

## CORPORATE SOCIAL RESPONSIBILITY AND GREEN HUMAN RESOURCE MANAGEMENT: INSIGHTS FROM A BIBLIOMETRIC ANALYSIS OF SCIENTIFIC LITERATURE

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**Purpose:** Identification of the main areas of research addressed in scientific publications that also relate to Corporate Social Responsibility (CSR) and Green Human Resource Management (GHRM).

**Design/methodology/approach:** The study was designed and conducted between December 2024 and May 2025. It was based on a systematic review of the literature. Two bibliometric queries were constructed to explore the Scopus database (Q1) and the Web of Science database (Q2). The bibliometric analysis was performed on the author's keywords assigned to 92 selected scientific publications, from which the main areas of research were extracted using the VOSviewer software.

**Findings:** Thirteen main areas of research addressed in scientific publications that also relate to CSR and GHRM were identified. Apart from CSR and GHRM, researchers most often referred to issues such as sustainability, environmental performance and green innovation.

**Research limitations/implications:** The main limitations of the study include the author's own bibliometric queries (Q1 and Q2) and the restriction of the selection of scientific publications to two databases (Scopus and Web of Science). These limitations also allow the study to be repeated in the future to identify changes and compare the study with other bibliometric analyses focused on CSR and/or GHRM.

**Originality/value:** The analyses conducted stand out from previous bibliometric studies focused on CSR and/or GHRM in terms of the content of bibliometric queries. During the analysis, numerous research implications and practical applications for business were outlined. In addition, potential future directions for research on CSR and GHRM were identified, including various issues related to green jobs. The article is intended for those interested in CSR and GHRM.

**Keywords:** corporate social responsibility, green economy, green human resource management, green innovation, green jobs, sustainability.

**Category of the paper:** Literature review.

## 1. Introduction

The socio-economic reality is constantly changing under the influence of various social, economic and environmental factors. Numerous researchers recognise the significant direct and indirect impact of individual enterprises (e.g. Aversa, 2024; Di Febo, Angelini, 2025) and entire sectors of the economy (e.g. Iamkovaia et al., 2019; Rehman et al., 2021) on adverse climate change. Scientific research is also increasingly recognising the impact of climate change on the functioning of individual enterprises (e.g. Morales et al., 2022; Sanderson et al., 2019), sectors (e.g. Christine Li et al., 2025; Olarewaju, Ganiyu, 2021; Wakweya, 2025) and economies (e.g. Davydenko et al., 2021). It is pointed out in the case of direct impact that this may manifest itself in various ways, including supply chain disruptions caused by extreme weather events such as floods (e.g. Ghadge et al., 2020). On the other hand, the most frequently mentioned factor when it comes to the indirect impact of climate change on enterprises is increased pressure from stakeholders (e.g. Peter, 2023) to develop sustainable strategies and implement green practices in daily operations. Investors, the local community operating in the vicinity of a given enterprise, and consumers occupy a special place among these stakeholders. In the last group of stakeholders mentioned above, researchers discussing the green transition increasingly distinguish so-called green consumers (e.g. Boota et al., 2025; Goyal, Goyal, 2021; Padászyńska, Kozar, 2024).

The increased pressure from stakeholders to improve the environmental performance of various business processes is widely recognised. At the same time, enterprises are expected to not only meet the formal and legal requirements specific to their business, but also to invest in ensuring significantly higher environmental standards than the minimum required. This is understandable, given that various types of discussions (including scientific ones) increasingly emphasise the need for enterprises to commit to sustainable development, offering potential solutions to promote this approach (e.g. Bai et al., 2024; Yang et al., 2024). There is also growing public awareness of the need to promote sustainable development (e.g. Angelone et al., 2025). The adoption of a sustainable development path has the potential to curtail, and potentially even arrest, the deleterious climate change that is currently occurring. Some researchers go further, directly pointing to the need for a green transition (e.g. Huy, Phuc, 2025; Krasin, 2025; B. Li et al., 2025) or green transformation (e.g. Kozar, Sulich, 2023; Peng et al., 2022) of enterprises and entire economies. Consequently, scientific discourse is increasingly addressing the issues of the green economy (e.g. Maesaroh et al., 2024; Mo et al., 2024), green enterprises (e.g. Wang et al., 2023), and green entrepreneurship (e.g. Mondal, Singh, 2023; Singh et al., 2025).

