

Sustainability in human resource management practices used by small and medium-sized enterprises: a systematic review

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Abstract

Purpose – This study aims to determine the current state of research on sustainability in the context of human resource management (HRM) practices adopted by small and medium-sized enterprises (SMEs), identify the most important gaps and propose an agenda for future studies.

Design/methodology/approach – Through a systematic literature review (SLR), this study comprehensively examines the relevant literature on sustainability-related aspects of HRM in SMEs. It includes descriptive and thematic analyses of 29 research articles published in high-ranked academic journals selected from 506 records retrieved from four major databases (Scopus, Web of Science, ScienceDirect and EBSCOhost).

Findings – The findings suggest a growing interest in sustainability-related HRM in SMEs after 2020. Notably, most studies focused on green and social sustainability concerns, with limited attention to the triple bottom line (TBL) perspective. A detailed examination revealed variations among the three streams of research in terms of methodology, location of studies, nature of sustainability-HRM linkage and placement of HRM practices in research models. Despite these differences, positive effects of HRM practices on sustainability integration seem evident, including impacts on employee competences, behaviors and company-level outcomes.

Originality/value – This article is the first to systematically review the literature on the sustainability-HRM nexus specifically for SMEs. It contributes by identifying thematic clusters, methodological trends, contextual aspects and outcomes of sustainability-HRM integration, thereby laying the groundwork for future research.

Keywords Small and medium-sized enterprises, Human resource management, Sustainability, Sustainable development, Systematic literature review

Paper type Literature review

Introduction

Sustainable development (SD) is now a globally recognized concern for societies and businesses (Ehnert, Harry, & Zink, 2014, p. 4). It also appears crucial for younger generations entering the workforce due to their workplace expectations and employer perceptions (Deloitte, 2023). Unsurprisingly, it caught the attention of international organizations and regulators, promoting alignment in this area (Kramar, 2021). Growing expectations and global awareness of sustainable development have led to a three-dimensional concept of sustainability at the firm level. The first dimension – economic – implies that an enterprise must ensure liquidity and deliver a substantial return to stockholders through its cash flow.

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The second – environmental – emphasizes its positive impact on the environment by preserving system stability and protecting natural resources. Finally, the social dimension focuses on its contribution to the community and a positive influence through ways of enhancing the value of human capital (Yadav, Gupta, Rani, & Rawat, 2018, p. 532).

The recognition of sustainability as an inherent aspect of development across all domains, including work and business, resonates with the growing research interest in sustainable human resource management (S-HRM; Ehnert *et al.*, 2014; Ehnert, Parsa, Roper, Wagner, & Muller-Camen, 2016; Kramar, 2022). This also applies to S-HRM practices adopted by small and medium-sized enterprises (SMEs) for several reasons.

As data published by Eurostat confirms (2022), SMEs play a pivotal role as major job providers, particularly in Europe, employing almost two-thirds of the non-financial sector workforce. They are more susceptible to external pressures than larger firms, which requires them to respond to various stakeholders' concerns (Harney & Alkhalaf, 2020; Lundmark, Coad, Frankish, & Storey, 2020). Collectively, SMEs have a significant environmental impact, contributing to 60–70% of total pollution (Yadav *et al.*, 2018, p. 532). However, their specificity, defined by the acronym RECIPE (Resource constraints, Environmental vulnerability, Concentrated ownership, Informality, Proximity of relations, Employee experience; Harney, Gilman, Mayson, & Raby, 2022, p. 3177), shapes their HRM practices. These unique features may also lead to different responses to SD concerns (Langwell & Heaton, 2016; Yadav *et al.*, 2018; Bakos, Siu, Orenge, & Kasiri, 2020). Additionally, some researchers suggest that the meaning of sustainability and respective activities in SMEs are more strongly influenced by their institutional environment, especially existing regulations and context-specific barriers to implementation (Bakos *et al.*, 2020; Álvarez Jaramillo, Zartha Sossa, & Orozco Mendoza, 2019).

Meanwhile, the literature on S-HRM predominantly focuses on strategies in large organizations (Ehnert *et al.*, 2016), with limited attention given to SMEs (Anlesinya & Susomrith, 2020, p. 301). Therefore, this study aims to define the state of research on the sustainability-HRM nexus in SMEs, identify gaps, and propose future research directions. This article is the first to systematically review how sustainability in HRM applies specifically to SMEs. It provides a broader understanding of the challenges, outcomes, and factors affecting sustainability in HRM for SMEs, an area previously overlooked. These reviews either addressed S-HRM without considering SMEs (Chams & García-Blandón, 2019; Anlesinya & Susomrith, 2020; Podgorodnichenko, Edgar, & McAndrew, 2020; Piwowar-Sulej, 2021) or focused on SD in SMEs while omitting HRM-related issues (Yadav *et al.*, 2018; Bakos *et al.*, 2020).

Theoretical background

Sustainability in the SME context

The 1987 report “Our Common Future” by the World Commission on Environment and Development became a landmark in the understanding of sustainable development, defining it as meeting present needs without compromising those of future generations, prioritizing the essential needs of the poor while considering environmental constraints (WCED, 1987, p. 41). The UN's Agenda 2030 for Sustainable Development (United Nations, 2015) further elaborated these principles.

The UN emphasized the indivisibility of the Sustainable Development Goals (SDGs) outlined in Agenda 2030. However, this poses problems for SMEs due to their limited resources, dependence on the owner-manager's background, informal, simple, and experience-based methods, and organizational practices, absence of a focused, deliberate, strategic approach, and existing difficulties in implementing business-related policies (Langwell & Heaton, 2016). Recent reviews have identified various internal and external

barriers to SD implementation for SMEs, predominantly including limited sustainability knowledge and awareness (Bakos *et al.*, 2020), insufficient financial and organizational resources, and the high initial capital costs associated with such implementations (Álvarez Jaramillo *et al.*, 2019). Recognizing the specificity of SMEs, Verboven and Vanherck (2016) advocate for a pragmatic, prioritization-based approach over comprehensive goal adoption. Instead of employing a cherry-picking approach to SDGs, other scholars highlight the relevance of the economic dimension over social and ecological issues in SMEs (Bianchi, Cosenz, & Marinković, 2015; Cardoni, Zanin, Corazza, & Paradisi, 2020) and the crucial impact of stakeholders (Lizano, Alfaro-Cortés, & Priego de la Cruz, 2019). As an alternative, Hirsig, Rogovsky, and Elkin (2014) proposed a perspective focusing on decent work in SMEs, promoting social dialogue, skill development, workplace cooperation, non-discriminative environments, improved working conditions, and environmental performance.

