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**The Influence of Sustainability-Focused Corporate
Training on Knowledge Sharing:
A Systematic Literature Review**

**L'influenza della Formazione Aziendale Incentrata sulla Sostenibilità sulla Condivisione
delle Conoscenze: Una Revisione Sistemica della Letteratura**

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***“Everyone has Wings,
but only those who Dream will learn to Fly...”***
Jim Morrison

Abstract

Sustainability-focused corporate training (SFCT) has emerged as a critical driver of knowledge sharing (KS) and sustainable innovation (SI) within organisations. However, its precise mechanisms and effectiveness in promoting knowledge sharing is underexplored. This study conducts a systematic literature review (SLR) to explore the role of SFCT in fostering KS, with a focus on the mediating influence of leadership, organisational culture and trust. The results explain that soft factors, such as collaborative culture and leadership commitment, have a greater impact on knowledge sharing technological involvements. Furthermore, aligning training programs with the United Nations' Sustainable Development Goals (SDGs) improves employee engagement, facilitates the adoption of green technologies and strengthens sustainable business practices. Despite its benefits, SFCT faces some challenges, including cultural rigidity and the absence of long-term evaluation frameworks, which limit its transformative potential. By integrating theoretical insights and practical implications, this study provides a comprehensive understanding how SFCT can be exploited to strengthen the dynamics of knowledge sharing and drive sustainable innovation, offering strategic recommendations for organisations seeking to incorporate sustainability into their core operations.

Abstract

La formazione aziendale incentrata sulla sostenibilità è emersa come un fattore critico della condivisione delle conoscenze e dell'innovazione sostenibile all'interno delle organizzazioni. Tuttavia, i suoi meccanismi e la sua efficacia nel promuovere la condivisione della conoscenza sono poco esplorati. Questo studio conduce una revisione sistematica della letteratura per esplorare il ruolo della formazione aziendale incentrata sulla sostenibilità nel promuovere la condivisione della conoscenza, con particolare attenzione all'influenza mediatrice della leadership, cultura organizzativa e fiducia. I risultati spiegano che i fattori "soft", come la cultura collaborativa e l'impegno della leadership, hanno un impatto maggiore sul coinvolgimento tecnologico nella condivisione della conoscenza. Inoltre, l'allineamento dei programmi di formazione agli Obiettivi di Sviluppo Sostenibile delle Nazioni Unite, migliora il coinvolgimento dei dipendenti, facilita l'adozione di tecnologie verdi e rafforza le pratiche aziendali sostenibili. Nonostante i suoi benefici, la formazione aziendale incentrata sulla sostenibilità deve affrontare alcune sfide, tra cui la rigidità culturale e l'assenza di quadri di valutazione a lungo termine, che ne limitano il potenziale di trasformazione. Integrando intuizioni teoriche e implicazioni pratiche, questo studio fornisce una comprensione completa di come la formazione aziendale incentrata sulla sostenibilità possa essere sfruttata per rafforzare le dinamiche di condivisione della conoscenza e guidare l'innovazione sostenibile, offrendo raccomandazioni strategiche per le organizzazioni che cercano di incorporare la sostenibilità nelle loro principali attività.

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List of Abbreviations

CSP	Cloud Service Provider
CSR	Corporate Social Responsibility
HR	Human Resources
KBV	Knowledge-Based View
KM	Knowledge Management
KS	Knowledge Sharing
LO	Learning Organisation
OECD	Organisation for Economic Co-operation and Development
RBV	Resource-Based View
R&D	Recent Development
SBMI	Sustainable Business Model Innovation
SBSC	Sustainable Balance Score Card
SDG	Sustainable Development Goal
SFCT	Sustainability-Focused Corporate Training
SI	Sustainable Innovation
SME	Small-Medium Enterprise
SPA	Sustainable Performance Assessment
SPM	Sustainable Performance Measurement
SRL	Systematic Literature Review
TBL	Triple Bottom Line

1 Introduction

Sustainability has become an essential element of today's businesses. Sustainable behaviour refers to practices that prioritise long-term environmental, social and economic health. It reflects an organisation's commitment to reducing negative impacts on the planet and promoting responsible resource use, which is increasingly valued by stakeholders and essential for future resilience. To achieve strategic advantage and long-term success, companies are increasingly integrating sustainability into core operations (Hoffman, 2018; Sullivan, 2014). This change requires the development of sustainability-related skills among employees within training (Baumgartner & Winter, 2014). Moreover, market forces drive this change by emphasising the role of sustainability in connecting current needs and preserving resources for the future (Hoffman, 2018; Singh, 2024). Consequently, sustainability has become an important strategic goal for companies worldwide (Hoffman, 2018). Furthermore, incorporating the United Nations Sustainable Development Goals (SDGs) into training programs can promote sustainable practices, increase employee satisfaction and enhance the organisation's reputation. Sustainability engagement training turns employees into brand ambassadors and fosters cooperation and commitment to facilitate this process (Sullivan, 2014). Related to corporate training, sustainability tools such as business simulation and 'sustainability managers' have been developed (Baumgartner & Winter, 2014).

Correlated to what was emphasised in this overview, the concepts that emerged are sustainable innovation, corporate training and, lastly, the knowledge sharing that play a crucial role. The term *Sustainable innovation* refers to innovation balancing socio-economic and environmental objectives in developing processes, products or business plans (Afeltra et al., 2023; Schaltegger & Wagner, 2011). This minimises resource use and waste and often includes renewable materials or sources of energy. This direction does not only allow market flexibility and long-term profitability but also: guides business practices in alignment with sustainability goals, helping reduce the environmental footprint while promoting corporate responsibility, transparency and good practice to meet evolving market expectations (Afeltra et al., 2023; Schaltegger & Wagner, 2011). A dual focus on environmental and market sustainability helps ensure that organisation responds to rapid market change while maintaining commitment to social and environmental goals. Following, the *Corporate training* fosters sustainable innovation by helping an employee with tools, methods and managing processes to place sustainable changes into practice. According to researches, trainings on sustainability enable employees to understand how sustainability could improve operational efficiency and increase a company's competitive position in environments sensitive to sustainability (Su et al., 2020). For example, training programs that incorporate the Sustainable Development Goals foster sustainable innovation through employee exposure to more environmentally friendly practices. It has also helped to enhance corporate reputation and raise employee confidence (Bilderback, 2024). Moreover, Bilderback (2024) reemphasize that the training with a sustainability focus builds organisational resiliency. Such an explanation investment will allow businesses to adjust with ease to changing regulations and obtain an upper hand over rivals who are unable to imitate sustainable processes (Burden & Proctor, 2000).

However, while the existing literature has already analysed the topics of *knowledge sharing* and sustainable innovation separately, gaps remain in understanding the specific influence of sustainability-oriented training on knowledge sharing. In order to address this gap, this study will analyse the interrelationships between the 3 main concepts, CT, SI and KS . This will be done by conducting a systematic literature review of recent studies to provide new insights into the mechanisms by which education can drive sustainable innovation through increased knowledge sharing. The motivation in conducting this analysis is based on the growing importance of sustainability as a strategic priority and the recognition of the role of innovation as a competitive advantage of today's companies. Supporting it, research by Ketata et al. (2015) emphasises the importance of internal capabilities, such as the skills and knowledge embedded in a company's workforce, as a basis for sustainable innovation. Specifically, this study explores that these internal capabilities (corporate training and both tacit and explicit know-how) have a greater effect on promoting long-term innovation than conventional R&D efforts. Therefore, this thesis discusses that corporate training is an effective driving force for both these internal and employee talents. Training enables organisations to incorporate sustainable practices into core operations and adapt to changing environmental and social demands. In addition to strengthening internal resources and giving them sustainability skills, corporate training creates a sustainable competitive advantage that can withstand market and regulatory pressures. To ensure a coherent and systematic analysis, the thesis is structured as follows. The following Chapter 2 provides the theoretical background of the key concepts underlined before. It also highlights gaps in existing research and the relevance of sustainability oriented training for organisational innovation. Chapter 3 will cover methodology and it will illustrate the systematic approach to the systematic literature review adopted in this study. Following, Chapter 4 will focus on the results and Chapter 5 on the discussion. Both sections will present the results of the literature review, analysing the key themes and trends relating to the influence of sustainability focused education on knowledge sharing. Finally, the conclusion of Chapter 6 summarises the key findings, discusses their practical and theoretical implications, identifies the limitations of the study and offers recommendations for future research.

2 Theoretical Framework

Corporate Training, Knowledge Sharing and Sustainable Innovation are interrelated concepts that are gaining important positions in business strategy. Corporate training is about developing employees' competencies to align them with strategic goals and often with an emphasis on sustainability in order to achieve long-term organisational objectives (Burden & Proctor, 2000). Knowledge Sharing incentivize the spreading of sustainable skills and practices across organizations, thereby enabling innovation and continuous improvement. On another side, Sustainable Innovation considers the development of practices that attempt to find the balance between economic, social and environmental goals, hence creating an enduring value (Afeltra et al., 2023). To understand better the key concepts of this thesis, the following sections will examine the fundamental theories of these concepts.

2.1 Concept of Knowledge and Knowledge Sharing

Knowledge is one of the most valuable resources for modern organisations and forms the basis for strategic decisions, innovation and competitive advantage. It is defined as a set of information complemented by experience, intuition and judgement. It therefore differs from data and information in that it is characterised by its practical value and its ability to generate new meanings and applications (Nonaka & Takeuchi, 1995; Shahzad et al., 2020). This intangible element is essential for transforming static resources into dynamic and sustainable results. Knowledge can be divided into two main forms, as defined by Nonaka and Takeuchi (1995), tacit knowledge and explicit knowledge. Tacit knowledge is embedded in personal experience, difficult to format and expressed through intuition, skills and cultural values. This form of knowledge is transmitted mainly through interaction and direct observation. For this, a collaborative environment is essential (Castaneda & Cuellar, 2020). Explicit knowledge, on the other hand, is disseminated and organised through formal knowledge management (KM), creating a shared knowledge base that the organisation can rely on to improve efficiency and innovation (Farza et al., 2021; Hussain et al., 2024). Furthermore, Resource-Based View (RBV) and Knowledge-Based View (KBV) theories provide a conceptual framework for understanding the strategic importance of knowledge. The RBV identifies the knowledge as a unique and difficult to replicate resource that can guarantee a lasting competitive advantage, especially when supported by the KM structure (Barney, 1991). The KBV, on the other hand, considers knowledge as the main strategic corporate resource, while it is seen as a dynamic capability that enhances sustainable innovation and adaptability (Gloet & Samson, 2016; Grant, 1996). In a business context, knowledge is not just a static resource, but a dynamic process that crosses organisational, technological and cultural boundaries. This makes its management and sharing a central element in promoting innovation and sustainability. The growing importance of integrating sustainable practices into business processes underlines how organisations must not only acquire sustainability-related knowledge, but also create effective systems to share it. By defining what the concept of knowledge means and its strategic relevance, it is crucial to understand how this is shared within organisations to maximise its value. This process is named Knowledge Sharing (KS).

2.1.1 Fundamentals of Knowledge Sharing

Knowledge Sharing is a dynamic process in accordance with the SECI model that facilitates the interaction of diverse kinds of knowledge, aimed at generating new ideas and operational solutions (Nonaka & Takeuchi, 1995). Its strategic importance is based on the Knowledge-Based View (KBV), which considers knowledge as a key resource for competitive advantage (Grant, 1996). The SECI model consists of four steps: socialisation, externalisation, combination and internalisation (Nonaka & Takeuchi, 1995). Socialisation is the first step, in which tacit knowledge is shared through direct interaction such as informal discussions among colleagues, workshops or mentoring situations. The second step is externalisation, which is the recording of tacit knowledge like documenting insight in a manual, thus making knowledge available for several users. This process is then followed by combination, the incorporation of different pieces of explicit knowledge to form new structured data. At the last step, internalisation means grounding this formal knowledge in employees, being translated into tacit knowledge (Nonaka & Takeuchi, 1995). This dynamic and cyclical structure shows that KS is not an isolated event but a continuous process that drives innovation and organisational growth. As part of KS, there are two types of knowledge management that play a key role in the diffusion of knowledge, namely formal and informal. Formal systems are databases and digital platforms and support the transfer of explicit knowledge. While informal interactions, such as daily discussions and brainstorming, are crucial for the dissemination of tacit knowledge (Park & Hong, 2022). Although KS is an important process, it presents critical issues. At the organisational level, a corporate culture characterised by a lack of trust between employees can discourage knowledge sharing. Furthermore, the presence of rigid hierarchies limits cross-functional interactions. Technological barriers, such as outdated or poorly integrated IT systems, may prevent the smooth transfer of explicit knowledge (Farza et al., 2021). At the same time, factors that facilitate KS are culture and advanced technologies, i.e. digital collaboration platforms. These improve dissemination, access to explicit knowledge and at the same time reduce transaction costs. According to Hussain et al. (2024), an organisational culture that values collaboration and encourages the contribution of every employee improves KS. Leadership, in addition, plays a crucial role in shaping this culture by creating environments in which employees feel safe to share their ideas and expertise.

2.1.2 KS and Innovation

KS is recognised as an essential element in driving innovation. According to Castanada and Cuellar (2020), innovation depends on the success of KS, as it enables organisations to combine different ideas and specialised skills to create new products, services or processes. This link is particularly evident in sustainable innovation practices, where knowledge sharing is essential to address technical difficulties and environmental challenges. The interaction between KS and innovation can be divided into three main components: the actors involved, the activities that contribute to innovation and the ways in which KS manifest. The main actors are employees, research groups and external stakeholders, who through KS improve the interconnection of knowledge. The main activities include the collection and assimilation of existing knowledge and its creative application in new contexts (Castaneda & Cuellar, 2020; Harkema, 2003). According to Cardinal et al. (2001), KS not only integrates technical and physical com-

ponents, but also supports knowledge-related processes for the development of innovative products. This view is supported by empirical studies showing that the KS is directly linked to the innovativeness of companies, for example the role of KS in promoting sustainable innovation. Park and Hong (2022) point out that effective knowledge sharing, especially tacit knowledge sharing, enables companies to integrate sustainable practices into their processes. Through the KS, employees can exchange critical information on green technologies and sustainability-oriented management approaches, accelerating the adoption of green innovations. The KS also plays a mediating role between collaboration and organisational performance (Castaneda & Cuellar, 2020; Wang & Hu, 2018). This implies that an organisation that promotes KS is more likely to develop new ideas and implement innovative capabilities (Castaneda & Cuellar, 2020; Wang & Hu, 2018). In conclusion, a further contribution of KS to innovation is the creation of an organisational context in which ideas can flow freely between departments, removing information and hierarchical barriers. This cross-over increases the probability that existing knowledge will be combined in new ways, generating radiational and incremental innovations (Castaneda & Cuellar, 2020).

