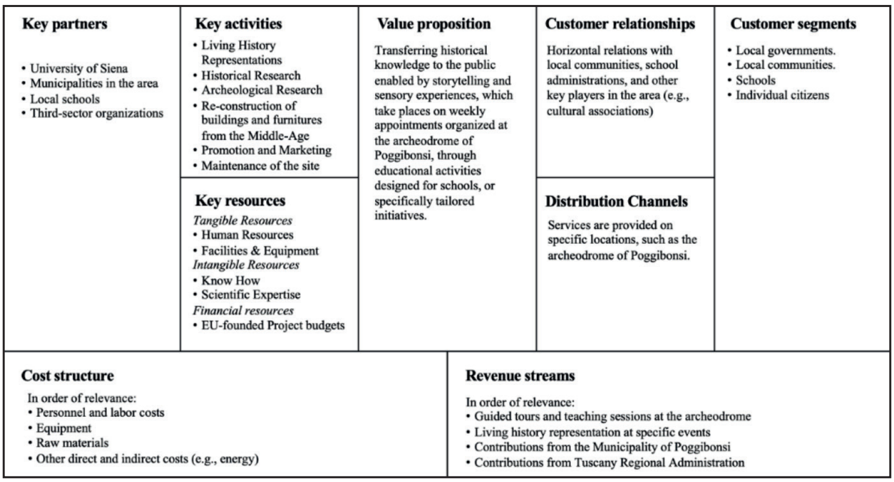
Archeòtipo was founded in 2010 as a spin-off of the University of Siena to deliver living history and experimental archaeology services in Poggibonsi, a small town near Siena in Tuscany (Italy). Archeòtipo employs a team of 9 archaeologists – trained at the School of Medieval Archaeology of the University of Siena – and a group of external professional collaborators to portray the common scene of a common Carolingian Age village (see Figure 2). Based on a strict philological rigor, the archaeodrome is an "evolution of the most traditional way of understanding, managing, and communicating "the great beauty". […] What Archeòtipo means to "sell" is therefore not a monument, a museum, an archaeological site, or a landscape in itself, but much rather the years of common and collective research that we have been doing on the site and on the specific historical period for over two decades. We want to have a distinctive offer, based on proposing our scientific and experimental knowledge to the public" (Valenti & Salzotti, 2017, p. 249).

Figure 2. Poggibonsi Archaeodrome (Siena, Italy), inside the longhouse – Photo credits to Camillo Balossini

Source: Valenti & Salzotti, 2017, p. 260.

Figure 3 shows the relevant aspects of Archeòtipo BM, providing critical insights into how CCO founders EB influence the relationship between IC and BM. The value proposition of Archeòtipo consists of transferring historical knowledge to the public enabled by storytelling and sensory experiences, which take place on weekly appointments organized at the archeodrome of Poggibonsi, designed for schools, or specifically tailored initiatives, such as the reconstruction of the fresco "Allegory of Good Government[1]" (Lorenzetti, F., 1338-1339, Salon of Nine, Siena Council City Hall), occurred during the event "Siena Food Innovation" (Siena 5-6 October 2017). Such initiatives can be undertaken thanks to archaeological and historical research that can adequately support the reconstruction and reproduction of daily life scenes, including the structures/buildings and equipment of the High Middle Ages (see figure 2), in living history events and collective storytelling activities.

Figure 3. The business model of Archeòtipo



Source: Authors' elaboration.

Human capital is instrumental in the development of such activities. In fact, as the "key resource section" in Figure 3 reports, the staff members contribute to enacting historical reconstruction activities with their know-how, know-what, and know-why. In this perspective, the University of Siena is an essential partner as Archeòtipo founders matured 15 years of research experience at the Laboratory of Computer Science Applied to Medieval Archaeology at the Department of Archaeology and History of Arts.

1 The paintings depict the effects of good and bad government on the city and the countryside, as well as the allegorical figures of the virtues and vices of government.

Services are mainly delivered on commission to peculiar types of users, such as the municipalities located in the area and the schools. With them, Archeòtipo maintains horizontal relationships oriented to collaboration with the intent to strengthen partnerships, which may also lead to the development of new activities to enrich the current value proposition.

The bottom part of the BMC accounts for the economic aspect of Archeòtipo BM. The revenues primarily come from the sale of tickets to the archeodrome guided tours and teaching sessions. Though not frequent, historical reconstructions and representations on commission are a second relevant revenue source. In addition to that, Archeòtipo receives contributions from the Municipality of Poggibonsi and the Regional administration. The rigid cost structure primarily concerns personnel costs, associated labor costs, equipment uses, and construction of buildings and furniture, including maintenance.

The BMC portrays Archeòtipo as an example of an innovative CCO with a value proposition that highly relies on the robust research experiences of its founders. Their EB has enabled Archeòtipo to offer a comprehensive "archaeodrome experience" beyond mere feature restoration, making it a "Public Archaeology" endeavor that encourages audience participation through practical engagement. Thanks to the partnerships with the university, from which Archeòtipo has budded, and the specialized knowledge of the founding team, it has crafted a business model that effectively delivers an exceptionally creative value proposition. By conveying scientific data derived from archaeological research, supplemented by historical facts, they provide a more comprehensive and engaging portrayal of daily life during the Medieval Ages. This immersive approach allows individuals seeking to learn about history to have experiential activities that bring them closer to the tangible essence of history.

5.2 Archeofficina: a cooperative undertaking to enhance the archaeological, architectural, and cultural heritage

Founded in 2013 by three young archaeologists, Archeofficina is a cooperative of archaeologists that operates in Sicily, mainly in the province of Palermo (Italy), where it manages and promotes the use of two archaeological sites: the Catacomb of Porta d'Ossuna and the Catacomb of Villagrazia di Carini. These are two ancient underground cemeteries that date back to the 4th century AD and are examples of the early Christian culture and art in the region. For this reason, both archaeological sites are relevant tourist attractions in the area and are under the direction of the Pontifical Commission of Sacred Archaeology.

In addition to managing such sites, the scope of Archeofficina includes archaeological research, study, cataloging, graphic restitution, and restoration of finds from excavations or museum deposits. It also covers archaeological education for schools through illustrative excavations and for universities through workshops and internships. As Figure 4 shows, Archeofficina value proposition consists of promoting and enhancing Sicily's archaeological, architectural, and artistic heritage and disseminating the techniques and methods of archaeological research.

The analysis of the BM of Archeofficina shows how the cooperative is able to offer value to the customer segments it addresses by leveraging IC. In this sense, the management of the catacombs requires the execution of some activities associated with the delivery of the service. The predominant activities are the administration of the two archaeological sites, which include ordinary and extraordinary activities (from project scouting to maintenance of the structures). Other essential activities concern marketing and promotion initiatives of the archaeological sites, which involve direct contact with potential customers (i.e., tourist groups and schools) and the dissemination of the Archeofficina cultural proposal. Project scouting is instrumental to developing the services offered, as external funding allows the CCO to make some critical investments (e.g., renovation of spaces, structures, and equipment). The preventive archaeology activities consist of the archaeological surveillance of the excavations, including works carried out on commission for the benefit of private companies.

Figure 4. The business model of Archeofficina

<table>
<tr>
<td rowspan="2">Key partners
• Pontifical Commission for Sacred Archaeology
• Regional control boby of Cultural and Environmental Heritage
• University of Palermo
• Municipality of Carini</td>
<td>Key activities
• Management of archaeological sites
• Tourism marketing
• Project scouting
• Archaeological research
• Experimental archaeology
• Preventive archaeology
• Education and training</td>
<td rowspan="2">Value proposition
Archeofficina value proposition consists of the promotion and enhancement of the archaeological, architectural, and artistic heritage of the Sicilian territory, as well as on the dissemination of the techniques and methods of archaeological research.</td>
<td>Customer relationships
Horizontal relations with local communities, school administrations, and other key players in the area (e.g., cultural associations)</td>
<td rowspan="2">Customer segments
• Tourists
• Schools
• Other archeologists
• Universities
• Palermo Curia</td>
</tr>
<tr>
<td>Key resources
Tangible Resources
• Human Resources
• Laboratoties of experimental archeology
Intangible Resources
• Managerial skills
• Teaching skills
Financial resources
• Projects fundings</td>
<td>Distribution Channels
Services are delivered ad the archeological sites. Customer segments are addressed by marketing actions through web, email, and telephone.</td>
</tr>
<tr>
<td colspan="2">Cost structure
In order of relevance:
• Personnel and labor costs
• Reimbursement of loans
• Maintenance costs</td>
<td colspan="3">Revenue streams
In order of relevance:
• Catacombs tickets sale rate
• Excavations
• Workshops of experimental archaeology
• Sponsorships</td>
</tr>
</table>

Source: Authors' elaboration.

To realize the activities at the center of the BM, Archeofficina has developed a set of strategic resources, configuring a system of tangible, intangible, and financial assets that are critical to its value proposition. In particular, key resources are human resources and their skills. In fact, the archaeologists of Archeofficina have very varied skills that range from 3D modeling of buildings to research and publishing, from teaching and pedagogy in foreign languages to communication, web-publishing, and social media. These skills allow the cooperative to carry out many of the processes internally, thus increasing the added value. For instance, experimental archaeology workshops are devoted to schoolchildren and include simulations of excavations inside special formworks, the recovery of finds, and the realization of frescoes according to ancient techniques. Over the years, Archeofficina has acquired equipment and tools that today have an essential role in providing services (e.g., the walkways, the lighting system of the catacombs, exhibition panels, and the tools needed in experimental archaeology workshops). In addition, the cooperative has developed functional partnerships for value creation with the Pontifical Commission of Sacred Archaeology, the Regional control body of Environment and Heritage of Palermo (Italy), the University of Palermo (Italy), and the Municipality of Carini (i.e., a small town located near Palermo where one catacomb is located). Thanks to the intense collaborations with these stakeholders, Archeofficina can plan improvements in the quality of the services and further develop its value proposition. The revenue stream comes largely from visits to the catacombs and secondarily from excavation activities. Residuals are the sponsorships and the revenues associated with experimental archaeology workshops. Costs originate from personnel and reimbursement of loans.

The analysis of the business model of Archeofficina highlights that the value proposition of the cooperative is built around a very solid partnership with the Pontifical Commission of Sacred Archaeology. As the founder noted during the interview, while enrolled in a study program in Archaeology at the University of Palermo, they were involved in a research project targeting both catacombs by faculty members (e.g., professors and researchers). Thanks to the project, CCO founders strengthened the partnership with the Pontifical Commission of Sacred Archaeology, developing an after-plan to manage both archaeological sites. In addition, Archeofficina founders leveraged their competencies in archaeological methodology, 3D modeling, marketing, education, and training, even in other languages, to integrate different services along the value chain. In fact, as one of the founders reported during the interview, they managed the excavations of the catacombs and drew a comprehensive project to make such sites usable to visitors (e.g., lights, boardwalk, website, guided tours, and other materials). In this case, the educational background of CCO founders has enabled the development of IC components (i.e., human capital and relational resources), influencing the design of an integrated BM with a specific value proposition that highly relies on network relationships and cross-disciplinary competencies.

5.3 Digital Media Curator Agency in the archaeological field

Founded by an archaeologist with expertise in social media marketing, the agency is committed to promoting cultural heritage. The agency runs ArcheoPop, i.e., an online community focused on archaeology. Also, it designs digital communication strategies for museums and cultural projects, including "MuseumWeek" and F@Mu (i.e., Family Day at the Museum), provides services to the Higher Institute for Conservation and Restoration of the MiBACT (i.e., Italian Minister of Cultural Heritage and Tourism), and collaborates on the Italian edition of the international project #SheMeansBusiness, a conference organized by Facebook Inc.

The agency value proposition consists of collecting cultural content that is worthwhile to disseminate and communicate to the general public through traditional and/or digital media. Figure 5 shows the BM of a digital media curator agency. The activities associated with the value proposition are mainly editorial and are oriented to content editing for magazines or social network pages, including the search for scientific articles worth disseminating to the public. To carry out such activities, a set of resources is needed. Tangible assets include the community of users on different social networks (e.g., Facebook, Twitter, and Instagram users) to which the content is addressed, the technologies (e.g., website, platforms, newsletters) used to this end, and a large portfolio of contacts, which is a source of potential content and clients. Intangible resources cluster the professional skills (e.g., editorial skills) and professional reputation as a synthesis of the quality of the service rendered to customers.

Figure 5. The business model of a Digital Media Curation Agency

<table>
<tr>
<td rowspan="2">Key partners
• Press agencies
• Newspapers
• Magazines
• National museums
• Local museums
• Cultural associations
• Cultural foundations
• Networks of archaeologists</td>
<td>Key activities
• Collection, selection, and publications of contents
• Press release
• Delivery of report on exhibitions and cultural events</td>
<td rowspan="2">Value proposition
Collecting cultural content that is worthwhile to disseminate and communicate to the general public through traditional and/or digital media.</td>
<td>Customer relationships
Relationships are mainly of a formal/institutional nature Horizontal relationships are instead the basis of networking activities during cultural events and exhibitions.</td>
<td rowspan="2">Customer segments
• National museums
• Local museums
• Cultural associations
• Cultural foundations</td>
</tr>
<tr>
<td>Key resources
Tangible Resources
• Users community on social networks
• Technologies
• Contacts portfolio
Intangible Resources
• Professional skills
• Professional reputation</td>
<td>Distribution Channels
Services are digitally and physically delivered. Customer segments are targeted by in-person relationships and managed through web, email, and telephone.</td>
</tr>
<tr>
<td colspan="2">Cost structure
In order of relevance:
• Personnel and collaborators
• Website costs (e.g., hosting and graphic design)
• Editorial services
• Advertisement on social media
• equipment</td>
<td colspan="3">Revenue streams
In order of relevance:
• Consultancy activities</td>
</tr>
</table>

Source: Authors' elaboration.

The main customer segments are public administrations operating in the field of Cultural Heritage, including national and local museums and cultural associations and foundations. With them, relationships are mainly of a formal/institutional nature. Horizontal relationships are instead the basis of networking activities during cultural events and exhibitions, and aim to get in touch with new potential customers and/or collaborations. Key partners are the press agencies, newspapers, magazines, national and local museums, and professional networks of archaeologists. Besides personnel and collaborators, other costs mainly originate from the management of the website (e.g., hosting and graphic design), editorial services, social media advertisement costs, and equipment. Revenues come from the consultancy activities carried out.

As emerged from the interview with the founder, a digital media curator agency can create, deliver, and capture value if provided services ensure 1) high coverage of a potential audience; 2) high-impact publications, in terms of frequency and number of sharing and/or likes on social networks; and 3) high conversion rate of views into visits to the original source/sites. This entails blending the ability to deliver creative outputs, an attitude to sense emerging technological trends, and the ability to adapt to the implications of such innovation with specialized knowledge in the field where it operates. To gain such skills, a solid EB of the founders (i.e., a Master of Science completed with specialized studies in archaeology) with several experiences in digital media curation projects may be conducive. Effects of such influence can be found in the use of engaging, simple, clear, and sometimes even funny language, as well as in the editorial cut, the frequent updates of the content, the timeliness of the publication, the uniqueness of the content, and the wide coverage of the publications. IC and BM are affected by the EB, making the unique approach to communicating archaeology and cultural content a blend of the methodological rigor of a researcher, the marketing touch of a social media manager, and the passion of a blogger.

6. On the influence of educational background on the relationships between intellectual capital and business model

The evidence of the three cases previously commented offers a discussion basis to illustrate how CCO founders EB influence the relationships between IC and BM.

Archeòtipo is dedicated to educating the public about history through a unique approach focusing on immersive sensory experiences. With its wealth of intellectual capital, Archeòtipo offers innovative and appealing services, such as living history, collective storytelling, historical reconstruction and representation, and archaeological and historical research. Consolidated knowledge in medieval archaeology developed in 15 years of research has enabled Archeòtipo to deliver a remarkably creative value proposition while ensuring scientific methodological accuracy in their narrative approach to public archaeology. The strong partnerships with academic institutions and archaeological associations enhanced the project network.

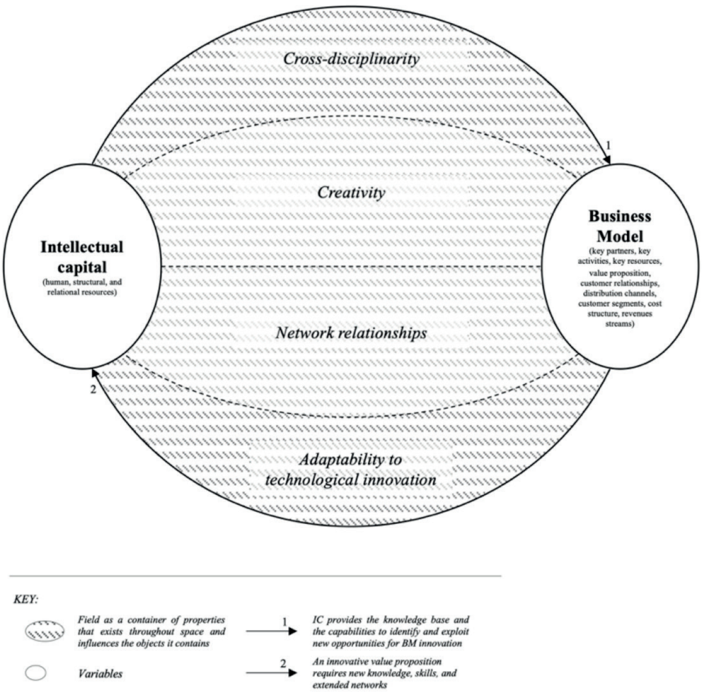
Partnerships were also found important in the case of Archeofficina. A BM focal point is the relationship with the Pontifical Commission of Sacred Archaeology and the Palermo Curia. In this case, as the case analysis has shown, a wide portfolio of specialized competencies (e.g., archaeological methodology, 3D modeling, marketing, education, and training), which cut across different disciplines, have helped CCO founders design a highly integrated BM, with impact on the autonomy of the value proposition and the cost structure as well.

Additional signs of the influence of CCO founders educational background on the relationships between IC and BM were found in the case of a digital media curation agency. In this case, formal education blended with several prior experiences in digital media curation projects nurtured a strong professional capacity, which can be localized in the creativity of the outputs (e.g., media campaign, website editorial cut, and engaging communicative strategy) and adaptability to the implications of new technologies (e.g., active presence with highly effective timely publications on several social media).

Such evidence renders CCO founders EB as a field, moderating the relationships between IC and BM, as shown in Figure 6. We position IC and BM within such a field for three main reasons. First, specialized knowledge, effective organizational routines, and boundary-spanning behaviors (i.e., the three components of IC) result from formal education, training, and experiences. Second, given that BMs provide structured representations of how organizations create, deliver, and capture value, the creativity, technical skills, and experiences of CCO founders become critical to turn their intentions into a feasible BM (Bowman & Ambrosini, 2000; Elia & Lerro, 2020; Teece, 2010b). Third, IC guides BM design with experience, capabilities, and relationships (i.e., arrow 1 in Figure 6); at the same time, BM innovation would require that knowledge, skills, and networks be extended (i.e., arrow 2 in Figure 6) (Cosenz & Bivona, 2021b). The field EB hosts four scalars that influence the relationships between IC and BM, as Figure 6 shown. Such scalars are used to represent the magnitude of a quantity. As Figure 6 shows, they are 1) creativity, 2) network relationships, 3) cross-disciplinarity, and 4) adaptability to technological innovation.

As for the first, our analysis has found that CCO founders' creativity may be an engine for early phases of start-up and development (Corvello et al., 2023) as it makes a value proposition highly competitive in satisfying users' needs (Dimitropoulou et al., 2023; Santoro et al., 2020). Concerning the second scalar, network relationships may have complex and multifaceted influences on IC and BM. They provide directions to CCO founders to turn their earlier connections into a system of key partnerships that are supportive to build structural capital and design a feasible value proposition. If supportive, a network of relationships can help the organization to access and exploit external knowledge, resources, and opportunities, which can improve its key assets (Elia & Lerro, 2020; Schiuma, 2017b). In fact, as discussed in the previous section, key resources like the funding in the case of Archeòtipo and the catacombs in the case of Archeofficina were made available by two partners, the University of Siena and the Pontifical Commission of Sacred Archaeology, respectively.

Figure 6. Educational background as a scalar field influencing the relationships between IC and BM



Source: Authors' elaboration.

Network relationships are also a source of challenges for human and structural capital as cooperation with partners can influence the organization's ability to adapt its BM in response to changing customer needs, market conditions, and technological innovation (Campos et al., 2022; Ferreira et al., 2022). This leads to the third scalar displayed in Figure 6, i.e., adaptability to technological innovation. As the example of a digital media curation agency has shown, social media is a powerful tool for disseminating cultural content, as it allows users to share, comment, and interact with various forms of media, such as text, images, videos, and audio, demanding CCO founders to tailor proposed content to the characteristics of the users, the platforms, and the means. Finally, the fourth scalar is cross-disciplinarity, which reflects CCO founders' ability to cut across different study disciplines and to integrate them to address a common problem (Heitzmann et al., 2021). This element was found in the case of the building of the archeodrome, which required the integration of archaeological and historical competencies with a mastery of Medieval construction techniques. Also, in the other two cases, as previously remarked, leveraging cross-disciplinary human capital impacts the value creation and value capture functions of the BM, positively affecting the cost structure.

7. Conclusion

In this work, we have investigated the influence of CCO founders EB on the relationships between IC and BM. As EB stems from formal education, training, and experiences, the formation of IC and its effects on BM design of CCOs are critically shaped by the founders' prior knowledge, experiences, and partnership. Evidence of such an influence has emerged from the empirical investigation. In fact, through the BMC analysis of three cases in the archaeological field, this paper has illustrated that EB has more far-reaching outcomes than the mere definition of a creative value proposition (Bini et al., 2016; Bowman & Ambrosini, 2000; Edvinsson & Malone, 1997a; Lepak et al., 2007). Creativity, network relationships, cross-disciplinary competencies, and adaptability to new technologies profile four scalars for the field EB, influencing the relationships between IC and BM.

In fact, our study addressed this gap by exploring how the EB of CCO founders influences the relationship between IC and BM. We posited that founders' EB nurtures human, structural, and relational assets, making IC a strategic asset in CCOs' value proposition. This reveals that founders' EB is critical for effective BM design and for building valuable and diffuse resources and capabilities.

By discussing the influence of EB on IC and BM in CCOs, this work has addressed the research question raised in the introduction of this work. This contributes to the literature on the relationships between IC and BM, with insights into four directions associated with the effects of CCO founders EB. Firstly, it has been noted that the creativity of CCO founders can act as a driving force during the early stages of a start-up and development (Corvello et al., 2023). This is because it enables the creation of a highly competitive value proposition that effectively satisfies users' needs (Dimitropoulou et al., 2023; Santoro et al., 2020). Second, establishing strong relationships within a network can greatly influence the development of IC and BM. For those leading a CCO, it is crucial to utilize their existing connections and foster key partnerships that can open doors to external knowledge, resources, and opportunities to enhance key assets (Elia & Lerro, 2020; Schiuma, 2017b). Third, collaborating with partners can have a significant impact on an organization's ability to respond to evolving environmental conditions, such as technological advancements, challenging both human and structural capital (Campos et al., 2022; Ferreira et al., 2022). Fourth, if CCO founders own multiple competencies that cut across different disciplines, they can address common problems through a multidisciplinary perspective, as well as benefit from key methodological and technical competencies developed internally (Heitzmann et al., 2021).