To sum up, the discourse on sustainability in SMEs offers a diverse array of perspectives, reflecting the multifaceted nature of SD and the relevance of constraints unique to SMEs that demand context-specific approaches.

Sustainability and human resource management

The concept of sustainable human resource management (S-HRM) has evolved over decades, gaining prominence in academic and industrial contexts around the turn of the century (Aust, Matthews, & Muller-Camen, 2020; Stahl, Brewster, Collings, & Hajro, 2020; Podgorodnichenko *et al.*, 2020). Initially rooted in the broader goals of strategic management, S-HRM has undergone a transformative shift in its definition and significance (Aust *et al.*, 2020). From a sustainability perspective, HRM serves as both a “means” by influencing employee behavior and an “end” through HRM system design, contributing to organizational sustainability goals (Gamage, Pyke, & de Lacy, 2023). Contemporary S-HRM aims to ensure healthy, educated workforces, nurturing awareness, and proficiencies for productive employees and proactive citizens (Chams & García-Blandón, 2019).

The S-HRM literature offers various approaches addressing the linkage between HRM and sustainability. Aust *et al.* (2020), Stahl *et al.* (2020), and Piwowar-Sulej (2021) distinguished between socially responsible (SR-HRM), green (G-HRM), and triple-bottom-line (TBL-HRM). Socially responsible human resource management rooted in human capital conservation and the soft HRM tradition has become an integral part of corporate sustainability and corporate social responsibility (CSR) strategies (Aust *et al.*, 2020). It is reflected in sustainability reports, aligning with Global Reporting Initiative guidelines and addressing issues such as diversity management, training, development, health, and safety (Ehnert *et al.*, 2016). Green HRM focuses on environmental sustainability within organizations (Renwick, Redman, & Maguire, 2013), aiming to reduce carbon footprints and enhance environmental credentials through employee behavior (Aust *et al.*, 2020). Triple-bottom-line HRM addresses economic, environmental, and social goals, emphasizing a win-win-win approach (Bush, 2020). Considered by now the most common conceptualization of S-HRM, it equally values three intertwined aspects of people, planet, and profit (Ehnert *et al.*, 2016; Aust *et al.*, 2020).

Despite different priorities, all these approaches recognize the impact of HRM on organizational survival and success, emphasizing the development of human and social capital for future sustainability. They also implicitly focus on larger organizations rather than SMEs, leaving a gap that we address.

Methodology

Systematic literature review (SLR) is a robust research methodology that scholars widely recognized for its transparent overview of existing knowledge and insights into development

(Tranfield, Denyer, & Smart, 2003; Khan, Hassan, Harrison, & Tarbert, 2020). This approach distinguishes itself by adopting a structured process in literature identification and selection (Kuckertz & Block, 2021) and adhering strictly to inclusion and exclusion criteria, thus reducing biases associated with narrative reviews (Tranfield *et al.*, 2003).

Considering these characteristics, an SLR appears to be an appropriate methodological choice for comprehensively examining sustainability and HRM in SMEs, ensuring research rigor and accuracy. Specific research questions addressed by this SLR include:

- (1) Which sustainability concerns does the research on HRM in SMEs address and how does it address them?
- (2) How is the linkage between sustainability concerns and HRM practices in the SME context conceptualized and examined?
- (3) What HRM practices are considered in this context?
- (4) What are the main drivers and outcomes of integrating sustainability concerns into HRM in SMEs?

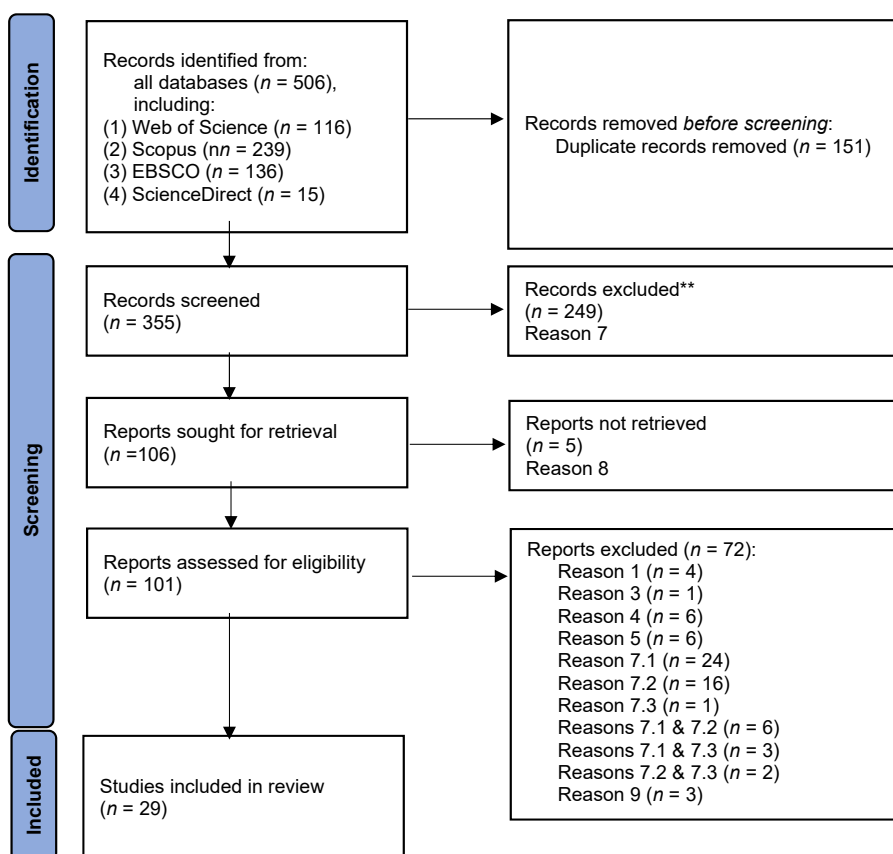
In this study, the SLR procedure followed the six-step approach by Yadav *et al.* (2018) who used it in their systematic reviews on sustainability in SMEs. Meanwhile, the selection stage (Figure 1) is based on the PRISMA 2020 guidelines (Page *et al.*, 2021). More specifically, it was structured as follows:

- (1) Identification of keywords
- (2) Development of exclusion and inclusion criteria
- (3) Specification of relevant search engines and search execution
- (4) Selection of studies relevant to this review
- (5) Development of categories and codes for analytical purposes
- (6) Descriptive and thematic analyses, and conclusions

The keywords applied in the selection were taken from prior reviews of sustainability in SMEs (Yadav *et al.*, 2018; Alvarez Jaramillo *et al.*, 2019; Bakos *et al.*, 2020) and S-HRM (Anlesinya & Susomrith, 2020; Podgorodnichenko *et al.*, 2020; Piwowar-Sulej, 2021). They comprised three categories, i.e. sustainability, HRM practices, and SMEs, forming three-element search strings. The first category included keywords like “sustainable,” “sustainability,” “green,” “ecological,” “environmental,” “social responsibility,” “socially responsible,” and “triple bottom line.” The HRM-related terms encompassed “human resource(s),” “human capital management,” “personnel management,” “workplace,” and “work system(s).” The SME-specific terms were “small and medium-sized,” “small to medium-sized,” “small and medium,” “small business(es),” and “small firm(s).” This resulted in a total of 18 keywords, with no distinction between singular and plural forms (in some search engines, “*” was used instead). These keyword combinations were applied to select relevant literature based on their presence in the publication title, abstract, or keywords.

Other inclusion criteria addressed the requirements listed below:

- (1) Source type – peer-reviewed research articles, either theoretical/conceptual or empirical;
- (2) Language used – English
- (3) Location of the publication’s subject in the area of management and business



Source(s): Adopted from Page *et al.* (2020)

Figure 1.
The selection process
based on PRISMA 2020
flow diagram

- (4) Journal's reputation – ranked within first and second quartiles in SJR list and/or with IF not lower than 2.
- (5) Focus of journal – management science within its subject areas.
- (6) Timespan – unlimited.

The exclusion of publications from the selected set was based on the following criteria:

- (7) Insufficient relation to SLR topic – absence or marginal presence of:
 - HRM practices
 - Sustainability concerns
 - SME context
- (8) Unavailability of full-text version – only paid access at the publisher's website and failure in retrieving this text from authors via ResearchGate, [Academia.edu](https://www.academia.edu)

- (9) The uncertain status of the journal – considered as potentially predatory, discontinued coverage in Scopus.

The initial selection phase, conducted on 26 November 2024, involved four renowned research databases commonly used in management studies: Scopus, Web of Science (SSCI collection), ScienceDirect, and EBSCOhost. Search strings included relevant terms in titles, topics, abstracts, and keywords, with criteria for document type (peer-reviewed articles) and language (English). Unique criteria were introduced to accommodate database syntax differences in defining subject areas of journals. Initially, 506 records were retrieved and then reduced to 355 after deduplication. Screening based on titles and abstracts narrowed the pool to 106 items meeting SLR topic criteria (7.1, 7.2, 7.3). 101 publications were assessed for full-text availability, with 72 excluded for various reasons (detailed in [Figure 1](#)). The final dataset for descriptive and thematic analyses comprised 29 articles.

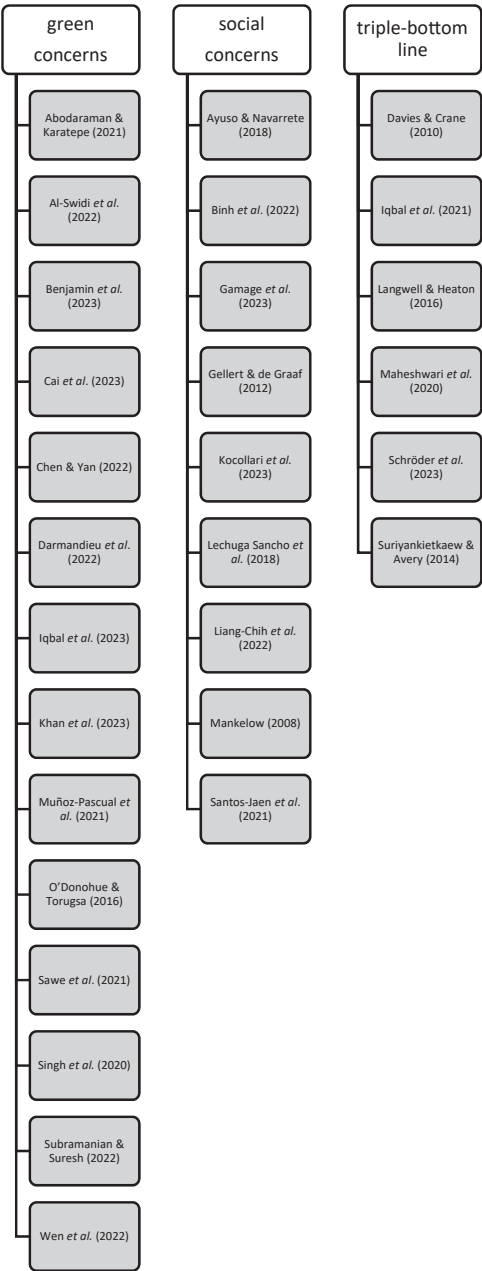
This SLR was conducted by a single author, which may increase the risk of subjectivity bias in selection based on more discretionary criteria (i.e. 7.1, 7.2, 7.3). Therefore, additional precautions were necessary. At the title/abstract screening stage, records were removed only if they lacked terms referring to categories 7.1, 7.2, and 7.3. In cases of ambiguity, the records were retained with the final decision made after reading the entire article. The full-text selection followed the approach adopted by [Podgorodnichenko et al. \(2020\)](#). Thus, the assessment for eligibility of 101 full-text records and re-coding were repeated with a monthly time lag to validate the search and assess the accuracy of exclusion/inclusion criteria and pre-defined codes for content analysis. The results of these two rounds were highly consistent, with only two records requiring re-reading and re-coding after coding refinement.