2.1.3 KS and Organization Performance

KS not only facilitates innovation but also contributes to improving the operational performance of an organisation. This process results in operational efficiency, adaptability to change and continuous improvement of business strategies (Castaneda & Cuellar, 2020). In theory, KS is closely related to the Resource-Based View (RBV) and the Knowledge-Based View (KBV). The Resource-Based View (RBV) emphasises that KS is a distinctive and not easily replicable resource that can generate sustainable competitive advantage (Barney, 1991). Through KS, organisations can exploit the full potential of their human resources, excluding duplication and improving process efficiency. On the other hand, the Knowledge-Based View (KBV) sees KS as a dynamic capability that enables organisations to create and apply new knowledge in response to market changes. Grant (1996) emphasises that KS is crucial for building a competitive knowledge base, which is essential for long-term adaptability and innovation. Empirical studies confirm that organisations investing in KS practices, experience significant improvements in both innovation outcomes and operational performance metrics (Castaneda & Cuellar, 2020). These training programs reinforce both formal mechanisms, such as structured workshops or knowledge management platforms and informal ones, based on social interactions and daily collaboration (Burden & Proctor, 2000; Park & Hong, 2022). This type of training increases the organisation's absorptive capacity, i.e., its ability to acquire, integrate and apply new knowledge (Barba-Aragón & Jiménez-Jiménez, 2023). Moreover, KS has a positive impact on several aspects of organisational performance. On one side, it improves operational efficiency by reducing duplication of effort and ensuring that knowledge is accessible to those who need it. On the others, it supports the capacity for innovation by facilitating the interaction between different competencies and the development of creative solutions. Castaneda and Cuellar (2020) point out that KS is a key lever for generating both incremental and radical innovations, especially in contexts that require sustainable practices. Furthermore, sustainability-orientated corporate training is the key to promote both formal and informal KS. Indeed, training provides employees with the skills to adopt sustainable practices by stimulating the sharing of

specific knowledge through formal and informal modalities (Burden & Proctor, 2000). In summary, this type of training increases the organisation's absorptive capacity, facilitating the KS required to integrate sustainable practices into daily operations (Barba-Aragón & Jiménez-Jiménez, 2023; Hussain et al., 2024). Funding training that integrates sustainability with KS enables organisations to be more resilient and successfully respond to market and societal challenges. In conclusion, KS not only supports innovation, but is also an essential component for the implementation of sustainable strategies, as illustrated in the next section. Additionally, the KS represents the key element for integrating the CT within the SI. As shown by Ketata et al. (2015), internal capabilities, developed through training, only gain value when shared effectively. Therefore, the KS is not just a process, but a way to transform skills into sustainable innovations, as discussed in the next section.

2.2 Sustainable Innovation

Innovation is a broad and complex concept and consequently has several definitions. The term innovation refers to a process in which knowledge is acquired, shared and assimilated in order to create new knowledge, realised in products and services (Castaneda & Cuellar, 2020; Harkema, 2003). Innovation is evolving, going more in the direction of the environment, i.e. going to analyse and find solutions to problems of environmental and social impact (Hoffman, 2018; Schaltegger & Wagner, 2011). A key characteristic of innovation is the ability to generate value by bringing innovators and regulators together to reach a common understanding of how to introduce a specific innovation (Castaneda & Cuellar, 2020; Soete, 2019). The main inputs to innovation include financial resources, research and development, but also human contributions like ideas, attitudes, leadership, managerial planning, creativity and self-efficacy (Castaneda, 2015; De Jong & Marsili, 2006; Murimbika & Urban, 2014). Following, innovation is based on the human exchange of skills, expertise, information, insights and creative approaches. However, the application of more complex innovations is often associated with more barriers (Castaneda & Cuellar, 2020; Torugsa & Arundel, 2014). There are different classifications of innovation. According to the Organisation for Economic Co-operation and Development (OECD, 2005), innovation can be classified into four main categories: product, process, marketing and organizational innovation. Additional taxonomies distinguish between technological and non-technological innovation, as well as incremental and radical innovation (Castaneda & Cuellar, 2020; Henderson & Clark, 1990; Nelson, 1993). Furthermore, disruptive innovation and open innovation represent alternative frameworks for understanding the evolution of innovative processes (Chesbrough, 2012; Christensen & Raynor, 2003). These classifications contribute to a more comprehensive understanding of the characteristics, dynamics and strategic objectives of innovation across different contexts. Building upon these distinctions, the concept of Sustainable Innovation (SI) emerges, integrating economic, social and environmental dimensions to address contemporary global challenges (Castaneda & Cuellar, 2020; Henderson & Clark, 1990; Nelson, 1993).

2.2.1 Concept of Sustainable Innovation

The concept of Sustainable Innovation (SI) is an integrative approach to promote sustainability at all stages of the innovation process, giving equal weight and importance to economic, social and environmental objectives. Thus, it also takes into account growth that respects

natural resources and contributes to general well-being. Distinguishing itself from traditional types of innovation, SI incorporates a process of global functional integration, working towards pro-sustainability innovations throughout the entire innovation cycle, with a focus on value creation for all stakeholders (Schaltegger & Wagner, 2011). SI can be also defined as the development and implementation of new products, processes, business models and organisational systems designed to reduce environmental impact. Thus, aims to minimise the consumption of natural resources and reduce carbon emissions, promote social inclusion and ensure economic growth by aligning sustainability with long-term profitability (Afeltra et al., 2023). In the light of the research of Afeltra et al. (2023), SI evolved in three major stages: Initial Stage (pre-2000), which was perceived as a little niche for some selected markets, often for the occurrence of any environmental regulations and social pressures. Subsequently, the Transition Phase (2000-2010) and SI started appearing to be of strategic relevance with an increasing number of companies recognising its competitive potential. Lastly, Advanced Phase (post-2010), SI evolved into a key driver of business transformation driven cross-fertilization of digital technology while increasing stakeholder awareness. Such a process reflects a broader cultural and strategic approach to embracing sustainability into the corporate agenda. Furthermore, it can be suggested that the main difference from traditional innovation lies in its emphasis on systemic value. Thus, it considers not only corporate profit but also the benefit to society as a whole and the environment. The literature revealed the purpose of SI to converge current business needs with the conservation of resources for future generations. Examples include the promotion of circular economies, the enhancement of local communities through inclusive business models and the integration of Sustainable Development Goals (Afeltra et al., 2023). In conclusion, SI represents a constantly evolving innovative paradigm capable of addressing the environmental, social and economic challenges of the 21st century. Integrating the contributions of Afeltra et al. (2023), it is clear that SI is not only an opportunity to improve business competitiveness, but also a strategic necessity to ensure a more sustainable future.

The fundamental pillar of sustainable innovation is the Triple Bottom Line (TBL) model, introduced by John Elkington (1998). This framework suggests that organisations should not evaluate the success just through economic profit, but also by considering the environmental and social impact of their activities (Isaksson et al., 2016). Thus, it is represented with 3 dimensions: economic, social and environmental impact. Starting from the economic dimension with profit, the model pushes the organization to pursue sustainable economic growth. Following with the social dimension in which companies should propose social equity and fair working conditions and lastly the environmental dimension with the minimisation of environmental impacts through practices such as emission reduction, adoption of renewable energy and resource efficiency. TBL is widely applied as a strategic assessment framework for the development of innovative products and services that maximise shared value among stakeholders (Isaksson et al., 2016). Furthermore, another framework that analyse and study the SI, is called Sustainable Business Model Innovation (SBMI) and emphasizes the strategic incorporation of sustainability and innovation into business models (Ciasullo et al., 2019). This model is based on three key principles: value proposition, value creation and value capture. The value proposition offers solutions that generate benefits for the environment and society in addition to economic profit. Secondly, the value creation and delivery, which implement sustainable

production processes and partnerships in the value chain and following with the value capture which maximise economic return with minimum negative impacts. SBMI aligns with the concept of circular economy, promoting efficient use of resources and reducing waste through re-use and recycling (Ciasullo et al., 2019).

Despite the claimed benefits, SI implementation presents challenges. A significant obstacle is the complexity of integrating economic, social and environmental goals, which often generate internal conflicts and operational trade-offs (Afeltra et al., 2023). Furthermore, cultural inactivity and resistance to change within organizations can reduce the adoption of sustainable practices (Park & Hong, 2022). This is compounded by technological and financial barriers, as the development of sustainable technologies requires significant investments and depends on regulatory support, which is often uncertain (Ketata et al., 2015). Finally, the lack of standardized metrics makes it complex to measure the impact of sustainable innovations and communicate it effectively to stakeholders (Isaksson et al., 2016). In order to overcome these challenges, organizations adopt various strategies, including the Corporate Training focus on Sustainability. This takes the name of Sustainability-Focused Corporate Training (SFCT) and are programs aimed to promoting SI and employee's sustainable knowledge (Baumgartner & Winter, 2014; Bilderback, 2024). Additionally, the collaboration with external stakeholders, such as academic institutions, provides access to complementary resources and accelerates the innovation process (Narula & Hagedoorn, 1999). The adoption of digital technologies, such as artificial intelligence, can improve the scalability and efficiency of SI initiatives (Awan et al., 2021). Lastly, a strong leadership commitment and a corporate culture oriented towards transparency and innovation are fundamental to embedding SI in strategic organisation (Garnier, 2022).

2.2.2 Role of SI in Corporate Training

As already mentioned, corporate training focusing on sustainability plays a central role in promoting SI within organisations. Through targeted training programs, employees acquire specific knowledge and skills to develop innovative solutions that balance economic, social and environmental objectives. A key element linking training and SI is the ability of training to develop practical and conceptual skills in employees. Technical skills include knowledge of green technologies, circular economy principles and environmental regulations. On the other hand, soft skills, such as creativity and problem-solving skills, support the conception and implementation of innovative solutions. Skill development is essential to integrate sustainable practices into companies' operational and strategic processes. Thus, at the same time, it increases the ability of companies to adapt to a rapidly changing market and turns organisational resilience into a competitive advantage (Bilderback, 2024). In addition to competence development, corporate training contributes to building a sustainability-oriented organisational culture. Such a culture, as highlighted by Hoffman (2018), is crucial in facilitating collaboration among employees and encouraging the adoption of sustainable practices. Inclusive leadership that actively encourages participation in training programs and sustainability as a corporate value can enhance the positive effects of training. Simultaneously, recognition mechanisms and incentives for SI visions increase employee commitment and motivation, contributing to the long-term success of sustainable innovation initiatives (Barba-Aragón & Jiménez-Jiménez, 2023). Moreover, the concept of SI in relation to SFCT is seen as a catalyst for knowledge sharing as

training promotes interaction between employees from different departments and hierarchical levels and increases the exchange of ideas. According to Gloet and Samson (2016), the process is essential for integrating tacit and explicit knowledge, accelerating the adoption of innovative sustainable solutions. Despite the previous advantages, SFCT in relation to SI presents barriers. These include the difficulty of aligning training objectives with long-term business strategies and measuring the actual impact of training on sustainable performance (Isaksson et al., 2016). However, the strategic potential of sustainability-oriented training is evident. In fact, investing in such programs also creates a virtuous circle of continuous learning and improvement. Therefore, it is essential to meet the global challenges of the future. In conclusion, sustainable innovation is a transformative approach that enables companies to gain a sustainable competitive advantage through the integration of ecological and social principles into innovation processes. Corporate training plays a central role in this process and the next section explains in detail what this concept is.

2.3 Corporate Training

Knowledge sharing is a crucial element in corporate value creation, as it fosters the diffusion of knowledge and skills that fuel innovation and improve organisational performance (Nonaka & Takeuchi, 1995). Indeed, KS acts as a bridge between CT and SI for building competencies and applying them in sustainable operational practices. In this context, sustainability-oriented corporate training provides employees with the tools and skills to apply these practices in everyday business life. Investing in CT not only strengthens KS, but also accelerates the adoption of innovative sustainable solutions, promoting a lasting competitive advantage (Baumgartner & Winter, 2014; Bilderback, 2024).

2.3.1 Role of Corporate Training in the Organization

Corporate Training is the group of training paths that companies set up with the purpose of enhancing employees' skills, knowledge and abilities, checking that employees are compatible with the company's strategic and operational lines (Burden & Proctor, 2000; Murtuzaliev et al., 2024). It configures the represents strategic leverage to increase individual productivity, intensify the firm's performance and ensure its long-term competitiveness (Barba-Aragón & Jiménez-Jiménez, 2023). In addition, it aims at bridging the gap between actual and required skills, preparing the employee to face an environment continually challenged by technological, environmental and regulatory changes (Govil & Usha, 2014). From an operational perspective, CT turns to specific technical skills, such as the ability to use innovative technologies or digital devices. Furthermore, CT addresses the most appropriate behavioural attributes for managing organisational dynamics, i.e. soft skills such as teamwork, leadership and immediate adaptation to changing circumstances (Burden & Proctor, 2000; Govil & Singh, 2014). This structure of competencies corresponds to the accentuated need to prepare human resources no longer for past directions to increasingly painful global market challenges, but to support the lines of strategic direction (Barney, 1991). Theoretically, the CT is framed in the Knowledge-Based View (KBV) perspective, which presents knowledge as the central building block for the establishment and conservation of a competitive advantage (Grant, 1996). Thus, cooperating in the creation of professionally strong teams, capable of facilitating the deployment of those corporate assets that are shaping up to be adequate and working in favour of sustained growth. A further

perspective that could be emphasised is that CT influences the culture of organisations. Correlated with it, training can play a decisive role in promoting a collaborative culture and establishing an environment geared towards continuous improvement. In fact, the risk of closing in one's own patterns of thought and action, as well as resistance to change, is reduced. On the contrary, the socialisation of new ways of experiencing one's work is encouraged. Many companies do not hesitate to create refined and specialised internal programs, which are even a strong tool for increasing labour productivity (Baumgartner & Winter, 2014). Furthermore, it is agreed that a considerable commitment to CT is an attractive investment of resources. Besides helping to achieve its immediate goals, it prepares the structure of organisations for the challenges of tomorrow, affording the ability to innovate and adapt to changes in the market and legislation. From a perspective in which sustainability is required after, CT responds first and foremost to this purpose, being preparatory to the effort to shape the behaviour of organisations according to environmental compatibility criteria, which alone assures radical industrial success (Morina, 2021; Murtuzaliev et al., 2024).