For CCOs, an increasingly remarkable role is played by intangible assets rather than physical resources as enablers of valuable BM. The EB may provide CCO founders with the means to design a creative value proposition by unleashing the potential of IC. Higher education institutions may trigger student willingness to start a business, provided that educational programs involve students and early-stage researchers in knowledge-transferring projects, such as academic spin-offs (Bridgstock & Cunningham, 2016). In this case, we are not referring to academic entrepreneurship, i.e., scientists and professors who start a business or join the board of an existing company. Rather, we mean the capacity of an academic curriculum to trigger creative ideas that motivate students to exploit their EB. By playing such a role, higher education institutions may remarkably improve the influence of EB on the relationships between IC and BM along one or more of the four scalars identified in this work.

Theoretical implications of our study suggest that CCO founders' EB is a field hosting factors such as creativity, network relationships, cross-disciplinarity, and adaptability to technological innovation, which influence the relationships between IC and BM. This novel conceptualization advances our understanding of how founders' personal background influences corporate culture, offering new insights into the conditions under which specific individual characteristics impact IC and BM.

Practical implications recommend that would-be CCO founders consider creativity, network relationships, cross-disciplinarity, and adaptability to technological innovation as enabling conditions of IC when approaching BM design. By doing so, they can enhance their organization's ability to innovate, sustain competitive advantage, and achieve long-term success. In this context, emerging technologies such as artificial intelligence are reshaping the landscape in which CCOs operate, influencing education, IC development, and BMs configurations. This is relevant for SMEs, such as the CCOs, as AI tools increasingly mediate creative processes, decision-making, and knowledge development flows. For this reason, artificial intelligence introduces new opportunities for innovation and new challenges related to skills, ethics, and organizational adaptability.

Limitations of the study affect the scope of the empirical investigation, which has targeted CCOs in the archaeological field. Related to the case study, the reliance on a single field of practice may constrain the applicability of the findings to other organizational contexts where the interplay among EB, IC, and BM may differ to some extent. Additionally, while the study qualitative design offers rich contextual depth, the lack of disconfirmatory interviews limits the robustness of the findings by excluding potentially divergent or contradictory perspectives. Such methodological limitations impact the generalizability of the framework resulting from the conceptual and empirical investigation presented in this work.

Further research may address these limitations by expanding the empirical base to include multiple case studies related to SMEs across diverse industries, and employing mixed-methods approaches. Extending the scope of analysis to other domains – such as sports organizations or third-sector entities – could help strengthen the scalar dimensions that characterize EB, thereby enhancing the explanatory power and transferability of the framework.

References

Amaratunga, D., Baldry, D., Sarshar, M., & Newton, R. (2002). Quantitative and qualitative research in the built environment: application of “mixed” research approach. Work Study, 51(1), 17–31. https://doi.org/10.1108/00438020210415488

Amit, R., & Schoemaker, P. J. H. (1993). Strategic assets and organizational rent. Strategic Management Journal, 14(1), 33–46. https://doi.org/10.1002/smj.4250140105

Amit, R., & Zott, C. (2001). Value creation in E-business. Strategic Management Journal, 22(6–7), 493–520. https://doi.org/10.1002/smj.187

Amit, R., & Zott, C. (2015). Crafting Business Architecture: the Antecedents of Business Model Design. Strategic Entrepreneurship Journal, 9(4), 331–350. https://doi.org/10.1002/sej.1200

Argyris, C., & Schön, D. (1996). Organizational Learning: Theory, Method, and Practice. Addison-Wesley.

Baden-Fuller, C., & Mangematin, V. (2013). Business models: A challenging agenda. Strategic Organization, 11(4), 418–427. https://doi.org/10.1177/1476127013510112

Baima, G., Forliano, C., Santoro, G., & Vrontis, D. (2020). Intellectual capital and business model: a systematic literature review to explore their linkages. Journal of Intellectual Capital, ahead-of-p(ahead-of-print). https://doi.org/10.1108/JIC-02-2020-0055

Barnabè, F., Busco, C., & Hoque, Z. (2013). The causal relationships between performance drivers and outcomes. Http://Dx.Doi.Org/10.1108/18325911211273518. https://doi.org/3150080405

Baron, J. N., Hannan, M. T., & Burton, M. D. (1999). Building the Iron Cage: Determinants of Managerial Intensity in the Early Years of Organizations. Source, 64(4), 527–547.

Benneworth, P., & Jongbloed, B. (2009). Who matters to universities? A stakeholder perspective on humanities, arts and social sciences valorisation. https://doi.org/10.1007/s10734-009-9265-2

Bilton, C. (2007). Management and creativity: from creative industries to creative management. Blackwell Publishing.

Bini, L., Dainelli, F., & Giunta, F. (2016). Business model disclosure in the Strategic Report. Journal of Intellectual Capital, 17(1), 83–102. https://doi.org/10.1108/JIC-09-2015-0076

Bowman, C., & Ambrosini, V. (2000). Value Creation Versus Value Capture: Towards a Coherent Definition of Value in Strategy. British Journal of Management, 11(1), 1–15. https://doi.org/10.1111/1467-8551.00147

Breuer, W., Knetsch, A., & Salzmann, A. J. (2018). What Does It Mean When Managers Talk About Trust? SSRN Electronic Journal. https://doi.org/10.2139/SSRN.3204621

Bridgstock, R., & Cunningham, S. (2016). Creative labour and graduate outcomes: implications for higher education and cultural policy. International Journal of Cultural Policy, 22(1), 10–26. https://doi.org/10.1080/10286632.2015.1101086

Campos, S., Dias, J. G., Teixeira, M. S., & Correia, R. J. (2022). The link between intellectual capital and business performance: a mediation chain approach. Journal of Intellectual Capital, 23(2), 401–419. https://doi.org/10.1108/JIC-12-2019-0302

Carlile, P. R. (2004). Transferring, Translating, and Transforming: An Integrative Framework for Managing Knowledge Across Boundaries. Organization Science, 15(5), 555–568. https://doi.org/10.1287/orsc.1040.0094

Casadesus-Masanell, R., & Zhu, F. (2010). Strategies to Fight Ad-Sponsored Rivals. Management Science, 56(9), 1484–1499.

Chandler, G. N., & Hanks, S. H. (1994). Market attractiveness, resource-based capabilities, venture strategies, and venture performance. Journal of Business Venturing, 9(4), 331–349. https://doi.org/10.1016/0883-9026(94)90011-6

Chesbrough, H. (2002). The role of the business model in capturing value from innovation: evidence from Xerox Corporation's technology spin-off companies. Industrial and Corporate Change, 11(3), 529–555. https://doi.org/10.1093/icc/11.3.529

Chesbrough, H. (2010). Business Model Innovation: Opportunities and Barriers. Long Range Planning, 43(2–3), 354–363. https://doi.org/10.1016/j.lrp.2009.07.010

Chesbrough, H. (2019). Open Innovation in the Twenty-First Century. In Open Innovation Results (pp. 28–50). Oxford University Press. https://doi.org/10.1093/oso/9780198841906.003.0003

Comunian, R., & Gilmore, A. (2015). Beyond the Creative Campus. In Reflections on the evolving relationship between higher education and the creative economy. King's College London.

Corvello, V., Cimino, A., & Felicetti, A. M. (2023). Building start-up acceleration capability: A dynamic capability framework for collaboration with start-ups. Journal of Open Innovation: Technology, Market, and Complexity, 9(3), 100104. https://doi.org/10.1016/j.joitmc.2023.100104

Cosenz, F., & Bivona, E. (2021a). Fostering growth patterns of SMEs through business model innovation. A tailored dynamic business modelling approach. Journal of Business Research, 130, 658–669. https://doi.org/10.1016/j.jbusres.2020.03.003

Cosenz, F., & Bivona, E. (2021b). Fostering growth patterns of SMEs through business model innovation. A tailored dynamic business modelling approach. Journal of Business Research, 130, 658–669. https://doi.org/10.1016/j.jbusres.2020.03.003

Cosenz, F., & Noto, G. (2018). A dynamic business modelling approach to design and experiment new business venture strategies. Long Range Planning, 51(1), 127–140. https://doi.org/10.1016/j.lrp.2017.07.001

Cremin, L. A. (1976). Public Education. Basic Books.

Crupi, A., Cesaroni, F., & Di Minin, A. (2021). Understanding the impact of intellectual capital on entrepreneurship: a literature review. Journal of Intellectual Capital, 22(3), 528–559. https://doi.org/10.1108/JIC-02-2020-0054

Curran, J., & Blackburn, R. (2001). Researching the Small Enterprise. SAGE Publications, Ltd. https://doi.org/10.4135/9781849209847

D'Amato, A. (2021). Does intellectual capital impact firms' capital structure? Exploring the role of firm risk and profitability. Managerial Finance, 47(9), 1337–1356. https://doi.org/10.1108/MF-02-2020-0089

Dimitropoulou, A., Giotopoulos, I., Protogerou, A., & Tsakanikas, A. (2023). Does the innovativeness of creative firms help their business clients to innovate? The Journal of Technology Transfer, 48(1), 1–32. https://doi.org/10.1007/s10961-021-09901-1

DMCS UK. (2001). Creative Industries Mapping 2001.

Edvinsson, L., & Malone, M. S. (1997a). Intellectual Capital: Realizing Your Company's True Value by Finding Its Hidden Brainpower. HarperCollins.

Edvinsson, L., & Malone, M. S. (1997b). Intellectual Capital: Realizing Your Company's True Value by Finding Its Hidden Brainpower. HarperCollins.

Eisenhardt, K. M. (1989). Building Theories from Case Study Research. The Academy of Management Review, 14(4), 532–550. https://doi.org/10.2307/258557

Elia, G., & Lerro, A. (2020). Linking Business Model Mapping and Innovation with Intellectual Capital in Technological Start-Ups BT - Innovative Entrepreneurship in Action: From High-Tech to Digital Entrepreneurship (G. Passiante, Ed.; pp. 37–53). Springer International Publishing. https://doi.org/10.1007/978-3-030-42538-8_4

Elia, G., Lerro, A., Passiante, G., & Schiuma, G. (2017). An Intellectual Capital perspective for Business Model Innovation in technology-intensive industries: empirical evidences from Italian spin-offs. Knowledge Management Research & Practice, 15(2), 155–168. https://doi.org/10.1057/s41275-017-0052-z

Ensley, M. D., & Hmieleski, K. M. (2005). A comparative study of new venture top management team composition, dynamics and performance between university-based and independent start-ups. Research Policy, 34(7), 1091–1105. https://doi.org/10.1016/J.

RESPOL.2005.05.008

Ferreira, A., Franco, M., & Haase, H. (2022). Strategic alliances and development of intellectual capital: a study of technology-based SMEs. International Journal of Organizational Analysis, 30(6), 1644–1671. https://doi.org/10.1108/IJOA-10-2020-2440

Gassmann, O., & Frankenberger, K. (2014). The Business Model Navigator: 55 Models That Will Revolutionise Your Business. Pearson Education.

Gilmore, A., & Comunian, R. (2016). Beyond the campus: higher education, cultural policy and the creative economy. International Journal of Cultural Policy, 22(1), 1–9. https://doi.org/10.1080/10286632.2015.1101089

Girotra, K., & Netessine, S. (2013). OM Forum —Business Model Innovation for Sustainability. Manufacturing & Service Operations Management, 15(4), 537–544. https://doi.org/10.1287/msom.2013.0451

Gross, S., Stelzl, K., Grisold, T., Mendling, J., Röglinger, M., & vom Brocke, J. (2021). The Business Process Design Space for exploring process redesign alternatives. Business Process Management Journal, 27(8), 25–56. https://doi.org/10.1108/BPMJ-03-2020-0116

Guthrie, J., Ricceri, F., & Dumay, J. (2012). Reflections and projections: A decade of Intellectual Capital Accounting Research. The British Accounting Review, 44(2), 68–82. https://doi.org/10.1016/j.bar.2012.03.004

Hambrick, D. C., & Mason, P. A. (1984). Upper Echelons: The Organization as a Reflection of Its Top Managers. Source: The Academy of Management Review, 9(2), 193–206. https://www.jstor.org/stable/258434

Heitzmann, N., Opitz, A., Stadler, M., Sommerhoff, D., Fink, M. C., Obersteiner, A., Schmidmaier, R., Neuhaus, B. J., Ufer, S., Seidel, T., Fischer, M. R., & Fischer, F. (2021). Cross-Disciplinary Research on Learning and Instruction – Coming to Terms. Frontiers in Psychology, 11. https://doi.org/10.3389/fpsyg.2021.562658

Hesmondhalgh, D., & Pratt, A. C. (2005). Cultural industries and cultural policy. International Journal of Cultural Policy, 11(1), 1–13. https://doi.org/10.1080/10286630500067598

Hitt, M. A., Bierman, L., Shimizu, K., & Kochhar, R. (2001). Direct and Moderating Effects of Human Capital on Strategy and Performance in Professional Service Firms: A Resource-Based Perspective. Source: The Academy of Management Journal, 44(1), 13–28. https://www.jstor.org/stable/3069334

Hoch, N. B., & Brad, S. (2020). Managing business model innovation: an innovative approach towards designing a digital ecosystem and multi-sided platform. Business Process Management Journal, 27(2), 415–438. https://doi.org/10.1108/BPMJ-01-2020-0017

Kaplan, R. S., & Norton, D. P. (2004). Balanced Scorecard: Insight, experience & ideas for strategy focused organizations. Harvard Business Review, 4(1).

Kaplan, S. (2011). Business models aren't just for business. Harvard Business Review, 19.

Klotz, A. C., Hmieleski, K. M., Bradley, B. H., & Busenitz, L. W. (2014). New Venture Teams: A Review of the Literature and Roadmap for Future Research. Journal of Management, 40(1), 226–255. https://doi.org/10.1177/0149206313493325

Kohler, T., & Nickel, M. (2017). Crowdsourcing business models that last. Journal of Business Strategy, 38(2), 25–32.

Kouptsov, A., & Srai, J. S. (2023). Value proposition-driven reconfiguration of business models in dynamic industries: a design-science approach. Business Process Management Journal, 29(6), 1838–1866. https://doi.org/10.1108/BPMJ-03-2023-0178

Kyser, D. C., & Hill, T. (2016). Through the Looking Glass: Company Culture As a Reflection of Founder Personality in Entrepreneurial Organizations. SSRN Electronic Journal. https://doi.org/10.2139/SSRN.2869658

Landry, R., Amara, N., & Rherrad, I. (2006). Why are some university researchers more likely to create spin-offs than others? Evidence from Canadian universities. Research Policy, 35(10), 1599–1615. https://doi.org/10.1016/j.respol.2006.09.020

Lara Machado, P., van de Ven, M., Aysolmaz, B., Athanasopoulou, A., Ozkan, B., & Turetken, O. (2023). Methods that bridge business models and business processes: a synthesis of the literature. Business Process Management Journal, 29(8), 48–74. https://doi.org/10.1108/BPMJ-08-2022-0396

Le, T. T., Quan Chau, T. Le, Vo Nhu, Q. P., & Ferreira, J. J. M. (2024). Digital platforms and SMEs' performance: the moderating effect of intellectual capital and environmental dynamism. Management Decision. https://doi.org/10.1108/MD-04-2023-0616

Lepak, D. P., Smith, K. G., & Taylor, M. S. (2007). Value creation and value capture: A multilevel perspective. Academy of Management Review, 32(1), 180–194. https://doi.org/10.5465/AMR.2007.23464011

Magretta, J. (2002). Why business models matter. Harv Bus Rev, 80(5), 86-92,133.

Martins, L. L., Rindova, V. P., & Greenbaum, B. E. (2015). Unlocking the Hidden Value of Concepts: A Cognitive Approach to Business Model Innovation. Strategic Entrepreneurship Journal, 9(1), 99–117. https://doi.org/10.1002/sej.1191

Massa, L., & Tucci, C. L. (2014). Business Model Innovation. In M. Dodgson, D. M. Gann, & N. Phillips (Eds.), The Oxford Handbook of Innovation Management. Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199694945.013.002

Massa, L., Tucci, C. L., & Afuah, A. (2017). A Critical Assessment of Business Model Research. Academy of Management Annals, 11(1), 73–104. https://doi.org/10.5465/annals.2014.0072

Nahapiet, J., & Ghoshal, S. (1998). Social Capital, Intellectual Capital, and the Organizational Advantage. Source: The Academy of Management Review, 23(2), 242–266.

Nonaka, I., & Takeuchi, H. (1995). The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation. https://doi.org/10.1093/OSO/9780195092691.001.0001

O'Shea, R. P., Allen, T. J., Chevalier, A., & Roche, F. (2005). Entrepreneurial orientation, technology transfer and spinoff performance of U.S. universities. Research Policy, 34(7), 994–1009. https://doi.org/10.1016/j.respol.2005.05.011

Osterwalder, A., & Pigneur, Y. (2010). Business model generation a handbook for visionaries, game changers, and challengers. Wiley.

Osterwalder, A., Pigneur, Y., & Tucci, C. L. (2005). Clarifying business models: Origins, present, and future of the concept. Communications of the Association for Information Systems, 16(1), 1–25.

Paoloni, M., Coluccia, D., Fontana, S., & Solimene, S. (2020). Knowledge management, intellectual capital and entrepreneurship: a structured literature review. Journal of Knowledge Management, 24(8), 1797–1818. https://doi.org/10.1108/JKM-01-2020-0052

Pazos, D. R., López, S. F., González, L. O., & Sandiás, A. R. (2012). A resource-based view of university spin-off activity: New evidence from the Spanish case. Revista Europea de Direccion y Economia de La Empresa, 21(3), 255–265. https://doi.org/10.1016/j.redee.2012.05.006

Petty, R., & Guthrie, J. (2000). Intellectual capital literature review. Journal of Intellectual Capital, 1(2), 155–176. https://doi.org/10.1108/14691930010348731

Piperopoulos, P. (2010). Qualitative research in SMEs and entrepreneurship: a literature review of case study research. International Journal of Economics and Business Research, 2(6), 494. https://doi.org/10.1504/IJEBR.2010.035701

Quintero-Quintero, W., Blanco-Ariza, A. B., & Garzón-Castrillón, M. A. (2021). Intellectual Capital: A Review and Bibliometric Analysis. Publications, 9(4), 46. https://doi.org/10.3390/publications9040046

Rossman, G. B., & Rallis, S. F. (2017). An Introduction to Qualitative Research: Learning in the Field. SAGE Publications, Inc. https://doi.org/10.4135/9781071802694

Santoro, G., Bresciani, S., & Papa, A. (2020). Collaborative modes with Cultural and Creative Industries and innovation performance: The moderating role of heterogeneous sources of knowledge and absorptive capacity. Technovation, 92–93, 102040. https://doi.org/10.1016/j.technovation.2018.06.003

Saunders, M., Lewis, P., & Thornhill, A. (2007). Research methods for business students.

Financial Times/Prentice Hall.
Schaltegger, S., Freund, F. L., & Hansen, E. G. (2012). Business cases for sustainability: the role of business model innovation for corporate sustainability. International Journal of Innovation and Sustainable Development, 6(2), 95. https://doi.org/10.1504/IJISD.2012.046944
Schein, E. (2010). Organizational Culture and Leadership.
Schein, E. H. (1983). The role o f the founder in creating organizational culture. Organizational Dynamics, 12(1), 13–28. https://doi.org/10.1016/0090-2616(83)90023-2
Schendel, D. (1994). Toward an organizational-based theory of competitive advantage. Strategic Management Journal, 15(1 994), 1–4.
Schiuma, G. (2017a). The business model prism: managing and innovating business models of arts and cultural organisations. Journal of Open Innovation: Technology, Market, and Complexity, 3(3), 1–13. https://doi.org/10.1186/s40852-017-0066-z
Schiuma, G. (2017b). The business model prism: managing and innovating business models of arts and cultural organisations. Journal of Open Innovation: Technology, Market, and Complexity, 3(3), 1–13. https://doi.org/10.1186/s40852-017-0066-z
Secundo, G., Lombardi, R., & Dumay, J. (2018). Intellectual capital in education. Journal of Intellectual Capital, 19(1), 2–9. https://doi.org/10.1108/JIC-10-2017-0140
Seelos, C., & Mair, J. (2007). Profitable Business Models and Market Creation in the Context of Deep Poverty: A Strategic View. Academy of Management Perspectives, 21(4), 49–63. https://doi.org/10.5465/amp.2007.27895339
Solaimani, S., & Bouwman, H. (2012). A framework for the alignment of business model and business processes. Business Process Management Journal, 18(4), 655–679. https://doi.org/10.1108/14637151211253783
Spee, A. P., & Jarzabkowski, P. (2009). Strategy tools as boundary objects. Strategic Organization, 7(2), 223–232. https://doi.org/10.1177/1476127009102674
Stake, R. E. (2005). Multiple Case Study Analysis. Guilford Publications. https://books.google.it/books?id=Iht_QgAACAAJ
Steen, M. Van der, Ortt, R., & Scholten, V. (2010). Exploring determinants of life sciences spin-off creation: empirical evidence from the Netherlands. International Journal of Entrepreneurship and Small Business, 10(1), 30. https://doi.org/10.1504/IJESB.2010.033047
Sternberg, R. J. (2003). Wisdom, Intelligence, and Creativity Synthesized. Cambridge University Press. https://doi.org/10.1017/CBO9780511509612
Steyaert, C., & Hjorth, D. (2006). Entrepreneurship as social change: A third movements in entrepreneurship book.
Storey, D. J. (2016). Understanding The Small Business Sector. Routledge. https://doi.org/10.4324/9781315544335
Stubbs, W., & Cocklin, C. (2008). Conceptualizing a "Sustainability Business Model." Organization & Environment, 21(2), 103–127. https://doi.org/10.1177/1086026608318042
Teece, D. J. (2010a). Business Models, Business Strategy and Innovation. Long Range Planning, 43(2–3), 172–194. https://doi.org/10.1016/j.lrp.2009.07.003
Teece, D. J. (2010b). Business Models, Business Strategy and Innovation. Long Range Planning, 43(2–3), 172–194. https://doi.org/10.1016/j.lrp.2009.07.003
Valenti, M., & Salzotti, F. (2017). For a participatory culture: the experience of Archeòtipo srl and the Poggibonsi Archaeodrome. In M. Cerquetti (Ed.), Bridging theories, strategies and practices in valuing cultural heritage (pp. 243–260). eum - edizioni università di macerata.
Vidyarthi, H., & Tiwari, R. (2019). Cost, revenue, and profit efficiency characteristics, and intellectual capital in Indian Banks. Journal of Intellectual Capital, 21(1), 1–22. https://doi.org/10.1108/JIC-05-2019-0107
Vignieri, V. (2020). Leveraging Collaborative Governance: How Co-production Contributes to Outcomes and Public Value in a Small Town. In C. Bianchi, L. F. Luna-Reyes, & E. Rich (Eds.), Enabling Collaborative Governance through Systems Modeling Methods

(pp. 47–71). Springer. https://doi.org/10.1007/978-3-030-42970-6_3

Wirtz, B. W., Pistoia, A., Ullrich, S., & Göttel, V. (2016). Business Models: Origin, Development and Future Research Perspectives. Long Range Planning, 49(1), 36–54. https://doi.org/10.1016/j.lrp.2015.04.001

Yin, R. K. (2013). Case Study Research: Design and Methods. SAGE Publications.