Following [Anlesinya and Susomrith \(2020\)](#), methodological, contextual, and thematic categories were adopted to organize the results and code the content of selected publications. The methodological group included article type, research approach, design, data analysis methods, respondent type, and theoretical underpinnings. Contextual criteria focused on sector/industry specificity and the location of examined SMEs. Thematic categories represented major sustainability concerns: social, green (ecological), or triple-bottom-line approaches. These categories facilitated the clustering of articles into three research streams (see [Figure 2](#)), consistent with [Piwowar-Sulej \(2021\)](#). Additional codes were introduced to analyze the scope of HRM practices, their integration within research models, drivers, and outcomes within thematic clusters, addressing research questions. Descriptive analysis outlines the extent and coverage of the collected articles and discusses research design, theoretical basis, and contextual aspects. Further analysis was structured around the three thematic groups based on sustainability concerns (see [Figure 2](#)).

Descriptive analysis

The analysis encompasses 29 articles searched without temporal constraints. The oldest of them surfaced in 2008 in *The International Journal of Human Resource Management*. Between 2008 and 2020, the average annual number of published articles fluctuated between 0 and 2 ([Figure 3](#)). After 2020, there was a sharp increase, averaging seven articles annually in 2022–2023. This coincided with the COVID-19 outbreak, shifting discourse among researchers and HR professionals to topics like remote work, employee health, and other social concerns in the new-normal era.

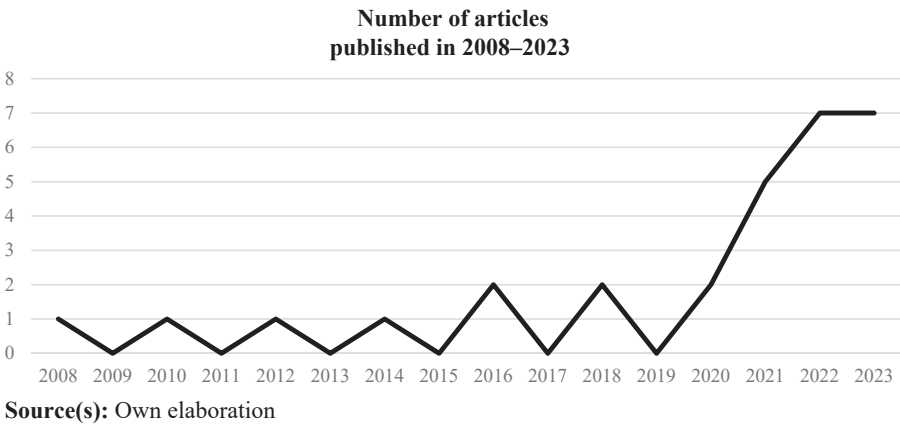
The collected articles were published across 19 journals mainly focusing on social and environmental aspects of business, HRM, and general management. Approximately 38% of journals (11 out of 29) came from three John Wiley and Sons journals: *Business Ethics*, *the Environment and Responsibility*, *Corporate Social Responsibility and Environmental Management*, and *Business Strategy and the Environment*. In other journals, articles



Source(s): Own elaboration

Figure 2.
Articles grouped into
thematic categories
based on sustainability
concern

Figure 3.
Number of selected
articles published in
2008–2023



related to SLR topic sporadically appeared between 2008 and 2023. None of the authors stood out in terms of productivity as their names did not repeat in this set. All articles were empirical, with 72% (21 out of 29) adopting a quantitative research approach, 20% (6 out of 29) qualitative, and one utilizing a mixed approach (Muñoz-Pascual, Curado, & Galende, 2021).

The quantitative studies used survey strategies and questionnaires to collect primary data for analysis, except Darmandieu, Garcés, Renucci, and Rivera (2022) who used secondary data. In their mixed-methods research, Muñoz-Pascual *et al.* (2021) also employed survey data combining quantitative analysis methods (structural equation modeling) and qualitative analysis (fuzzy-set qualitative comparative analysis). Structural equation modeling was the primary analytical method (11 articles), followed by regression analyses (9 articles), often hierarchical or logistic. Other methods included cluster analysis (Darmandieu *et al.*, 2022), decision-making trial and evaluation laboratory (DEMATEL) preceded by expert assessment (Sawe, Kumar, Garza-Reyes, & Agrawal, 2021), or a combination of total interpretive structural modeling (TISM) and MICMAC (cross-impact matrix multiplication applied to classification) by Subramanian and Suresh (2022).

Qualitative studies typically adopted multiple case study strategies (Davies and Crane, 2010; Gamage *et al.*, 2023; Langwell & Heaton, 2016; Maheshwari, Samal, & Bhamoriya, 2020; Mankelow, 2008), and very rarely a single case study (Schröder, Wiek, Farny, & Luthardt, 2023). Importantly, some studies used semi-structured interviews as the only method (Mankelow, 2008) or as the main method, supported by company document reviews (Langwell & Heaton, 2016). Recent studies implemented more sophisticated strategies, like combining prolonged participant observation with semi-structured interviews and document analysis (Davies & Crane, 2010), multisource data collection from stakeholders over six months (Maheshwari *et al.*, 2020), individual interviews with focus groups (Gamage *et al.*, 2023), or analyzing pre- and post-training questionnaires, interviews, and observations (Schröder *et al.*, 2023).

Almost 90% of articles used cross-sectional data. A longitudinal design occurred in two quantitative and one qualitative study: as a lag survey (data collected in three rounds with a two-month lag for each round by Iqbal *et al.*, 2023), a two-round survey (where the first was limited to managers, and the second also included employees in an article by Liang-Chih, Tzeng-Tian, & Chien-Bin, 2022), and a four-year qualitative study including participant observation and interviews conducted by Davies and Crane (2010).