Corporate Training is based on theoretical framework that emphasises its importance as a strategic lever for organisational administration, disseminator of knowledge and driver of sustainable innovation. According to the Resource Based View (VRB), human capital represents a distinctive resource that is difficult to imitate and therefore capable of conferring a sustainable competitive advantage to organisations (Barney, 1991). The CT, in this context, plays precisely a fundamental role in strengthening the technical and transversal competencies of employees. Thereby increasing organisations' ability to meet the challenges of the market and regulation. The Knowledge-Based View (KBV), on the other hand, emphasises knowledge as a primary resource for the creation of value and innovation (Grant, 1996). By means of precisely targeted training programs, Corporate Training promotes in the workforce the ability to acquire, transform and utilise knowledge, thus promoting not only the concerning operational efficiency, but also the strategic adaptability of the system. For the evaluation of the effectiveness of Corporate Training and SFCT a structured approach based on four levels is proposed by Kirkpatrick's Evaluation Model (1996). The model is a four-level interconnected process which permits tracing training impact along an increasingly complex and significant hierarchy of levels: reaction, learning, behaviour and business results. At the reaction level, the satisfaction of participants with the training programme is measured with, for example, tools like a fast satisfaction post-training questionnaire (Baumgartner & Winter, 2014). The second level, learning, focuses on knowledge, skills and attitude acquisition concerning the understanding of ESG (Environmental, Social, Governance) metrics or the adoption of green technologies. Pre- and post-training tests or practical simulations can be used as effective tools to assess learners' progress. The third level, behaviour, analyses changes in the way participants approach its work processes. This may include sustainable production processes or innovative means of resource management (Hoffman, 2018). The last level measures organizational outcomes composed of business performance, i.e. relating to carbon emission reductions, enhancements of corporate reputation and control of operating costs. Here it becomes important to demonstrate how corporate training is furthering efforts in support of broader strategic objectives of businesses. This level links to the Resource-Based View identifying human capital as a key resource for a sustainable competitive advantage in achieving such objectives (Barney, 1991). The Kirkpatrick's model could

be a useful and applicable framework, but there are serious shortcomings that need reflection among, especially how external factors and internal processes interact to affect training efficacy. The Theoretical Framework for Training Effectiveness theorised by Sudhakar & Kumar (2018) takes an integrative form. Accordingly, training effectiveness is viewed as something that emerges from three key components: strategic planning, alignment to organisational goals and long-term outcome monitoring. The framework explains the rules that effective training must be tailored regarding local needs of the organisation and employees, after integrating the process with multi-dimensional and continuous evaluation tools. Related with the topic of SFCT, it means setting some clear sustainability-related goals such as waste minimization or adopting green technologies and monitoring the effectiveness on an ongoing basis through precise and well-defined indicators (Ketata et al., 2015). A combination of Kirkpatrick's model with the framework from Sudhakar & Kumar generates deeper insights into CT effectiveness, as the two systems complement one another. Kirkpatrick's model offers a pattern to evaluate short-term and mid-term outcomes, while Sudhakar and Kumar's framework focuses strategic planning and continuous monitoring to maximize the effect of training in a long-term perspective. Thus, SFCT becomes more than a tool for establishing technical and behavioural competences, it emerges as a mechanism for sustainable innovations and organizational resilience that contribute to the achievement of both corporate and global goals (Sudhakar & Kumar, 2018).

In addition to the theories mentioned before and in order to better understand the complex concept of corporate training, Ryan and Deci's (2000) Self-Determination Theory is identified. It clarifies that internal motivation and the satisfaction of autonomy, competence and relationship needs, are necessary conditions for the development of training programmes. A CT prepared to satisfy these needs will not only provide the development of subordinates' support but will also make them ready to take on the theoretical commitment. On the other hand, a principle, the doctrine of absorptive capacity (Castillo-Apraz & de Antonio, 2020; Cohen & Levinthal, 1990), describes how training increases the organisational capacity to recognise, assimilate and utilise external knowledge, contributing to the introduction of innovative and sustainable practices. Finally, the Dynamic Capabilities Framework (Ketata et al., 2015; Teece et al., 1997) considers the CT an essential element in shaping an organisation's dynamic capabilities, i.e. its ability to adjust and renew itself to respond to a continuously changing environment. Correlated to this, the CT is functional in preparing employees for technological and environmental innovations and regulatory transformations, in fact aligning internal skills with external market requirements. In detail, the CT is not only an investment in human capital, but a factor in the development of lasting competitive advantage. It finds ways to set up basic theories, concrete solutions, thanks to which the organisation is given the opportunity to innovate and successfully adapt to the challenges of the market. According to Milhem et al. (2014), corporate training can be classified into different types, according to its objectives and delivery methods: technical, managerial, behavioural, e-learning training and blended learning. Going into detail, technical training focuses on the acquisition of specific skills for business functions or sectors, e.g., the use of software or machinery management. Management training aims to develop leadership, personnel management and strategic planning skills, which are essential for senior-level roles. Following, behavioural training is specifically aimed at improving soft skills, such as communication, teamwork and conflict management. To conclude, e-learning and

blended learning are methodologies that combine online and classroom training, offering flexibility and continuous access to training content (Milhem et al., 2014). These types reflect the evolution of corporate training, which adapts to the needs of employees and the technological environment. In relation of the type of Corporate training, it is essential for organisational success and effectiveness. First, CT promotes skill development, which means it promotes the improvement of both technical and cross-functional skills, preparing employees to perform tasks of varying difficulty more effectively (Sudhakar & Kumar, 2018). Secondly, it facilitates adaptation to change, which is essential in today's world where market requirements are constantly changing. This enables employees to respond to new work needs, such as the adoption or implementation of emerging technologies or regulatory changes (Govil & Singh, 2014). Subsequently, it increases productivity, as it improves the learning and skills of each employee and increases the overall productivity of the entire organization (Morina, 2021). Finally, it enables organizational development, according to Naji (2020), in which CT plays a key role in achieving business objectives, as it improves the capabilities of each element of the company and promotes a culture oriented towards growth and innovation. In summary, training not only improves operational efficiency, but also promotes employee engagement, reducing turnover and increasing job satisfaction (Ganesh & Indradevi, 2015).

2.3.2 Sustainability-Focused Corporate Training

Sustainability-Focused Corporate Training is a training solution that develops some technical and transversal skills oriented towards the integration of sustainability principles in a business process. This is the position taken by Baumgartner and Winter (2014), who emphasize that such a type of training goes beyond the passing on of mere technical skills, fostering a cultural change in organizations that focus on promoting a sustainability-oriented culture. An important change, on the other side, involves such a transformation to undertake the various contemporary-day global challenges, including climate change, natural resource management and the transition to a circular economy. SFCT viewpoints at a distance for its ability to blend developing specific technical skills like knowledge of green technologies and circular economy principles, with soft skills such as creativity, problem-solving and collaborative leadership (Bilderback, 2024). These skills contribute not only to the advocacy for sustainable practices but also towards enhancing the resilience of organizations to appropriately immediately respond to fast market changes and deal with stricter environmental regulations (Ketata et al., 2015). The sustainability-focused approach highlights the integration of the Sustainable Development Goals (SDGs) into the training programs, thereby aligning employee skills with global sustainable development goals while conveying a good corporate reputation (Baumgartner & Winter, 2014). Additionally, a central theme of SFCT is Knowledge Sharing. Establishing some kind of sustainable mode training, as Gloet and Samson (2016) have pointed out, provides an environment conducive to interdisciplinary collaboration and knowledge dissemination. Therefore, speeding up the adoption of innovative solutions. In particular, SFCT facilitates the integration of tacit and explicit knowledge making the organisation more capable of developing and implementing sustainable practices. This process of sharing is significant to breaking internal barriers and combating sustainable innovations, transforming organisations into resilient and competitive market leaders. SFCT also works to develop a sustainability-oriented organisational culture. According to Hoffman (2018), an inclusive corporate culture, supported by leadership

emphasizing sustainability, increases the benefits of the training. Innovation and sustainable ideas are rewarded, affording employees engagement in a virtuous cycle of continuous learning and improvement. SFCT also allows companies to clearly adapt into new regulations and shifts in marketplaces that could offer a sustainable competitive advantage. However, while there are many benefits, there are some challenges to be faced when it comes to implementing SFCT. For example, it may be aligning the objectives of training with those of long-term corporate strategies and how to measure the actual impact of training practices on sustainable performance. Building SFCT principally means investing in an essential strategy to develop highly resilient and innovative organisations when it comes to global needs and sustainable success over time.

2.3.3 Corporate Training as Green Training

Green training is a type of corporate training and has the primary goal of incorporating environmental sustainability principles into core aspects of business processes. This type of training seeks to develop technical skills that are distinct from regular CT, such as knowledge of greener technologies and circular economy principles. Additionally, it shifts the cultural responsibility of organizations toward a more environmentally conscious state (Baumgartner & Winter, 2014). This training aims not only to impart operational skills but also to develop in participants a shared commitment to practices that minimize environmental impact, address regulatory challenges and capitalize on the opportunities offered by a green-sensitive market (Ketata et al., 2015). With green training, organizations can prepare employees for these growing demands in terms of specific skills in sustainability, natural resource management, energy efficiency and low-impact technologies. The program also cultivates soft skills in collaborative leadership, creativity and complex problem solving, which remain crucial for innovative and sustainable solutions (Bilderback, 2024). These skills improve resilience in organizations and prepare them to move quickly to the demands of consumers and stakeholders who are increasingly oriented towards responsible practices (Hoffman, 2018). Furthermore, a central aspect of green training is its role in promoting knowledge sharing. It facilitates the creation of an interactive environment for collaboration and knowledge diffusion among employees at different levels and departments (Gloet & Samson, 2016). This leads to faster adoption of innovative solutions, assimilates tacit and explicit knowledge, overcomes internal communication barriers and promotes sustainable innovation (Shahzad et al., 2020). Furthermore, incorporating the SDGs into training activities improves employee competences regarding global priorities, strengthening corporate reputation (Baumgartner & Winter, 2014). Despite sufficiently large gains, green training is challenged by aligning training objectives with long-term corporate strategies and evaluating the real impact of the training intervention in terms of sustainable performance. However, investing in green training programs is the key step for an organization to evolve into resilient and sustainable market leaders, integrating economic growth, environmental responsibility and social well-being. In conclusion, green training is the core of corporate training as it means to build organizational capacity to address sustainability challenges posed by the global market. Green training programs enhance workers' technical and soft skills while fostering a collaborative, inclusive and responsible work environment driven by innovation (Baumgartner & Winter, 2014; Hoffman, 2018). Furthermore, this link between green

training and sustainable innovation illustrates how corporate training can act as a lever for cultural and operational change. In addition, this relationship increases companies' ability to incorporate environmental considerations into their processes and strategies (Gloet & Samson, 2016). To summarize, CT's contribution is more related to the overall performance of a firm in the global context for sustainable development as it shows how economic growth is corresponding with social and environmental goals (Bilderback, 2024; Ketata et al., 2015).

2.4 Introduction to the Research Gaps

From the literature emerge that the three core concepts Knowledge Sharing, Sustainable Innovation and Corporate Training are closely interconnected. Knowledge sharing is crucial for knowledge creation and dissemination within the organization. In addition, it provides true value for innovation and performance enhancement (Grant, 1996; Nonaka & Takeuchi, 1995). Sustainable innovation embraces KS, which removes organizational barriers to collaborate and develop new solutions that encourage the application of sustainable practices (Park & Hong, 2022). Sustainable innovation aims to integrate societal, economic and environmental outcomes in response to the global challenges climate change and resource scarcity (Schaltegger & Wagner, 2011). Indeed, the success of SI relies on if or not the company can bring about changes into reality and the availability of KS to facilitate this change (Afeltra et al., 2023). The last concept, Corporate Training is an important strategic measure through which the skills set of both the technical and soft skills of employees are trained, so that organizations would be able to respond to market challenges and changes brought about by regulation (Baumgartner & Winter, 2014). Sustainability-focused corporate training reports skills on green technologies and practices and on creating a culture conducive to collaboration and sustainable innovation (Bilderback, 2024). This interrelationship between KS, SI and CT emphasizes that training could create a motivation for change in the diffusion of innovative and sustainable practices while growing competitive advantage.

Despite the increasing academic interest in the topics mentioned above, the articles and studies discover some considerable gaps that require further investigation. Firstly, even with CT widely recognized position as a core activity to foster innovation and ensure organizational performance, its specific role in the context of SI, remains rather unexplored. If KS facilitates knowledge dissemination of green technologies and circular economy approaches, the literature demonstrates an unclear understanding of what these processes specifically contribute to the adoption and integration of sustainable practices within organizations (Park & Hong, 2022; Shahzad et al., 2020). Secondly, if Sustainability-Focused Corporate Training has been recognized as an effective tool for developing technical and soft skills regarding sustainability, as mentioned multiples times, there are studies investigating whether or not this type of training has any effect on KS processes. Following these information's, the learning gained from training may not be consciously transferrable into daily practice. This could lead to a more complete understanding of how SFCT improves KS, which in turn could facilitate sustainable innovation (Baumgartner & Winter, 2014; Ketata et al., 2015). Another relevant gap is that the literature gives greater substance of its emphasis on technological factors (hard factors), like digital platforms or knowledge management technologies, as compared to the soft factors such as social and cultural factors. Leadership, organisational culture and interdisciplinary collaboration are

often considering not relevant, whereas communication between employees and the integration of innovative and sustainable practices are crucial (Gloet & Samson, 2016; Shahzad et al., 2021). To understand how these factors may mediate the link in between SFCT, KS and SI presents a great option for further investigation. Moreover, most of the existing literature explored within this review focuses mainly on SFCT from the short-term perspective without any justification regarding its long-term contribution for establishing a resilient and sustainability-oriented organisational culture. Although training can be decisive as it changes the operations concerning the regulators and market actors. It also creates an environment conducive to sustainable innovation. Related with the long-term view which encompass analysing the way changes happen because of training is apparently lacking (Phan, 2023). These gaps are indicative of the need for other integrative and systematic studies investigating in detail how SFCT impacts on KS and, through it, supports the growing use of innovative and sustainable practices. Supplementary, a study investigating the soft factors and contribution of training to long-term resilience could fill important gaps in the literature and provide practical insights for organizations transitioning to sustainable business models.

In the light of the main aim of the research is to address the gaps identified in the literature with regard to enhancing the understanding of the linkages positioning Sustainability-Focused Corporate Training (SFCT), Knowledge Sharing and Sustainable Innovation. The first aspect is the analysis of how the SFCT forms a contribution in enabling KS processes through the improvement of an organisation's capability to share knowledge pertaining to green technologies, the principles of circular economy and sustainable strategies. While conducting this study, the key assumption is that training alone cannot effectuate change, while other mechanisms for transferring and embedding the skills into the organisation, are required (Baumgartner & Winter, 2014; Ketata et al., 2015). The second explores soft factors, including leadership, corporate culture and interdisciplinary collaboration that moderate or mediate the contribution of SFCT. Understanding these aspects might yield organisational conditions that would offer requisite predispositions for KS processes. Such an emphasis addresses the need for evidence in support of concepts that offer sociocultural lenses, which are very often sidelined and thus extending the analytical emphasis, stretching beyond the traditional technological factors exalted in literature (Gloet & Samson, 2016; Shahzad et al., 2021). Another objective of this study is trying to analyse the long-term effects of SFCT in building a resilient organizational culture capable of supporting sustainable innovations over time. The study aims to explore into more extended timeframes regarding the proper effects of training. Thus, will aim to delve into a wider perspective and long-term view of training overall effects by breaking through the tendency of many modern studies to focus on only the immediate or short-term impacts of training as described in the literature (Phan, 2023). The added value from this piece of research is that it will offer an integrative view, a proper systematic study that incorporates theoretical perspectives with practical application. The study will be conduct through a Systematic Literature Review (SRL) that intends to present a clear representation of the interactions between SFCT, KS and SI by specifying the critical dynamics that ultimately drive the implementation of sustainable practices. The conclusions will further inform how organizations can formulate effective training strategies that not only serve to improve organizational performance but also contribute to meeting overall sustainability goals.

Based on the identified research gaps in the literature and the study's research objective, the research question is formulated: *What is the influence of Sustainability-focused Corporate Training practices on Knowledge Sharing and application in Knowledge Sharing processes?* The research question formulated attempts to address an executive requirement to better understand the role of SFCT in enhancing KS processes and integrating sustainable competencies in the organizational context to contribute to sustainable innovation. This approach will be an instrument for injecting new theoretical and practical insights into the academic advancement. Furthermore, it will set into motion the development of innovative and sustainable business strategies. The following chapter will concern itself with the methodology applied for addressing the research question, which includes detailed discussions of the research design, data collection techniques and analysis tools designed to fulfil a systematic investigation toward the proposed objectives.