Zott, C., & Amit, R. (2010a). Business Model Design: An Activity System Perspective. Long Range Planning, 43(2), 216–226. https://doi.org/https://doi.org/10.1016/j.lrp.2009.07.004

Zott, C., & Amit, R. (2010b). Business Model Design: An Activity System Perspective. Long Range Planning, 43(2), 216–226. https://doi.org/https://doi.org/10.1016/j.lrp.2009.07.004

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HOW JOB CRAFTING INFLUENCES WORK MEANINGFULNESS IN COWORKING SPACES

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Abstract

Purpose. *Coworking spaces are emerging as a new organizational archetype involving freelancers, independent professionals, entrepreneurs, and corporate employees. Specialized providers design these innovative environments to encourage continuous collaboration and knowledge sharing among peers. However, to maximize their systematic encounters with like-minded individuals and achieve valuable outcomes, users are required to self-regulate their behavior daily. This investigation examines the role that proactive behaviors and the sense of job control have in increasing the meaning coworking users associate with their jobs as a key value indicator.*
Design/methodology/approach. *The present research is based on a quantitative study that involved 167 coworking users in 42 different coworking spaces in Italy.*
Findings. *The results show that approach job crafting behaviors positively influence work meaningfulness and that said relationship is strengthened by the job control individuals have.*
Practical and social implications. *Our research offers important managerial implications, giving coworking providers the tools to make their space more engaging by promoting proactive behaviors and improving the knowledge of users about how to make the best of their working experience.*
Originality of the study. *Such findings broaden the literature on coworking spaces, currently underexplored, and underline the importance of investigating, at the same time, individual factors and contextual elements to better understand the nature of work and its outcomes in these spaces.*

1. Introduction

Over the past few years, there have been significant changes in work organization. Consequently, the needs of workers in terms of autonomy, flexibility, and connections have varied, too (Bouncken et al., 2020). At the same time, the knowledge economy started to become more and more important, with professional figures such as freelancers and independent workers at the center of the spotlight (Bouncken and Reuschl, 2018), trying to find ways to face the challenges their daily routine poses (e.g., isolation, the need to separate life spaces from workspaces, the lack of encounters with different kinds of professional figures).

For these reasons, collaborative workplaces (Avdikos and Pettas, 2021) became relevant, in particular, coworking spaces that manage to combine autonomy and cooperation in a unique way, attracting freelancers and independent workers all around the world.

Shared workspaces started gaining popularity in 2005 in San Francisco and London and gradually extended worldwide, with a significant increase in the last few years. According to pre-COVID-19 pandemic figures, up until 2022, shared workspaces counted around five million users (Avdikos and Pettas, 2021) working across 50.000 spaces, most of which are classified as coworking spaces. Their success may be due to the key concepts that characterize these spaces (Bouncken and Reuschl, 2018; Bouncken et al., 2021; Bueno et al., 2018): openness, inherent relationality, and challenging nature. The first element underlines that this kind of space welcomes all sorts of users, the second highlights the possibility of interacting with other professional figures, and the third emphasizes workers' need to manage their professional activity in an autonomous, independent way.

The users of coworking spaces have access to a wide range of possibilities, such as getting to know other like-minded individuals, exchanging information, improving idea generation and implementation, and creating new business opportunities. Moreover, coworking spaces offer an unconventional system of organization, with their geographically diffused, time-variating, and differently configured modalities (Bouncken and Aslam, 2019). Based on a periodic fee, users are provided with office facilities (e.g., desks, printers, internet connection), spaces for recreational activities (e.g., kitchens, game rooms, gyms), and social experiences (e.g., training classes, parties, dinners). In some cases, users can access such spaces 24/7 and have the opportunity to adapt their working hours to their lifestyles. The providers of coworking spaces design the environment by clarifying rules and restrictions and, at the same time, encourage users to join ad hoc events to contribute to making a rich and pleasant coworking experience (Bouncken et al., 2020). The presence of a coordinating figure allows this kind of working environment to be organized and loose, formal and informal at the same time.

Although many scholars focused their attention on coworking spaces (e.g., Avdikos and Pettas, 2021; Bouncken et al., 2021; Bueno et al., 2018; Spreitzer et al., 2015), few studies have emphasized the importance of the behaviors of workers in this setting. This is an important gap to fill since, on the one hand, coworking spaces may offer many opportunities for users to be proactive because of a context permeated by autonomy and versatility, and, on the other hand, workers must have the right attitude and perform the right behaviors to make the most of their working life, to avoid a "working alone, together" experience (Spinuzzi, 2012) and exploit every opportunity offered by such an unconventional working environment. In these contexts, job crafting emerges as a crucial element specifically because of the nature of coworking spaces that offer more opportunities for proactivity that, we expect, may promote the sense of meaningfulness workers associate with their jobs.

At the same time, it is important to notice that the coworking experience "is not for everybody" (Howell, 2022). To take advantage of these unusual working environments, users need to better understand the behaviors they can perform to improve the quality of their professional lives. Specifically, a proactive attitude represented by job crafting behaviors may help users of coworking spaces to better fit in this setting by taking advantage of the flexible context these spaces offer and, at the same time, interacting with the vital and dynamic community usually found in these environments.

A fundamental characteristic of coworking spaces seems to be the amount of autonomy users have to manage their professional lives, considering that workers who choose this work setting generally have more control over their decisions regarding their jobs than other, more traditional working environments. Job control may be a valuable element to consider in the analysis connected to the proactive behaviors of workers because it is strictly linked to the choices workers make regarding the allocation of resources (Bond and Flaxman, 2006) and the modification of demands (Du et al., 2019).

Based on these premises, the study's goal is to achieve an improved comprehension of the relationship between the proactive behaviors of workers in coworking spaces and work meaningfulness by helping answer the following questions: can job crafting behaviors influence the meaning workers attribute to their jobs in coworking spaces? Does job control modify the relationship between job crafting and work meaningfulness? To answer the previously mentioned questions and contribute to filling a gap in the literature regarding the behaviors of the users of coworking spaces and job crafting, in this study, we have explored how proactive behaviors may play a fundamental role in the construction of the perception of a more meaningful job for coworking users and, at the same time, the importance of job control in this process.

Overall, we believe that our study contributes to the existing literature on coworking spaces by shedding light on how coworking users may take maximum advantage of their working experience by behaving proactively and, consequently, according to our hypotheses, increasing the meaning they associate with their jobs. Moreover, this research sheds light on the dynamics of the relationship between the four separate dimensions of job crafting behaviors and work meaningfulness and assesses whether job control has a role in modifying said relationship.

2. Literature review and research hypotheses development

2.1 The relationship between job crafting and work meaningfulness

The initial conceptualization of job crafting was presented by Wrzesniewski and Dutton in 2001. The authors defined it as a modification of the task and relational boundaries of work outside the formal job requirements with a consequent change in employees' work identities and meaning (Wrzesniewski and Dutton, 2001). Tims and Bakker (2010) integrated this definition by theorizing the Job Demands-Resources (JD-R) model that envisions job crafting as a set of proactive behaviors aimed at increasing the available job resources and modifying job demands to improve the person-job fit without considering formal job descriptions. The scholars defined four types of job crafting behaviors aimed at increasing structural resources, increasing social resources, increasing challenging job demands, and decreasing hindering job demands.

Job resources are physical, psychological, social, or organizational job elements that enable workers to achieve their objectives, carry out their tasks by dealing with job demands, and promote personal growth and development (Demerouti et al., 2001). Tims et al. (2012) differentiate structural and social resources. Structural resources refer to elements such as autonomy, responsibility, control, and knowledge of the job, while social resources refer to elements such as support, guidance, feedback, and advice from peers and leaders. When workers perceive that the available resources are not enough, they show increased levels of stress and disengagement and decreased levels of motivation (Bakker and Demerouti, 2007). On the contrary, when workers perceive that more resources are available, they show decreased levels of depersonalization and emotional exhaustion, increased levels of satisfaction and engagement, and increased ability to develop further resources (Bakker and Demerouti, 2008). Said resources are important job elements that can be expanded by performing job crafting behaviors aimed at increasing structural and social resources.

Job demands are work features that can be differentiated between “challenging” and “hindering”. Challenging job demands are perceived by workers as complex but provide increased mastery experiences, satisfaction, self-efficacy, work engagement, and personal development. An example is participating in new projects with opportunities to learn and grow professionally. Hindering job demands are perceived as an obstacle between workers and the achievement of their goals and may increase the levels of stress and anxiety (Bakker and Demerouti, 2007). An example is a task that is perceived as mentally or emotionally too intense.

The concept of “work meaningfulness” can be defined as the perception of the significance workers attribute to their job, experiencing it as meaningful, valuable, and worthwhile (Hackman and Oldham, 1976). Meaningful work is associated with a series of benefits both for workers and organizations. For example, individuals who experience their job as meaningful report better psychological adjustment, intrinsic motivation, greater well-being, and greater job satisfaction (Steger et al., 2012). In the first contribution regarding job crafting, Wrzesniewski and Dutton (2001) highlighted a connection between proactive behaviors and the meaning associated with one’s job by stating that the “altered task and relational configurations change the design and social environment of the job, which, in turn, alters work meanings […]” (Wrzesniewski and Dutton, 2001, p. 179). By changing a job’s cognitive task boundaries (one of the job crafting behaviors theorized by the authors), job crafters also modify the meaning they associate with the work they perform. An example provided by the scholars is an internet service provider that does not simply “make sales” but connects people to the contemporary world, giving them a powerful tool to constantly keep up with the current times (Wrzesniewski and Dutton, 2001). The employee in the example is attributing a different meaning to their job, reinterpreting it using the lens of their personal values so that they can increase their job satisfaction, well-being, and intrinsic motivation.

In line with the previously mentioned theories and models, in this study, we hypothesize that job crafting behaviors have a positive effect on work meaningfulness. More specifically, we assume that increasing the available structural resources may increase the meaning associated with one’s job because having more autonomy, responsibility, control, and knowledge of the job may make workers feel more confident about their ability to achieve their goals and perform their daily tasks in a more meaningful way. When workers proactively acquire and use the available resources consistent with their goals and aspirations, some positive consequences, such as increased levels of well-being and happiness, can be achieved (Berdicchia et al., 2022). It seems plausible to assume that when workers perform behaviors aimed at increasing structural resources, work meaningfulness also increases. The possibility workers, and especially coworking users, have to decide and act in a discretional way leaves room for the customization, even if partial, of job elements according to individual preferences, values, motivation, and personal expectations (Tims and Bakker, 2010). In this stimulating context, coworking users may be willing to acquire and keep structural resources that are useful to maximize their working experience to avoid the feeling of detachment from their job due to the physical distance from their organization, colleagues, and supervisors.

Recent literature highlights that the key elements of coworking spaces may be social interactions, social support, and knowledge sharing (Gardentitsch et al., 2016). Previous studies show that one of the most common reasons why workers decide to join coworking spaces is the opportunities derived from interactions with people, random discoveries, and knowledge sharing (Spreitzer et al., 2015; Hysa et al., 2024). Coworking users may autonomously decide to receive and provide feedback (Bouncken and Reuschl, 2018), and this means that they may craft their jobs by increasing the social resources available. This proactive behavior seems to be fundamental for coworking users since connecting with peers through support, guidance, feedback, and advice may bring more work meaningfulness to their jobs. Coworking spaces are seen as highly collaborative communities of freelancers, entrepreneurs, and professionals with a typical visionary and innovative lifestyle (Ciasullo et al., 2019). Workers are involved in an environment that prioritizes social exchanges through constant cooperation with other users with different professional and personal backgrounds (Bueno et al., 2018). In this context, workers increase social resources and, consequently, associate more meaning with their job since one of the reasons that brought them to coworking spaces may be the enhanced possibilities of professional support, advice, and feedback from workers with completely different backgrounds (Spreitzer et al., 2015).

As regards the first two job crafting behaviors mentioned above, the Conservation of Resources (COR) theory (Hobfoll, 1989) seems in line with our hypotheses since individuals tend to protect the resources they already have and, at the same time, try to constantly increase them. This consequently creates what Hobfoll (1989) calls a “gain spiral” that allows workers to keep maintaining and increasing their resources. It is then plausible to assume that workers who increase their structural and social resources will keep increasing them and, consequently, increase also the meaning associated with their job.

Increasing challenging demands may help workers focus on what is particularly meaningful to them by engaging in activities they believe are difficult but rewarding. Coworking users who are engaged in a different work environment compared to their peers working in more traditional ones may feel the urge to increase the challenging demands associated with their job to make it more interesting, consequently increasing the levels of work meaningfulness. When workers experience a more open innovation climate, flexible workplaces, and social interaction, all characteristics found in coworking spaces (Hysa et al., 2024), they may choose to engage in more meaningful activities according to their interests. Selecting these kinds of challenging activities consequently increases the levels of work meaningfulness because it is reasonable to assume that coworking users (as workers in general), when given more flexibility and autonomy to choose the demands associated with their job, would choose activities that they believe are meaningful to them.

Consistent with this, when dealing with hindering demands, workers may avoid those tasks that are perceived as an obstacle between them and the achievement of their goal and do not provide meaning to their work. It would be unreasonable to assume otherwise, since when individuals can choose between shaping a job more suitably according to their preference, nobody would choose to modify it by adding obstacles between them and the achievement of their goal and avoiding more stimulating activities.

In the context of coworking spaces, this may be particularly relevant. Coworking users who experience a different work environment compared to their peers working in more traditional contexts may feel a stronger need to act proactively because of the autonomous nature of the environment they work in every day. More importantly, to them, it is even more fundamental to perceive work meaningfulness since being on their own may make them feel detached from their actual goal and distant from customers, peers, and supervisors. Consequently, we argue that job crafting behaviors may have a positive effect on work meaningfulness in coworking spaces.

H1: The effect of H1a) increasing structural resources, H1b) increasing social resources, H1c) increasing challenging demands, and H1d) decreasing hindering demands on work meaningfulness is positive.

2.2 The moderating role of job control

Job control is defined as a perceived ability to exert some influence over one's work environment to make it more rewarding and less threatening (Ganster, 1989). Previous literature underlines that job control is associated with some positive outcomes such as improved performance, mental health, and job satisfaction (Hackman and Lawler, 1971). Workers with higher levels of job control are more likely to influence the outcomes of their jobs, have more decision rights over their tasks, and are more flexible in efficiently allocating resources (Bond and Flaxman, 2006). For this reason, the concept of job control seems to be strictly connected to job crafting since workers who choose to proactively increase their resources or modify their demands are "controlling" some aspects of their jobs. Therefore, we believe that the presence of job control may create more favorable conditions for job crafting to have a positive effect on work meaningfulness. This may be particularly true for coworking users who strongly rely on their autonomy and the control they have of their job to carry out daily tasks and achieve their goals.

Many different job design theories, such as the Job Characteristics Model (Hackman and Oldham, 1976), the Job Demand-Control Model (Karasek and Theorell, 1990), and the Job Demands-Resources model (Tims and Bakker, 2010), propose that job control is one of the most important job resources. Said resource is intrinsically motivating because it fulfils basic human needs and fosters individuals' growth and development (Deci and Ryan, 2000). The two best-rated attributes of coworking spaces, according to workers, are flexibility and autonomy (Bueno et al., 2018), so we may assume that these are structural resources that they try to increase. As previously mentioned, increasing the structural resources associated with one's job may increase the levels of work meaningfulness. When workers show high levels of job control, they may decide to increase their resources in a way that is in line with their values. For example, they may look for more knowledge about their job because they are intrinsically motivated to do so, to improve their daily working routine, and to find new interesting unexplored aspects of their professional activity. On the contrary, when the users of coworking spaces face situations where their job control is limited (e.g., strict schedules, urgent deadlines), they may (in line with the previous example) try to increase the knowledge regarding their jobs just because they need to, because they have to solve a pressing problem, to carry out an activity that they do not know how to perform and, consequently, they try to increase their comprehension of it. Thus, we argue that, in presence of job control, the relationship between increasing structural resources and job meaningfulness may be modified.

In coworking spaces, social resources are more important than in other settings. Previous literature shows that when workers lack coordination or when many different choices can be made to carry out a specific activity, less structured than usual, in the absence of strict rules or procedures to follow, they may look for certainty by connecting with other people, looking for support, and learning and preserving information (Ashford, 1986). We argue that increasing the social resources connected to the job consequently increases work meaningfulness. This relationship may thrive in the presence of job control because of the different kinds of interaction that this variable promotes. For example, when the social resources workers seek are associated merely with solving their high-priority problems because of the limited possibilities they have (e.g., little time to complete a task, many activities to perform at the same time, lack of a skill connected to a demand), individuals may feel that the quality of their social interactions is compromised. In this case, workers increase their social resources with the main goal to achieve a result, solve a problem, accomplish a task, and this may reduce the quality of the relationship between this proactive behavior and work meaningfulness. On the contrary, when workers are free to interact with other professional figures in a more relaxed, autonomous way (e.g., during the breaks in the recreational spaces offered by coworking spaces), the relationship between the proactive behavior of increasing their social resources and work meaningfulness may be considerably strengthened. We believe this may happen because the quality and content of social interactions are different in presence of job control, that allows individuals to look for social resources that may not only directed to the solution of a problem but to the implementation of new skills learnt from other professional figures, a different mindset to deal with one's job, an out-of-the-box thinking inherent to the mutual exchange of information coming from individuals with heterogeneous backgrounds. This kind of interaction is possible only when workers show high levels of job control that, consequently, may modify the relationship between increasing social resources and work meaningfulness.

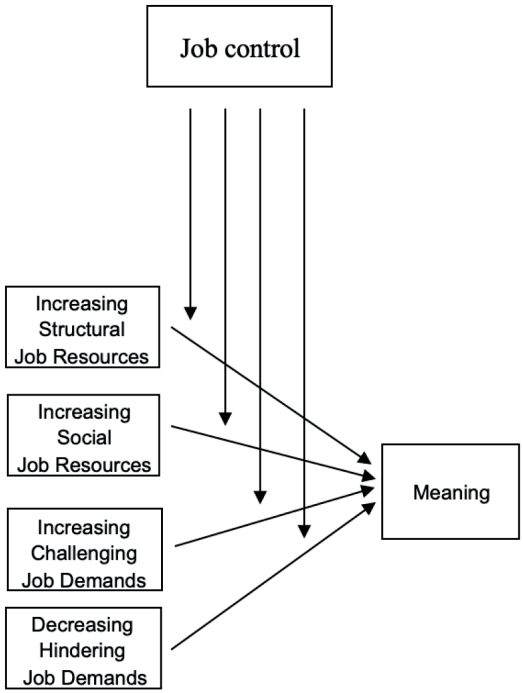
The Job Demand-Control model (JD-C), theorized by Karasek and Theorell (1990), points out that workers with higher levels of control can choose how to best cope with new demands or challenges. This may help them discover new ways to perform their job more effectively, thus gaining competence, confidence, productivity, and accomplishment (Bond and Flaxman, 2006). In the JD-C model, this sense of accomplishment is also referred to as "active learning". Feeling confident, competent, productive, and accomplished may enhance the meaning that workers associate with their jobs. In the context of coworking spaces, the dynamic, flexible climate and the constant social connections may encourage workers to increase the levels of challenging job demands. Workers may be inspired by others and develop new business ideas that may stimulate them to engage in challenging activities. We argue that increasing the challenging demands of one's job is associated with increased levels of work meaningfulness. Having more job control allows workers to choose which activities and tasks are more suitable to their needs and increase person-job fit, meaningfulness, well-being and has positive consequences on performance. When coworking users have little or no job control, they are limited in their decisions to choose the demands and, consequently, embark on activities strictly connected to the achievement of professional goals that may be fundamental in the short term but do not bring the advantages mentioned above. When workers are free to choose the tasks and activities connected to their jobs, it is reasonable to assume that they choose tasks that are challenging and rewarding, in line with their aspirations, inclinations, and desires. For all the above-mentioned reasons, we argue that job control modifies the relationship between increasing challenging job demands and work meaningfulness.

Hindering job demands are perceived as an excessive workload that impedes the achievement of goals and may increase the levels of stress and anxiety. The JD-C model underlines that job control enables workers to deal with excessive job demands effectively, thus avoiding strain (Karasek and Theorell, 1990). As a consequence, job control enables employees to effectively deal with such demands by implementing strategies such as delegating work tasks, prioritizing goals and tasks, or taking breaks that allow workers to recover. All these behaviors may be considered a form of decreasing hindering job demands, which we believe may bring more work meaningfulness. When workers find themselves in highly controlled working settings, the above-mentioned relationship may be weakened due to the limits workers may face. For example, workers who have no time to manage the overwhelming number of requests and tasks may decrease hindering demands and consequently increase the meaningfulness associated with their job in a completely different way compared to workers who can autonomously choose the best activities to perform because they have higher levels of job control and do not have to worry too much about the consequences of their freely chosen actions. For all the above-mentioned reasons, we believe that, in the presence of job control, the relationship between behaviors aimed at decreasing hindering demands and the meaning workers attribute to their jobs may be strengthened.

H2: Job control strengthens the positive relationship between H2a) increasing structural resources, H2b) increasing social resources, H2c) increasing challenging demands, and H2d) decreasing hindering demands and work meaningfulness.

Overall, our hypotheses are represented in the following conceptual model.

Fig. 1. Tested model



3. Methodology

3.1 Participants and Procedures

The Italian Conference of Coworking Spaces is an official event where most Italian coworking space providers and users can share ideas and discuss trends to promote the coworking movement in general. The initial stage of our investigation involved contacting the promoters of the Conference, with whom we already had a research partnership. As a result of said partnership, we could i) verify our key methodological choices starting from a sample selection, ii) test and refine the questions of our survey through an online focus session with a purposeful sample (Creswell and Plano Clark, 2011) of coworking users participating to the 2021 virtual edition of the Conference, iii) get the list of Italian coworking spaces joining the Conference. To provide homogeneity in the sample, we decided not to include global entrepreneurial-driven coworking spaces such as "WeWork".

The second stage of our study concerned contacting the community managers/owners of every chosen coworking space. We clarified the goals of our research, the type of coworking spaces we were looking for, and the content of the survey. Of the 239 coworking spaces we contacted, 42 decided to join the study (about 18%). Afterwards, the community managers/owners sent the survey to all the coworker members of the community, asking them to respond and ensuring anonymity.