In the analyzed set of articles, the samples typically consisted of owners-managers, CEOs, or managers. In twelve quantitative studies and one mixed (i.e. Muñoz-Pascual *et al.*, 2021), they acted as single informants representing SMEs. Singh, Del Giudice, Chierici, and Graziano (2020) adopted a slightly different sampling strategy. They used triadic data from managers involved in different functional areas in SMEs. In four other articles (Binh, Duong, Thy, & Khoa, 2022; Cai, Khan, & Egorova, 2023; Iqbal *et al.*, 2023; Liang-Chih *et al.*, 2022), researchers collected quantitative data from both managers and employees. Moreover, in four quantitative studies (Aboramadan & Karatepe, 2021; Iqbal, Ahmad, & Ahmad, 2021; Chen & Yan, 2022; Kocollari, Cavicchioli, & Demaria, 2023), the samples consisted exclusively of employees. As for qualitative research, business owners were the sole respondents in only one case (Mankelow, 2008), also serving as representatives of individual enterprises. In other instances, samples included: (1) multiple managers from each company (Maheshwari *et al.*, 2020); (2) managers representing SMEs and coordinators of SD programs they participated in Langwell and Heaton (2016), (3) managers and employees of SMEs (Davies & Crane, 2010); (4) various stakeholder groups of SMEs in two tourism destinations (Gamage *et al.*, 2023); (5) participants of sustainability training in a single case study by Schröder *et al.* (2023).

Referring to the theories underlying the research models in the selected articles, it is notable that in 31 % of cases (9 out of 29), the authors did not clearly indicate them. Typically, the theoretical background explained the understanding of sustainability/CSR (e.g. Mankelow, 2008; Gellert and Graaf, 2012; Binh *et al.*, 2022; Schröder *et al.*, 2023), and occasionally S-HRM (e.g. Gamage *et al.*, 2023; Langwell & Heaton, 2016; Sawe *et al.*, 2021), HR development (Binh *et al.*, 2022), and other concepts (e.g. organizational resilience in Gamage *et al.*, 2023; organizational learning capability in Muñoz-Pascual *et al.*, 2021; marketing and network capabilities in Binh *et al.*, 2022; circular economy in Sawe *et al.*, 2021; Porter Hypothesis in Darmandieu *et al.*, 2022). Furthermore, in 31 % of cases (9 out of 29), authors explicitly indicated RBV as an underlying theory, sometimes supplemented by an institutional perspective (Benjamin, Shee, & de Vass, 2023), entrepreneurial orientation (Ayuso & Navarrete, 2018), AMO framework (Singh *et al.*, 2020), absorptive capacity (O'Donohue & Torugsa, 2016; Khan *et al.*, 2023), organizational learning (Subramanian & Suresh, 2022), and knowledge-based theory (Santos-Jaén, Madrid-Guijarro, & García-Pérez-de-Lema, 2021). Interestingly, researchers specified the AMO framework – typically applied in HRM studies – as the underlying theory in 14% of all articles (4 out of 29). These were Iqbal *et al.* (2023), Maheshwari *et al.* (2020), Singh *et al.* (2020), and Wen, Hussain, Waheed, Ali, and Jamil (2022). Less frequently used theories included stakeholder theory (Al-Swidi, Al-Hakimi, Gelaidan, & Al-Temimi, 2022; Suriyankietkaew & Avery, 2014), and conservation of resources theory (Aboramadan & Karatepe, 2021; Liang-Chih *et al.*, 2022). In 24% of articles (7 out of 29), authors also used socio- and psychological theories (social exchange, social identity, social cognitive theory, positive psychology theories, psychological contract), in some cases in combination (Aboramadan & Karatepe, 2021; Iqbal *et al.*, 2021; Kocollari *et al.*, 2023), supplementing RBV assumptions (Chen & Yan, 2022) or the AMO framework (Maheshwari *et al.*, 2020). Generally, studies grounded in socio- and psychological theories analyzed at the micro-level, whereas those based on RBV, AMO framework, or social responsibility/CSR/circular economy concepts were usually at the company level.

This SLR considered two contextual factors, namely industry focus, and location. Most studies in the analyzed set examined SMEs across various industries (38%, 11 out of 29), followed by manufacturing (24%, 7 out of 29). Fewer studies focused on a single industry, such as food and beverages (14%, 4 out of 29) and hospitality and tourism (10%, 3 out of 29). However, in two cases (Iqbal *et al.*, 2021; Liang-Chih *et al.*, 2022), the authors did not specify any industry.

The collection displays great diversity in terms of location, as the studies were conducted in 17 countries (and 30 countries when considering secondary data). Over half of the articles utilized original empirical data on SMEs in the Asia-Pacific region, and nearly one-third focused on EU member states.

Among the most represented countries were Australia and India (4 articles each), followed by China, Pakistan, and Spain (3 articles each). The majority of empirical studies (25 out of 29, i.e. 86%) focused on a single location, with exceptions like [Iqbal *et al.* \(2021\)](#), who studied India and Pakistan, [Ayuso and Navarrete \(2018\)](#), who examined Spain and Mexico, and [Darmandieu *et al.* \(2022\)](#), who analyzed data from SMEs across 28 EU members from the Flash Eurobarometer 2017. Overall, there was a lack of comparative studies, and some regions (e.g. countries in South America and Africa) remain understudied.

Thematic analysis

HRM and green concerns

Nearly half of the articles (14 out of 29) emphasized ecological concerns, constituting the largest and youngest group in the collection. The oldest article dates back to 2016, while the others range from 2020 to 2023. This cluster predominantly integrated ecological aspects of sustainability with workplace practices under the construct of G-HRM (in 11 out of 14 cases). The remaining three studies analyzed some HRM practices and their green outcomes.

Articles dealing with G-HRM shared some methodological features, such as a quantitative approach, a predominance of firm-level analyses, and a cross-sectional research design. Most empirical data came from manufacturing SMEs across various industries in Asian countries. Most authors (8 out of 11) adopted multi-item scales of G-HRM practices from [Renwick *et al.* \(2013\)](#), which they initially developed for large enterprises. The content of these scales included recruitment and selection, training and development, performance appraisal, rewards, and employee participation/involvement. Notably, [O'Donohue and Torugsa \(2016\)](#) elaborated on adapting such scales to the SME context, considering the low level of formalization. Alternatively, [Subramanian and Suresh \(2022\)](#) analyzed experts' assessments of eleven factors related to organizational learning and G-HRM practices, including additional issues like "green job analysis and design" and "green health and safety management". Along with a multi-aspect approach to G-HRM, one article ([Darmandieu *et al.*, \(2022\)](#)) narrowed the scope to employment policy, measured by the share of pro-environmental job design (i.e. green jobs).