3 Methodology

To completely explore the relationship between Sustainability-Focused Corporate Training, Knowledge Sharing and Sustainable Innovation, this chapter outlines the systematic methodology employed in this study. By integrating well-established frameworks and observing to rigorous academic standards, the methodological approach ensures both depth and reliability in addressing the research objectives. This chapter proceeds to detail the identification, data screening processes and analytical methods used to synthesize findings from the literature. This comprehensive approach not only highlights key trends but also identifies gaps for future exploration, contributing to the growing body of knowledge in innovation management (Snyder, 2019; Tranfield et al., 2003).

3.1 Identification

The research is carried out adopting a qualitative perspective based on the Systematic Literature Review (SLR) in order to investigate the link between Knowledge Sharing, Sustainable Innovation and Corporate Training as the driving force of the process, seeking to identify theoretical models and business practices. This approach is particularly suitable for having an overall view of the studies and research with keywords such as the concepts mentioned above and in addition, helps to answer in an exploratory and complete way the research question of this thesis: *What is the influence of Sustainability-focused Corporate Training practices on Knowledge Sharing and application in Knowledge Sharing processes?* The search path chosen therefore appears exploratory and is used as it has been set up in an SLR. The SLR was operated according to the criteria declared by Snyder (2019) and those of Tranfield et al. (2003), with a strict protocol for the selection of studies in order to ensure transparency and reproducibility. Following the analysis of the selected articles, the results were then verified using a framework called Prisma to allow an accurate and documented identification of relevant sources. As mentioned before, the methodology adopted is SLR and it is a process for synthesizing knowledge and identifying areas for future research, following rigorous, transparent and replicable methodology (Tranfield et al., 2003). It relies on rigorous selection criteria and thematic coding of data. This enables certain structured analyses and keeps the possibility of duplication to a minimum. As Snyder (2019) pointed out, systematic reviews focus upon high-quality papers, thus improving validity. Qualitative analysis, which is the foundation of systematic literature review, strives towards understanding complicated phenomena through the identification of recurring themes, interpretative categories and interconnections amongst key concepts. This method is especially effective in investigating the role corporate training can play in promoting sustainability and enabling KS processes within corporations. This study selected the qualitative method for three major reasons: the theoretical perspective applied, providing comprehensive insight on theoretical frameworks, organisational practices and interactions between business training and knowledge sharing mechanisms. Methodological rigour, as SLR provides systematic and transparent analysis based on standardised protocol that falls under the Preferred Reporting Items for Systematic Reviews and Meta-Analyses framework (PRISMA) and practical relevance. Thus, helps to link theory and practice through synthesis of empirical, conceptual and review of studies published in peer-reviewed journals. The study design, with its advantages, has limitations, such as being dependent on secondary data and literature exclusion for studies

not published or accessible in English or other criteria selected. Nonetheless, these limitations are reduced by using rigorous inclusion criteria and advanced tools such as MAXQDA for qualitative data analysis. In due sequence, the consistent approach creates a clear ground for in-depth review into the role of sustainable corporate training in knowledge sharing and sustainable innovation, which is positive for some debates in academia and has implications for organisations.

3.2 Screening

The data collection for this study is based on secondary sources, namely scientific articles, journals, conference proceedings and book chapters, all selected through a systematic review of the literature. The choice of secondary data is motivated by the need to obtain a complete and updated view of the subject, avoiding time or logistical limits related to the collection of primary data (Snyder, 2019). In addition, the use of secondary data brings the following benefits. Firstly, the access to consolidated knowledge, peer-reviewed articles and academic materials provide a rigorous and already verified knowledge base. Secondly, the efficiency and focus as this type of data allow a wide range of relevant studies to be analysed, reducing the time and costs of research. To conclude, the validity of results because data collected from academic sources ensures reliable and representative results in line with required methodological standards. Related to this study, the research process involved three main stages: papers selection, thematic synthesis and coding. The initial search was conducted using the Scopus database to ensure a wide coverage of academic publications. Afterward in the database, keyword searches were considered to capture just literature related on sustainability and KS in corporate settings, using terms such as: ('sustainability' OR 'sustainable' OR 'environmental') AND ('corporate training' OR 'learning' OR 'employee development') AND ('knowledge sharing'). After an initial pool of articles was recorded, the inclusion criteria were systematically applied to refine the results. The screening and selection process was conducted according to the PRISMA model, documenting each step to ensure transparency and replicability. In addition, the clear inclusion criteria ensured the selection of high-quality, relevant studies. Specifically, the criteria used in the Scopus database to skim the papers are explained below. The studies were chosen on the basis of their focus on the relationship between the key concepts: SI, KS initially and later, based on papers with a CT topic. In general, the subject area are: business, management and accounting, environmental science, social science and economics, econometrics and finance. Only these articles and subject areas were chosen to maintain a clear focus on the main objectives of the study. Furthermore, only articles, book chapters and reviews with a final publication stage were examined, as this ensures quality, reliability and consistency of the data. Finalised publications ensure validated content through peer review, avoiding provisional or unverified information. This approach reinforces the methodological soundness of the study. Furthermore, to ensure consistency of interpretation, only articles published in English or with an English version were included. To capture contemporary insights, the range of the literature was limited to articles published between 2000 and 2024, covering recent developments and trends in KS, CT and SI. In order to maintain quality and relevance, the following articles were excluded: duplication of records, ones not directly meet the selection criteria stated above and keywords specifically such as: Sustainability and Sustainable development, Corpo-

rate Sustainability, Knowledge and Knowledge Sharing, Environmental Management and Sustainability, Corporate Strategy and Training and Social Aspects. Following this preliminary analysis, the final sample was reduced to 52 relevant studies, selected through the PRISMA model, which explained in detail the screening process in Appendix A, Figure 1. In conclusion, the rigor of an SLR allows for a formal analysis of the relationships between sustainable business education, knowledge sharing and sustainable innovations, thus offering insight, both theoretical and practical, into these phenomena.

3.3 Eligibility

The qualitative analysis approach was used for analysing the data, supported by MAXQDA software for data organisation and coding. This approach allows for the exploration of the complex themes and interrelationships between key concepts. The analytical process incorporated both deductive and inductive coding approaches using MAXQDA. Deductive coding was applied to categorise the existing theoretical frameworks on the key concepts. On the other hand, inductive coding allowed new patterns and relationships to emerge from the data, offering insights to the research question. This dual approach ensured a comprehensive analysis, integrating established knowledge with new findings from the literature. MAXQDA facilitated the structured use of thematic coding, thereby categorising information into pertinent classifications and assisting in the identification of prevalent themes within the literature. Three primary thematic codes were determined and explained in detailed in Appendix B. The initial codes 'Knowledge' and 'Knowledge Sharing' encompass research that examines particular actions associated with knowledge sharing, including informal and formal knowledge, as well as the administration of intellectual assets. The second includes 'Corporate Training' and 'SFCT', which provide some perspective on training programs designed to foster sustainability and develop employees' green skills, but also insights into corporate culture, leadership and digital capabilities. The last is 'Sustainable Innovation', with all the information related to this concept. This thematic analysis method has significant advantages, such as the ability to capture complex nuances and adapt to different types of qualitative data. Moreover, the adoption of software like MAXQDA improves the clarity and accountability of the analytical process and also allows for an objective analysis of the information from the SLR. However, there are some limitations that should not be underestimated, such as the dependence on the quality and relevance of the available data. This is because the use of already published information could entail the risk of relying on data that are not fully relevant to the specific context of analysis or that have already been interpreted from perspectives that could influence the conclusions of the study. To address these limitations, strict selection and evaluation criteria were applied, and the results were iteratively checked against the existing literature in the field. As the study is exploratory in nature and aimed at an in-depth understanding of complex phenomena, qualitative analysis was deemed the most appropriate approach. This method allows for the identification of emergent and enduring themes while exploring the context and dynamics that influence the interpretation of the data and its theoretical and practical implications (Snyder, 2019; Tranfield et al., 2003). In conclusion, the thematic qualitative analysis, supported by the MAXQDA software, allowed to synthesise the existing literature, respond to the research objectives and explore the interrelationships between sustainable corporate training, knowledge sharing and sustainable innovation.

4 Result and Finding

After the analysis of the methodology adopted to explore the influence of the SFCT, this chapter presents the results emerged from the SLR of the 52 documents. In order to have a clear view of this results, the following chapter is structured in subchapters identified by the name of the coding used in MAXQDA. Before answering to the research question, it is interesting to explore the papers, to get a general overview of the topic discussion in the world.

4.1 Descriptive Analysis

The descriptive analysis of the studies included in the systematic review provides a clear overview of the main features of selective research, highlighting time distribution, geographical origin, quality of sources and the methodology adopted and the bibliometric indicators of the selected sources. Among these, the Impact Factor (IF) and CiteScore were adopted as criteria for assessing the scientific relevance of journals. The Impact Factor measures the average number of citations received in a particular year by papers published in the journal during the two preceding years (Clarivate Analytics, 2024). Following, the CiteScore, on the other hand, measures the average citations received for peer-reviewed document published in this title. CiteScore values are based on the citation count in a four-year interval (e.g. 2020 - 2023) for peer-reviewed papers, such as articles, reviews, conference papers, data papers and book chapters. Thus, published in the same four calendar years, divided by the number of these papers in these same four years (e.g. 2020 - 2023). The use of these parameters allowed for the selection of studies published in high-impact journals, thus improving the robustness of the results and their relevance to the academic community. The following table 1 summarises the descriptive statistics of papers included, highlighting the Impact Factor (IF) and CiteScore scores of the considered journals, while in Table 1 Appendix A it explores in detail the 52 articles used in the Systematic Literature Review.

Table 1 Descriptive statistics of SLR papers

Criteria	Number of Papers	Percentage
Impact Factor (IF)		
IF > 10	5	9.6%
7 < IF ≤ 10	8	15.4%
4 < IF ≤ 7	14	26.9%
IF ≤ 4 <i>*(with relevance to SFCT topic)</i>	25	48.1%
CiteScore		
CiteScore > 10	10	19.2%
7 < CiteScore ≤ 10	12	23.1%
4 < CiteScore ≤ 7	15	28.8%
CiteScore ≤ 4 <i>*(with relevance to SFCT topic)</i>	15	28.8%
Publication Year		
2024	3	5.8%
2023	5	9.6%
2021	7	13.5%
2020	6	11.5%
2014	8	15.4%

1991 <i>*(relevance to the theoretical frameworks of the SFCT topic)</i>	4	7.7%
Others (2000-2019)	19	36.5%
Geographical Origin		
USA	8	15.4%
China	7	13.5%
Global <i>*(no origin mentioned)</i>	6	11.5%
Pakistan	5	9.6%
Germany	5	9.6%
Italy	4	7.7%
Spain	4	7.7%
Bangladesh	4	7.7%
Saudi Arabia	3	5.8%
Norway	3	5.8%
Austria	3	5.8%
Methodology Used		
Qualitative	28	53.8%
Quantitative	18	34.6%
Mixed Methods	6	11.5%
TOTAL	52	100.0%

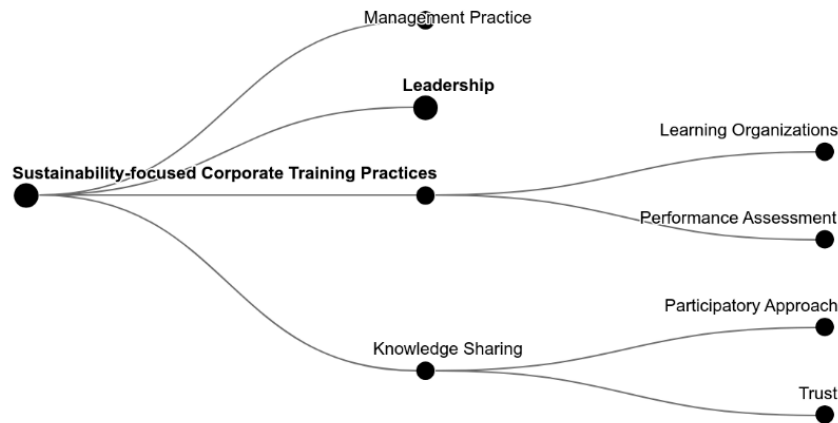
Starting the analysis of the Table 1 with the time period selected 2000-2024, it shows a significant growth of publication in recent years. Most of the articles were published between 2014 and 2024, conforming a growing academic interest in the role of Sustainability-Focused Corporate Training in the promotion of knowledge sharing and sustainable innovation (Afeltra et al., 2023; Sult et al., 2024). This trend reflects an increased awareness by companies and the scientific community about the importance of Sustainable Training as strategic lever to improve organizational performance and respond to global sustainability challenges. In terms of geographical origin, most studies come from Europe, North America and Asia. Europe and North America are the main centres of scientific production in this area, with a strong presence of studies published in high-impact journals (Barney, 1991; Baumgartner & Winter, 2014). Asian literature is gaining increasing relevance, in particular with studies highlighting the role of knowledge sharing, management and digitalization as key factors to promote corporate sustainability (Awan et al., 2021). However, there is a smaller representation of research in the area of South America and Africa, suggesting that the subject of SFCT may still be small explored in emerging or developing contexts, leaving opportunity for future comparative investigations. Moving the focus to source quality, the selection of studies was based on strict criteria, with articles published in academic journals with a high impact factor (IF) and a significant CiteScore, but also with relevance on the objectives of this thesis. Most publications come from journals with an Impact Factor higher than 5.0 and a Citescore 6.0, ensuring a high level of source reliability. Some key studies have been published in prestigious journals, such as the Journal of Cleaner Production (Hossain et al., 2022; Martins et al., 2019) and Business Strategy and the Environment (Schröder et al., 2023). Thus, both considered as reference points for sustainability research and business innovation. In addition, the inclusion of books and conference proceedings enhances the theoretical and practical perspective of the review, offering a broader view on training strategies and their application in different organizational contexts (Garnier, 2022; Hopkins, 2021). From the methodological point of view, there is a clear predominance of qualitative approaches. Around 53.8% of the studies analysed use qualitative methods, such

as systematic reviews, case studies and interviews, to explore the role of training in a sustainable context (Castaneda & Cuellar, 2020; Quinn & Dalton, 2009). On the contrary, 34.6% of the research uses a quantitative approach, often based on statistical models and Structural Equation Modelling analysis, to test hypotheses about the relationship between SFCT, KS and Innovation (Abbas et al., 2020; Barba-Aragón & Jiménez-Jiménez, 2024). Mixed approaches, combining qualitative and quantitative data, are less common. In summary, the descriptive analysis confirms that research on Sustainability-Focused Corporate Training is an expanding field, with solid foundations in recent literature and a wide variety of methodological approaches. The predominance of qualitative studies reflects the exploratory nature of the theme, which focuses on the analysis of organizational processes and internal dynamics rather than on the quantitative measurement of variables.