Of the 190 surveys we received, 23 were incomplete, so we could not include them in the analysis. The final sample we used was composed of 167 coworking users (mainly start-uppers, consultants, and professionals coming from a wide variety of areas), with an average age of 40.6 years (SD 7.9), with slightly more females (56.3%). As regards qualifications, 10.8% had a high school diploma, 62.3% had a bachelor's degree, and 26.9% had a master's degree or a PhD. Most participants are web designers (30%) and entrepreneurs (24%), but there are also writers (7%), management consultants (17%), project managers (9%), and marketing/sales technicians (13%).

3.2 Measures

A professional translator translated each measuring scale, as the respondents' native language was Italian. To validate the translation, we used the back translation method (Brislin et al., 1973).

Job crafting. We used the sub-dimensions of the job crafting scale developed by Tims et al. (2012) to measure job crafting. The first three dimensions ("increasing structural resources", "increasing social resources", and "increasing challenging demands") include 5 items each, while the dimension "decreasing hindering demands" includes 6 items. Since, in coworking spaces, there are no supervisory roles, we decided to eliminate from the "increasing social resources" dimension the behavior related to seeking the support of the supervisor.

Some examples for each variable are "I try to develop my capabilities" for "increasing structural resources"; "I ask colleagues for advice" for "increasing social resources"; "when an interesting project comes along in my coworking space, I offer myself proactively as project coworker" for "increasing challenging demands"; and "I make sure that my work is mentally less intense" for "decreasing hindering demands". The Cronbach's alpha estimates for these scales are, respectively, 0.84, 0.90, 0.89, and 0.84.

Job control. Job control was measured by adapting the Karasek et al. (1998) Job Content Questionnaire. The instrument comprises 3 items. A sample item is "I have a lot of say about what happens on my job". The alpha was 0.71.

Work meaningfulness. Work meaningfulness was measured by the Work and Meaning Inventory (WAMI) developed by Steger et al. (2012). The instrument comprises 10 items. A sample item is "I have a good sense of what makes my job meaningful". The alpha was 0.92.

Control variables. To rule out the potential confounding effects of socio-demographic variables, several variables (age, gender, education level, and job tenure) were controlled for.

4. Findings

Before testing our hypotheses, we performed numerous preliminary analyses. Our data were all collected at one point in time, and all self-reported, so we tried to avoid the risk of common method variance (CMV) by taking some precautions. We used reliable psychometric scales validated in the relevant literature and ensured anonymity for all respondents (Podsakoff et al., 2012).

We also analyzed the structural validity of the scales. We performed a confirmatory factor analysis in AMOS. The proposed model, a six-factor model in which increasing structural job resources, increasing social job resources, increasing challenging job demands, decreasing hindering demands, job control, and work meaningfulness loaded on their respective factor exhibits an acceptable fit [$\chi 2 = 937.23$ (df = 419), CFI = 0.92, IFI = 0.92, TLI = 0.90, RMSEA = 0.06].

Other competitive models, i.e., a five-factor model where we constrained increasing structural resources and increasing social resources to load on one factor [$\chi 2 = 1187.17$, (df = 424), CFI = 0.80, IFI = 0.80, TLI = 0.77, RMSEA = 0.10]) and a three-factor model, where we constrained all items related to job crafting to load on one factor [$\chi 2 = 1799.07$ (df = 431), CFI = 0.55, IFI = 0.56, TLI = 0.50, RMSEA = 0.14], show a poorer fit of the data.

Lastly, we calculated the means, standard deviations, and intercorrelations of all variables in the analysis, as reported in Tab.1.

Tab. 1. Descriptive statistics and intercorrelations of the variables.

	Variables	**Mean**	**SD**	**1**	**2**	**3**
1.	Age	40.63	7.90			
2.	Gender	0.44	0.50	0.06		
3.	Job tenure	9.37	6.93	0.65***	0.06	
4.	Education	3.16	0.59	-0.13	-0.02	-0.32**
5.	Increasing structural resources	4.25	0.50	0.51	-0.22*	0.02
6.	Increasing social resources	3.32	0.92	-0.24**	0.13	-0.17*
7.	Increasing challenging demands	3.35	0.88	0.01	-0.03	0.14
8.	Decreasing hindering demands	2.46	0.61	-0.11	-0.01	-0.04
9.	Work meaningfulness	3.95	0.67	0.14	-0.14	-0.01
10.	Job control	4.05	0.68	0.03	0.07	0.1

Notes: N = 167. Cronbach's alpha are listed in parentheses on the diagonal. Gender: male = 1; female = 0. Education: 1 = middle school diploma or less; 2 = high school diploma; 3 = bachelor degree 4 = master degree or more.
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Tab.1 Continued

4	5	6	7	8	9	10
-0.10	(0.84)					
0.12	0.22**	(0.90)				
-0.14	0.29***	0.53***	(0.89)			
-0.08	0.12	0.10	0.01	(0.84)		
0.02	0.48***	0.28***	0.25**	0.08	(0.92)	
0.11	0.25**	0.17*	.017*	0.13	0.24**	(0.71)

4.1 Hypothesis testing

Since the danger of including multiple Xs in a regression model "is the possibility that highly correlated Xs will cancel out each other's effects" and since "the stronger the associations between the variables in the model, the greater the potential of such a problem" (Hayes, 2013, p. 195), we built four separate models, one for each sub-dimension of job crafting, instead of just one comprehensive model. It is important to notice that, according to Hayes (2013), both approaches are legitimate. In the first step (which was the same for all the models), age, gender, job tenure, and education were entered as control variables. In the second step, we added the independent variable (the job crafting dimension under study) and job control.

Results (see Tab. 2) show that work meaningfulness is influenced positively by increasing job resources (structural: $\beta = 0.56$, $p < 0.001$, social: $\beta = 0.20$, $p < 0.001$) and increasing challenging demands (see Tab. 3) ($\beta = 0.18$, $p < 0.001$). Thus, hypotheses H1a, H1b, and H1c are supported. Contrary to what we expected, decreasing hindering demands does not affect work meaningfulness (see Tab. 3). Thus, hypothesis H1d is not supported. Finally, in step 3 of the regression, we added the interaction terms. The interaction term is significantly positive for increasing structural resources ($\beta = 0.29$, $p < 0.05$), increasing social resources ($\beta = 0.17$, $p < 0.05$), and increasing challenging demand ($\beta = 0.27$, $p < 0.001$). Thus, hypotheses H2a, H2b, and H2c are supported. Hypothesis H2d is not supported, as the interaction term for decreasing hindering demands is not significant.

Tab. 2. Results of regression analysis (job crafting resources as independent variables).

		Model 1 IDV = Increasing structural resources DV = work meaningfulness		Model 2 IDV = Increasing social re-sources DV = work meaningfulness	
Variable	Step 1	Step 2	Step 3	Step 2	Step 3
Age	0.02**	0.02**	0.03**	0.03***	0.03**
Gender	-0.19	-0.08	-0.09	-0.17	-0.17
Education	0.01	0.03	0.03	-0.07	-0.02
Tenure	-0.02	-0.02*	-0.02*	-0.02*	-0.02*
Job crafting		0.57***	0.60***	0.20***	0.18**
Job control		0.15*	0.11	0.22**	0.25***
Job crafting x Job control			0.29*		0.17*
R2	0.06	0.28	0.30	0.20	0.23
ΔR2		0.22	0.02	0.14	0.03
F	2.57*	10.64***	0.97***	6.67***	6.69***

Note. N = 167. Entries are unstandardized coefficient estimates.
* p < 0.05; ** p < 0.01; *** p < 0.001.

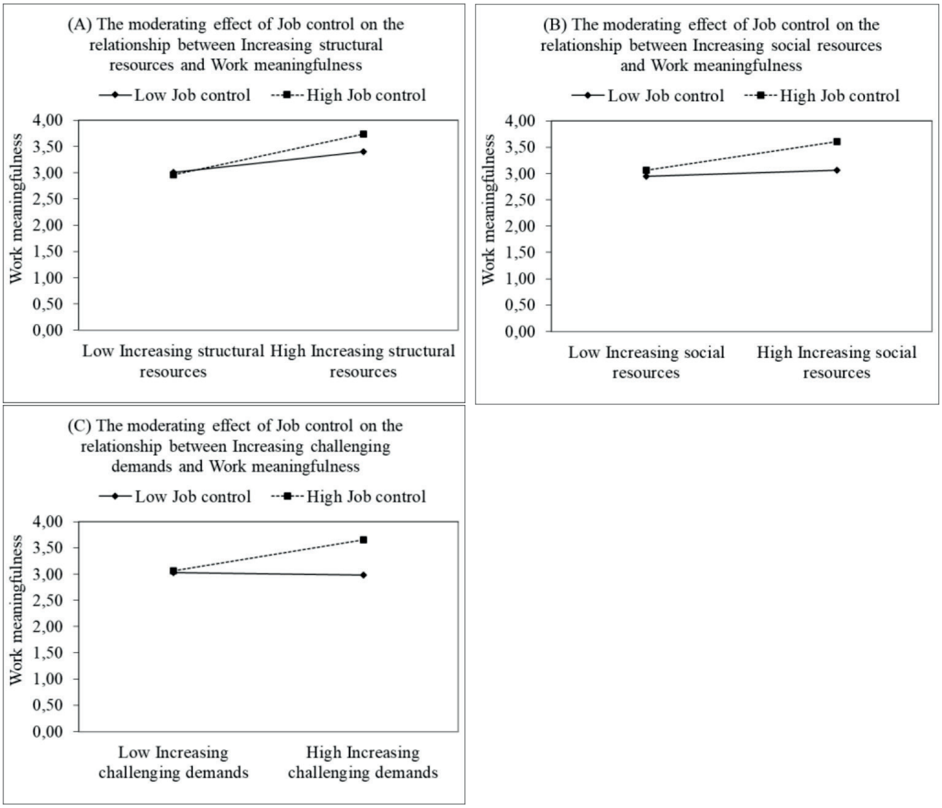
Tab. 3. Results of regression analysis (job crafting demands as independent variables).

		Model 3 IDV = Increasing challenging demands DV = Work meaningfulness		Model 4 IDV = Decreasing hindering demands DV = work meaningfulness	
Variable	Step 1	Step 2	Step 3	Step 2	Step 3
Age	0.02**	0.02**	0.03**	0.02**	0.02**
Gender	-0.19	-0.20*	-0.20**	-0.22*	-0.21**
Education	0.01	-0.01	0.01	-0.04	-0.04
Tenure	-0.02	-0.03**	-0.02**	-0.02*	-0.02*
Job crafting		0.18***	0.16**	0.08	0.05
Job control		0.23***	0.26***	0.26***	0.26***
Job crafting x Job control			0.27***		0.13
R2	0.06	0.19	0.24	0.14	0.14
ΔR2		0.13	0.18	0.08	0.08
F	2.57*	6.15***	7.32***	4.23***	3.76***

Note. N = 167. Entries are unstandardized coefficient estimates.
* p < 0.05; ** p < 0.01; *** p < 0.001.

To provide a clearer representation of the significant interaction effects, we plotted simple slopes, one standard deviation below and one above the mean of the job control measure (Fig. 2).

Fig. 2. The moderating effect of Job control on the relationship between Job crafting and Work meaningfulness



4. Discussion

The results show that hypothesis H1d is not supported. The relationship between the proactive behavior of decreasing hindering demands and work meaningfulness is not positive as we expected, it is non-significant. According to previous literature, this result could be interpreted in line with the distinction Bruning and Campion (2018) make between "approach job crafting" and "avoidance job crafting" supported by the Transactive Theory (Lazarus and Folkman, 1984) that states that individuals deal with potential threats in both approach and avoidant manners. Approach job crafting activities are characterized by the attempt to increase resources and to accept challenges (Bruning and Campion, 2018), referring to the behaviors represented by H1a, H1b, and H1c that our results support. Avoidance job crafting, on the other hand, is aimed at reducing or eliminating part of an individual's work and reflects the behavior of decreasing hindering job demands included in H1d, not supported by our results. Our contrasting results may emerge due to this distinction that underlines how avoidance job crafting behaviors may be negatively related to engagement (Petrou et al., 2012) and motivation (Petrou et al., 2012). Therefore, it is reasonable to assume that the relationship between job crafting behaviors aimed at decreasing hindering demands and work meaningfulness is influenced by all the above-mentioned effects.

In the context of coworking spaces, this acquires more importance since many aspects of these "collaborative workplaces" (Avdikos and Pettas, 2021) are connected with approach job crafting activities that may be the ones associated with the meaning workers attribute to their job. Some of these aspects include the attainment of new capabilities and abilities through learning opportunities provided through workshops and seminars (Bouncken and Aslam, 2019) that are expected to be connected with more autonomy, responsibility, and knowledge of the job (increasing structural resources), supporting cooperation (Peleteiro et al., 2015) and knowledge-sharing (Spreitzer et al., 2015) (increasing social resources), and the "challenging nature" of coworking spaces (Berdicchia et al., 2022) that involves the willingness of coworking users to shape their daily activities to make them more interesting and rewarding (increasing challenging demands). This may be the reason why H1a, H1b, and H1c are supported while H1d is not.

5. Implications

5.1 Theoretical implications

To the best of our knowledge, this study is the first to analyze the relationship between job crafting behaviors and work meaningfulness in coworking spaces. Acquiring a better understanding regarding the connections between the proactive behaviors of users and the psychological dynamics involved in the association of meaning to one's job is of paramount importance in the context of coworking spaces since the novelty and peculiarity of these specific settings, compared to other more traditional ones, has not yet been deeply explored from the point of view of the positive outcomes of proactive behaviors, work meaningfulness, and the influence of job control on such relationships. Traditional work settings do not offer the wide range of possibilities of coworking spaces and, therefore, in such a context, individuals may have more opportunities to craft their jobs, acquire more job control, and associate meaning to their work in an original, unconventional way. This is one of the reasons why this study provides an important contribution to expanding the literature in this sense, analyzing the actual behaviors of workers to understand how and under which circumstances coworking users can make the most of their professional lives.

Moreover, our investigation considers the four separate dimensions of job crafting and analyzes their relationship with the meaning workers associate with their job, and this may be relevant independently from the context of coworking spaces, although further research is necessary to confirm our assumption. The mixed results obtained are in line with previous studies (Zhang and Parker, 2019) and the necessity to provide insight into the actual impact of such proactive behaviors on intrinsic motivation, well-being, and psychological adjustment, all aspects connected to meaningfulness. Our study provides an interesting contribution to literature in this sense, broadening and deepening these topics that are both relevant per se and in the context of coworking spaces.

The role of job control analyzed in this research offers another important contribution to existing literature. Our results underline the importance of job control in the modification of the relationship between approach job crafting behaviors and work meaningfulness. Strengthening said relationship, job control seems to be a key ingredient for workers to redirect their actions toward proactive behaviors that increase the meaning associated with their jobs. Being able to choose one’s activities, methods, and schedule creates a more thriving environment that, when characterized by largely diffused proactive behaviors, increases meaningfulness.

All of this may be particularly relevant in coworking spaces since workers may have more possibilities to determine specific aspects of their jobs due to their flexible environment and, consequently, perceive more job control compared to other, more traditional work settings. To the best of the authors’ knowledge, this aspect of coworking has not been analyzed in the literature, and this study provides a contribution in this regard, considering the existing research on the topic of job control in coworking spaces and expanding it by examining its role connected with proactive behaviors and work meaningfulness.

Overall, this study contributes to the literature in many different ways; it focuses on the behaviors of workers in coworking spaces, an aspect that has been largely overlooked by existing research, and, at the same time, it provides useful insight from the job crafting point of view, analyzing its connections with work meaningfulness and the role that job control has in modifying said relationship.

5.2 Practical implications

Various practical implications derive from this research. Since one of the most important aspects of coworking spaces is the opportunity to personalize some relevant characteristics of jobs, coworking providers and owners, given the outcomes of our study, may want to underline these customization possibilities to promote proactivity in workers. For example, providers may adopt some policies aimed at communicating and encouraging such opportunities, as well as training and educational initiatives aimed at increasing awareness regarding the importance of proactive behaviors and their consequences in such flexible environments as coworking spaces. Providers may also want to focus on the findings of our research regarding job control, increasing it with policies that encourage it, and making their spaces more attractive for users.

Another practical implication of this research could be related to the coworking users themselves, as well as other workers in traditional settings that adopt a more flexible context. The present research underlines how approach job crafting behaviors increases work meaningfulness, and this may be an interesting result for coworking users to orient their actions to proactivity to shape their jobs into more meaningful, valuable, and worthwhile ones. In addition, it is also interesting to notice that, according to our results, avoidance job crafting behaviors do not modify the significance they associate with their job, and this concept may help them understand that avoiding or delegating hindering tasks may have consequences that do not affect meaningfulness in any way. Taking advantage of the wide variety of possibilities that coworking spaces offer may improve the experience of users in such settings, reshaping their working life based on their understanding of the positive consequences of proactive behaviors on work meaningfulness and the effect job control has on this relationship. This may be relevant when coworking users deal with their daily tasks (adopting proactive behavior may help them be conscious of how and when to acquire resources and how and when to increase or decrease demands), but also in taking advantage of the flexible environment (being aware of how job control moderates the relationship between job crafting behaviors and work meaningfulness).

6. Limits and future research directions

The present study presents some limitations that offer research opportunities for future investigations.

Firstly, all the data we gathered comes from a unique source, that is, respondents. However, the self-reported nature of data appears consistent with the research design, considering the impossibility of collecting objective data from company documents or provided by supervisors and taking into account the nature of the investigated organizational context.

Secondly, data was collected at a single time. Again, the nature of the contexts we explored played a fundamental role in the choice of research design since coworking spaces are very dynamic in terms of the participation and involvement of users in these environments. This makes longitudinal data collection very difficult. Moreover, the precautions we adopted during the research and the nature of the investigated model make the risk of common method bias less relevant. To achieve this, we ensured anonymity to participants while also relying on a very robust theoretical framework. Simultaneously, we considered the unlikelihood that the interaction effects are caused by the CMV (Siemsen et al., 2010). However, our model should be adopted into a longitudinal research design in the future.

Thirdly, we aligned with existing research on coworking spaces that focuses on the interactions among peers (Garrett et al., 2017; Appel-Meulenbroek, 2020; Orel et al., 2022). However, it would be interesting for future research to consider the social resources coworking users exchange also in terms of the informal leaders that may emerge. More specifically, even if in coworking spaces there is no supervisor, users may view some peers as role models and seek their feedback. Future research could explore social resources in this regard.

Lastly, the intrinsic nature of coworking spaces makes the generalizability of results more complicated. Although there are excellent reasons to imagine that what we found can be applied to other organizational contexts, the specific features that characterize these work settings (absence of supervisors, wide possibility to have self-regulated goals and choices, particularly dynamic social interactions, etc.) make it difficult to generalize our results to organizations of a different kind. Future studies could consider investigating the role of job control and proactivity in connection with work meaningfulness, also in other different contexts. At the same time, we have conducted this study in Italy. It would be interesting to confront our results with future research conducted in other countries to observe if specific cultural elements may have influenced the observed relationships.

References

Appel-Meulenbroek, R., Weijs-Perrée, M., Orel, M., Gauger, F. & Pfnür, A. (2020). User preferences for coworking spaces; a comparison between the Netherlands, Germany and the Czech Republic. Review Of Managerial Science, 15, 2025-2048. https://doi.org/10.1007/s11846-020-00414-z

Ashford, S. J. (1986). Feedback-seeking in individual adaptation: A resource perspective. Academy of Management Journal, 29(3), 465-487. https://doi.org/10.5465/256219

Avdikos V., & Pettas D. (2021). The new topologies of collaborative workspace assemblages between the market and the commons. Geoforum 121, 44–52. https://doi.org/10.1016/j.geoforum.2021.02.012

Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. Career Development International, 13(3), 209–223. https://doi.org/10.1108/13620430810870476

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. Journal of Managerial Psychology, 22(3), 309–328. https://doi.org/10.1108/02683940710733115

Berdicchia, D., Fortezza, F., & Masino, G. (2022). The key to happiness in collaborative workplaces. Evidence from coworking spaces. Review of Managerial Science, 17, 1213–1242 https://doi.org/10.1007/s11846-022-00558-0

Bond, F. W., & Flaxman, P. E. (2006). The ability of psychological flexibility and job control to predict learning, job performance and mental health. Journal of Organizational Behavior Management, 26(1-2), 113–130. https://doi.org/10.1300/J075v26n01_05

Bouncken R. B., & Aslam M. M. (2019). Understanding knowledge exchange processes among diverse users of coworking-spaces. Journal of Knowledge Management, 23(10), 2067–2085. https://doi.org/10.1108/JKM-05-2018-0316

Bouncken, R. B., Aslam, M. M., & Qiu, Y. (2021). Coworking spaces: Understanding, using, and managing sociomateriality. Business Horizons, https://doi.org/10.1016/j.bushor.2020.09.010

Bouncken R. B., Ratzmann M., Barwinski R., & Kraus S. (2020) Coworking spaces: Empowerment for entrepreneurship and innovation in the digital and sharing economy. Journal of Business Research, 114, 102–110. https://doi.org/10.1016/j.jbusres.2020.03.033

Bouncken, R., & Reuschl, A. (2018). Coworking-spaces: how a phenomenon of the sharing economy builds a novel trend for the workplace and for entrepreneurship. Review of Managerial Science, 12, 317-334. https://doi.org/10.1007/s11846-016-0215-y

Bueno, S., Rodríguez-Baltanás, G. & Gallego, M. D. (2018), Coworking spaces: a new way of achieving productivity. Journal of Facilities Management, 16(4), 452-466. https://doi.org/10.1108/JFM-01-2018-0006

Brislin R. W., Lonner W. J., & Thorndike R. M. (1973). Cross-cultural research methods. Wiley, New York, NY.