Usually, G-HRM was an independent variable with significant impacts relating to attitudes, behaviors, work results, and pro-environmental outcomes at the company level. Significant positive effects directly affecting employees were identified in such issues as green organizational pride, defined as "a sense of pleasure and positive feelings in organizational pro-environmental activities" ([Chen & Yan, 2022](#), p. 1344), organizational citizenship behavior towards the organization ([Aboramadan and Karatepe, 2021](#)), green organizational commitment ([Iqbal *et al.*, 2023](#)), and job performance ([Aboramadan and Karatepe, 2021](#)). At the firm level, G-HRM positively contributed to green/circular economy performance ([Benjamin, Shee, & de Vass, 2023](#); [Iqbal *et al.*, 2023](#); [Khan *et al.*, 2023](#)) and supported environmental sustainability endeavors ([Subramanian & Suresh, 2022](#); [Wen *et al.*, 2022](#)).

Several studies confirmed the significant positive impact of G-HRM on the considered outcomes, directly ([Iqbal *et al.*, 2023](#); [Subramanian & Suresh, 2022](#); [Wen *et al.*, 2022](#)) and/or indirectly ([Aboramadan and Karatepe, 2021](#): through perceived green organizational support on employee performance; [Chen & Yan, 2022](#): through green psychological capital on employees' green pride; [Benjamin *et al.*, 2023](#): through green supply chains initiatives on firm environmental performance; [Iqbal *et al.*, 2023](#): through organizational commitment on green innovation; [Wen *et al.*, 2022](#): through CSR on firm environmental sustainability).

In some research models, G-HRM practices acted as mediators (Al-Swidi *et al.*, 2022; Singh *et al.*, 2020) or moderators (O'Donohue & Torugsa, 2016; Darmandieu *et al.*, 2022). Mediation showed a positive direct impact of G-HRM practices on green innovation, with consumer pressure on environmental issues (Al-Swidi *et al.*, 2022) or green transformational leadership as predictors (Singh *et al.*, 2020). Singh *et al.* (2020) also confirmed the positive effect of this leadership on green innovation through G-HRM. However, the role of G-HRM as a moderator appears ambiguous. While it amplified the positive contribution of proactive environmental management to financial performance (O'Donohue & Torugsa, 2016), it also reduced the positive effect of implementing circularity in the production process on cost reduction, as observed by Darmandieu *et al.* (2022) in the case of green jobs.

As previously stated, this subset of articles also comprised three studies focused on non-green HRM practices and their environmental outcomes. These articles varied in research approach and design, respondent type, location, and industry focus.

The HRM conceptualization differed among these studies. Cai *et al.* (2023) concentrated on fostering a learning-friendly work environment. Muñoz-Pascual *et al.* (2021) took a broader perspective, treating organizational learning capability as internal HRM, while external HRM – as a collaborative HRM system. Both studies adopted scales previously utilized in larger organizations. In contrast, Sawe *et al.* (2021) employed an original approach, with experts evaluating fourteen “people-driven factors” identified from the literature. These factors encompassed various management activities, including HRM-related aspects such as inclusive communication, strategic employee participation and recruitment, performance appraisal, training, and knowledge sharing.

In these articles, HRM served as either an independent variable/contributor (Muñoz-Pascual *et al.*, 2021; Sawe *et al.*, 2021) or a mediator between transactional leadership and individual outcomes (Cai *et al.*, 2023). Despite variations in HRM conceptualization and its role in research models, these studies affirmed its positive impact on green outcomes, including pro-environmental creative behaviors (Cai *et al.*, 2023) and the adoption of environmental/circular economy practices (Muñoz-Pascual *et al.*, 2021; Sawe *et al.*, 2021). Their findings consistently highlighted the importance of communication, knowledge acquisition, sharing, and employee participation. Regarding performance management, only Sawe *et al.* (2021) addressed it. In their study, performance management emerged as less significant compared to other HRM practices.

HRM and social concerns

Nearly one-third of the selected articles (9 out of 29) focused on social responsibility (SR) concerns. Five articles clearly distinguished between HRM and SR, while others integrated social issues with employee-targeted practices.

Articles addressing SR-HRM practices predominantly adopted cross-sectional research designs and quantitative approaches over qualitative ones. The research context often spanned multiple industries, primarily located in Western Europe.

The conceptualization of SR-HRM practices varied across articles. It focused on different processes or activities. Gellert and Graaf (2012) considered solely managing age diversity, while Ayuso and Navarrete (2018), Lechuga Sancho, Martínez-Martínez, Larran Jorge, and Herrera Madueño (2018), and Kocollari *et al.* (2023) addressed diversity management among other features. These quantitative studies employed measures covering a wide range of HRM practices tailored for SMEs. Meanwhile, Ayuso and Navarrete (2018) adopted a scale from prior SME studies, covering diverse HRM areas such as diversity management, adjustments to employee personal constraints in work organization, health, and safety activities, monitoring HR-related metrics, internal communication, employee empowerment, financial participation, training provision, career opportunities, and social benefits. Kocollari *et al.*

(2023) analyzed employee-centric CSR practices aimed at enhancing work-life balance, diversity, equal opportunities, training provision, and ensuring occupational health and safety. [Lechuga Sancho et al. \(2018\)](#) created a comprehensive measure covering training and development, work-life balance, job security, employee appraisal, communication with employee representatives, diversity management, and career opportunities. Unlike other researchers, they emphasized transparency, rigor, and regularity in these HRM activities. In the qualitative study by [Gamage et al. \(2023\)](#), the scope of SR-HRM emerged from empirical evidence. Specifically, these authors considered actions taken to cope with crisis and build resilience through staffing policies, training, rotating, and work arrangements as well as measures aimed to ensure the well-being of owners and employees such as frequent employee check-ins, team gatherings, regular information updates, and enhanced work flexibility.

This subset of articles exhibited considerable variation in the placement of SR-HRM practices within the research model/design. Two exploratory studies positioned these practices within the context of CSR ([Gellert and Graaf, 2012](#)) or coping with crisis ([Gamage et al., 2023](#)). [Lechuga Sancho et al. \(2018\)](#) and [Kocollari et al. \(2023\)](#) treated them as independent variables, while [Ayuso and Navarrete \(2018\)](#) considered them as dependent variables.