4.2 Thematic Analysis: Sustainability-Focused Corporate Training

The SLR confirms that SFCT has been consistently recognized as a key facilitator of KS and SI in organizations. Further systematic literature reviews support the idea that SFCT allows for a supportive environment in internal organizational culture that benefit from knowledge sharing opportunities, leading to better alignment of learning programs in achieving strategic business objectives and encouragement of a communication line across employees (Cormican et al., 2021; Davis & Boulet, 2016). The main elements that affect knowledge sharing is training that combines both intrinsic motivation arising from personal gratification, professional growth and extrinsic motivation that includes bonuses and awards (Isakh & Hwang, 2023; Kordab et al., 2020). Similarly, collaborative and transformational leadership plays a key role in the establishment of trust and relationships among the working staff in order to encourage knowledge sharing activities and sustainable practices in the organization (Baumgartner & Winter, 2014; Gloet & Samson, 2016). On the other hand, SFCT incorporates principles of sustainability into daily business operations to lead to better organizational learning and adaptability to the fluctuations of competitive environments (Martins et al., 2019; Rahat et al., 2022). That organization will be a strong base to achieve, provide and implement new strategic knowledge about sustainability. Moreover, SFCT contributes to employee development by equipping them with skills on sustainability issues as well as developing a culture that enables effective knowledge sharing and management (Razali & Jamil, 2023; Sult et al., 2024). Based on these findings, the thematic analysis conducted with MAXQDA allowed it possible to structure and categorise the connections between Sustainability-Focused Corporate Training, Knowledge Sharing and Sustainable Innovation, further, validating the insights of literature review. Figure 1, *'Mapping the Role of SFCT in KS and SI: Findings from MAXQDA'*, visually summarises the coding, mapping the connections between the key concepts and their articulation within the theoretical and empirical framework of the research of this study. In particular, Figure 1 illustrates the correlation between the identified categories, providing a schematic representation of the conceptual structure supporting the response to the research question. The code analysis enabled the identification of key factors mediating the relationship between SFCT and KS, as well as the role in facilitating the adoption of SI practices. The graphical representation supports the interpretation of the qualitative data, offering a more precise delineation of the contribution of SFCT to knowledge sharing and innovation processes.

Figure 1 Mapping the Role of SFCT in KS and SI: Findings from MAXQDA



4.2.1 Practices

From the abstracts presented in the preview section, it is shown that sustainability-based corporate training practice is very crucial to foster employee competencies for being sustainable and to let them participate in corporate sustainability initiatives. Especially the integration of training with the sustainable development goals and the need for a human-centred approach to training, are among aspects that emerge. Sustainability-related corporate training practices play a critical role in achieving competence for action on sustainability among employees (Schröder et al., 2023). These trainings are based on a human-centred, action-oriented approach that is oriented towards increasing corporate sustainability, primarily consulting for goals considered sustainable by the United Nations with SDGs and integrated into the organizational strategies of the enterprise (Singha, 2024). Moreover, sustainability training programs are effective in improving the sustainable conduct of employees through, for example, integrated reward systems that enhance measures and motivate actions that are purposely aligned to organizational goals (Quinn & Dalton, 2009). However, this means also take some risks, since mainly trainings do not in itself raise the organizational priority given to environmental education where the results would keep additional potential for other educational initiatives (Shaikh, 2024). Therefore, on the other hand, it is also highly important to provide long-standing sustainability targets and frequent checking of progress toward applicable targets, inattentively to retain competitiveness and adaptability in the national economy with changing periods (Singha, 2024). In conclusion, these sustainability-oriented learning practices have become not only an incentive for responsible behaviour and enhanced organizational performance but also contributed to a corporate culture of learning and innovation, although improvements should be made to overcome the prevailing operational barriers.

4.2.2 Leadership

Another concept that emerged from the SLR is the influence of Leadership that represents the connections between the effectiveness of corporate training activities and sustainability. Sustainability prepared leaders establish a capability and mindset to integrate many stakeholders and to proceed the organizational purpose in line with sustainability. This underscores the necessity for a comprehensive investigation into the roles that leaders play in driving sustainability projects to succeed (Quinn & Dalton, 2009). An important actor in this process is the

activity of Human Resources, which enables organizational sustainability through recruitment, training, leadership development and internal communication. The strategic HR focus on the training of sustainable change agents forms the basis for initiating long-term sustainability (Singha, 2024). Sustainable leadership constitutes the element for effective management that requiring company managers to take sustainability into account in normal business operations. It emerged in different literatures that exists a positive link among sustainable business practices, sustainability performance and various leadership skills. Thus, reaffirming the need for leaders who actually pay attention and are caring in pushing the organizations to reach the goals of sustainability (Shaikh, 2024). A transdisciplinary project showed even broader that the human-centred and action-centred approach to training can contribute to improving employees' action competence for sustainability (Schröder et al., 2023). This was complemented by key organizational factors that promote a corporate culture of sustainability. Thus, creating an environment in which employees are suitably empowered and motivated to take part in sustainable practices (Schröder et al., 2023). Leadership in the role of sustainability-focused corporate training leads from one level of organisation and institutional strategy to another, to a new scale of employee behaviour involvement. The leaders become cultural change agents within their organizations, support the openness and productivity of the work culture. However, there remain systemic challenges of governance such as the less important prioritization of sustainability in leadership agendas and the resistance to constant cultural change to institutionalize sustainable leadership. Therefore, can only be addressed with adaptive training and long views aligned with institutional strategies (Shaikh, 2024; Singha, 2024). To summary, leadership practices in sustainability, supported by the strategic role of HR and the right training programs, are the essential of a corporate training practice focused on sustainability. Following closely in this regard are practices that better leaders and build sustainability into the organization's frameworks. Therefore, introducing sustainable performance for the organization while nurturing a corporate culture that resonates deeply with the wider sustainability goals such as the United Nations' Sustainable Development Goals.

4.2.3 Management Practices

Corporate mechanism for SFCT enhance management practices that would change sustainability and environmental management primary considerations. Environmental management and corporate sustainability are defining shifts in organizations, indicated in particular by framework offered by ISO 14001(Sennoga & Ahmed, 2020). This framework is an international standard that monitors organisations in implementing an environmental management system. It focuses on improving environmental performance, resource efficiency and regulatory compliance. It encourages the integration of sustainability into business operations and training to develop green skills in employees (Sennoga & Ahmed, 2020). Training, in these environmental management systems, is widespread, allowing organizations to establish a compliant path forward and integrate sustainable principles into their operations (Medrano-Sánchez & Fuster, 2024; Sennoga & Ahmed, 2020). However, multiple factors may affect the efficiency of environmental training like training topics must be aligned with organizational objectives and must develop a positive environmental attitude. Limited organizational prioritization and insufficient focus on actionable training content are two factors that can damage the transfor-

mational potential of these programs (Sennoga & Ahmed, 2020). A crucial dimension of sustainability in management practices is the 'bubble' of management education where the use of sustainability is developed with time to equip future leaders in handling with the complex environmental and social challenges ahead. A range of innovation approaches such as action learning, art-based methodologies and interface of sustainable with ethics and aesthetics, provide new insights into management training, each giving managers an experience to rise above traditional business paradigms (Acevedo, 2014; Meima, 2021). Following, another important area consists of Corporate Social Responsibility (CSR) and Sustainability Management Education, combining practical training and curriculum that develops a core understanding of sustainable development. Such initiatives provide a demanding need for the development of action competence among current and future professionals for the effective implementation of sustainable principles in organizational contexts (Hesselbarth & Schaltegger, 2014). The significance attached to aligning educational methods with sustainability goals becomes even more pertinent with experiential learning and learner-centred pedagogy. Thus, being achieved through fostering sustainability-focused training in undergraduate and professional education. These pedagogical strategies of interactive and participatory student engagement create awareness that businesses fundamentally play the role of practitioners and proponents of sustainability (De Loura, 2014). Furthermore, the interactive and action-oriented learning through human-centred action has shown effectiveness particularly in building workers' competence for sustainability within the context of Small and Medium-sized Enterprises. Such training approaches are specific to the barriers of SMEs, creating a culture of sustainability aligned with the business objectives (Schröder et al., 2023). In conclusion, the implementation of sustainability-centred corporate training practices in all management practices is critical in fostering environmental management, working with ethical business strategies and preparing organizations to confront global sustainability challenges. These efforts imply combined effective environmental training, innovative management education and experiential learning approaches for contribution to a workforce that not only understands sustainability principles but also is able to act on them.

4.2.4 Application of Knowledge

Corporate training correlated with sustainability is needed to enhance the application of knowledge in the field of improved corporate sustainability performance. Since matters of sustainability have increasingly become knowledge-based, such training is important to enhance skills, develop talent and build talent to deal with complexities arising in the development of environmental, social and economic sustainability. These programs contribute to the development of sustainability competencies, while driving general sustainability outcomes, through alignment with organizational goals and strategic priorities and long-term performance metrics (Garnier, 2022; Sult et al., 2024). Key to these practices are integrations not only with the KS which will be explained later, but also with knowledge management (KM) systems, which enable the use of tools like the sustainability balanced scorecard (SBSC), as part of KS process. KM systems are part of the KS process and enable the organisation to analyse sustainability perspectives and manage knowledge resources. In addition, KM bridges the gap between knowledge sharing and its practical application in order to improve decision-making and measurable sustainability performance. In the study conducted by Wu & Haasis (2011), the training program, which develop change agents, imply the potential of sustainability education to

change. These programs, with the integration of innovative learning frameworks, help participants to be agents of change to transform the sustainability culture of an organization by shifting from simple knowledge sharing to active implementation in sustainability performance. Moreover, Davis & Boulet (2016) point out that such significance of sustainability-based training, especially in SMEs, needs appropriate approaches, as most of them lack sufficient resources. A human-centred and action-oriented approach has been shown to develop employees' action competence, enabling SMEs to contribute meaningfully to global sustainability efforts while addressing their unique operational challenges (Schröder et al., 2023). While existing studies provide valuable insights into the benefits of SFCT in enhancing corporate sustainability. It has not been fully explored how knowledge acquired from such training is applied in corporate settings. The strategic alignment of the training program, the KM system, KS and the action-oriented approach underlines the importance of these systems for embedding sustainability principles into organizational processes and reaching long-term sustainability goals. In conclusion, from the SLR emerged that SFCT influences the application of knowledge and correlated to this, also the learning organization process and the performance assessment explained in the next sections.

4.2.4.1 Learning Organization

Related to the above concept, the corporate training practices focused on sustainability are essential in building Learning Organisations (LO) that allow firms to achieve sustainable competitive advantage and improve overall performance. A learning organization is an organization that has a distinctive capacity to adapt to continuous and dynamic environmental and social changes, which is highly relevant in the context of sustainability (Calhoun & Douglas, 2015; Qin et al., 2024). LO allow firms to integrate sustainability into their operations through continuous learning, knowledge sharing and innovation (Calhoun & Douglas, 2015; Qin et al., 2024). Despite the importance, most organizations fail to embed sustainability learning through formal systems and rely on informal processes. While the informal approaches are of value, they often don't effect structural and cultural changes on a full scale, which in turn fully integrate sustainability into organizational practices. According to Duarte (2017), a focus on employee learning, as one of the central parts of corporate sustainability strategies, can drive the development toward reaching organizational sustainability goals. Furthermore, training initiatives that encourage active employee engagement, help bridge the gap between abstract sustainability concepts and actionable practices, fostering a workforce capable of implementing sustainability at all levels of the organization (Razali & Jamil, 2023). The other characteristic of a learning organization is the possibility of using knowledge sharing practices and innovation capabilities in improving sustainability performance. Knowledge sharing has acted like a mediator between organizational learning and sustainable outcomes by facilitating the way in which knowledge acquisition, codification and application occur within the organization. This dynamic interplay, while improving organizational agility, serves to enhance its responsiveness toward emerging sustainability challenges (Qin et al., 2024). Following, LO fosters the development of sustainable business models, contributing to how firms understanding and adapt to sustainability. This is accomplished by aligning strategic objectives with environmental and social imperatives (Ademi et al., 2024). The integration of corporate entrepreneurship within

the framework of organizational learning has also been considered a critical factor that triggers sustainability practices. By fostering innovation and providing employees with the ability to take initiative, an organization will be able to establish a culture of continuous improvement whereby the application of the principles of sustainability can be realized in practice (Brandi & Thomassen, 2020). This approach enhances not only internalization but also scalability and alignment with broader organizational goals. In conclusion, corporate training on sustainability issues is not dispensable in developing a learning organization focused on sustainability. LO, knowledge sharing and innovation-based approach will appropriately position sustainability within the firms. While current initiatives demonstrate an encouraging development, the absence of clear mechanisms of using knowledge in learning organizations indicates the necessity for stronger and more formal means of institutionalizing the learning about sustainability.

4.2.4.2 Performance Assessment

Sustainability-focused corporate training practices have a critical role in applying knowledge to enhance the performance assessment. This should be essentially placed at the core of integrating sustainability-oriented KM frameworks, as an important part of KS, such as the Sustainability Balanced Scorecard. The SBSC enables organizations to analyse sustainability perspectives, manage knowledge assets and align KM processes with strategic sustainability goals, thereby bridging the gap between knowledge and actionable performance metrics (Wu & Haasis, 2011). This alignment highlights the potential of KM to transform sustainability principles into measurable outcomes. Knowledge oriented to leadership has an added impact and thus underlines the relationship between knowledge application and CSP. There exists a significant relationship between those leadership approaches, which are based on knowledge integration and improvements in environmental, social and economic dimensions of CSP. These methodologies will create a culture for continuous learning and adaptation, whereby sustainability goals will be incorporated into corporate strategies (Okreglicka, 2023). Moreover, the commitment of leadership, clearly defined strategies for sustainability and strong data collection capabilities altogether form the organizational context for effective CSA. These elements create the structural and cultural foundation necessary for assessing and improving sustainability performance (Moldavska, 2017). A pivotal tool in sustainability-focused performance assessment is the Sustainability Performance Assessment (SPA) System, which enhances understanding through the analysis of corporate social responsibility reports. This approach provides a comprehensive framework for evaluating multifaceted sustainability performance, thereby facilitating better decision-making and strategic alignment (Paun, 2018). Furthermore, Sustainability Performance Measurement Systems (SPMS) have emerged as ideal frameworks for CSP evaluation, characterized by the adaptability to complex organizational contexts. These systems leverage precise and connected indicators tailored to specific sustainability objectives, ensuring accuracy and relevance in performance measurement (Damtoft et al., 2024). It also provides ample assistance in the development of knowledge application in performance assessment. The integration of training into the KM process builds sustainability in the supply chain that assists organizations in creating observable, verifiable improvement in economic and environmental operation-based performance (Kumar & Mani, 2022). Its effectiveness has thus been able to indicate how education and training programs must match the measurement of performance for

appropriate outcomes over the long-term of sustainability. The implication of knowledge in sustainability-based corporate training practices is a pathway to better integrated performance evaluation. It is at this connection that the application of sustainability knowledge into actionable strategies is effectively possible through KM frameworks, as part of KS, such as the SBSC, leadership-driven initiatives and innovative tools like SPMS. Although these emerging practices have a great potential for sustainability, their impact on knowledge application in directly influencing performance measures remains an opportunity for further research in the context of sustainability-focused corporate training.