In some enterprises, as practice shows, various types of activities are initiated voluntarily, which simultaneously take into account the environmental interests of individual stakeholders. These entities are acutely aware of the necessity for enterprises to conduct their business

activities in a responsible manner. This responsibility underscores the necessity for a comprehensive evaluation of all actions undertaken in the context of business operations, with a view to ascertaining their environmental impact prior to their initiation. Such actions are considered to be part of the concept of Corporate Social Responsibility (CSR) (e.g. Ivanaj et al., 2021; Ribeiro et al., 2024; Sharma et al., 2022). In enterprises, the execution of CSR activities is undertaken by a variety of organisational units. In some entities, predominantly large enterprises, a separate CSR department can be identified within their organisational structures (e.g. Risi et al., 2023; Youm et al., 2024).

Issues related to the implementation and development of CSR concepts are an area of interest for numerous researchers (Rani et al., 2025). It can be observed that, depending on the strategy adopted by an enterprise towards CSR, activities aimed at this goal take the form of passive or active engagement (Johnstone, 2018). In certain enterprises, CSR is considered to be merely a component of their image strategy. In such cases, enterprises undertake various types of activities, most often through passive forms of social engagement. Examples of such activities, which are aimed at both environmental issues and CSR, include the declarative adoption of Environmental, Social, and Governance (ESG) standards without their implementation in the enterprise's practice, or the sponsorship of various events aimed at raising green awareness among the public without the active involvement of employees. CSR can also be regarded as a significant component of strategic business management (Deepalakshmi et al., 2019). In this context, CSR is a pivotal factor in enhancing the value of an organisation, as it encompasses activities that are integrated with the long-term goals of the enterprise. The occurrence of this phenomenon is contingent upon the voluntary participation of individual employees in a range of CSR initiatives. Enterprises can, of course, encourage their employees to undertake various CSR activities, e.g. by allowing them to volunteer during working hours or by jointly planning and selecting individual initiatives. It is noteworthy that researchers are increasingly suggesting that CSR may be superseded by ESG (Kaźmierczak, 2022; Oprescu, Marcu, 2024) on the grounds that it is more quantifiable or a consequence of regulatory obligations. Nevertheless, the authors of this article posit that such statements are too far-reaching, as some researchers have clearly indicated that ESG does not replace CSR, either in name or as a concept. These considerations emphasise that ESG was created as a subcategory of CSR (Hazen, 2021).

Undertaking sustainable (e.g. Anand et al., 2025; Kraft, 2016), pro-environmental (e.g. Herbuś, Ślusarczyk, 2012) or green (e.g. Kang, Kang, 2023; Cai Li et al., 2023) actions within the context of CSR requires enterprises, as noted by the authors of this article, not only to make specific investments for this purpose, but above all to build an efficient human resource management system. It is important to acknowledge the growing discourse in the relevant literature that extends beyond conventional human resource management to encompass sustainable human resource management (e.g. Siddique et al., 2024) and green human resource management (GHRM) (e.g. Faheem et al., 2023; Pooja, Bhavani, 2025). In the context of the

green transition of the economy, the role of GHRM in enterprises is particularly recognised, with the assertion that this approach to human resources integrates environmental protection principles into personnel management processes. As the authors of this article observe, GHRM has the capacity to support CSR, by increasing awareness of and commitment to green issues among employees, and by contributing to the establishment of working conditions that are in accordance with the principles of sustainable development. In light of the mounting significance of GHRM within the framework of CSR, this subject has been the focus of an analytical investigation in this article.

The identification of the main areas of research addressed in scientific publications that also refer to CSR and GHRM issues was adopted as the research aim. The study hypothesised that the primary research domains would be ascertained through a bibliometric analysis of author keywords assigned to diverse categories of scientific publications. The decision was taken to subject scientific publications indexed in two bibliometric databases, Scopus and Web of Science, to bibliometric analysis based on strictly defined substantive criteria (described in more detail in the 'Research methodology' section). The research planning procedure involved the utilisation of a classic literature review. A systematic literature review method was employed in actual research, thereby ensuring the repeatability of the study thanks to the constructed bibliometric queries. The VOSviewer software (version 1.6.20) was utilised to map the identified main areas of research.