[Lechuga Sancho et al. \(2018\)](#) found that SR-HRM practices positively impact business competitiveness, both directly and indirectly through relational marketing, and sequentially via employee commitment and relational marketing. [Kocollari et al. \(2023\)](#) identified positive individual outcomes, i.e. employee happiness, resulting from practices fostering shared values, inclusivity, self-realization, career progression pathways, and innovative work arrangements. They found rewards and workplace networking to be less important factors for happiness in their study.

Other studies examined determinants of SR-HRM adoption. According to [Gamage et al. \(2023\)](#), these influences included business type, location, workforce management practices, owner-managers' skill sets and networks, their prior experience of crises, individual well-being, government crisis management processes, and housing shortages. During the pandemic, SMEs grappled with dilemmas concerning financial versus social sustainability and balancing employee versus owner wellbeing. [Ayuso and Navarrete \(2018\)](#) discovered that SMEs with higher entrepreneurial orientation showed a positive impact on sustainable development through socially responsible HRM practices. They also noted positive effects from SME internationalization, assumedly influenced by institutional disparities between Spain and Mexico. [Gellert and Graaf \(2012\)](#) observed that smaller firms with long-term, quality relationships tend to outperform others in managing age diversity, considering it as a relevant and inherent aspect of their operations.

The remaining half of this cluster consisted of articles, in which HRM and social responsibility were distinct concepts. They varied significantly in research approach (qualitative and quantitative), design (cross-sectional and longitudinal), methods of data collection and analysis, and geographic location. However, they shared commonalities such as the adoption of firm-level analysis and a general lack of specific industry focus.

Further differentiation in this subset related to the understanding of HRM and its operationalization. [Binh et al. \(2022\)](#) focused on human resource development (HRD) measured as the number of training days per employee. [Liang-Chih et al. \(2022\)](#) examined high-performance work systems (HPWS) using a 21-item scale originally developed for larger firms. The scale encompasses work design, recruitment, selection, training, development, performance assessment, salary, and rewards. [Santos-Jaén et al. \(2021\)](#) introduced the concept of effective HR practices focusing on hiring based on job requirements, access to training, career development, equity in remuneration, and participation in decision-making. Finally, [Mankelow \(2008\)](#) explored HR priorities related to employment policy, working environment, on-the-job and external training, flexible hours and conditions, above-average payments,

equitable work allocations, and clear work principles, along with underlying owners' HR motivations concerning employee morale, turnover, equity, and loyalty.

This subset was not only methodologically and conceptually heterogeneous. It also exhibited differences in the positioning of HRM within research models. Specifically, HRM practices denoted outcomes of owners' motivations (Mankelow, 2008), served as dependent variable (Binh *et al.*, 2022) as well as moderator (Liang-Chih *et al.*, 2022) or mediator (Santos-Jaén *et al.*, 2021).

Owing to these disparities in definition and placement, findings from these four papers could not be directly compared. The oldest study suggested that HRM practices in SMEs primarily reflected the broad business and legal compliance motivations of their owners rather than social concerns (Mankelow, 2008). Newer articles focused more on the HRM-CSR nexus, but their fragmented findings highlighted differences in understanding this linkage. While CSR and marketing capabilities in such entities had positive isolated effects on engagement in HRD, their interaction exerted an adverse impact, possibly due to financial constraints hampering simultaneous investments in these domains (Binh *et al.*, 2022). In another study, HPWS amplified the positive impact of CSR and institutional pressure on employee retention (Liang-Chih *et al.*, 2022). Finally, CSR was found to positively influence firm innovation through HR good practices (Santos-Jaén *et al.*, 2021).

HRM and triple-bottom-line concerns

The last thematic cluster, comprising six items, demonstrated a more complex research design. Unlike in other groups, the majority of articles adopted a qualitative approach, drawing from various sources of information and data collection methods. Cross-sectional design combined with firm-level analysis was prevalent among the articles. While most studies adopted a multi-industry focus, two concerned solely food and beverages (Maheshwari *et al.*, 2020; Schröder *et al.*, 2023). One examined fair trade firms (Davies & Crane, 2010). The Asia-Pacific region was the primary location for half of the studies, with others conducted in Western Europe and North America.

The articles varied in terms of instilling sustainability into HRM and the scope of HRM itself. Two studies (Suriyankietkaew & Avery, 2014; Schröder *et al.*, 2023) fully integrated sustainability concepts, while others explored HRM contribution to overall sustainability. Half of the articles focused on specific HRM activities, such as sustainability training (Schröder *et al.*, 2023), job design (Iqbal *et al.*, 2021), and selection and socialization of recruits (Davies & Crane, 2010). Others analyzed a range of practices covering recruitment, engagement and retention, skill/career development, employee relations, and communication, labeled as “honeybee practices” (Suriyankietkaew & Avery, 2014), HR activities (Langwell & Heaton, 2016), and the “Awareness-Action-Comprehensiveness-Excellence” framework (Maheshwari *et al.*, 2020). In qualitative studies predominant in this cluster, authors applied their framework to organize findings on HRM contribution to sustainability. In two quantitative studies, Suriyankietkaew and Avery (2014) drew from a model of sustainable leadership by Avery and Bergsteiner. Meanwhile Iqbal *et al.* (2021) used items and dimensions from the existing scale of job characteristics developed by Hackman and Oldham in 1974.

Regardless of their scope, in all these studies, researchers considered HRM either as an independent variable or a contributor to sustainability. In the former scenario, sustainable “honeybee practices” predicted overall stakeholder satisfaction (Suriyankietkaew & Avery, 2014), while job dimensions acted as determinants of sustainability through workplace spirituality, defined as a sense of meaning and purpose in individuals' work (Iqbal *et al.*, 2021). Both studies found significant positive effects of these variables at the organizational level (Suriyankietkaew & Avery, 2014) and the individual level (Iqbal *et al.*, 2021). However,

scholars deemed certain aspects more relevant than others. The first study highlighted positive employee relations, staff retention, a strong shared vision, and employee engagement, whereas the second confirmed a significant effect of job significance, job identity, and skills variety.