4.2.5 Knowledge Sharing

Another influence of the SFCTs that emerged from the SLR is precisely on the sharing of knowledge among employees. The increasing importance of sustainability in business decision-making has drawn attention to business education that focuses on sustainability. However, the absence of interdisciplinary knowledge on issues of sustainability and an inadequacy of training in the teaching methodology to support this development has produced some gaps. These limitations have been a barrier to the integration of effective knowledge sharing practices in corporate sustainability (Benn et al., 2023). Knowledge sharing is central to sustainable management, as it supports the creation of efficiencies and value for organizations. Correlated to KS, Knowledge Management is also recognized as a critical organizational resource in achieving a sustainable competitive advantage. By leveraging KS practices, organizations can align their structures, culture, leadership styles and social capital to enhance sustainability outcomes (Cormican et al., 2021; Hossain et al., 2022). These practices, in opposite, function as knowledge sharing enablers to ensure that the principles and practices of sustainability are well communicated and applied within all levels of the organization. The role of training measures in promoting sustainability also underlines the connection between knowledge sharing and organizational performance. For example, sustainability training for suppliers, especially those with longer training sessions that involve active participation, has been found to enhance supplier sustainability performance. This is particularly the case when training sessions are customized to focus on local sustainability issues, thus allowing for greater interactivity and collaboration in knowledge sharing (Encinas Bartos et al., 2024). Nonetheless this progress, there is still a gap in how corporate training focused on sustainability explicitly produces knowledge sharing in long-terms. The available literature highlights how KS may act as a mediator in sustainability outcomes and points out the need for training programs to be more proactive in encouraging collaboration and the sharing of knowledge among its stakeholders. The sustainability-focused corporate training practices contribute more to knowledge sharing through enhancing the KM system, supporting training and tuning organizational structures with the goals of sustainability. In addition from the SLR, it was found that SFCT influences the knowledge sharing process also has effects on the trust of employees and their participation approach in training courses.

4.2.5.1 Participatory Approach

The integration of a participatory approach to knowledge sharing forms an important aspect of sustainable corporate training, even though direct applications have rarely been conducted within a business context. Among other participative and learner-centred models, an

effective approach that embeds sustainability-focused topics within undergraduate-level business education includes the Experiential Simulation Learning Approach, often referred to as ELSA. These approaches emphasize active involvement and engagement, creating opportunities for learners to connect sustainability principles with real-world applications (De Loura, 2014). This might be similarly possible in corporate training when participatory methods are integrated into the training. For example, some co-learning classes bring together students and community stakeholders who have successfully combined knowledge exchange, reflective practices and the development of social networks. These help to encourage and support diversity, inclusivity and co-responsibility regarding sustainability outcomes (Reeves, 2019). Such methodologies could be applied to corporate training settings where the involvement of a variety of stakeholders, such as employees, managers and external partners, might strengthen the diffusion and practical utilization of sustainability knowledge. Knowledge sharing remains a much-needed organizational capability, influenced by factors like trust, communication, reward systems and leadership. In combination, these elements enable organizations to maintain a competitive advantage by building an enabling environment of open knowledge sharing and its application. Cormican et al. (2021) present a more participatory approach that would, in addition, encourage shared ownership of sustainability initiatives through problem-solving simultaneously. However, some participatory methods may not be as adapted to the particular needs of instructional CSR communication. For instance, participatory communication needs to be reconceptualized in a condition that would allow all participants, especially beneficiaries, to be empowered in contributing meaningfully rather than merely being at the receiving end of information (Kloppers & Fourie, 2018). Although there is considerable literature underlining the benefits of participatory and learner-centred approaches in educational and community contexts, needed further future research. Nonetheless, the insights available indicate that the use of participatory practices may help corporations foster a more inclusive and effective knowledge-sharing culture. Further research needs to be done regarding the development of tailored participatory frameworks that will help meet specific organizational needs for embedding sustainability into their practice.

4.2.5.2 Trust

The practices of corporate training that are focused on sustainability are found to impact knowledge sharing and building trust in organizations, though the direct linkages between them are less discussed. Knowledge Sharing, with its part knowledge management, has come to be widely recognized as an important organizational resource playing a crucial role in gaining sustainable competitive advantage. This means trust, communication, rewards and leadership are part of KM practices that enable free sharing and application of knowledge, thereby reinforcing organizational coherence for a commonly accepted sustainability goal (Cormican et al., 2021). Accordingly, there exist evidence of the efficiency of environment-related education and awareness-focused training programs for employees in environmental education. Changes in awareness, attitude and behaviour transform to better organizational sustainability and an overall deeper sense of commitment to sustainability with increased trust among organizational members (Law et al., 2017). Furthermore, longer and more interactive training sessions that

actively engage participants, such as those designed for suppliers, have demonstrated significant improvements in sustainability performance, indicating that trust-building is facilitated through collaborative and participatory training formats (Encinas Bartos et al., 2024). The relationship between corporate sustainability and KM is further justified through models showing how KM practices affect corporate sustainability through organizational structure, culture, leadership style and social capital. These collectively with KS act as mediators between training programs and wider outcomes in sustainability. Thus, on the contrary, shows the development of supportive organization-wide frameworks that can allow knowledge sharing and building trust (Hossain et al., 2022). This sustainability training, within the structure of SMEs for example, also increases the action competence for sustainability within employees. By the same analogy, the work of Schröder et al. (2023) reinforces that training is indeed a viable facilitator in initiating workers to display trusty behaviour related to KS. Although the evidence unequivocally supports the positive influence of sustainability-focused corporate training on knowledge sharing and trust, the direct pathways that trust emerges through knowledge sharing in training contexts have remained little explored. Further research might explore specific ways in which particular training practices, such as team-based problem-solving or mentorship programs, directly enable the development of trust among employees and stakeholders. Sustainability-focused corporate training practices facilitate or speed up better KM and the entrenchment of trust in a firm. If linked to the corporate sustainability policy and if firms highlight the learning of their co-workers, such a culture may create trust leading towards corporate sustainability and success. Much more targeted research is required into how direct linkages are forged among training, knowledge sharing and trust building within firms.

To conclude, the analysis of the results obtained from the SLR, highlights the central role of Sustainability-Focused Corporate Training in the KS and SI. The results confirm that SFCT fosters an organisational culture based on knowledge sharing, supported by transformational leadership, trust, motivational incentives and a strategic approach to corporate learning (Cormican et al., 2021; Gloet & Samson, 2016). However, it emerges some critical issue i.e. cost implications, cultural variability and the difficulty of measuring the effectiveness of knowledge sharing training (Baumgartner & Winter, 2014; Kirkpatrick & Kirkpatrick, 2006). These findings will be discussed in the following chapter on the discussion of the results.

5 Discussion

The results of the systematic literature review confirm that Sustainability-Focused Corporate Training has a significant impact on Knowledge Sharing by fostering a collaborative organisational culture and enhancing employee engagement (Lee & Han, 2024). In addition, corporate training facilitates knowledge sharing through ‘soft’ factors such as leadership and organisational culture. Furthermore, the literature suggests that leadership, trust and organisational support play a mediating role in the effectiveness of SFCT (Gloet & Samson, 2016). Moreover, it emphasises the role of interpersonal dynamics in knowledge sharing over the use of technological tools, as they are considered a second role (Park & Hong, 2022). Although digital platforms can facilitate documentation and access to information, effective knowledge transmission appears principally through conversation and direct interactions between employees and top management (Farza et al., 2021). Another aspect to be considered, as revealed by the SLR, is the role of knowledge management, which remains an essential support for KS. It is seen as important for providing the necessary infrastructure for collecting, organising and sharing knowledge within organisations. The effective implementation of KM can thus improve KS processes, making knowledge sharing horizontal and ensuring greater accessibility to strategic information. Despite, a limitation has emerged in the assessment of the long-term impact of SFCT, which remains focused on immediate effects, such as employee engagement and knowledge retention (Phan, 2023). This gap in the literature suggests the need for future research that assesses what sustainable training could influence business practices and the ability to innovate sustainably over time (Baumgartner & Winter, 2014).

Specifically, discussing what influences SFCT, the SLR found that corporate training is an important tool for sharing knowledge within the organization by developing. In fact, it helps the company to develop an environment in which employees consider sharing their skills permanently. Such training programs create open communications based on trust that are considered essential for an effective environment, where KS increases and aligns with organizational strategic goals (Cormican et al., 2021; Davis & Boulet, 2016; Isakh & Hwang, 2023). Furthermore, training courses provide employees with incentives to encourage participation. Such incentives can be divided in two types: intrinsic such as personal gratification, full development and extrinsic using cash bonuses or recognition (Kordab et al., 2020; Leon, 2012). Establishing effective communication systems also enables knowledge sharing in these training programs, which then spreads to different levels in the organization (Davis & Boulet, 2016; Kordab et al., 2020). Sustainability education promotes organizational learning by incorporating sustainability values into daily functions and, therefore, improving knowledge acquisition, processing and sharing. These improvements are crucial to be competitive and achieve long-term sustainability goals (López-Torres et al., 2019; Martins et al., 2019). Further, such training contributes to the professional development of employees and equips them to challenge complex sustainability challenges. On the contrary, this helps the organization create more competent employees which are better able to engage in knowledge sharing processes (Isakh & Hwang, 2023; Rahat et al., 2022). Indeed, sustainability training promotes knowledge sharing as it leads to better leadership practice. It improves the sustainable performance of organizations with participatory and empowering approaches (such as sustainability training), allowing them to achieve high-

level task and environmental performance (Kordab et al., 2020; Leon, 2012). It opens the possibility to organizational and employee development, making it an effective strategic tool for achieving short and long-term organizational sustainability goals.

In the light of the findings on the influence of SFCT, it is interesting to explore the benefits, impacts, challenges and strategies associated of this topic. Starting from the benefits, the first is the improvement of suppliers' sustainability performance, especially where training is extensive and involves local concerns (Cormican et al., 2021). This approach has allowed a deeper synchronization between companies' sustainability goals and the operational way to operate. SFCT promotes organisational learning and contributes to the creation of a corporate culture based on continuous knowledge sharing. This leads to a strengthening of the ability to adapt to environmental and market challenges (Nonaka & Takeuchi, 1995). Secondly, this mode helps companies in a practical pathway as it provides guidelines for designing effective training programs aligned with sustainability and knowledge sharing objectives (Baumgartner & Winter, 2014). Third, from a strategic point of view, SFCT supports business decision-making by enabling organisations to better understand how investment in training affects knowledge sharing and increases competitiveness in the long term (Barney, 1991). In addition, this type of training leads companies to respond to global objectives, such as those defined by the Sustainable Development Goals, aligning corporate strategies with international trends in sustainability (Schaltegger & Wagner, 2011). Fourthly, knowledge sharing is widely recognized as a strategic resource and gathers a competitive advantage in combining trust, communication, reward systems and effective leadership (Davis and Boulet, 2016). Green leadership practices not only improve companies' sustainable performance, but also have a mediating impact on important dynamics, that link leadership behaviours and knowledge sharing outcomes. Thus demonstrate a direct relationship that exists between managerial approaches and environmental goals (Kordab et al., 2020; Leon, 2012). However, the main obstacles are following named. Starting with the costs, since business training programs require high financial investments, limiting the accessibility of such initiatives for small and medium-sized enterprises (Gloet & Samson, 2016). The research on the effects of training on knowledge sharing is time-consuming, as assessing the impact of SFCT requires longitudinal studies, which require a long period of time to provide significant average results (Phan, 2023). Another challenge is the complexity of measuring knowledge sharing, as it is a multidimensional process and difficult to quantify objectively without standardised metrics (Kirkpatrick & Kirkpatrick, 2006). Additionally, the effectiveness of SFCT is influenced by cultural and contextual variability, as the impact of training on knowledge sharing could present differences between industries and organisational cultures, making it difficult to generalise results (Baumgartner & Winter, 2014). Lastly, internal politics can obstruct sustainability initiatives, especially when employees in a leader positions are unwilling to support such efforts and changes (Razali & Jamil, 2023). Based on the benefits and challenges, appropriate corporate strategies are needed. An example is the creation of sustainable supply chain training models that strengthen operational and environmental outcomes along with economic performance (Rahat et al., 2022). In addition, not to be underestimated is the position of innovation which is an emerging green catalyst and can be used to evaluate the success of green initiatives both for a secure allied knowledge management with sustainable performance (Sult et al., 2024). In conclusion, the benefits of this corporate

training are manifold and relate primarily to knowledge sharing and improved applications, but also to the realisation of broader organisational sustainability goals.

In comparing SLR with the chapter of theories related to the main concepts, the SLR confirms that SFCT promotes sustainable innovation by aligning training programs with the Sustainable Development Goals, thereby promoting the adoption of green technologies and sustainable business strategies (Schaltegger & Wagner, 2011). This is in line with Elkington's (1998) Triple Bottom Line theory, which emphasises the need to balance economic, social and environmental objectives. However, not many studies have comprehensively addressed the economic impacts of this corporate training, leaving a gap for future studies in understanding the financial benefits of these programs (Elkington, 1998). Regarding efficiency measures, the literature reviewed shows that few standardised frameworks exist to assess the effectiveness of SFCT in improving KS and influencing business performance (Kirkpatrick & Kirkpatrick, 2006). This confirms the need to develop more robust evaluation frameworks and measurement metrics that can quantify both intangible benefits such as collaboration, trust and tangible benefits like cost reduction, improved sustainable innovation (Isaksson et al., 2016). In the light of what has been analysed between SLR and theory, some challenges emerged. First is the time limitation, as already mentioned, the difficulty of assessing the long-term impact of SFCT came out. Many companies tend to focus on short-term metrics, such as immediate employee engagement, while forgetting the developing of a resilient organisational culture for sustainability (Phan, 2023). This limits the ability of companies to adopt a strategic approach to sustainable training. Secondly, there is a resistance to change. SLR has pointed that resistance to change, especially in organisations with rigid hierarchical structures, obstructs KS and limits the effectiveness of SFCT (Baumgartner & Winter, 2014). For this, the literature suggests the creation of collaborative environments and the adoption of inclusive leadership are essential elements in overcoming these barriers (Gloet & Samson, 2016). Thirdly, the misalignment between training objectives and business strategy, as many SFCT initiatives focus on immediate outcomes like improving individual competencies, rather than broader organisational goals i.e. sustainable innovation and business transformation (Schaltegger & Wagner, 2011).

One of the objectives of this research is to investigate the role of mediating factors of SFCT. In general, mediating and moderating factors play an important role in determining the effectiveness of sustainability-oriented corporate training. More correlated with the topic of the thesis, the SFCT influence the integration of knowledge and skills acquired during training into company operations but also facilitate the link between training-desired outcomes and training-organizational performance (Barba-Aragon and Jiménez-Jiménez, 2023). The SLR shows that the following factors play a mediating role: culture, leadership, digital training and environment. A corporate culture that places great importance on collaboration, transparency and continuous learning creates an environment that is conducive to the transfer of knowledge acquired through training and its effective use (Gloet and Samson, 2016). According to Baumgartner and Winter (2014), a sustainability-oriented culture amplifies the impact of CT by providing the necessary context to push employees towards the implementation of innovative practices. A second mediator is inclusive leadership that addresses sustainability principles and can lead to cultural change, further pushing employees to adopt sustainable solutions (Hoffman, 2018).