The article is divided into four sections. The constituent sections of the article are logically interconnected, thereby constituting an integral component of the overall composition. The initial section of the article, entitled 'Introduction', provides a foundation for the subsequent discussion by offering a comprehensive overview of the pertinent literature on the subject. This section delineates the objective of the research and engages in a discourse on the research methodologies and instruments utilised to accomplish and examine the outcomes. The second part of the article is devoted to a detailed discussion of methodological issues related to the research conducted. It is imperative to acknowledge the significance of meticulous attention being accorded to individual research activities and the research schedule, the latter of which is methodically divided into four primary stages. The procedure is described in meticulous detail, ensuring that other researchers can replicate the study, for example for the purpose of future comparative analysis. The authors of the article posit that the comprehensive delineation of the research methodology ensures scientific transparency, a crucial aspect in scientific research. In the context of the analyses conducted, this may also facilitate comparison with other bibliometric analyses centred on CSR and/or GHRM. The penultimate section of the article focuses on presenting the research results in the form of identified main areas of research addressed in scientific publications that address the issues of CSR and GHRM. The scientific discussion outlined here delineates both methodological implications and those aimed at business practice that can strengthen the emergence of green business ecosystems. The final section of the article, i.e. the conclusion, summarises the discussion on CSR and GHRM.

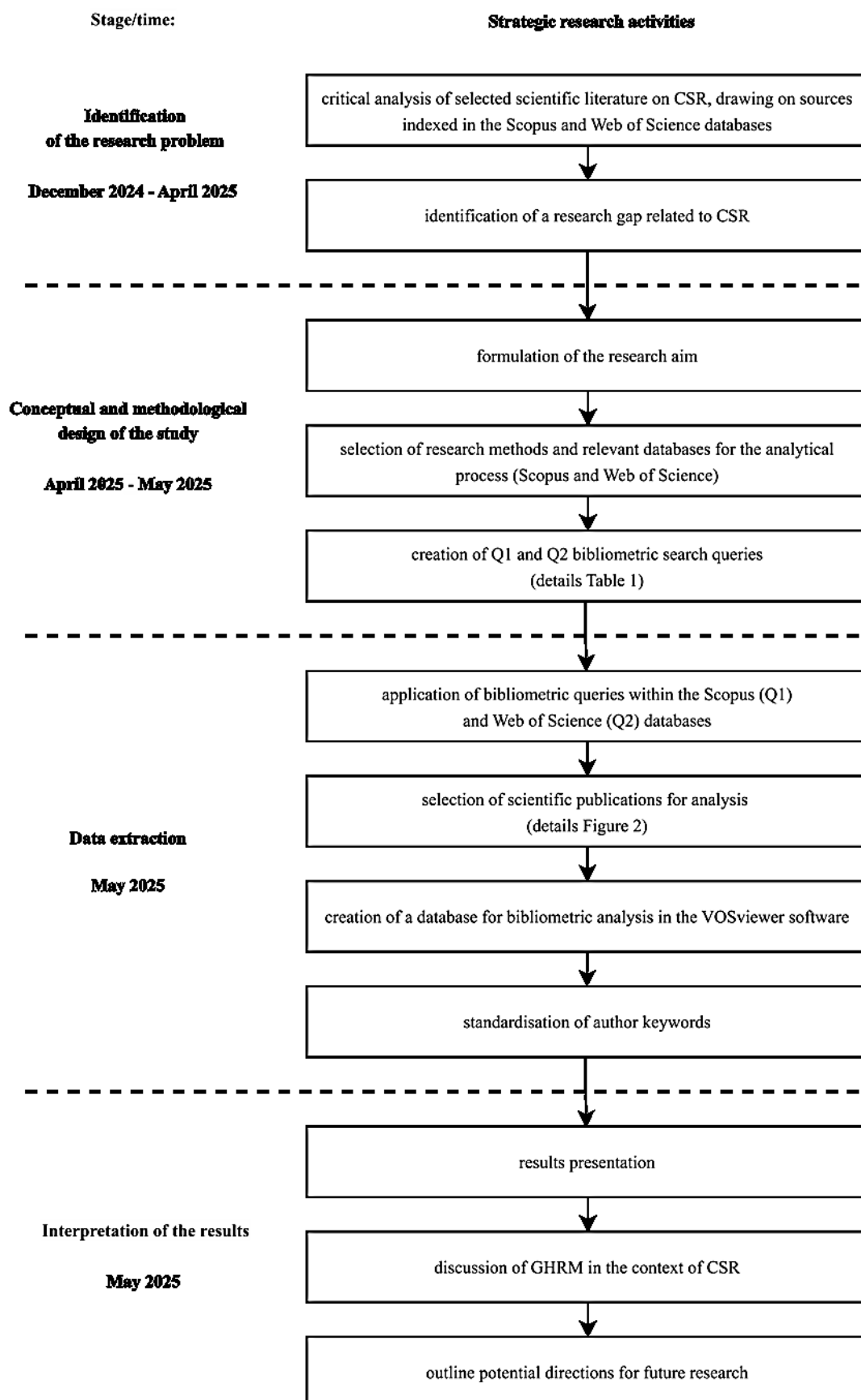
This section also draws attention to the limitations that have been identified as a result of the analyses that have been carried out. Furthermore, future research directions at the intersection of CSR and GHRM are indicated, including the issue of creating high-quality green jobs.