Bruning, P. F., & Campion, M. A. (2018). A role-resource approach-avoidance model of job crafting: A multimethod integration and extension of job crafting theory. Academy of Management Journal, 61(2), 499-522, https://doi.org/10.5465/amj.2015.0604

Ciasullo, M. V., Montera, R., & Pellicano, M. (2019). To what extent are heretics lifestyle entrepreneurs? Insights from tourism SMEs in remote destinations. Piccola Impresa Small Business, (2). https://doi.org/10.14596/pisb.309

Creswell J. W., & Plano Clark V. L. (2011). Designing and conducting mixed methods research. 2nd edition. Sage Publications, Los Angeles

Deci, E. L., & Ryan, R. M. (2000). The 'what' and 'why' of goal pursuits: Human needs and the self-determination of behavior. Psychological Inquiry, 11, 227–268. https://doi.org/10.1207/S15327965PLI1104_01

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. Journal of Applied Psychology, 86(3), 499–512. https://doi.

org/10.1037/0021-9010.86.3.499
Du, Y., Zhang, L., & Zhang, Z. (2019). Resources Matter: Combined Influence of Job Demands and Job Control on Creative Process Engagement. The Journal of Psychology, 153(2), 141–160. https://doi.org/10.1080/00223980.2018.1503588
Ganster, D. C. (1989). Measurement of worker control. Final report to the National Institute of Occupational Safety and Health (Contract No. 88-79187). Cincinnati, OH: National Institute of Occupational Safety and Health.
Garrett, L. E., Spreitzer, G. M., & Bacevice, P. A. (2017). Co-constructing a Sense of Community at Work: The Emergence of Community in Coworking Spaces. Organization Studies, 38(6), 821-842. https://doi.org/10.1177/0170840616685354
Hackman, J. R., & Lawler, E. E. (1971). Employee reactions to job characteristics. Journal of Applied Psychology, 55, 259-286. https://doi.org/10.1037/h0031152
Hackman, J. R. & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. Organization Behavior and Human Decision Processes, 16, 250–279. https://doi.org/10.1016/0030-5073(76)90016-7
Hayes, A. F. (2013). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. Guilford Press.
Hobfoll, S. E. (1989). Conservation of Resources. A New Attempt at Conceptualizing Stress. American Psychologist, 44(3), 513-524. https://doi.org/10.1037/0003-066X.44.3.513
Howell, T. (2022). Coworking spaces: An overview and research agenda, Research Policy, 51(2), https://doi.org/10.1016/j.respol.2021.104447
Hysa, X., Demaj, E., Hysa, D., & Santovito, S. (2024). The impact of coworking spaces on knowledge sharing, innovation, and sustainability from the perspective of the micro-cluster model. Piccola Impresa Small Business, (1). https://doi.org/10.14596/pisb.4340
Karasek, R., Brisson, C., Kawakami, N., Houtman, I., Bongers, P., & Amick, B. (1998). The Job Content Questionnaire (JCQ): An instrument for internationally comparative assessments of psychosocial job characteristics, Journal of Occupational Health Psychology, 3(4), 322-355. https://doi.org/10.1037//1076-8998.3.4.322
Karasek, R., & Theorell, T. (1990). Healthy work: Stress, productivity, and the reconstruction of working life. New York: Basic Books.
Lazarus, R. S. (1984). Stress, appraisal, and coping (Vol. 445). New York, NY: Springer Pub Co.
Orel, M., Mayerhoffer, M., Fratricova, J., Pilkova, A., Starnawska, M. & Horbath, D. (2022). Coworking spaces as talent hubs: The imperative for community building in the changing context of new work. Review of Managerial Science 16, 1503–1531. https://doi.org/10.1007/s11846-021-00487-4
Peleteiro, A., Burguillo, J. C., Luck, M., Arcos, J. L., & Rodríguez-Aguilar, J. A. (2015). Using reputation and adaptive coalitions to support collaboration in competitive environments. Engineering Applications of Artificial Intelligence, 45, 325-338. https://doi.org/10.1016/j.engappai.2015.07.009
Petrou, P., Demerouti, E., Peeters, M. C., Schaufeli, W. B., & Hetland, J. (2012). Crafting a job on a daily basis: Contextual correlates and the link to work engagement. Journal of Organizational Behavior, 33(8), 1120-1141. https://doi.org/10.1002/job.1783
Podsakoff, P. M., MacKenzi,e S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. Annual Review of Psychology, 63(1), 539–569. https://doi.org/10.1146/annurev-psych-120710-100452
Siemsen, E., Roth, A., & Oliveira, P. (2010). Common method bias in regression models with linear, quadratic, and interaction effects. Organizational Research Methods, 13, 456–476. https://doi.org/10.1177/1094428109351241
Spinuzzi, C. (2012). Working alone together coworking as emergent collaborative activity. Journal of Business and Technical Communication, 26, 399-441, https://doi.org/10.1177/1050651912444070
Spreitzer, G., Garrett, L. & Bacevice, P. (2015). Should your company embrace coworking?

MIT Sloan Management Review, 57(1), 27-29. Available at: https://sloanreview.mit.edu/article/should-your-company-embrace-coworking/

Steger, M. F., Dik, B. J., & Duffy, R. D. (2012). Measuring meaningful work: The Work and Meaning Inventory (WAMI). Journal of Career Assessment, 20(3), 322-337, https://doi.org/10.1177/1069072711436160

Tims, M., & Bakker, A. B. (2010). Job crafting: Towards a new model of individual job redesign. South African Journal of Industrial Psychology, 36(2), 1-9. https://doi.org.10.4102/sajip.v36i2.841

Tims, M., Bakker, A. B., and Derks, D. (2012). Development and validation of the job crafting scale. Journal of Vocational Behavior, 80(1), 173–186. https://doi.org/10.1016/j.jvb.2011.05.009

Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a Job: Revisioning Employees as Active Crafters of Their Work. Academy of Management Review, 26(2), 179-201. http://dx.doi.org.10.5465/AMR.2001.4378011

Zhang, F., & Parker, S. K., (2019). Reorienting job crafting research: A hierarchical structure of job crafting concepts and integrative review. Journal of Organizational Behavior, 40(2), 126-146. https://doi.org/10.1002/job.2332 Domenico Berdicchia

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SUSTAINABILITY DISCLOSURE IN SMES – EVIDENCE ON THE STATE OF THE ART FROM THE EURONEXT GROWTH MILAN MARKET

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Abstract

Purpose. *This research explores how and to what extent Italian listed SMEs disclose sustainability information. As public companies, these SMEs are supposed to be dynamic and competitive, and, according to the legitimacy theory, they should also be incentivised to enhance disclosure transparency across all forms of capital and impact. This paper aims to deepen the understanding of their disclosure practices, an underexplored topic in the SMEs context. Assessing the quantity and quality of non-financial disclosure is crucial for identifying the challenges these firms face in meeting new EU and national regulations, voluntary standards and the increasing expectations of stakeholders.*

Methodology. *This research focuses on annual reports and supplementary information available on websites to capture multiple aspects of sustainability reporting. It investigates the extent and forms of disclosure, offering a qualitative overview of reporting practices. A content analysis of sustainability information was conducted to evaluate the quality and comprehensiveness of the materiality assessment, considering the steps taken, methods and tools used, and the concept of materiality adopted.*

Findings. *This study examines the current state of non-financial disclosure among listed SMEs, revealing that they are still far from fully complying with the theory, recent regulations, and standards established by international bodies. In doing so, this research highlights limitations and gaps of current practice regarding both the quantity and quality of sustainability disclosure.*

Practical and social implications. *From a theoretical perspective, this study enhances understanding of SMEs' willingness to engage in more integrated and transparent disclosure to gain stakeholders' legitimacy. From a practical standpoint, it highlights the existing gap between theory and practice, clarifying the challenges SMEs face in adapting to an evolving and increasingly demanding regulatory environment.*

Originality. *This study contributes to the limited literature on sustainability disclosure in SMEs – a timely issue given the growing stakeholder and regulatory attention.*

1. Introduction

New regulations and emerging stakeholders' needs regarding disclosure on Corporate Social Responsibility (CSR) are boosting the evolution of company reporting towards a more integrated and balanced model. This revolution now involves Small and Medium-sized Enterprises (SMEs) too. Starting from fiscal year 2026, a deep enrichment of listed SMEs' reporting practices in accordance with the Corporate Sustainability Reporting Directive (CSRD, EU 2022/2464) was expected. The intentions were to increase transparency and accountability towards stakeholders (Aureli et al., 2024). More specifically, this directive was also transposed in Italy with the legislative decree 125/2024. In parallel, the Voluntary Sustainability Reporting Standard for non-listed SMEs (VSME) was developed by the European Financial Reporting Advisory Group (EFRAG) and published in December 2024 in response to the demonstrated need for a standard and simplified voluntary sustainability reporting framework for EU SMEs. This standard has been developed in accordance with all three sustainability pillars, Environmental, Social, and Governance (ESG), and features two sector-agnostic modules that aim to satisfy the requirements of SMEs of differing sizes and levels of supply chain integration: (1) the Basic Module, primarily aimed at microenterprises and entry-level users, which covers eleven core sustainability reporting indicators; (2) the Comprehensive Module, that contains nine disclosures covering specific data points which SMEs may additionally face from financial institutions or business partners. Both modules use simplified language and offer templates to guide SMEs in their reporting. While the ESRS, which inspired the VSME, require a double materiality approach for reporting entities, the VSME does not require any materiality assessment, instead guiding SMEs with an ''if applicable'' principle for certain voluntary disclosures.

On the other hand, in this evolving regulatory landscape, the Omnibus Package (https://commission.europa.eu/publications/omnibus-i_en?utm_source=chatgpt.com) proposed by the European Commission in 2025 represents a significant step to simplify the compliance burden for SMEs. The package and, more precisely, the included Content Directive, if approved, would exempt SMEs from the mandatory reporting obligations under the CSRD, unless they exceed certain size thresholds. The package would also introduce specific protections for SMEs within value chains, ensuring that large companies' obligations do not disproportionately impact smaller enterprises in their value chain. Additionally, it would include a 70% reduction in data points to be disclosed. Furthermore, through the Stop the Clock Directive approved in April 2025, the Omnibus Package have already deferred the reporting deadlines for mid-sized companies, postponing reporting obligations in 2028. These changes have been designed to free up resources for innovation and safeguard competitiveness without compromising transparency. Nevertheless, concerns remain regarding the balance between regulatory simplification and access to finance, as reduced reporting requirements could diminish the ESG visibility of SMEs in the eyes of investors and financial stakeholders.

However, in recent years, non-financial reporting has become more and more widespread on a voluntary basis. Also, several SMEs proved to be very receptive to this issue despite their limited resources in terms of ICT systems, management control systems, knowledge and competencies, organizational culture, and financial resources (Del Baldo, 2017, 2018; Muslichah et al., 2020; Dinh et al., 2023; Du Toit, 2024; Pizzi and Coronella, 2024; Di Tullio et al., 2025).

Nevertheless, the literature on sustainability disclosure by SMEs is quite limited (Khoja et al., 2022). Only recent studies have explored this issue, with a particular emphasis on the Italian context (e.g. Cicchini et al., 2024; Roberto et al., 2024; Pizzi and Coronella, 2024). Nonetheless, several factors continue to hinder a comprehensive understanding of sustainability practices and reporting within SMEs.

Among these, we should consider that, to date, they have reported only on a voluntary basis, driven by pressures and incentives (e.g., easier access to financial resources). More precisely, several studies argue that legitimacy theory explains why companies should develop non-financial disclosure (Patten, 1992; Suchman, 1995; O'Donovan, 2002). Building on this theory, the motivation for disclosing ESG factors would be to seek legitimacy on the company's practices and operations from all categories of stakeholders (Brammer and Pavelin, 2006; Fatma et al., 2014; Zamil et al., 2023). Internal and external legitimacy should boost non-financial reporting to respond to their pressures (Sridhar, 2012). Legitimacy theory supports the idea that disclosure on CSR and sustainability is a sign of credibility to the markets and helps establish the licence to operate in society, generating, in turn, a positive impact on enterprises (Schiehll and Kolahgar, 2021). Guidry and Patten (2010) also highlight the positive influence on company reputation and image as another argument to justify the focus on sustainability practices within reporting frameworks.

The still magmatic situation described above with regard to sustainability reporting by SMEs, including the uncertainty of its voluntary and/or regulated nature, coupled with the increasing attention and efforts by SMEs in this direction, justifies studies such as this empirical research. It aims at enhancing understanding of these phenomena. We believe that the analysis of the state of the art about the quantity and quality of listed SMEs disclosure on non-financial information is important to assess the challenges that they will face to comply with the new EU and national regulations, on the one side, and stakeholders' expectations, on the other. The enterprises analysed coincide with the entire population of Italian SMEs listed on the Euronext Growth Milan market. Given their nature of public companies, they are supposed to be particularly dynamic, competitive and ambitious companies, looking for capital to finance growth. According to the legitimacy theory, such listed SMEs should be incentivised to increase transparency and improve disclosure, embracing any typology of capital and impact, social and environmental ones included (Dumay et al., 2019; Sciulli and Adhariani, 2021). Previous studies have already advocated for an improvement of narrative statements about non-financial information by smaller listed companies. This is because this category of enterprises should be particularly aware of the importance of disclosure for stakeholders' legitimisation. Consequently, we can expect greater efforts to be made to improve reporting processes and content towards a more comprehensive and integrated approach. As a result, theoretically speaking, in this specific segment of SMEs, practice should be more developed than in SMEs in general. They potentially represent good or even best practices to study and analyse. However, results show that even in this selected segment some important steps are still missing, and limitations are quite substantial. Also, Pizzi and Coronella (2024) with their analysis revealed that the path towards full SME involvement will be fraught with obstacles. They detected a limited number of early adopters.

More in detail, our research questions refer to the frequency of sustainability disclosure, as well as the alternative frameworks and guidelines implemented. Furthermore, they explore the steps of materiality assessment processes in practice.

As for the structure of this paper, the next session describes the literature underlying the research and the related research questions. Subsequently, sessions 3 and 4 respectively present the methodology and the main results found. Finally, session 5 concludes by providing a final overview of the empirical research carried out, its empirical and theoretical implications, limitations and future research paths.

2. Literature review

2.1 Legitimacy and stakeholder perspectives on non-financial disclosure

Legitimacy, stakeholder, and institutional theories are the main theoretical perspectives adopted in recent years of research on sustainability disclosure. According to Gray et al. (1996), such theories are systems-oriented since they permit us to focus on the role of information and disclosure in the relations between enterprises, governments, and groups. Under the systems-based perspective, the relationship acts in two directions: organisation are assumed to be influenced by, and in turn, to influence upon the society in which they operate. According to these theories, accounting disclosure policies are considered a strategy to influence the organisation's relationships with other parties with whom it interacts (e.g. DiMaggio and Powell, 1983; Deegan, 2002; Freeman, 2010). Guthrie and Parker (1990, p. 166) further assert that corporate reports are not neutral and unbiased but rather are «a product of the interchange between the corporation and its environment and attempt to mediate and accommodate a variety of sectional interests».

Legitimacy theory posits that organisations always work to ensure that they are perceived as operating within their respective societies' boundaries and norms, a sort of implied "social contract" (Dowling and Pfeffer, 1975). They seek legitimation by outside parties. However, bounds and norms are not fixed, but change over time. Consequently, organisations must be responsive to the ethical (or moral) environment in which they operate.

Crossley et al. (2021) verified the validity of the legitimacy theory for SMEs by conducting semi-structured interviews in the UK. They conclude that SMEs also want to improve their reputation and image within the market. Building on legitimacy theory, they found that SMEs employ a complex mix of both symbolic and substantive practices to enhance the legitimacy and sustainability of their operations through social engagement, reputation and image, among others.

One way for an organisation to legitimise its ongoing operations is through accounting disclosures, and if legitimacy is threatened, disclosures can be a strategy to restore legitimacy. So, together with the inclusion of sustainability and ESG factors in the processes defining strategies, a second step is necessary: non-financial information must be embedded in company disclosure to reach stakeholders and satisfy their information needs.

Sustainability is a topic that, over the years, has become more and more crucial for any typology of organisation. Sustainability issues can directly impact management, on the one side, and reporting practices, on the other side (e.g. Adams and Frost, 2008; Hahn and Kühnen, 2013; Epstein, 2018). Together with the disclosure of companies' impacts and opportunities exclusively from the economic and financial point of view, enterprises are asked to explain with transparency the impacts of their own activities in relation to a plurality of other capitals (natural, human, intellectual, relational, etc.); this is in favour of a comprehensive plethora of stakeholders, including employees, business partners along the value chain, communities and citizens, and the entire civil society.

The request to provide sustainability-related information to integrated traditional financial reporting has become increasingly pressing worldwide (e.g. Threlfall et al., 2020). Research carried out reveals continued investors' appreciation of information on sustainability-related issues and a demand for greater disclosure quality.

Hickman (2020) argues that companies engaging in CSR activities receive favourable treatment from debtholders and have more access to financing sources; consequently, publicly traded debt could motivate increased CSR reporting, given an increased sensitivity to social and environmental aspects in lending decisions. Additionally, the impact of the Green Asset Ratio introduced also pushes in this direction. Coherently, Patel et al. (2021) provide evidence of investors' expectations about a company's growth: considering ESG factors would bring lower implied volatility. Furthermore, Bernow et al. (2019) reported that investors want companies to provide more sustainability disclosures that are material to financial performance. Also, Pinney et al. (2019) recognise an increase in interest in ESG topics by the largest asset owners.

Sustainability reporting is important for SMEs too, in relation to legitimacy theory. They also need to enhance transparency and trust with customers, investors, suppliers, and other stakeholders, who increasingly value ethical and sustainable business practices. They also must improve risk management and facilitate their access to capital and markets. Such reporting also impacts on reputation and competitive advantage, because demonstrating a commitment to sustainability can differentiate an SME in the market, enhance its brand reputation, and attract sustainability-conscious consumers and talent.

2.2 SMEs' sustainability disclosure and our research questions

Although the opportunity for SMEs to disclose non-financial information voluntarily, only a few listed SMEs adopted this practice (Deloitte, 2022; KPMG, 2022). Recent regulatory developments encouraged such disclosure, particularly through the CSRD. However, subsequent deregulatory steps, such as the EU Omnibus Simplification Package and the "Stop-the-Clock" Directive (EU, 2025/794), will presumably slow down this change.

But even before the CSRD came into force, empirical evidence revealed a gap between aspirations (theory) and practice (extent and quality of adoption) in relation to non-financial and sustainability disclosure. For example, integrated reporting is partially diffused among large and listed companies according to the IIRC's estimations, which count over 2,500 businesses in more than 75 countries implementing it. Furthermore, research in the field revealed that even in large corporations, the integrated framework is seldom fully adopted (Dumay et al., 2017) for several reasons. Among them, a perceived complexity of the frameworks and competing standards available (Lodhia, 2015; Robertson and Samy, 2015) and also unclear guidance on measurement systems and metrics for such reporting (Feng et al., 2017).

Nevertheless, few empirical studies on SMEs exist to identify the several difficulties these firms face in adopting frameworks and tools normally developed for large enterprises (Del Baldo, 2017, 2018; Muslichah et al., 2020; Dinh et al., 2023; Du Toit, 2024; Pizzi and Coronella, 2024; Di Tullio et al., 2025). Cicchini et al. (2024) emphasized that some authors contend that the company's size significantly impacts its approach to CSR reporting, with SMEs generally valuing CSR less than larger firms; while Ortiz-Martínez et al. (2023) deeply explored the relationship between sustainability, CSR, non-financial information, and performance in Spanish SMEs and also provided a comprehensive overview of the literature focused on this category of enterprises and the main driver of the adoption of non-financial reporting. Furthermore, Di Tullio et al. (2025) recently underscored that the pursuit of sustainability is not costless for SMEs. The costs associated with establishing robust tracking systems and training staff for effective data collection and reporting may surpass the perceived advantages, especially in the early stages. Besides, very little is known about SMEs' practices regarding integrated reporting. Still, despite the theoretical arguments supporting its adoption (Brusati et al., 2021), studies suggest critical issues related to SMEs' peculiarities (Muslichah et al., 2020). Specifically, these enterprises face several challenges in adopting the integrated reporting framework and would need a customised reporting tool to match their peculiarities (Del Baldo, 2017, 2018; Muslichah et al., 2020).

Cicchini et al. (2024) examined the challenges and opportunities that SMEs encounter when implementing integrated reporting. Notably, this framework serves as an essential tool for improving transparency and allowing SMEs to gain a clearer understanding of their strengths and weaknesses. Furthermore, it enhances strategic decision-making and risk management, bolstering brand value and reputation. However, its overemphasis on the information needs of financial capital providers can restrict the ability to address the interests of other categories of stakeholders.

Kuppig et al. (2016) highlight that pressures, incentives, and barriers drive the level of voluntariness in sustainability disclosure by SMEs. While pressures and incentives have a positive influence, there are also negative barriers to sustainability disclosure, such as limited access to industry-specific information and benchmarks or a lack of time and adequate competencies and performance measurement systems, which would involve additional investments to fill in the knowledge and information systems' gaps (Trianni et al., 2017). With a specific focus on SMEs, with their systematic literature review including 11 years, Setyaningsih et al. (2024) found that the main barriers they face are: financial, general attitude (lack of innovation and resistance to change), knowledge and technology (lacks of infrastructure, expertise and data availability), organisational (lack of time, strategy, culture, resources), policies and regulations (complex tools, bureaucracy, lack of standardization), as well as socio-environmental (poor stakeholder engagement). To facilitate sustainability disclosure, more and more companies use digital platforms (Prasanna et al., 2019) to reach as many stakeholders as possible and seek legitimacy from them on their practices. The digital communication channels, now very consolidated, represent a great opportunity also for SMEs, making it more feasible for them to explain to stakeholders how they contribute to the three traditional pillars of sustainability: environmental, social, and economic, according to the Triple Bottom Line concept (Fauzi et al., 2010). Brenner and Hartl (2021) highlight the potential of digital technologies to enhance transparency and data management in large enterprises, too. However, according to Degregori et al. (2025), limited research explores their application in SMEs. Their paper focuses on artificial intelligence-driven ESG tools and automated reporting systems, showcasing their potential to bridge resource constraints and enhance compliance with frameworks like the CSRD and SDGs.

Generally speaking, the evidence based on the listed Italian SMEs' disclosure is very recent and still sparse. Prior Italian work concentrated mainly on large "public-interest entities" under D.Lgs. 254/2016 (the NFRD transposition) and on main-market issuers, leaving alternative markets like the Euronext Growth Milan one largely out of scope; even CONSOB's monitoring focuses on Decree-254 entities. This creates a structural blind spot for understanding the adoption rate among SMEs listed on the Euronext Growth Milan market.

Only recently, Roberto et al. (2024) analyse 65 GRI-based reports produced by Italian listed SMEs and find uneven, often low-granularity disclosure at the indicator level, suggesting disclosure exists but is patchy and inconsistent; their dataset, however, covers only reporting SMEs and cannot speak to non-reporters, so the real adoption rate across the Euronext Growth Milan population remains unknown. Their sustainability reports are still descriptive, non-peer-reviewed, and time-sensitive. Thus, despite first steps, we still lack a census-quality picture (share of this segment of SMEs reporting, frequency, assurance, trend over time).

Regulatory timing further enlarges the gap: listed SMEs fall into CSRD later (opt-out permitted until 2028), and 2025–2027 is a transition window. Market guides (Euronext ESG reports/guides) encourage disclosure but do not document actual adoption. Consequently, "extent" questions remain under-answered for our target of SMEs precisely when policy changes make them most salient.

The above considerations about the under-exploration of sustainability disclosure practices in the realm of SMEs inspired the first RQ of this article:

RQ 1 – To what extent is sustainability disclosure adopted by the SMEs listed on the Euronext Growth Milan market?