Additionally, another crucial mediator is the technological development. Modern learning modalities would include digital collaboration platforms, knowledge management software and virtual simulations. Thus, integrate and amplify organizations' ability to promote knowledge diffusion and convert common understanding of their concepts into concrete actions (Park & Hong, 2022). Digitalization also enables continuous access to training resources that improving the long-term effectiveness of CT and fostering organizational sustainability (Awan et al., 2021). Although digital devices are important, the digital education plays a secondary role in the sharing of knowledge. Another key mediator is leadership dynamics as transformational leadership because it aimed at intrinsic motivation in employees and has been found to improve CT engagement and effectiveness (Ryan and Deci, 2000). Thus, leadership that promotes employee autonomy and competence in these areas is based on the applicable effect of training on KS and sustainable innovation. Compensating and recognizing innovative ways, as explained at the beginning of the discussion chapter, not only innovation generates employee engagement but also create a self-sustaining learning and innovation cycle (Bilderback, 2024). This helps employees to voluntarily share knowledge and propose solutions for better sustainability of the organization. Finally, a regulatory and competitive environment mediates the effectiveness of SFCT. The operational is more relevant for organizations that are in markets with strong regulatory pressures where sustainable practices are in high demand, as rational sustainability SFCT provides them with core competencies to manage these challenges (Ketata et al., 2015). Competitive pressure can also force companies to leverage CT as a tool to stand out and gain sustainable competitive advantages. Mediating factors are therefore key components to maximizing the impact of sustainability-oriented in CT. Understanding and managing these factors allows organizations to maximize their effectiveness training to have innovative, durable and sustainable business structures that support lasting resilience and competitiveness.

In conclusion, the discussion of the findings highlights that SFCT plays a crucial role in facilitating KS and fostering sustainable innovation, but its effectiveness depends largely on organisational factors, such as leadership and corporate culture playing a mediating role. Moreover, to maximise the impact of SFCT, companies should better integrate training programs with long-term corporate strategy. The next chapter will analyse the possible future research and the implications besides it should focus on developing more efficient evaluation frameworks and analysing how SFCT can foster permanent organisational change.

6 Conclusion

The systematic literature review confirms that corporate training set to sustainability facilitates knowledge sharing within organisations and enables sustainable practices to be adopted and stimulated. The evidence suggests that the proper functioning of these processes mostly depends on soft factors such as collaborative leadership, trust among colleagues and the establishment of a sharing culture within the organisation. These variables, beyond digital technologies, are what matter in effective knowledge transfer and scaling sustainable practices. In addition, SFCT provides a window of opportunity to build a robust organisational infrastructure capable of supporting sustainable innovation. Sequentially, this amounts to the transformation of tacit knowledge into explicit knowledge mediated by SFCT, which is fundamental to fostering participative leadership, internal collaboration and the significant attributes within a business strategy with positive long-term effects. Another aspect is that this research not only confirms SFCT's strategic role, but, furthermore, provides an integrative analysis of a general perspective that was virtually never examined in the theoretical and practical empirical literature. The core of this research relies on the interaction of the well-established theoretical perspectives of the resource-based view and knowledge-based view with also empirical practices that stimulate the more effective diffusion of sustainable competences. This uses one technological tool to infuse toward human and cultural factors. Effective training should always maintain a balance between the use of technological tools and a collaborative and trust-orientated environment. Research particularly explores and highlights the interplay of the so-called 'soft' factors associated mostly with organizational culture and leadership. In conclusion, for a more complete view, the following parts will examine the limitations, implications, future research and the international dimension.

As mentioned before, this study also identifies key challenges and research gaps. First, the systematic literature review was limited to studies published or translated into English and with the research concentrated on the key concepts such as CT, KS and SI. In addition, from the SLR, the main articles came from the North of the Global, where multiple studies are present. Therefore, other areas such as the South Global, where the topic of this analysis is still under development, could be the subject of future studies. In addition, the research was based on secondary data which, even if complete, did not take into account employee experiences and feedback or direct organisational practices. Future studies could benefit from the incorporation of primary data to explore the direct impact of SFCT in specific organisational contexts. Finally, while the SLR has provided solid evidence on the immediate results of SFCT, such as employee involvement and knowledge retention, there is a lack of longitudinal studies and the long-term impact of SFCT may be subject to future studies. Moving to the broader implications of sustainability-focused corporate training highlight its potential to improve both the technical and soft skills of employees while fostering an organisational culture embodied in collaboration, trust and continuous learning. This study highlights the importance of knowledge sharing as a critical mechanism for transforming acquired skills into practical applications that drive sustainable innovation, aligning with broader knowledge management strategies (Gloet & Samson, 2016). For managers, this requires adopting training programs that align with sustainability goals, while promoting a participatory leadership style that facilitates knowledge exchange and

mitigates cultural barriers (Baumgartner & Winter, 2014). Furthermore, investing in advanced knowledge sharing tools and incentivising continuous training can increase employee motivation, commitment and adaptability, at last improving organisational performance (Shahzad et al., 2020). Beyond the corporate side, policymakers play a key role in supporting SFCT initiatives through incentives and recognition programs that encourage sustainable business practices (Ketata et al., 2015). Establishing clear standards for assessing the impact of SFCT on organisational performance and sustainability goals would improve transparency and accountability, fostering widespread adoption of sustainability-oriented training (Isaksson et al., 2016). Furthermore, public-private partnerships could facilitate the development of innovative and adaptable training models for different industry contexts, further strengthening the link between corporate learning and long-term sustainable transformation (Afeltra et al., 2023).

As previously discussed, future research can explore several directions to expand the findings of this study and address the identified gaps. One potential direction involves complementing secondary data with interviews, surveys and business case analyses as primary data to have a complete overview of the effects of SFCT in both the short and long term. Longitudinal studies could provide insight into how sustainability-oriented training has affected organizational culture and adaptability in companies over time. These comparative studies on SFCT in various countries could begin to investigate how SFCT is received and implemented within different cultures and industry sectors. Thus, could help to investigate the factors that influence its success. Surveying organizations in emerging markets and the South of the Global may also inspire new initiatives and reveal cultural specifics that would enrich the theoretical framework. Another possible research path relates to the incorporation of emerging technologies into SFCT programs. AI and digital collaboration platforms could provide valuable tools to develop training, facilitate knowledge sharing and introduce even more human elements such as leadership and trust-building. Study focused on these technologies through a mixed methods approach-depth analysis could expose multiple aspects of technology and relations toward sustainable innovation. Lastly, future research could examine the impact of various leadership styles on the moderating role of SFCT effectiveness by pointing out which leadership styles will aid in promoting knowledge sharing as well as driving sustainable innovation. Therefore, the areas to address will greatly enhance future research toward enriching both the theoretical understanding as well as the opportunities for training SFCT in practice while offering much-needed insight for organizations and policymakers wanting to improve their sustainability strategies and competitive position.

While the previous sections have emphasized the organizational and managerial implications of SFCT, it is equally important to consider its broader impact in an increasingly interconnected business environment. The international dimension of this research lies in its relevance to global business practices and the growing need for organisations around the world to integrate sustainability into their operations. Sustainability-focused Corporate Training is not limited to specific sectors or regions, but is an increasingly global phenomenon driven by international frameworks such as the Sustainable Development Goals. By exploring what SFCT influences knowledge sharing and sustainable innovation, this study provides insights applicable to multinational companies operating in different cultural and economic contexts. In the

globalised business environment, organisations face the dual challenge of maintaining competitive advantage and addressing complex sustainability issues that exceed national boundaries, such as climate change, resource reduction and social inequality. The SFCT is a strategic tool to equip employees with the skills and knowledge needed to effectively address these challenges. By promoting KS within and across organisational boundaries, SFCT improves companies' ability to implement global sustainability initiatives, adopt green technologies and comply with international regulations. In addition, SFCT not only prepares companies to respond to local regulatory pressures, but is also a crucial tool for competing in the market, where different actors like investors, customers and international investors demand high sustainability standards. Another aspect to highlight is the implication for the international transfer of knowledge between branch offices. Indeed, the knowledge is the key to harmonising sustainability practices and harnessing organisational learning on a global scale. Overall, this research contributes to the global understanding of how SFCT is a growing phenomenon and how the role of leadership, culture and corporate training support organisations in pursuing common sustainability goals around the world. In conclusion, in a faster changing world where sustainability is no longer an option but a necessity, sustainability-oriented corporate training is a key lever for change. By integrating knowledge sharing, participative leadership and innovation, companies not only improve their competitiveness, but also assume a strategic responsibility in building organisations that are more resilient, innovative and capable of tackling global challenges. Only through a concrete commitment to sustainable innovation, collaboration and shared responsibility companies will be able to actively contribute to a more equitable, permanent and sustainable future.

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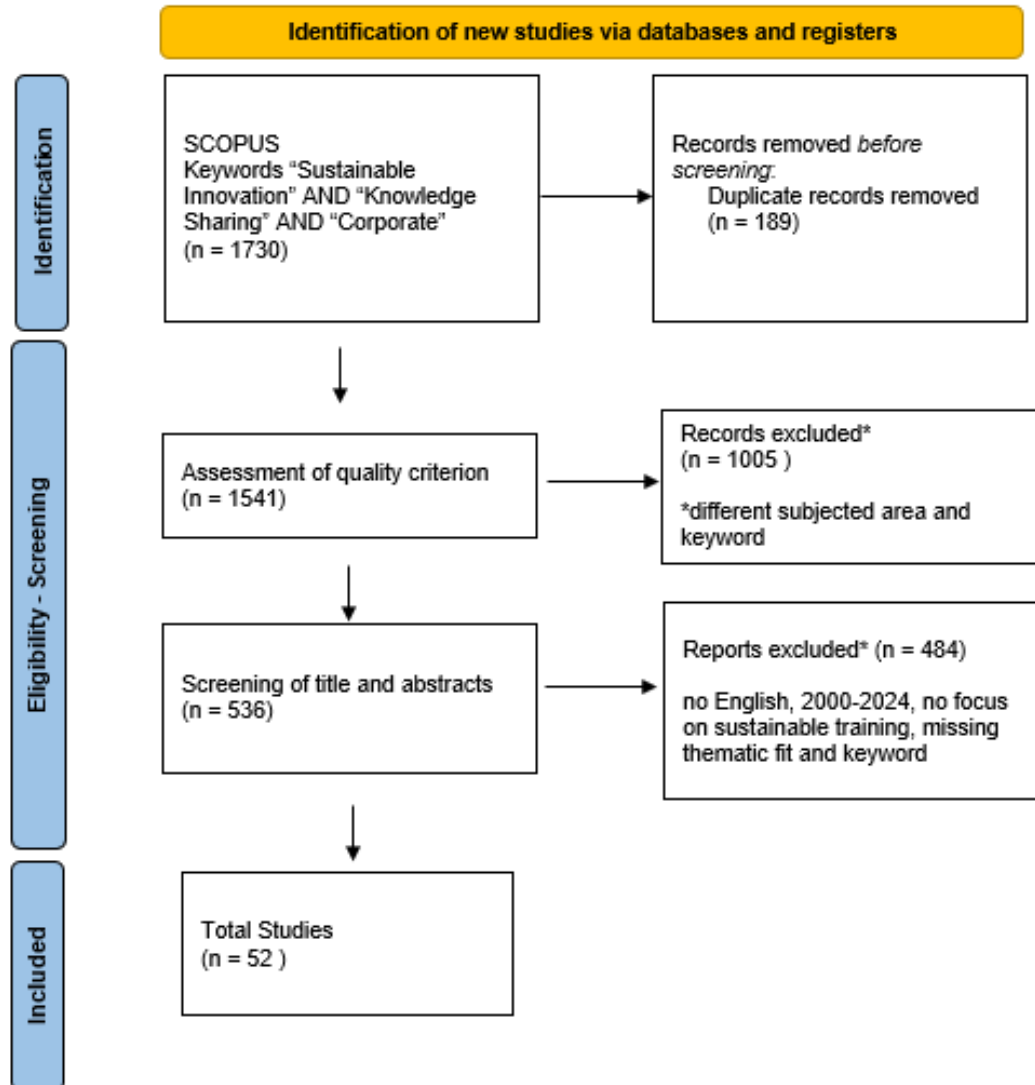
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Appendix A

Figures

Figure 1: PRISMA Flow Diagram (Page et al., 2021)



Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., et al. (2021). The PRISMA 2020 Statement: An Updated Guideline for Reporting Systematic Reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>

Tables

Table 1: Overview of Papers Included in SLR

Author	Year	Title	Journal	Geographical Origin	Methodology used	Impact Factor	Cite Score
Abbas, J., Zhang, Q., Hussain, I., Akram, S., Afaq, A., & Shad, M. A.	2020	Sustainable Innovation in Small Medium Enterprises: The Impact of Knowledge Management on Organizational Innovation Through a Mediation Analysis by Using SEM Approach	Sustainability	Pakistan	Quantitative (SEM Analysis)	3.6	6.8
Ademi, B., Setre, A. S., & Klungseth, N. J.	2024	Advancing the Understanding of Sustainable Business Models Through Organizational Learning	Business Strategy and the Environment	Norway	Qualitative (Conceptual)	12.5	11.9
Afeltra, G., Alerasoul, S. A., & Strozzi, F.	2023	The Evolution of Sustainable Innovation: From the Past to the Future	European Journal of Innovation Management	Italy	Qualitative (Literature Review)	5.8	10.4
AlMujib, A. F.	2021	The Role of Internal and External Sources of Knowledge on Frugal Innovation: Moderating Role of Innovation Capabilities	International Journal of Innovation Science	Saudia Arabia	Quantitative (Survey)	3.0	6.3
Barba-Aragón, M. I., & Jiménez-Jiménez, D.	2024	Is Training A Green Innovation Driver? The Mediating Role of Knowledge Acquisition	Journal of Knowledge Management	Spain	Quantitative (SEM Analysis)	8.6	10.4
Baumgartner, R. J., & Winter, T.	2014	The Sustainability Manager: A Tool for Education and Training on Sustainability Management	Corporate Social Responsibility and Environmental Management	Austria	Qualitative (Case Study)	5.0	11.5
Benn, S., Angus-Leppan, T., Edwards, M., Brown, P., & White, S.	2023	Changing Directions in Business Education: Knowledge Sharing for Sustainability	Reframing the Game: The Transition to a New Sustainable Economy: A Special Issue Of Building Sustainable Legacies	Global	Qualitative (systematic review)	Journal series	Journal series
Bilderback, S.	2024	Integrating Training for Organizational Sustainability: The Application of Sustainable Development Goals Globally.	European Journal of Training and Development	Global	Qualitative (conceptual)	2.5	3.0
Brandt, U., & Thomassen, M. L.	2020	Sustainable Organizational Learning and Corporate Entrepreneurship: A Conceptual Model of Sustainability Practices in Organizations	Journal of Workplace Learning	UE	Qualitative (systematic review)	1.8	2.5
Burden, R.	2000	Creating a Sustainable Competitive Advantage Through Training	Journal of Strategic Management	UK	Qualitative (case study)	4.0	5.0
Burden, R. and Proctor, T.	2000	Creating a Sustainable Competitive Advantage Through Training	Team Performance Management	UK	Qualitative (case study)	1.5	2.0
Castaneda, D. I., & Cuellar, S.	2020	Knowledge Sharing and Innovation: A Systematic Review.	Knowledge and Process Management	Colombia	Qualitative (Systematic Review)	3	7.1
Castillo-Abraiz, J., & de Antonio, J. M.	2020	The Mediating Role of Personnel Training Between Innovation and Performance: Evidence From the German Pharmaceutical Industry	Cuadernos de Gestion	Germany	Quantitative (SEM analysis)	/	3.0
Chen, S. H.	2016	The Influencing Factors of Enterprise Sustainable Innovation: An Empirical Study	Sustainability (Switzerland)	China	Quantitative (empirical analysis)	3.6	6.8
Ciasullo, M. V., Castellani, P., Rossato, C., & Troisi, O.	2019	Sustainable Business Model Innovation	Singergic Italian Journal of Management	Italy	Qualitative (case study)	/	1.5
Cormican, K., Meng, C., Sampato, S., & Wu,	2021	Towards Sustainable Knowledge Sharing Practices: an Analysis of Organizational Level Enablers	Sustainability (Switzerland)	Ireland	Qualitative (Case study)	3.6	6.8