Qualitative studies delved into how HRM practices are employed in SMEs to ensure sustainability. For instance, a case study by [Schröder et al. \(2023\)](#) revealed that organizations can enhance new employees' action competence for sustainability through specific training, particularly in corporate cultures that value SD concerns. [Davies and Crane \(2010\)](#) also focused on new employees by examining selection and induction practices aimed at fostering their engagement in the triple bottom line (TBL) philosophy. They found that fair trade SMEs encountered challenges in attracting candidates with strong professional backgrounds and a robust TBL orientation. Consequently, these SMEs needed to develop comprehensive formalized induction programs to enhance recruits' knowledge of sustainability and their commitment to key stakeholders. Lastly, [Maheshwari et al. \(2020\)](#) analyzed SMEs in the food and beverage sector to develop a comprehensive framework of HRM practices aimed at fostering sustainability. This framework comprised integrated policies and activities to develop necessary competencies, support a shift towards the TBL philosophy, and sustain commitment through communication, training and development, organizational culture, goal-setting, participation, and rewards. Similarly to other researchers, [Maheshwari et al. \(2020\)](#) stressed the importance of regularity and formalization in pursuing a TBL approach.

Conclusions, limitations, implications

The main goal of this study was to define the state of knowledge on the intersection of sustainability concerns and HRM practices in SMEs while addressing research questions. Descriptive analysis showed that this area gained traction after 2020, with most studies using a quantitative approach, and gathering cross-sectional data through surveys. In terms of context, studies covering multiple industries and manufacturing activities prevailed, whereas investigated SMEs operated primarily in the Asia-Pacific region and Western Europe.

The thematic analysis revealed that among the three approaches in the S-HRM literature, research on green issues was the most common in SMEs, followed by studies on social concerns. Only in every fifth case, researchers adopted the TBL perspective. The articles assigned to thematic groups corresponding to these approaches differed in terms of:

- (1) Methodology (e.g. in the clusters focused on green and social concerns, quantitative methods prevailed, while qualitative ones dominated in the TBL cluster);
- (2) Research locations (Asian countries predominated in the green cluster, Western European – in the social cluster, no dominant location was found in the TBL cluster);
- (3) The nature of sustainability-HRM linkage (integrated concepts prevailed in the green cluster, and distinct constructs regarding sustainability and HRM occurred more often in social and TBL clusters);
- (4) The placement of HRM practices in research models (HRM served as an independent/mediating variable in the green cluster or a contributing factor in the TBL cluster, while in the social cluster, its status varied across these models).

The way researchers operationalized HRM constructs varied. Green cluster studies often used scales from larger companies, while social cluster research used SME-specific measures. The scope of considered practices varied greatly both within and between clusters. However, these studies examined a wide range rather than single practices.

The findings in all clusters confirmed the positive effects of HRM practices in integrating sustainability in SMEs, which related to employees' competences, behaviors and feelings, individual performance, pro-environmental innovations, and other outcomes at the company level, stakeholder satisfaction, and business competitiveness.

Preliminary conclusions on drivers of sustainability-HRM integration included institutional pressures, entrepreneurial orientation, and internationalization (in some institutional settings). Other potentially important contextual factors identified in two qualitative studies included business type, existing workforce management practices, individual characteristics of owner-managers, and access to government/institutional support. By and large, SMEs' specificity defined in this SLR by the RECIPE framework (Harney *et al.*, 2022) was insufficiently explored and explained, although it received more attention from researchers within social and TBL clusters rather than in the green one. The unique features of SMEs found in some of these articles included:

- (1) Resource constraints lead to tough staffing/employment decisions (Gamage *et al.*, 2023), trade-offs between market and sustainability concerns (Mankelow, 2008; Binh *et al.*, 2022; Benjamin *et al.*, 2023), and limited opportunities to involve HR managers in sustainable leadership (Langwell & Heaton, 2016);
- (2) Environmental vulnerability manifesting in coping with tensions posed by the COVID-19 crisis (Gamage *et al.*, 2023), the importance of stakeholders' satisfaction when performing S-HRM (Suriyankietkaew & Avery, 2014), and institutional pressure as a stimulus for integrating SD into HRM practices (Liang-Chih *et al.*, 2022; Benjamin *et al.*, 2023);
- (3) Concentrated ownership/control influencing decision-making and strategic choices that reflect owners' motivations (Mankelow, 2008), entrepreneurial orientation (Ayuso & Navarrete, 2018), and prior experience (Gamage *et al.*, 2023), which in turn may impact the commitment to S-HRM and the way people perform it;
- (4) Informality as a distinctive characteristic of G-HRM practices (O'Donohue & Torugsa, 2016), and a challenge to be addressed (via formalization) to successfully integrate sustainability into HRM (Lechuga Sancho *et al.*, 2018; Maheshwari *et al.*, 2020), or at least into some HR activities, such as selection and socialization (Davies & Crane, 2010), and sustainability training (Schröder *et al.*, 2023)
- (5) The proximity of relations and their longevity recognized as factors supporting SD in terms of reducing inequalities by promoting generational diversity and the inclusion of older employees (Gellert and Graaf, 2012)
- (6) The nature of employee experience – as a positive aspect, incorporated in some socially responsible practices targeted at employees (Santos-Jaén *et al.*, 2021; Kocollari *et al.*, 2023) or reflected in meaningful jobs (Iqbal *et al.*, 2021). Its more ambiguous picture emerged from studies during times of crisis (Gamage *et al.*, 2023) or in the context of business owners' priorities and motivations (Mankelow, 2008).

Despite some insights into SMEs' specificity provided by the above articles, these empirical findings remain fragmented and their emerging portrait in the context of S-HRM is neither clear nor complete. Therefore, a key recommendation for future research is to thoroughly investigate the unique characteristics of SMEs to better understand how they influence the integration of sustainability into HRM practices.

Like other SLRs, this review also has limitations resulting from the inclusion and exclusion criteria. However, it still enables us to formulate suggestions for future studies, going beyond the aforementioned gap. Regarding methodological aspects of the collection, it

is worth considering qualitative and mixed approaches, especially in relation to G-HRM. Longitudinal studies are recommended to ensure more accurate data for measuring the contribution of practices to SD and understanding the consequences of S-HRM implementation. Addressing the knowledge gap about SMEs in neglected regions and sectors, such as services (excluding hospitality and tourism), is essential. Moreover, diversifying theoretical perspectives beyond the organizational viewpoint and RBV is proposed. Lastly, there is a need to focus on factors influencing the integration of sustainability into HRM, particularly exploring institutional conditions for cognitive and practical purposes, such as providing adequate systemic support for SMEs in implementing SD through organizational practices.

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