To fully integrate sustainability considerations into decision making as well as to meet their own sustainability reporting needs, stakeholders need consistent, comparable and reliable sustainability-related information, including from SMEs. However, despite the great relevance of non-financial disclosure discussed above, several studies (Bernow et al., 2019; Pinney et al., 2019) also raise issues of comparability and inconsistent reporting, as well as a lack of quantifiable metrics due to a lack of mandatory reporting frameworks and guidelines. The academic literature also raises concerns regarding the quality of sustainability and ESG reporting driven by corporate legitimacy. For example, in their theoretical study drawing on legitimacy in sustainability disclosure, Comyns et al. (2013) highlight that, although the number of sustainability reports has increased, reporting quality remains poor, and sustainability disclosure is just a symbolic action. Roberto et al. (2024) found that, currently, listed SMEs that voluntarily publish sustainability reports exhibit inadequate levels of transparency and information. Their results reveal a generally inadequate level of reporting and a generalised lack of comprehensive documentation at the indicator level in the analysed reports. According to the 2023 OECD survey of financial institutions, limited availability and quality of granular data on SMEs' sustainability performance represent the most important barrier (OECD, 2025). In the absence of standardised and interoperable frameworks for SME reporting, the demands for data and information from financial institutions and supply chains to SMEs will continue to pose a challenge both within and across jurisdictions. In the absence of frameworks for SME sustainability reporting that are proportionate to SMEs' resources and capacities, SMEs face sustainability reporting demands that reflect the complexity and comprehensiveness of reporting frameworks designed for large entities (OECD, 2025).

Roberto et al. (2024) explicitly document reliance on GRI-based reporting among Italian listed SMEs, but we lack comparative evidence on the distribution (GRI vs. SASB/ISSB, Integrated Reporting, UN SDGs mapping, EU Taxonomy references) across the full universe of listed SMEs.

Several Authors (Bikefe et al., 2020; Ortiz-Martínez and Marín-Hernández, 2024) call for further investigation into sustainability reporting and SMEs within the framework of current standards and regulations. Discua Cruz (2019) emphasises the critical importance in this context of a standardized normative framework for CSR reporting to become a widespread practice. According to other Authors, the need for an international framework for SMEs is essential to prevent the risk of using CSR reports solely to mask negative results and to maintain transparency (Albitar et al., 2021; Pan et al., 2023). Cicchini et al. (2024, p. 123) also underscore the necessity for standardised frameworks and international guidelines to ensure transparency and accountability, In sum, the relevance of the topic of SMEs' disclosure quality is very topical and witnessed by the attention of international institutions to the development of reporting standards for SMEs. Recently, the EFRAG has also provided voluntary guidelines suitable for SMEs' specificities, serving as a useful support tool to enhance corporate transparency. This is precisely an attempt to overcome the variety of frameworks and guidelines adopted by SMEs, including those listed.

Policy and market materials (CONSOB, 2024; Euronext ESG Reporting Guide, 2025; OECD note on SME reporting convergence, 2025; EC recommendation on a voluntary SME standard, 2025) detail what SMEs should/could use (ESRS for listed SMEs, voluntary "VSME"-type templates), but these are guidance and do not answer what SMEs actually do. The resulting gap is a descriptive one (who uses what today?) and an evaluative one (are frameworks applied with indicator-level rigour, cross-standard consistency, or assurance?).

From previous considerations, we believe that a better understanding of the current diversified practice in terms of disclosure frameworks and guidelines can contribute to the academic debate; we then developed our second research question:

RQ 2 – What sustainability disclosure frameworks and guidelines are adopted by the SMEs listed on the Euronext Growth Milan market?

Cho et al. (2015) also report that investors do not value CSR disclosure positively because it is still largely driven by concerns with corporate legitimacy. This is supposed to hinder the disclosure of information relevant to assessing firm value. In this regard, to guarantee a valuable role of non-financial information disclosure, an essential phase (and principle) is the materiality analysis, which involves making the stakeholders protagonists (EFAA for SMEs, 2023).

The materiality concept has unanimously proven to be a key principle in determining the content of sustainability reports under every standard and framework. It is also essential to assess all risks and impacts associated with the company's activity on social aspects and the environment, as well as, from the opposite side, how the environmental and social aspects can influence the company. More precisely, the European Financial Reporting Advisory Group (EFRAG) defined the concept of double materiality, including both 'financial materiality' and 'impact materiality' (EFRAG, 2024a). So, it is important to analyse sustainability subject matters from both angles. From the 'financial materiality perspective', a sustainability issue is material if it triggers or may trigger relevant financial effects on the organisation and its ability to create (or destroy) corporate value. This means to adopt an 'outside-in' point of view.

From the 'impact materiality' perspective, instead, a sustainability issue is material "if it originates actual or potential negative or positive significant impacts on people and the environment caused by the reporting entity's own operations, investments, products, services or by its upstream and downstream value chain in the short, medium, or long term" (OIBR, 2022, p. 9). Such an impact can concern both people and the environment. Consequently, impact materiality adopts an 'inside-out' approach, and the stakeholders affected by impact materiality are various, including employees, business partners along the value chain, communities and citizens, and civil society in general. Impact materiality (inside-out) and financial-related sustainability (outside-in) materiality must be considered both independently and in a cumulative manner.

Furthermore, the Sustainable Development Goal Disclosure (SDGD) Recommendations (Adams et al., 2020, p. 9) define material sustainable development information as reasonably capable of making a difference to the decision-making by (1) stakeholders in general, on the one side, with reference to the positive and negative impacts of the enterprise on SDGs, and (2) investors and financers, on the other side, concerning the ability of the company to create long-term value, for both the organisation and society.

However, the manner in which the materiality analysis is carried out deeply affects the ability of sustainability and non-financial reports to meet stakeholders' needs. Adams et al. (2021) suggest that anything less than rigorous materiality determination processes will result in "incomplete and misleading portrayals of sustainability performance" (p. 4). Such a rigorous materiality determination process is necessary and must be inclusive of broader stakeholder interests. Both short-, medium-, and long-term impacts should be considered to engage in an effective dialogue and disclosure essential for stakeholder accountability.

Method papers and EU-wide commentary on double materiality abound, and case studies on large Italian issuers (and market operator Euronext itself) describe structured, stakeholder-engaged double-materiality processes. But peer-reviewed, listed SMEs specific evidence on how materiality was performed (scope, stakeholder panels, thresholds, impact vs. financial materiality integration, governance/assurance of the process) is scant. Roberto et al. (2024) highlight indicator-level weaknesses suggestive of under-specified materiality pipelines; older Italian SME evidence (not restricted to the listed ones) reports widespread impact-materiality use under GRI and frequent stakeholder engagement yet does not test alignment with ESRS double-materiality protocols.

Moreover, the CSRD/ESRS "double materiality" requirement raises process complexity (i.e. value-chain coverage, data gaps, governance). Commentaries and early empirical pieces stress these challenges in general, but we lack listed SMEs evidence on the actual design choices, tools used, and the prevalence/quality of assurance over the materiality process itself. In short, we know the theory and the regulatory demand, but we do not yet know how listed SMEs are operationalising it.

The above considerations motivated the third RQ of this paper about materiality:

RQ 3 – What materiality assessment processes did SMEs listed on the Euronext Growth Milan market carry out for sustainability disclosure purposes?

Table 1 summarises the key questions underlying our research questions.

Table 1. Our research questions

RQ 1 - How often?
FREQUENCY OF ADOPTION *To what extent is sustainability disclosure adopted by the SMEs listed on the Euronext Growth Milan market?*
RQ 2 - How?
TIPOLOGY OF REPORT & FRAMEWORK *What sustainability disclosure frameworks and guidelines are adopted by the SMEs listed on the Euronext Growth Milan market?*
RQ 3 - Why?
MATERIALITY ASSESSMENT *What materiality assessment processes did SMEs listed on the Euronext Growth Milan market carry out for sustainability disclosure purposes?*

The next session describes the methodological approach adopted to explore previous research questions.

3. Methodology

From a methodological point of view, the choice to investigate the entire population of Italian SMEs listed on the Euronext Growth Milan market was based on several considerations.

First, we considered the relevance of the Italian context, depending on the evidence that Italy has a business landscape strongly characterised by small and medium-sized enterprises (SMEs). If it is true that SMEs are the backbone of the European economy, this is even more peculiar if we refer to the Italian business environment. Consequently, Italy is a particularly interesting country for analysis when the research focus is on SMEs; it can be an exemplary case to analyse how SMEs are preparing to comply with the evolving regulation on corporate sustainability reporting.

Second, the selection of companies from a single country makes the sample more homogeneous, in view of the possible implications for company reporting by national regulations.

Third, the consideration of enterprises listed on the Euronext Growth Milan market led to a sufficiently large number of businesses obtaining an effective representation of the disclosure by SMEs of public interest. Consistent with Pizzi and Coronella (2024), Italy has a significant number of listed SMEs, providing a representative sample to assess how the regulated market is preparing. Furthermore, they represent a natural trait d'union between unlisted and listed companies. The status of 'listed SME' could be seen as an initial stage of an evolutionary path to becoming a large company. This is why it is possible to consider the segment of listed SMEs as a well-characterised and, at the same time, different sample from other SMEs, on the one hand, and from other listed companies, on the other (Pizzi and Coronella, 2024).

Fourth, this selection criterion is consistent with the legitimacy theory, since listed SMEs necessarily have public interests and then make an effort to better engage with stakeholders and gain their legitimisation. Thus, Euronext Growth Milan enterprises are Incentivised to disclose any typology of impact, including non-financial capital. Fifth, previous studies had already advocated an improvement of narrative statements about non-financial information by small-sized listed companies (OECD, 2006).

In summary, the choice of Italian listed SMEs is motivated by a combination of economic relevance, scientific interest and empirical feasibility, which makes Italy and, more precisely, listed Italian SMEs, an ideal sample to explore the evolution of non-financial reporting in this target of companies.

The qualitative empirical analysis was conducted in two phases.

In the first phase, an analysis was carried out on the reporting practices of all SMEs within the market segment examined for the years 2020-2021. The choice of this two-year period enables us to capture the state of the art in a baseline situation, particularly useful for future comparative analyses of the pre- and post-CSRD context. This time frame also ensured an adequate degree of homogeneity in the regulatory landscape governing sustainability reporting. As Pizzi and Coronella (2024) noted, following the announcement of the new European Directive (CSRD) in 2022, a trend of mimetic isomorphism began to emerge among SMEs operating in industries strongly oriented toward sustainability practices. This suggests a significant "boost effect" in encouraging firms to enhance their disclosure practices, which may ultimately lead to a decline in the homogeneity of the reports within our sample.

This analysis examined 181 companies listed on the Euronext Growth Milan market. Of these, 157 companies (0.84) in 2020 and 159 companies (0.85) in 2021 met the European Union's criteria for defining SMEs, which include employing fewer than 250 employees, having an annual sales revenue below EUR 50 million, or possessing total assets not exceeding EUR 43 million (see Table 2).

Table 2. Sample description

	Year 2020			Year 2021		
	Freq.	Percent.	Cum.	Freq.	Percent.	Cum.
Technology	38	0,24		38	0,24	
Mechanical Industry	24	0,15	0,39	17	0,11	0,35
Telecommunications	20	0,13	0,52	19	0,12	0,47
Financial Services	17	0,11	0,63	20	0,13	0,59
Consumer Discretionary Goods	13	0,08	0,71	13	0,08	0,67
Health Care	11	0,07	0,78	11	0,07	0,74
Energy	11	0,07	0,85	10	0,06	0,81
Retail and Trade	8	0,05	0,90	8	0,05	0,86
Real Estate	6	0,04	0,94	6	0,04	0,89
Fast-Moving Consumer Goods	6	0,04	0,98	5	0,03	0,92
Utilities	1	0,01	0,99	10	0,06	0,99
Raw Materials	1	0,01	0,99	1	0,01	0,99
Logistics	1	0,01	1,00	1	0,01	1,00
Total	157			159		

The dominant industries in the segment are Technologies (24%), Mechanical industry (15% in 2020 and 11% in 2021), and Telecommunications (13% in 2020 and 12% in 2021); collectively representing approximately 50% of the entire segment.

During the second phase, the study evolved to a more in-depth qualitative analysis of the sustainability reports of a selected sub-sample of 20 companies, representing 54% of the intercepted sustainability reports (20 out of 37 SMEs). In relation to this sub-sample (randomly chosen), this research project meticulously examined and analysed all annual reports and supplementary information available on the companies' websites in 2022 to intercept the various forms of reporting on sustainability-related policies, objectives and results. The observation of website content is consistent with theoretical insights suggesting an enabling role of digital communication (Coupland, 2005; Capriotti and Moreno, 2007; Schultz et al., 2013; Brenner and Hartl, 2021). Specifically, such platforms are posited to offer considerable support to SMEs in navigating the challenges and barriers when approaching disclosure enrichment.

The mapped aspects ranged from the typology of non-financial disclosure provided to the steps taken in their materiality assessment carried out by the enterprises. In evaluating the quality and comprehensiveness of the materiality analysis, we assessed the following aspects:

1. the steps taken during the materiality assessment (see Figure 1);
2. the methods and tools used;
3. the concept of materiality adopted (financial, impact or double materiality).

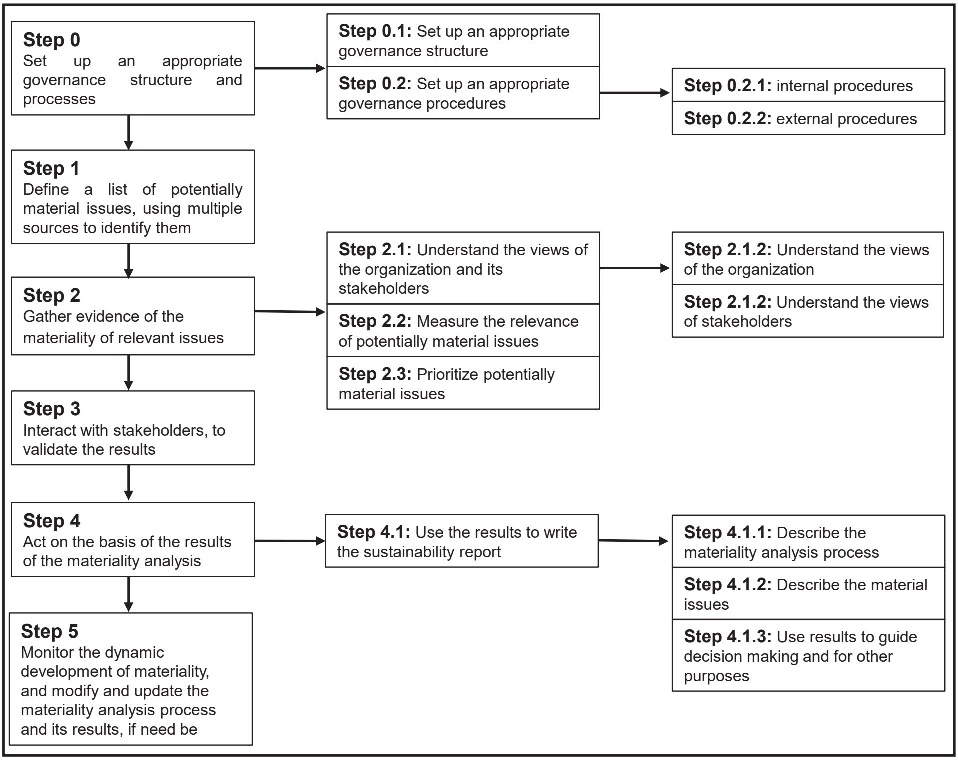

Figure 1. Steps of the materiality assessment

This step-by-step procedure for conducting a materiality analysis is consistent with the framework developed by the OIBR (2022) in the same years to which the investigated reports refer. They developed a structure aiming at mirroring and supporting the standards under CSRD/ESRS and GRI, emphasising double materiality, governance accountability, and stakeholder responsiveness. They propose it as a visual summary or a comparison with EFRAG/GRI/ISSB models. A more detailed description follows.

Step 0 requires establishing adequate governance structures and processes, to ensure materiality analysis is strategic and integrated into decision-making. From a responsibility point of view, this means to assign a process owner (often a C-level executive) and set up an interdepartmental committee (e.g., CSR Committee, ESG Integration Team). It also involves the engagement of a wide range of internal functions (finance, sustainability, risk management, investor relations, HR, legal, marketing, and the Board of Directors), as well as internal procedures (to enable effective reporting to top management and ensure Board awareness and involvement), together with external procedures, to identify key stakeholders and design engagement processes tailored to each group (e.g., surveys, interviews, focus groups).

Step 1, instead, would require defining a universe of potentially material topics, collecting a broad range of potential sustainability issues from, for example, standards (GRI, IR Framework, SASB, etc.), sector analyses and benchmarks, white papers, media, ESG ratings. The goal is to build a comprehensive list of topics to assess.

Step 2 is about gathering evidence supporting the relevance of topics. We refer to both quantitative (e.g., financial metrics, incident reports) and qualitative (e.g., expert opinion, reputational impacts) types of evidence.

Step 3 pertains to the engagement with stakeholders, that must be designed according to their influence and exposure, using multiple tools, like, for example, surveys, workshops and roundtables. The purpose is to validate and enrich the understanding of which topics are relevant.

Step 4 requires prioritising material topics to be used for strategic planning, budget allocation, risk management, and reporting decisions. This important step allows the translation of materiality outcomes into strategic and operational action plans.

Finally, step 5 concerns the need to monitor the dynamic evolution of materiality. This is essential because material issues can change rapidly (e.g., COVID-19, geopolitical shifts). Establishing periodic reviews (at least annually), tracking internal/external triggers and updating stakeholder input and issue assessments are strategies that meet this objective.

To analyse the materiality aspects mentioned before, a manual content analysis (Krippendorff, 2018) was then conducted in this second phase of the study. Content analysis, which is the most common technique used to analyse sustainability information disclosure in accounting studies, is defined as «a technique for gathering and analysing the content of text. The content refers to words, meanings, pictures, symbols, ideas, themes or any message that can be communicated» (Lawrence Neuman, 2014, p. 219). It can be carried out manually or with computer-based tools. Several authors have already used this technique to study social and environmental disclosures (Milne and Adler, 1999; Guthrie, 2005; Beck et al., 2010), aiming to identify which topics are covered by sustainability reports (Holcomb et al., 2007; Guthrie and Farneti, 2008), as well as to understand whether sustainability information matches the suggestions by international frameworks and guidelines, e.g. GRI guidelines (Roca and Searcy, 2012; Tewari and Dave, 2012), and to consider legitimacy issues (De Villiers and Van Staden, 2006).

4. Empirical evidence

We believe that the analysis of the state of the art about the quantity and quality of listed SMEs disclosure on non-financial information is important to assess the challenges that they will face in complying with the new EU and local regulations.

The first research question aimed to assess the extent to which sustainability disclosure is widespread among SMEs listed on the Euronext Growth market in Milan.

According to the legitimacy theory, non-financial disclosure is expected to be maintained or even increased over time to prevent legitimacy crises. As a matter of fact, in 2021, we found a notable increase in the number of SMEs publishing sustainability reports, compared to the previous year. With reference to the group analysed, in 2020, 28 out of 157 SMEs (17.83%) published a report, while in 2021, 47 out of 159 enterprises (29.56%) did so. These reports were disseminated through the official websites. Although growing, the frequency of sustainability reporting remained relatively low. It is clear that, despite what the legitimacy theory suggests, a large majority of enterprises were not willing or not prepared yet to undertake a journey towards sustainability disclosure. If this is true for listed SMEs, which are under pressure to obtain adequate legitimacy, we can expect an even poorer picture when considering the SMEs' realm in general (listed and not). This initial phase of the empirical analysis already reveals a large gap between theoretical expectations and current practices.

As mentioned in the methodology section, a further analysis was then conducted on websites with reference to a subgroup of 20 SMEs disclosing a sustainability report, in order to detect: (1) the existence of a dedicated sustainability section on their websites in 2021 to inform stakeholders, and (2) the disclosure of related policies implemented by the companies, together with results and targets, within these sections.

Our findings reveal that, in 2021, 14 out of 20 companies (accounting for 70% of the sub-sample) had established a dedicated section of their website to sustainability, underscoring the remarkable relevance of ESG aspects' disclosure on the web. However, a deeper analysis of the actual information disclosed on these websites indicated a less frequent articulation of sustainability policies. Specifically, only 6 out of 20 companies (barely 30% of them) explicitly communicate the actions they have taken or intend to implement to improve their ESG performance. For the remaining 70% of enterprises, the information reported on the websites lacked a forward-looking perspective. It was evidently anchored to corporate strategy, suggesting a symbolic rather than substantive role of such disclosure. This observation raises concerns regarding these digital channels' potential to serve predominantly marketing functions. This perspective is consistent with the risks suggested by Crossley et al. (2021), who argue that SMEs aim to enhance their market reputation and image through a complex mix of both symbolic and substantive practices, seeking legitimacy, social engagement, and an improved reputation and image, among others.

The second research question focused on the frameworks and guidelines adopted by the SMEs listed on the Euronext Growth Milan market.

Data collection embraced the entire population of SMEs in the Euronext Growth Milan market.

In 2020 and 2021, the 181 SMEs in the market explored produced various types of sustainability documents, which are available on their websites (see Table 3 for details).

Table 3 - Frequency of reports in 2020 and 2021

Type of reports	2020		2021	
	No.	Frequency (%)	No.	Frequency (%)
Sustainability Report	22	78,57	37	78.72
ESG Report	1	3,57	2	4.26
Non-financial Disclosure (214/95/UE)	2	7.14	3	6.38
Integrated Report	1	3,57	1	2.13
Impact Report	2	7.14	2	4.26
Other			2	4.26
TOTAL	28	100	47	100

There is a clear preference for the sustainability report as the favoured document type for reporting on ESG impacts. Surprisingly, integrated reports are rare despite the great relevance in the literature. This appears to confirm the criticisms about its adoption as focused by several authors (Dumay et al., 2017; McNally et al., 2017).

Focusing specifically on sustainability reports, there has been a significant frequency increase from 2020 to 2021. Notably, 21 out of 37 companies drafted it for both years, 16 drew it up for the first time in 2021, while only 1 company (Reti SpA) disclosed it in 2020, evolving towards an integrated report in the following period.

In the Euronext Growth Milan setting, the observed expansion of sustainability reporting between 2020 and 2021 reflects SMEs' legitimation work toward salient audiences. First-time issuers primarily pursue legitimacy by conforming to an emergent field norm, while repeat issuers engage in legitimacy maintenance through routinised annual disclosure that gradually builds cognitive legitimacy (Suchman, 1995). The pronounced preference for standalone sustainability reports over integrated reporting is consistent with a legitimacy-efficient choice: sustainability reports can deliver recognizable signals of pragmatic and moral legitimacy at lower organizational cost, whereas integrated report, though valorised in the literature, demands higher levels of organizational integration and exposes firms to scrutiny, explaining its rarity and aligning with criticism on integrated reporting's practical adoption barriers (Dumay et al., 2017; McNally et al., 2017). The single case of transition from sustainability reporting to integrated reporting (Reti SpA) illustrates a proactive differentiation strategy aimed at upgrading to cognitive legitimacy, rather than a generalizable field trajectory. Overall, patterns are consistent with symbolic–substantive hybridity (Boiral, 2013): disclosure grows and stabilises, but framework choices suggest careful calibration of legitimacy benefits against capability constraints.

The third research question centred on materiality assessment. According to the guidelines, identifying and evaluating material issues should involve the continuous and direct engagement of various stakeholders, including employees, managers, board members, investors, suppliers, etc. The large number of stakeholders is often the reason that makes challenging the identification of the material issues to include in the reports.