Dawitof, N. F., Van Lierop, D., & Lugg, R.	2024	Sustainability Performance Measurement – A Framework for Context-Specific Applications	Journal of Global Responsibility.	EU	Qualitative (systematic review)	3.0	5.9
Davis, K., & Boulet, M.	2016	Transformations? Skilled Change Agents Influencing Organizational Sustainability Culture	Australian Journal of Environmental Education	Australian	Qualitative (Case study)	2.2	2.7
De Loura, I. C.	2014	Dilemmas In Sustainability: A Pedagogical Approach to Raise Awareness on the Key Role Businesses Play to Practice and Promote Sustainability	Journal of Management Development	EU	Qualitative (case study)	3.0	5.5
Duarte, F. D. P.	2017	Sustainability Learning Challenges in a Brazilian Government Organization	International Journal of Organizational Analysis	Brazil	Qualitative (Case study)	5.28	3.2
Encinas Barros, K., Schwarzkopf, J., & Mueller, M.	2024	The Role of Trainings in Improving Supplier Sustainability Performance.	World Development	Global	Mixed Methods	6.9	7.6
Ganesh, M., & Indrati, R.	2015	Importance and Effectiveness of Training and Development	Mediterranean Journal of Social Sciences	India	Quantitative (survey)	Not ranking available	Not ranking available
Hesselbarth, C., & Schaltegger, S.	2014	Educating Change Agents for Sustainability - Learnings from the First Sustainability Management Master of Business Administration	Journal of Cleaner Production	Germany	Qualitative (Case study)	11.07	13.1
Hoffman, A. J.	2018	The Next Phase of Business Sustainability	SSRN Electronic Journal	USA	Qualitative (Conceptual)	Not ranking available	Not ranking available
Hopkins, B.	2021	Learning Strategies for Sustainable Organisations	Learning Strategies For Sustainable Organisations	Global	Qualitative (case study)	Book	Book
Hossain, M. B., Nassar, S., Rahman, M. U., Dunay, A., & Iles, C. B.	2022	Exploring the Mediating Role of Knowledge Management Practices to Corporate Sustainability	Journal of Cleaner Production	Bangladesh	Quantitative (SEM analysis)	9.8	20.4
Isaksson, R., Goveva, R., & Johnson, M.	2016	The crippled bottom line: Measuring and Managing Sustainability	International Journal of Productivity and Performance Management	Sweden	Qualitative (conceptual)	8.2	9.9
Ketzer, I., Socha, W., & Gröppel, C.	2015	The Role of Internal Capabilities and Firms' Environment for Sustainable Innovation: Evidence for Germany	Research Policy	Germany	Quantitative (survey)	7.5	12.8
Korob, M., Raudeliūnaitė, J., & Mečiūnė-Kavaliūnaitė, I.	2020	Mediating Role of Knowledge Management in the Relationship Between Organizational Learning and Sustainable Organizational Performance	Sustainability (Switzerland)	Lithuania	Quantitative (SEM analysis)	3.6	6.8
Kumar, M., & Mami, M.	2022	Sustainability Assessment in Manufacturing for Effectiveness: Challenges and Opportunities	Frontiers in Sustainability	India	Qualitative (conceptual)	/	3.3
Law, M. M. S., Hills, P., & Han, B. C. H.	2017	Engaging Employees in Sustainable Development – A Case Study of Environmental Education and Awareness Training in Hong Kong	Business Strategy and the Environment	Hong Kong	Qualitative (Case study)	12.5	22.5
Lee, S., & Han, S. (2004) (Caleb).	2024	Knowledge sharing as a cornerstone for sustainability: the dual mediating roles of job engagement and meaningful work	European Journal of Training and Development	South Korea	Quantitative (Survey)	2.5	6.5
Martins, V. W. B., Ruyter, I. S., Antolin, R., & Leal Filho, W. D. S.	2019	Knowledge Management in the Context of Sustainability: Literature Review and Opportunities for Future Research	Journal of Cleaner Production	Brazil	Qualitative (literature review)	9.8	20.4
Meena, R.	2021	Sustainability-Oriented Management Education as Personal Practice and a "Kit" for Managers Beyond the era of Business as Usual	Personal Sustainability Practices: Faculty Approaches to Walking the	Global	Qualitative (literature review)	Not ranking available	Not ranking available

Moldaska, A.	2017	Defining Organizational Context for Corporate Sustainability Assessment: Cross-Disciplinary Approach	Sustainability Talk and Living the UN SDGs.	Latvia	Qualitative (conceptual)	3.6	6.8
Morina, I.	2021	Morina, I. (2021). Importance of Training for Companies in Serbia.	International Journal of Economics and Business Administration	Serbia	Qualitative (literature review)	Not ranking available	Not ranking available
Naji, S. A.	2020	The importance of Training Programs in the Development of performance of Employees and Companies: A review of Related Concepts	International Journal of Multidisciplinary,	Egypt	Qualitative (literature review)	6.3	/
Park, Y. C., & Hong, P.	2022	Knowledge Sharing Practices for Corporate Sustainability: An Empirical Investigation of Sharing Economy Firms in Japan.	Sustainability (Switzerland)	Japan	Quantitative (Survey)	3.6	6.8
Paun, D.	2018	Corporate Sustainability Reporting: an Innovative Tool for the Greater Good of All.	Business Horizons	Global	Qualitative (systematic review)	5.8	17.7
Qin, J., Nagamatsu, M., Panayeevi, C., & Subandjati, P.	2024	The Analysis of a Causal Model of Learning Organization on Sustainable Organizational Performance of Public IT Companies in China: Knowledge Management Practices and Innovation Capability as Multiple Mediators.	Journal of Infrastructure, Policy and Development	China	Quantitative (SEM analysis)	Not ranking available	no ranking available
Quinn, L., & Dalton, M.	2009	Leading for Sustainability: Implementing the Tasks of Leadership	Corporate Governance,	UK	Qualitative (conceptual)	5.50	11.2
Rahat, R., Pradibawana, P., & Elvovog, M	2022	A Problem-Based Learning Approach to Develop Minority Students' Sustainability Knowledge and Professional Skills	Asse Annual Conference and Exposition, Conference Proceedings	USA	Qualitative (case study)	Not ranking available	no ranking available
Razali, M. Z. M., & Jamil, R.	2023	Sustainability Learning in Organizations: Integrated Model of Learning Approaches and Contextual Factors	SAGE	Malaysia	Qualitative (conceptual)	2.0	3.4
Reeves, A.	2019	Classroom Collaborations: Enabling Sustainability Education via Student-Community Co-Learning	International Journal of Sustainability in Higher Education	UK	Qualitative (case study)	3.70	6.9
Schröder, S., Wiiek, A., Fanny, S., & Luthardt, P	2023	Toward Holistic Corporate Sustainability—Developing Employees' Action Competence for Sustainability in Small and Medium-Sized Enterprises Through Training	Business Strategy and the Environment	Germany	Mixed Methods	12.5	22.5
Sevuge, D., & Ahmed, F.	2020	The Practice of Environmental Training: A Case of ISO 14001 Certified Businesses in Durban, South Africa	Southern African Journal of Environmental Education	South Africa	Qualitative (case study)	Not ranking available	no ranking available
Shahzad, M., Qu, Y., Zafar, A. U., & Rehman, S.	2020	Exploring the Influence of Knowledge Management Process on Corporate Sustainable Performance Through Green Innovation	Journal of Knowledge Management	Pakistan	Quantitative (Survey)	13.7	8.5
Singh, A.	2024	Sustainability Practices in Business Operations. International	Journal for Research Publication and Seminar	India	Qualitative (conceptual)	Not ranking available	Not ranking available
Su, X., Xu, A., Lin, W., Chen, Y., Liu, S., & Xu, W.	2020	Environmental Leadership, Green Innovation Practices, Environmental Knowledge Learning, and Firm Performance	SAGE	China	Quantitative (survey)	2.0	3.4
Sudhakar, R., Kumar, S.	2018	Theoretical Framework on the Effectiveness of Training and Development: Review of Literature	International Journal of Mechanical Engineering and Technology (IJMET)	India	Qualitative (literature review)	23.11	/

Sult, A., Wobst, J., & Lueg, R.	2024	The Role of Training in Implementing Corporate Sustainability: A Systematic Literature Review	Corporate Social Responsibility and Environmental Management	Germany	Qualitative (systematic review)	8.3	17.2
Wehrmeyer, W., Chenoweth, J.	2006	The Role and Effectiveness of Continuing Education Training Courses Offered by Higher Education Institutions in Furthering the Implementation of Sustainable Development	International Journal of Sustainability in Higher Education	UK	Qualitative (case study)	3.70	6.9
Wu, J., & Haasis, H.-D.	2011	Knowledge Management-Enabled Application of the Sustainability Balanced Scorecard.	Asia-Pacific Power and Energy Engineering Conference, APPEEC	China	Qualitative (conference paper)	Not ranking available	no ranking available

Appendix B – Coding Guideline MAXQDA

Category	Sub-category (1)	Sub-category (2)	Definition	Anchor sample	Coding rule	Type of categorizing
Innovation			Identify all the theoretical background for the concept of innovation	For some authors, innovation is a process wherein knowledge is acquired, shared, and assimilated to create new knowledge that embodies products and services (Harkema, 2003), methods and processes (Brewer & Tierney, 2012), and social and environmental contexts (Harrington et al., 2017).	Not to be coded as it is a main category	Deductive
	Sustainable Innovation		Identify all the theoretical background for the concept of SI	We argue that sustainable innovation capabilities stem from investments in internal absorptive capacities that reflect the munificence of the business environment. In the following, we will detail these two elements to derive our hypotheses (Ketata et al., 2015).	Not to be coded as it is a main category	Deductive
Knowledge			Identify all the theoretical background for the concept of Knowledge	KPMG (1998) defines knowledge as business information about customers, products, processes and competitors.	Code if the sentences is correlated with the concept	Inductive
	Knowledge Sharing		Identify all the theoretical background for the concept of KS	Knowledge sharing is the exchange of experience, skills, and tacit and explicit knowledge among employees (Hogel, Partboteeah, & Munson, 2003).	Not to be coded as it is a main category	Deductive
	Knowledge Management		Identify all the theoretical background for the concept of KM	knowledge management includes the creation and growth of added value, amongst a host of other responsibilities. (Paill et al., 2019).	Code if the sentences is correlated with the concept	Inductive
Corporate Training			Identify all the theoretical background for the concept of CT	The training is a planned process to modify attitude, knowledge, or skill behaviour through learning experience to achieve effective performance in an activity or range of activities (Morina, 2021).	Not to be coded as it is a main category	Deductive
KS+CT+INNOV			Identify all the correlation between the main concepts of the thesis, as also the mediating and moderating role	knowledge sharing is a mediator between collaborative innovation and organizational performance (Castaneda & Cuelar, 2020).	Code if the sentences explain the correlation or the mediating, moderating role of the main concepts	Inductive
SFCT			Identify the definition of SFCT	The sustainability training enhances employees' action competence for sustainability; which, in turn, enables employees to act sustainably in professional and private life (Schröder et al., 2023)	Not to be coded as it is a main category	Deductive
	Knowledge Sharing		Identify the correlation of KS with SFCT	Reward systems play an important role in affecting employees' motivation to share knowledge, while empowering leadership and participatory leadership are two main drivers in promoting knowledge sharing (Cormican et al., 2021).	Code if the sentences explain some correlation or effect of KS with SFCT	Inductive

	Trust	Identify the influence of SFCT on KS and this impact the trust.	Specifically, the findings reveal that employees are more willing to share their personal knowledge with those they trust, and carefully designed communication systems can enable knowledge sharing (Cormican et al., 2021).	Code if the sentences explain some correlation or effect Trust and KS	Inductive
	Participatory Approach	Identify the types of participatory approach of the training	The classes were run as a series of five free events, each focussed on sustainability issues relevant for local practitioners (Reeves, 2019).	Code if describe the type and the feedbacks of the participatory of a trainings	Inductive
	Practice	Identify all the practices of the actors that are influencing by the SFCT	The task of sustainability management is thus to change strategy, operations, products, etc. to more sustainable forms of economic value creation. This is why a program for higher management education should enable managers to organize change processes, i.e. the education is challenged to support actors to become change agents for sustainability.(Hesselbarth & Schaltegger, 2014).	Code if identify actors and their influence on SFCT	Inductive
	Management Practice	Identify all the practices of the main leader or top management that are influencing by the SFCT	top management commitment view sustainability as a systematic element of the corporate culture, and sound clear signalling of the priority for sustainability on all levels (Wu & Haasis, 2011).	Code if identify actors and their influence on SFCT	Inductive
	Leadership	Identify the influence of the leadership of SFCT	leadership plays a role and should be led by their beliefs and goals rather than their personal preferences and desires (Graham et al., 2019; Hameed et al., 2020).	Code if describe the influence of the leadership and the mediating role	Inductive
	Application of Knowledge	Identify the influence of SFCT in the process of knowledge application	Knowledge on sustainability is learned and spread via organizational learning, thereby arousing the motivation and strategies for corporate sustainability (Wu & Haasis, 2011).	Code if describe the impact of SFCT on the knowledge	Inductive
	Performance Assessment	Identify the influence of SFCT on knowledge application, in particular on the performance assessment of the participants	The goal of this article is to describe a stakeholder-oriented, integrated project-based mentoring/teaching tool and process called the Sustainability Performance Assessment (SPA) System (Paun, 2015; Paun, Bray, Yamaguchi, & You, 2016) to facilitate student participation in analysing real-world corporate sustainability performance using sustainability/corporate social responsibility (CSR) reports (Paun, 2018).	Code if describe the impact of SFCT on the knowledge and performance of the participants	Inductive
	Learning Organization	Identify the influence of SFCT on learning principles and sustainable transition	LO process to gain sustainability knowledge (Ademi et al., 2024).	Code if describe the impact of SFCT on the knowledge and LO	Inductive