Through the analysis of the subgroup of 20 SMEs preparing sustainability reports, the presence of the various steps to carry out for materiality assessment has been mapped for each of them, based on the flowchart shown in Figure 1.

Evidence revealed that most companies declared compliance with most of the various steps (from "Step 0" to "Step 4). However, two steps stood out as less observed: 1) Step 0.2.1 - Set up an appropriate governance structure and processes, and 2) Step 5 - Monitor the dynamic development of materiality.

The first lack, in particular, highlights some concerning limitations, such as the risk that sustainability disclosure remains primarily a matter of measurement without translating into concrete actions, because of a lack of commitment by the governance and the absence of internal procedures dedicated to sustainability issues.

In assessing material issues, the most frequently used survey methods for identifying them and obtaining stakeholder engagement were the following: periodic questionnaires (including online surveys), online surveys using CAWI (Computer Assisted Web Interviewing) methodology, and industry analysis. Furthermore, SMEs in the sub-sample embraced various materiality concepts, including financial materiality only, impact materiality only, and double materiality. The findings revealed that only 45% of the investigated SMEs adopted a double materiality concept, while 50% of them prefer or can afford just an inside-out approach. Finally, only 1 SME (5%) exclusively adopted an outside-in perspective in defining materiality issues.

In sum, then, materiality analysis remains partial and simplified in many cases, despite its importance in affecting the entire disclosure process and the final overall quality of the resulting reports. This contrasts with the literature, which highlights the significance of a rigorous materiality determination process.

Looking at these results through the lens of legitimacy theory, our evidence suggests that materiality assessment among listed Italian SMEs primarily functions as legitimation work directed at salient audiences. The widespread use of questionnaires/CAWI and industry scans, coupled with formal statements of compliance with most process steps, provides efficient signals of pragmatic (decision-usefulness) and moral (conformance to good practice) legitimacy. However, the systematic under-observance of (i) establishing robust governance and procedures (Step 0.2.1) and (ii) monitoring materiality over time (Step 5) indicates a pattern of ceremonial conformity and partial decoupling, whereby the visible artefacts of materiality are adopted without the organisational embedding needed to sustain cognitive legitimacy. The heterogeneity in materiality concepts (only 45% applying double materiality, half opting for impact-only, and a residual financial-only approach) further reflects legitimacy under capability constraints: SMEs select the variant that best satisfies their most salient audiences at acceptable cost, rather than the theoretically most comprehensive design. Consequently, materiality often remains simplified, which helps gain legitimacy in the short run but may hinder its maintenance as stakeholder expectations and regulatory templates evolve.

5. Discussion

This research contributes to the ongoing debate on the extent to which non-financial and sustainability reporting is adopted by SMEs – a topic that remains underexplored in the SMEs' domain. While much of the extant literature has focused on large firms, there is growing recognition of the need to better understand how SMEs approach sustainability disclosure, not only considering quantitative aspects but also qualitative ones, as this study does. Its objective is to boost reflection on the most critical issues, which currently limit the quantity and quality of multidimensional reporting in SMEs. To achieve this goal, this study explores the state of the art of non-financial disclosure within a particularly interesting segment of Italian SMEs – those listed on the Euronext Growth Milan market. These enterprises, while smaller in size, are publicly traded and must manage complex relationships with a wide range of external stakeholders, making them particularly pertinent in discussions of transparency and legitimacy.

Then, the contribution of this analysis is twofold. First, from a theoretical perspective, it adds to our understanding of SMEs' propensity to voluntarily invest in an enriched and integrated disclosure to meet stakeholders' needs and gain legitimisation. The results reinforce the idea that while awareness of sustainability issues is growing, significant gaps remain in both the volume and the depth of reporting. Regulatory developments, such as the CSRD, have raised expectations, but many SMEs are still far from achieving compliance.

Second, from a practical standpoint, a valuable outcome consists of identifying the gaps that still exist in this domain and what listed SMEs will be obliged to report in the near future. Thus, this study highlights limitations of current practice, in terms of both quantity and quality of the sustainability disclosure, compared to what is suggested or prescribed by theory, recent regulations, frameworks and standards provided by international bodies. In fact, results show that the SMEs of the sample are still far from complying with them. If this is true for the listed SMEs, the rest of the small enterprises are expected to present even larger disclosure gaps. Previous studies have noted similar issues, highlighting a significant lack of information and the reliance on a symbolic approach in the report rather than a substantive approach to sustainability (Ortiz-Martínez and Marín-Hernández, 2024). This is also evident in the limited external assurance, which is not typically used by SMEs and could enhance the reliability of their information (Somoza, 2023). This attitude has also been taken into account by the EFRAG (2024b), which introduced a simplified reporting standard for SMEs.

One of the most concerning findings relates to the limited attention to materiality analysis. More in detail, results show that, despite being a foundational element of high-quality reporting, several SMEs still adopt a simplistic approach to the key steps of this analysis. Such a lack pertains to both the concept of materiality adopted and the process carried out to assess it, since key steps are still not taken. These limitations can be explained by a number of factors, like the limited managerial culture of reporting, the novelty of frameworks and guidelines, and the lack of specific knowledge in this field.

Our results align with previous studies (Ortiz-Martínez and Marín-Hernández, 2024), that show how reports are still scarce, and most of them are not integrated. Furthermore, lexical analysis shows that some sustainability report templates are used by all companies, resulting in similar reports from a linguistic perspective. External assurance is not typically used by SMEs to enhance the reliability of their information (Somoza, 2023). This attitude has also been taken into account by the EFRAG (2024b), which introduced a simplified reporting standard for SMEs.

6. Conclusions

The description of the state of the art provided by this study shows a long way to go before expectations are met and can be a baseline to assess the magnitude of the changes expected in future, fostered by recent and upcoming regulations.

It is worth noting that the family-based governance structure that often characterises this enterprise typology is likely to lead to conservative logic concerned with disclosing strategic information to competitors. However, this approach appears to be myopic. Adams and Frost (2008) and Adams and McNicholas (2007) found that sustainability disclosure can catalyse change. Massa et al. (2015) also state that data collection on ESG went beyond disclosure goals towards usage of the information «to enhance sustainable development approach and awareness, consider long-term planning, support strategy-making based on the sustainable development concept» (p. 62). However, one of the key weaknesses revealed by the analysis is an alarming lack of governance and internal procedures to support sustainability policies. Yet, they are essential ingredients to move from a symbolic to a substantive approach to sustainability (Crossley et al., 2021) and avoid that; to summarise, even if the number of sustainability reports has increased, reporting quality remains poor, and sustainability disclosure is just a symbolic action.

Our results are then aligned to De Villiers et al. (2014), highlighting many areas where further robust academic research is needed to guide developments in policy and practice, such as on the concept of materiality and the reconciliation between alternative sustainability reporting standards, frameworks and guidelines.

As previously noted, SMEs were also expected to rapidly adopt and report on sustainability practices in response to the new CSRD. Despite the StoptheClock Directive, which has temporarily postponed their advanced reporting obligations, and pending a precise definition of the actual implications of the Omnibus Package, future research should aim to further explore this topic (Bunclark and Barcellos-Paula, 2021; Morsing and Spence, 2019). This also aligns with the findings of Roberto et al. (2024), who highlighted an urgent need for development in this area. They found that SMEs that voluntarily publish sustainability reports often lack transparency. Furthermore, there is a significant deficiency in the information provided about governance, while SMEs tend to disclose more information related to social and environmental issues. So, we might wonder why, from a theoretical standpoint, ESRS and CSRD pressures matter even if SMEs aren't mandated yet. First, according to the institutional theory and because of coercive and value-chain isomorphism, even when reporting is voluntary for most non-listed SMEs, large CSRD-reporters will cascade data requests downstream to meet their own ESRS needs. As a consequence, SMEs face the pressure to converge toward ESRS-like disclosures. Second, from a legitimacy and stakeholder theory perspective, banks, insurers, corporates and public buyers increasingly view credible sustainability data as "license to operate". In this respect, ESRS-aligned signals lower perceived ESG risk and information asymmetry, improving access to finance and procurement. Third, the "not-ready" status of SMEs highlights missing routines (data governance, double materiality, controls). Early capability building (even with simplified standards) becomes a competitive capability that rivals can't quickly copy. Fourth, ESRS's double materiality reframes disclosure as a selection problem. As a consequence, SMEs that learn to evidence why some topics are not material reduce reporting scope and cost without losing credibility.

Importantly, in terms of practical implications, given the recent slowdown by the European Union with regard to sustainability reporting obligations, this study highlights the potentially important role of the VSME published by EFRAG, which appears to exceed even that played by the ESRS. While the simplified standard is not mandatory, its adoption by listed SMEs could serve as a transitional tool for building internal competencies and systems ahead of more complex regulatory obligations. Even with relief measures and a voluntary VSME track for most listed and non-listed SMEs, market forces (like buyers and lenders) would still demand consistent sustainability data. Treating ESRS not as full reporting but as a common language, starting with VSME Basic, documenting a focused materiality rationale, and building just enough data would keep costs low enough now, while keeping the option open to scale up if and when it becomes mandatory.

On the other hand, the absence of short-term requirements should not be interpreted as an excuse for inertia. Listed SMEs have a unique opportunity – and responsibility – to lead by example and prepare proactively for the integration of sustainability reporting into traditional accountability practices. However, our analysis shows that the contents of the CSRD were really too ambitious.

As for the limitations of this research that future improvement could address, we can mention the opportunity of extending the analyses currently performed only on the sub-sample of 20 SMEs to the entire population of listed SMEs that disclose reports on sustainability. This is, then, a possible future development of this research project. Furthermore, this study is qualitative; consequently, it does not explore drivers of SMEs' choices about sustainability disclosure. Future research should focus on quantitative approaches to offer a more comprehensive understanding of sustainability within SMEs.

Lastly, the geographical focus on Italy presents another opportunity for comparative research across countries, which could reveal how institutional, cultural, and regulatory differences may influence the quality and the nature of SMEs' sustainability reporting. Exploring these dynamics yields critical insights for policymakers and practitioners seeking to harmonise disclosure practices at the European and global level. Future scholars could view these limitations as potential starting points for further investigation.

References

Adams, C. A., & Frost, G. R. (2008, December). Integrating sustainability reporting into management practices. In Accounting forum (Vol. 32, No. 4, pp. 288-302). No longer published by Elsevier. https://doi.org/10.1016/j.accfor.2008.05.002

Adams, C. A., & McNicholas, P. (2007). Making a difference: Sustainability reporting, accountability and organisational change. Accounting, auditing & accountability Journal, 20(3), 382-402. https://doi.org/10.1108/09513570710748553

Adams, C., Druckman, P., & Picot, R. (2020). Sustainable development goals disclosure (SDGD) recommendations. Retrieved from: https://www.scaak.org/uploads/files/2020/February/07/Adams_Druckman_Picot_2020_Final_SDGD_Recommendations1581066540.pdf

Adams, C. A., Alhamood, A., He, X., Tian, J., Wang, L., & Wang, Y. (2021). The double-materiality concept: application and issues. Retrieved from: https://durham-repository.worktribe.com/preview/1634374/33139.pdf

Albitar, K., Al-Shaer, H., & Elmarzouky, M. (2021). Do assurance and assurance providers enhance COVID-related disclosures in CSR reports? An examination in the UK context. International Journal of Accounting & Information Management, 29(3), 410-428. https://doi.org/10.1108/IJAIM-01-2021-0020

Aureli, S., Del Baldo, M., & De Villiers, C. (2024). Connecting Environmental, Social and Governance (ESG) aspects with value creation in small and medium-sized enterprises. Piccola Impresa/Small Business, (1). https://doi.org/10.14596/pisb.4558

Beck, A. C., Campbell, D., & Shrives, P. J. (2010). Content analysis in environmental reporting research: Enrichment and rehearsal of the method in a British–German context. The British Accounting Review, 42(3), 207-222. https://doi.org/10.1016/j.bar.2010.05.002

Bernow, S., Godsall, J., Klempner, B., & Merten, C. (2019). More than values: The value-based sustainability reporting that investors want. McKinsey and Company, 7. Retrieved from: https://www.mckinsey.de/~/media/McKinsey/Business%20Functions/Sustainability/Our%20Insights/More%20than%20values%20The%20value%20based%20sustainability%20reporting%20that%20investors%20want/More%20than%20values-VF.pdf

Bikefe, G., Umaru, Z., Araga, S., Faize, M., Ekanem, E., & Daniel, A. (2020). Corporate social responsibility (CSR) by small and medium Enterprise (SMEs). a systematic review. Small Business International Review, 4(1), 16-33. https://doi.org/10.26784/sbir.v4i1.243

Boiral, O. (2013). Sustainability reports as simulacra? A counter-account of A and A+ GRI reports. Accounting, Auditing & Accountability Journal, 26(7), 1036–1071. https://doi.org/10.1108/AAAJ-04-2012-0099

Brammer, S., & Pavelin, S. (2006). Voluntary environmental disclosures by large UK companies. Journal of Business Finance & Accounting, 33(7□8), 1168-1188. https://doi.org/10.1111/j.1468-5957.2006.00598.x

Brenner, B., & Hartl, B. (2021). The perceived relationship between digitalization and ecological, economic, and social sustainability. Journal of Cleaner Production, 315, https://doi.org/10.1016/j.jclepro.2021.128128

Brusati, L., Fuso, C., & Garlatti, A. (2021). SMEs and: Evidence from Italy. In Development of integrated reporting in the SME sector: Case studies from European countries (pp. 71-102). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-81903-3_4

Bunclark, L., & Barcellos-Paula, L. (2021). Sustainability reporting for sustainable supply chain management in Peru. Sustainable Production and Consumption, 27, 1458-1472. https://doi.org/10.1016/j.spc.2021.03.013

Capriotti, P., & Moreno, Á. (2007). Corporate citizenship and public relations: The importance and interactivity of social responsibility issues on corporate websites. Public relations review, 33(1), 84-91. https://doi.org/10.1016/j.pubrev.2006.11.012

Cho, C. H., Michelon, G., Patten, D. M., & Roberts, R. W. (2015). CSR disclosure: the more things change…?. Accounting, Auditing & Accountability Journal, 28(1), 14-35. https://doi.org/10.1108/AAAJ-12-2013-1549

Cicchini, D., Cotana, M. L., Filocamo, M. R., & Galeotti, R. M. (2024). Sustainability reporting practices in SMEs. A systematic study and future avenues. Piccola Impresa/Small Business, (1). https://doi.org/10.14596/pisb.4022

Comyns, B., Figge, F., Hahn, T., & Barkemeyer, R. (2013, September). Sustainability reporting: The role of "Search","Experience" and "Credence" information. Accounting Forum, 37/3, 231-243. No longer published by Elsevier. https://doi.org/10.1016/j.accfor.2013.04.006

CONSOB (2024). Report on non-financial reporting of Italian companies, https://www.consob.it/web/consob-and-its-activities/report-dnf

Coupland, C. (2005). Corporate social responsibility as argument on the web. Journal of business ethics, 62, 355-366. https://doi.org/10.1007/s10551-005-1953-y

Crossley, R. M., Elmagrhi, M. H., & Ntim, C. G. (2021). Sustainability and legitimacy theory: The case of sustainable social and environmental practices of small and medium sized enterprises. Business Strategy and the Environment, 30(8), 3740-3762. https://doi.org/10.1002/bse.2837

De Villiers, C., & Van Staden, C. J. (2006). Can less environmental disclosure have a legitimising effect? Evidence from Africa. Accounting, organizations and society, 31(8), 763-781. https://doi.org/10.1016/j.aos.2006.03.001

De Villiers, C., Rinaldi, L., & Unerman, J. (2014). Integrated Reporting: Insights, gaps and an agenda for future research. Accounting, auditing & accountability journal, 27(7), 1042-1067. https://doi.org/10.1108/AAAJ-06-2014-1736

Deegan, C. (2002). Introduction: The legitimising effect of social and environmental disclosures–a theoretical foundation. Accounting, auditing & accountability journal, 15(3), 282-311. https://doi.org/10.1108/09513570210435852

Degregori, G., Brescia, V., Calandra, D., & Secinaro, S. (2025). Evaluating sustainability reporting in SMEs: insights from an ethical cooperative bank's approach. Journal of Global Responsibility, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JGR-10-2024-0197

Del Baldo, M. (2017). The implementation of integrating reporting in SMEs: Insights from a pioneering experience in Italy. Meditari Accountancy Research, 25(4), 505-532. https://doi.org/10.1108/MEDAR-11-2016-0094

Del Baldo, M. (2018). Integrated reporting in small and medium enterprises: Issues and perspectives from Italy. Current Issues in Corporate Social Responsibility: An International Consideration, 195-215. https://doi.org/10.1007/978-3-319-70449-4_13

Deloitte (2022). Osservatorio nazionale sulle dichiarazioni di carattere non finanziario. https://www.deloitte.com/content/dam/assets-zone2/it/it/docs/services/audit-assurance/2024/osservatorio-dnf-5-edizione-deloitte.pdf

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. American sociological review, 48(2), 147-160. https://doi.org/10.1515/9780691229270-005

Di Tullio, P., La Torre, M., & Rea, M. (2025). Sustainability reporting regulation: hypes, myths and reflections. Management Decision. https://doi.org/10.1108/MD-10-2024-2462

Dinh, T., Husmann, A., & Melloni, G. (2023). Corporate sustainability reporting in Europe: A scoping review. Accounting in Europe, 20(1), 91-119. https://doi.org/10.1080/17449480.2022.2149345

Discua Cruz, A. (2020). There is no need to shout to be heard! The paradoxical nature of corporate social responsibility (CSR) reporting in a Latin American family small and medium-sized enterprise (SME). International Small Business Journal, 38(3), 243-267. https://doi.org/10.1177/0266242619884852

Dowling, J., & Pfeffer, J. (1975). Organizational legitimacy: Social values and organizational behavior. Pacific sociological review, 18(1), 122-136. https://doi.org/10.2307/1388226

Du Toit, E. (2024). Thirty Years of Sustainability Reporting: Insights, Gaps and an Agenda for Future Research Through a Systematic Literature Review. Sustainability,16, 10750. https://doi.org/10.3390/su162310750

Dumay, J., Bernardi, C., Guthrie, J., & La Torre, M. (2017). Barriers to implementing the International Integrated Reporting Framework: A contemporary academic perspective. Meditari Accountancy Research, 25(4), 461-480. https://doi.org/10.1108/MEDAR-05-2017-0150

Dumay, J., La Torre, M., & Farneti, F. (2019). Developing trust through stewardship: Implications for intellectual capital, integrated reporting, and the EU Directive 2014/95/EU. Journal of Intellectual Capital, 20(1), 11-39. https://doi.org/10.1108/JIC-06-2018-0097

EFAA (European Federation of Accountants and Auditors) for SMEs. (2023). Sustainability Reporting Assurance How SMPs Can Build the Capacity to Support SMEs. Retrieved from: https://efaa.com/wp-content/uploads/2023/04/Guide-final-Sustainability-Reporting-Assurance.pdf.

EFRAG (2024a). EFRAG IG 1 Materiality Assessment. Implementation guidance. Retrieved from: https://www.efrag.org/sites/default/files/sites/webpublishing/SiteAssets/IG%201%20Materiality%20Assessment_final.pdf

EFRAG (2024b). Voluntary Sustainability Reporting Standard for non-listed SMEs (VSME). Retrieved from: https://www.efrag.org/sites/default/files/sites/webpublishing/SiteAssets/VSME%20Standard.pdf

Epstein, M. J. (2018). Making sustainability work: Best practices in managing and measuring corporate social, environmental and economic impacts. Routledge. https://doi.org/10.4324/9781351280129

Euronext (2025). ESG Reporting Guide and ESG Trends Report 2025. https://connect.euronext.com/en/node/2314347?utm_source=chatgpt.com

European Commission (2025). Raccomandazione su reporting volontario per PMI (VSME).

Fatma, M., Rahman, Z., & Khan, I. (2014). Multi-item stakeholder based scale to measure CSR in the banking industry. International Strategic Management Review, 2(1), 9-20. https://doi.org/10.1016/j.ism.2014.06.001

Fauzi, H., Svensson, G., & Rahman, A. A. (2010). "Triple bottom line" as "Sustainable corporate performance": A proposition for the future. Sustainability, 2(5), 1345-1360. https://doi.org/10.3390/su2051345

Freeman, R. E. (2010). Strategic management: A stakeholder approach. Cambridge university press. https://doi.org/10.1017/CBO9781139192675

Gray, R. H., Owen, D. L., & Adams, C. A. (2003). Accounting and accountability: Changes and challenges in corporate social and environmental reporting. https://durham-repository.worktribe.com/output/1123410

Guidry, R. P., & Patten, D. M. (2010). Market reactions to the first□time issuance of corporate sustainability reports: Evidence that quality matters. Sustainability accounting, management and policy Journal, 1(1), 33-50. https://doi.org/10.1108/20408021011059214

Guthrie, J., & Parker, L. D. (1990). Corporate social disclosure practice: a comparative international analysis. Advances in public interest accounting, 3, 159-175.

Guthrie, J. (2005). Using content analysis as a research method to inquire into social and environmental disclosure: what is new?. In Australasian Centre for Social and Environmental Accounting Research Conference (pp. 1-12). CSEAR. https://doi.org/10.1108/14691930410533704

Guthrie, J., & Farneti, F. (2008). GRI sustainability reporting by Australian public sector organizations. Public Money and management, 28(6), 361-366. https://doi.org/10.1111/j.1467-9302.2008.00670.x

Hahn, R., & Kühnen, M. (2013). Determinants of sustainability reporting: A review of results, trends, theory, and opportunities in an expanding field of research. Journal of

cleaner production, 59, 5-21. https://doi.org/10.1016/j.jclepro.2013.07.005
Hickman, L. E. (2020). Information asymmetry in CSR reporting: publicly-traded versus privately-held firms. Sustainability Accounting, Management and Policy Journal, 11(1), 207-232. https://doi.org/10.1108/SAMPJ-12-2018-0333
Holcomb, J. L., Upchurch, R. S., & Okumus, F. (2007). Corporate social responsibility: what are top hotel companies reporting?. International journal of contemporary hospitality management, 19(6), 461-475. https://doi.org/10.1108/09596110710775129
Khoja, F., Adams, J., Kauffman, R., & Yegiyan, M. (2022, April). How SMEs benefit from environmental sustainability strategies and practices. Supply Chain Forum: An International Journal, 23/2, 97-112. Taylor & Francis. https://doi.org/10.1080/16258312.2022.2036580
KPMG (2022). Big shifts, small steps Survey of Sustainability Reporting 2022. https://assets.kpmg.com/content/dam/kpmg/xx/pdf/2022/10/ssr-small-steps-big-shifts.pdf
Krippendorff, K. (2018). Content analysis: An introduction to its methodology. Sage publications. https://doi.org/10.4135/9781071878781
Kuppig, V. D., Cook, Y. C., Carter, D. A., Larson, N. J., Williams, R. E., & Dvorak, B. I. (2016). Implementation of sustainability improvements at the facility level: Motivations and barriers. Journal of Cleaner Production, 139, 1529-1538. https://doi.org/10.1016/j.jclepro.2016.08.167
Lawrence Neuman, W. (2014). Social research methods: Qualitative and quantitative approaches. Retrieved from: http://194.164.49.16:8080/jspui/bitstream/123456789/156/1/Social%20Research%20Methods%20%28Eng%29%205MB%282%29.pdf
McNally, M. A., Cerbone, D., & Maroun, W. (2017). Exploring the challenges of preparing an integrated report. Meditari Accountancy Research, 25(4), 481-504. https://doi.org/10.1108/MEDAR-10-2016-0085
Massa, L., Farneti, F., & Scappini, B. (2015). Developing a sustainability report in a small to medium enterprise: process and consequences. Meditari Accountancy Research, 23(1), 62-91. https://doi.org/10.1108/MEDAR-02-2014-0030
Milne, M. J., & Adler, R. W. (1999). Exploring the reliability of social and environmental disclosures content analysis. Accounting, auditing & accountability journal, 12(2), 237-256. https://doi.org/10.1108/09513579910270138
Morsing, M., & Spence, L. J. (2019). Corporate social responsibility (CSR) communication and small and medium sized enterprises: The governmentality dilemma of explicit and implicit CSR communication. Human relations, 72(12), 1920-1947. https://doi.org/10.1177/0018726718804306
Muslichah, M. U. S. L. I. C. H. A. H., Wiyarni, W. I. Y. A. R. N. I., & Nursasi, E. N. G. G. A. R. (2020). Model of the integrated reporting for SMEs. Journal of Sustainability Science and Management, 15(2), 146-161. Retrieved from: https://jssm.umt.edu.my/wp-content/uploads/sites/51/2018/05/12_15.2.pdf
O'donovan, G. (2002). Environmental disclosures in the annual report: Extending the applicability and predictive power of legitimacy theory. Accounting, Auditing & Accountability Journal, 15(3), 344-371. https://doi.org/10.1108/09513570210435870
OECD (OECD (Organisation for Economic Co-operation and Development). (2025). Fostering convergence in SME sustainability reporting. Retrieved from: https://www.oecd.org/content/dam/oecd/en/publications/reports/2025/02/fostering-convergence-in-sme-sustainability-reporting_133eb77f/ffbf16fb-en.pdf
OECD (OECD (Organisation for Economic Co-operation and Development). (2006). 2006 Annual report on sustainable development work in the OECD. Retrieved from: https://www.oecd.org/greengrowth/38392143.pdf, latest access 19 May 2023
OIBR (Organismo Italiano Business Reporting). (2022). Operationalising materiality. Retrieved from: https://www.fondazioneoibr.it/en/guidelines-and-documents/.
Ortiz-Martínez, E., Marín-Hernández, S., & Santos-Jaén, J. M. (2023). Sustainability, corporate social responsibility, non-financial reporting and company

performance: Relationships and mediating effects in Spanish small and medium sized enterprises. Sustainable Production and Consumption, 35, 349-364. https://doi.org/10.1016/j.spc.2022.11.015

Ortiz-Martínez, E., & Marín-Hernández, S. (2024). Sustainability information in European small-and medium-sized enterprises. Journal of the Knowledge Economy, 15(2), 7497-7522. https://doi.org/10.1007/s13132-023-01386-7

Pan, X., Chen, X., & Sinha, P. (2023). Navigating the haze: Environmental performance feedback and CSR report readability. Journal of Business Research, 166, 114116. https://doi.org/10.1016/j.jbusres.2023.114116

Patel, P. C., Pearce II, J. A., & Oghazi, P. (2021). Not so myopic: Investors lowering short-term growth expectations under high industry ESG-sales-related dynamism and predictability. Journal of Business Research, 128, 551-563. https://doi.org/10.1016/j.jbusres.2020.11.013

Patten, D. M. (1992). Intra-industry environmental disclosures in response to the Alaskan oil spill: A note on legitimacy theory. Accounting, organizations and Society, 17(5), 471-475. https://doi.org/10.1016/0361-3682(92)90042-Q

Pinney, C., Lawrence, S., & Lau, S. (2019). Sustainability and capital markets—Are we there yet?. Journal of Applied Corporate Finance, 31(2), 86-91. https://doi.org/10.1111/jacf.12350

Pizzi, S., & Coronella, L. (2024). Are listed SMEs ready for the corporate sustainability reporting directive? Evidence from Italy. Business Ethics, the Environment & Responsibility

Prasanna, R. P. I. R., Jayasundara, J. M. S. B., Naradda Gamage, S. K., Ekanayake, E. M. S., Rajapakshe, P. S. K., & Abeyrathne, G. A. K. N. J. (2019). Sustainability of SMEs in the competition: A systemic review on technological challenges and SME performance. Journal of Open Innovation: Technology, Market, and Complexity, 5(4), 100. https://doi.org/10.3390/joitmc5040100

Roberto, F., Principale, S., Carello, L. A., & Conte, P. (2024). Exploring sustainability reporting in Italian listed SMEs. Piccola Impresa/Small Business, (1). https://doi.org/10.14596/pisb.4016

Roca, L. C., & Searcy, C. (2012). An analysis of indicators disclosed in corporate sustainability reports. Journal of cleaner production, 20(1), 103-118. https://doi.org/10.1016/j.jclepro.2011.08.002

Setyaningsih, S., Widjojo, R. & Kelle, P. (2024). Challenges and opportunities in sustainability reporting: a focus on small and medium enterprises (SMEs), Cogent Business & Management, 11(1), 2298215. https://doi.org/10.1080/23311975.2023.2298215

Sciulli, N., & Adhariani, D. (2021). An exploration of the motivating factors for the preparation of an integrated report in contextual settings. Qualitative Research in Accounting & Management, 18(4/5), 545-577. https://doi.org/10.1108/QRAM-08-2020-0128

Schiehll, E., & Kolahgar, S. (2021). Financial materiality in the informativeness of sustainability reporting. Business Strategy and the Environment, 30(2), 840-855. https://doi.org/10.1002/bse.2657

Schultz, F., Castelló, I., & Morsing, M. (2013). The construction of corporate social responsibility in network societies: A communication view. Journal of business ethics, 115, 681-692. https://doi.org/10.1007/s10551-013-1826-8

Somoza, A. (2023). Voluntary sustainability assurance in small and medium-sized entities: The role of country origin in Europe. Business Strategy and the Environment, 32(1), 462–483. https://doi.org/10.1002/bse.3155

Sridhar, K. (2012). Corporate conceptions of triple bottom line reporting: An empirical analysis into the signs and symbols driving this fashionable framework. Social Responsibility Journal, 8(3), 312-326. https://doi.org/10.1108/17471111211247901

Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. Academy of management review, 20(3), 571-610. https://doi.org/10.5465/

amr.1995.9508080331

Tewari, R., & Dave, D. (2012). Corporate social responsibility: Communication through sustainability reports by Indian and multinational companies. Global Business Review, 13(3), 393-405. https://doi.org/10.1177/097215091201300303

Threlfall, R., King, A., Shulman, J., & Bartels, W. (2020). The time has come: The KPMG survey of sustainability reporting 2020. KMPG IMPACT: Singapore, 63. Retrieved from: https://assets.kpmg.com/content/dam/kpmg/be/pdf/2020/12/The_Time_Has_Come_KPMG_Survey_of_Sustainability_Reporting_2020.pdf

Trianni, A., Cagno, E., & Neri, A. (2017). Modelling barriers to the adoption of industrial sustainability measures. Journal of Cleaner Production, 168, 1482-1504. https://doi.org/10.1016/j.jclepro.2017.07.244

Zamil, I. A., Ramakrishnan, S., Jamal, N. M., Hatif, M. A., & Khatib, S. F. (2023). Drivers of corporate voluntary disclosure: a systematic review. Journal of Financial Reporting and Accounting, 21(2), 232-267. https://doi.org/10.1108/JFRA-04-2021-0110

BOOK REVIEW

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BOOK REVIEW:

BIG DATA IN SMALL BUSINESS. DATA-DRIVEN GROWTH IN SMALL AND MEDIUM-SIZED ENTERPRISES, C. LUND PEDERSEN, A. LINDGREEN, T. RITTER, T. RINGBERG (EDITED BY), EDWARD ELGAR PUBLISHING, 2021

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Abstract

The book critically examines how small and medium-sized enterprises (SMEs) can exploit big data to enhance strategic decision-making, operational efficiency, and competitiveness. Through expert contributions and in-depth case studies, it addresses key themes such as human capital analytics, digital transformation, and data-driven learning. The book emphasizes practical, scalable solutions for SMEs to overcome resource limitations and integrate data analytics into their business models. By providing a comprehensive framework, it equips SMEs with tools to effectively promote sustainable growth and innovation in an increasingly data-centric global market.

Review

"Big Data in Small Business" is a well-structured and comprehensive book that guides readers through the key aspects of leveraging big data in SMEs. Divided into four main sections, the book offers an in-depth exploration of foundational principles, the development of digital capabilities, and the practical integration of data across a wide range of business functions. It also focuses on the strategic process of digital transformation, providing SMEs with detailed guidance on effectively leveraging big data to optimize operations, enhance decision-making, and drive innovation. Each section builds on the previous one, presenting a holistic framework that empowers businesses to overcome the complexities of the digital landscape and achieve sustainable growth through data-driven strategies.

In more detail, the first section, Foundations, establishes the essential principles of big data, addressing key challenges specific to smaller businesses, such as regulatory compliance and scalability. The second section, Capabilities, focuses on developing the necessary digital competencies, offering strategic insights into how SMEs can effectively integrate data-driven processes into their operations. In Functions, the third section, the book turns its attention to the practical application of big data across different business areas, including human capital management and customer engagement. Lastly, the Transformations section provides an in-depth look at the digital transformation journey, equipping SMEs with the knowledge needed to adopt big data technologies and achieve long-term competitive advantages.

The Foundations section is composed of three chapters. In Chapter 1, Karen G. Mills and Annie V. Dang explore the transformative potential of AI and big data for SMEs. Through the specific case study of Alex, a coffee shop owner, they provide a vivid illustration of how AI-powered dashboards can revolutionize daily operations. Alex's business is effortlessly managed through this AI dashboard, handling tasks like supply chain management, employee scheduling, and cash flow forecasting. This practical example highlights how AI and big data democratize capabilities once reserved for large enterprises, allowing smaller firms to optimize operations, reduce costs, and improve decision-making. The authors emphasize not only the operational efficiencies enabled by AI but also two critical benefits for small businesses: access to actionable insights and improved access to capital. Mills and Dang highlight how predictive analytics allow small businesses like Alex's to adjust inventory in real time, anticipate customer preferences, and even optimize pricing strategies. Most significantly, the chapter discusses how fintech innovations powered by AI are streamlining the lending process, enabling SMEs to receive faster and more accurate credit assessments, thus improving their financial flexibility. The concept of a "Small Business Utopia," as coined by the authors, envisions a future where big data and AI facilitate the seamless operation of small businesses. However, the authors also address the risks associated with over-reliance on data and automation. They highlight concerns about data privacy, transparency, and the ethics of AI-driven decision-making, advocating for "smart regulation" to protect SMEs and their customers, ensuring that the benefits of big data do not come at the cost of security and privacy.

Chapter 2, authored by Jan Trzaskowski, explores the crucial aspect of General Data Protection Regulation (GDPR) compliance for SMEs. The author provides a clear and thorough interpretation of the six key principles of GDPR: Legitimacy, Proportionality, Empowerment, Transparency, Accountability, and Security. While GDPR compliance can often seem challenging for smaller firms with limited resources, the chapter simplifies these complex regulations into practical, actionable guidelines. In doing so, Trzaskowski effectively bridges the gap between legal theory and practical application, helping SMEs integrate data protection measures into their daily operations without hindering innovation. A valuable aspect of the chapter is its presentation of GDPR compliance not merely as a legal obligation but as a strategic advantage, enabling businesses to build customer trust and gain a competitive advantage.

Chapter 3, written by Vania Sena and Sena Ozdemir, provides a comprehensive theoretical and empirical analysis of the broader organizational impacts of big data adoption in SMEs. The authors argue that big data can significantly reduce coordination costs and enhance internal collaboration within SMEs. However, they also point out that many SMEs lack the necessary internal capabilities and infrastructure to fully leverage these technologies. A key theme in this chapter is the gap between the potential of big data and the reality faced by many SMEs, with resource constraints acting as a major barrier to adoption. The chapter's adoption of statistical analyses, including Sys-GMM estimates, strengthens its arguments by providing empirical evidence that organizational restructuring and investments in human capital are essential for SMEs to realize the full benefits of big data. This analysis of challenges offers a realistic perspective on the digital transformation journey for SMEs.

The second section, Capabilities, comprises four chapters that focus on how SMEs can develop the necessary digital skills and infrastructure needed to succeed in the Industry 4.0 era.

In Chapter 4, Bieke Struyf, Wouter Van Bockhaven, and Paul Matthyssens present a longitudinal case study of a Belgian manufacturing SME to illustrate the company's transition from traditional operations to a fully data-driven business model. This chapter is particularly valuable for its in-depth exploration of resource alignment and the strategic use of digital platforms to enable new forms of value creation. The case study demonstrates how the company overcame common challenges faced by SMEs, such as limited resources and technological expertise, by focusing on incremental innovation and leveraging external partnerships. The authors argue that adopting servitization models and digital platforms can unlock new revenue streams for SMEs, an insight especially relevant as industries undergo rapid digital transformation.

Chapter 5, by Carsten Lund Pedersen and Thomas Ritter, offers a detailed framework for assessing and developing SMEs' digitization capabilities. The authors propose that digitization capabilities should be viewed as ongoing organizational routines, while data-driven projects are finite, time-bound initiatives that SMEs can implement to drive growth. They provide a step-by-step guide on how SMEs can measure their digital readiness through a "workshop series" approach, which includes evaluating data collection, analytics, and integration processes. This practical framework is invaluable for SMEs seeking a structured path toward digital transformation, particularly for those uncertain about where to begin.

Chapter 6, authored by Joel Mero, Heikki Karjaluoto, and Tanja Tammisalo, presents an insightful case study on Glaston, a glass-processing technology company, and its innovative use of big data through the development of the Glaston Siru app. This app employs image recognition and neural networks to perform tempered glass fragmentation tests, a crucial quality control step in the glass industry. Traditionally, these tests were either labor-intensive or required costly industrial equipment. The Glaston Siru app simplifies this process, enabling users to capture a picture of fragmented glass and automatically conduct the test, highlighting Glaston's capabilities in big data and AI. The chapter underscores how Glaston's open innovation approach and willingness to experiment with new technologies allowed it to create a cost-effective and highly functional tool, strengthening its position as a technological leader in the glass industry. By examining this case study, the authors expand on the broader implications of adopting big data and AI in traditional industries like glass processing. The key insight is that SMEs, even in traditional sectors, can benefit from digital transformation if they are open to partnerships and committed to exploring the potential of new technologies.

Chapter 7, authored by Shirley Y. Coleman, explores how SMEs can collaborate with universities to strengthen their data science capabilities. In the context of Industry 4.0, big data offers businesses significant opportunities to enhance processes, outputs, and competitiveness through advanced data strategies like predictive analytics and machine learning. However, many SMEs lack the internal resources and expertise needed to fully leverage these technologies. Coleman highlights several collaboration options, such as training staff, hiring data specialists, or forming partnerships with universities. A prominent model discussed is Knowledge Transfer Partnerships (KTPs), which allow SMEs to co-fund projects with universities, gaining access to advanced research and tools. These partnerships enable SMEs to overcome resource limitations while benefiting from university expertise. Drawing from her experience in a self-funded university unit, Coleman shares successful case studies of partnerships that improved business efficiency and innovation through data-driven approaches. The chapter includes a flowchart of the engagement process, outlining key steps for productive SME-university collaboration: initial contact, needs assessment, project planning, implementation, and evaluation. A central insight of this chapter is the emphasis on mutual understanding, clear objectives, and strong management as essential elements for effective collaboration. SMEs benefit from tailored solutions and access to trained professionals, while universities gain valuable real-world applications for their research. Coleman underscores that these partnerships should be viewed as long-term investments, helping SMEs address immediate challenges while building the capacity to innovate in the future.

The third section, Functions, focuses on how SMEs can apply big data across various business areas, from human capital management to customer engagement.

In Chapter 8, Frederikke Amalie la Cour Nygaard and Dana Minbaeva explore the transformative potential of Human Capital Analytics (HCA) for SMEs. While much research centers on large organizations, the authors argue that SMEs can also greatly benefit from HCA to improve strategic decision-making. By leveraging data to monitor and optimize employee performance, businesses can create value, manage talent, and improve competitiveness. However, SMEs face challenges such as limited resources and data availability. The chapter suggests that the smaller, more agile nature of SMEs could be advantageous for HCA adoption, as these firms can more easily integrate and act upon insights generated. The authors stress the importance of data quality, emphasizing that SMEs must ensure the data they collect is both accurate and relevant for analysis. They also discuss the need for a cultural shift within organizations to embrace data-driven decision-making. Ultimately, the chapter advocates for early adoption of HCA in SMEs, as this can enhance their long-term success and lead to more informed talent management decisions. The ability to use human capital data effectively provides SMEs with a competitive edge in today's data-driven marketplace, particularly when aligned with business objectives.

In Chapter 9, Camilla Nelleman and Torben Pedersen examine the impact of big data and experimental methods on optimizing e-learning for SMEs. The authors argue that by collecting data on user behavior in e-learning environments, companies can more effectively tailor training programs to meet employee needs. The chapter presents a case study of a software company that experimented with different digital training formats, demonstrating the benefits of shifting from traditional classroom-based learning to an online format. By analyzing behavioral data, the company was able to adjust the content and structure of its courses to improve user engagement and retention. This experiment resulted in improved learning outcomes and cost efficiency for the company. The authors emphasize that SMEs can use similar experimental approaches in training and other business operations to determine what works best in real-time, rather than relying on assumptions. They conclude that data-driven decision-making, particularly in employee learning and development, is crucial for SMEs to stay competitive. The chapter encourages SMEs to continuously experiment with and adapt their e-learning practices to ensure maximum effectiveness and efficiency in workforce training.

In Chapter 10, Poul Houman Andersen examines the implications of big data on business market relationships, focusing on the debate over whether big data represents a disruptive force or an evolutionary enhancement for business practices. The chapter highlights how SMEs, despite their limited resources, can leverage big data to build, maintain, and enhance their market relationships with customers. Unlike larger corporations, SMEs often rely on a smaller, more focused customer base, making long-term relationships essential for their survival. The chapter introduces the concept of "market relationship presence", defined as a firm's ability to establish, develop, and protect valuable exchange relationships with both customers and suppliers. Big data allows SMEs to more accurately target customers' demands and tailor offerings, which can significantly improve their market presence. Andersen argues that, although big data can increase SME competitiveness, it also requires a shift towards more data-driven interactions with customers. The implications for SMEs are clear: big data provides a powerful tool to enhance business relationships by offering deeper insights into customer behaviors, preferences, and expectations. However, Andersen cautions that managing these new data sources can be time-consuming and costly. SMEs must balance the benefits of real-time insights with the challenges of implementing and maintaining big data systems. Ultimately, while big data offers substantial opportunities for SMEs, success depends on a strategic application that aligns with business objectives.

In Chapter 11, Henrik Andersen and Thomas Ritter introduce the concept of "revenue blueprinting" as a strategic approach for SMEs to leverage customer data and insights for business growth. The chapter outlines a three-step process that combines explicit customer data (e.g., revenue history) with tacit knowledge from sales teams to identify potential revenue growth opportunities. Step 1 focuses on calculating revenue blueprints using explicit data, such as revenue patterns and product-category sales from existing customers. Step 2 involves verification by customer-facing employees, who combine their insights with data to better assess growth opportunities. Finally, Step 3 is the implementation of strategies, where businesses categorize customers based on their potential and allocate resources to unlock additional revenue. Overall, the chapter emphasizes that this data-driven blueprinting process is low-cost, making it particularly suitable for SMEs with limited resources. Andersen and Ritter argue that this method not only accelerates revenue growth but also strengthens customer relationships by using insights already embedded within the company. Furthermore, they suggest that applying revenue blueprinting can lead to immediate and sustainable revenue improvements, as sales strategies become more targeted and effective over time.

The final section, Transformations, shifts focus to the broader digital transformation process and the role of big data in helping SMEs remain competitive in the digital age.

In Chapter 12, Bard Tronvoll, Christian Kowalkowski, and David Sérhammar discuss the challenges that SMEs face when transitioning to a digital business environment. The authors emphasize the importance of digital servitization, where traditional product-based offerings are transformed into digital services to enhance value creation and customer engagement. The primary motivation for SMEs to embrace this transformation is the pursuit of competitive advantage, especially within a landscape reshaped by rapid technological advancements. A central concept in this chapter, "digital servitization", combines the trend of servitization (the shift from products to services) with digitalization. This shift is described as essential for SMEs, enabling them to stay relevant in increasingly competitive markets. The authors identify three transformational shifts required for digital servitization: dematerialization (separating information from physical goods), identity shifts (redefining what the business represents in a digital age), and collaboration (working with other ecosystem actors to create value). According to the authors, a significant challenge for SMEs is the lack of technical infrastructure and financial resources needed for this transition. Despite these challenges, SMEs are uniquely positioned to adapt due to their agile structures and close customer relationships. In this context, SMEs should develop a digital servitization strategy, integrating digital services to remain competitive and enhance customer engagement.

Finally, in Chapter 13, Pernille Rydén and Helle Rootzén explore the journey of Danish SMEs as they work to integrate big data technologies into their operations. The authors highlight the importance of digital capabilities for SMEs in maintaining competitiveness within the European market, particularly in sectors where data-driven decision-making is crucial. They note that, although big data holds significant potential for growth and innovation, many SMEs face a knowledge gap in understanding how to leverage it effectively. The chapter introduces the "KomDigital" initiative, a learning framework designed to help SMEs develop the digital competencies needed for big data transformation. The authors outline four key learning domains: market understanding, technology application, business model innovation, and organizational processes. Through case studies of Danish SMEs, the chapter provides valuable insights into the managerial and organizational challenges these companies encounter, such as resistance to change, limited digital literacy, and the complexity of integrating data across business processes. Despite these challenges, the chapter underscores the transformative potential of big data for SMEs. It suggests that starting small, with focused experiments and realistic goals, can help SMEs gradually adopt big data technologies. The chapter concludes with practical advice for managers, emphasizing the need for a strategic approach to digital transformation that includes both technological investment and organizational learning.

Overall, Big Data in Small Business is a must-read for any SME aiming to remain competitive in today's data-driven environment. This book simplifies the complexities of big data into clear, practical steps that businesses of all sizes can easily implement. The real-world examples are especially valuable, as they effectively demonstrate how SMEs can leverage data to enhance efficiency, gain deeper customers insights, and unlock new revenue streams. Highly recommended for scholars, managers, and practitioners alike, the book's focus on the unique challenges and opportunities faced by SMEs offers tailored strategies that are both actionable and scalable, making it a remarkable resource in the field of big data for small businesses.

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