## **2. Research methodology**

The research activities that led to the results described later in this article were carried out between December 2024 and May 2025. As illustrated in Figure 1, a series of meticulously planned research activities were conducted during this period, which were methodically divided into four distinct stages of research. The sequence of research activities stipulated in the schedule was meticulously delineated, with two key objectives being paramount. The primary objective was to achieve the highest attainable standard of results. Secondly, the assumption was made that the study should be repeatable for the purpose of comparison with other bibliometric studies, both those already presented in various scientific publications and those to be carried out in the future on the issues of CSR and GHRM.

The initial stage of the research process, which focused on identifying the research problem, commenced with a review of selected scientific publications on CSR issues. The review encompassed solely scientific publications (articles, conference papers and reviews) indexed in two databases, Scopus and Web of Science. It was observed that within the domain of scientific research concentrated on CSR issues, there is an emerging interest among researchers in a range of subjects pertaining to the green transformation of the economy. In the context of the various green research issues that have been raised concerning CSR, it has been observed that GHRM is becoming an increasingly significant area of research. Concurrently, the literature review identified a paucity of bibliometric studies that would identify significant research areas addressed in scientific publications simultaneously referring to CSR and GHRM. This observation was the foundation upon which the research aim was formulated.

At the commencement of the second stage of the research, it was assumed that the aim of the research would be to identify the main areas of research addressed in scientific publications that also deal with CSR and GHRM issues. As in many previous bibliometric studies, the main areas of research in the designed study will be identified on the basis of an analysis of the authors' keywords. The authors of this article posit that these words constitute a synthetic presentation of the most important issues addressed in a given scientific publication. Two databases were selected for bibliometric analysis: Scopus and Web of Science. It is evident that both of these databases are extensively utilised for bibliometric analysis of CSR issues (e.g. Deng et al., 2024; Glavas, Visentin, 2024; Kargbo et al., 2025) and GHRM (e.g. Kamboj, 2024; Miah et al., 2024; Tahir et al., 2024).



**Figure 1.** Research procedure stages and timeline.

Source: Authors' elaboration.

The Scopus and Web of Science databases facilitate the construction of bibliometric queries. This aspect facilitates the reproducibility of research that is based on these databases. Furthermore, in numerous scientific publications focused on bibliometric analyses, researchers emphasise that both the Scopus and Web of Science databases are not only recognised in the scientific world as reliable sources of information, but above all have strictly defined rules for indexing scientific journals in these databases (e.g. Ihsaniyati et al., 2023; Sulich, Kozar, 2023; Wodnicka, 2024). A further compelling rationale for opting for these two databases as sources for bibliometric analyses is that their content does not fully overlap. It is evident that the range of scientific publications selected on the basis of the same bibliometric query may exhibit a certain degree of overlap between the indicated databases. Nevertheless, as previous research practice shows, when exploring the Scopus or Web of Science databases with a given query, it is possible to extract publications assigned exclusively to one of these databases. Consequently, the final set of scientific publications incorporated in the bibliometric analyses, procured from both the Scopus and Web of Science databases, is more comprehensive. As a consequence, the analyses furnish a considerably more complete depiction of the subject under scrutiny than would be the case with a solitary database.

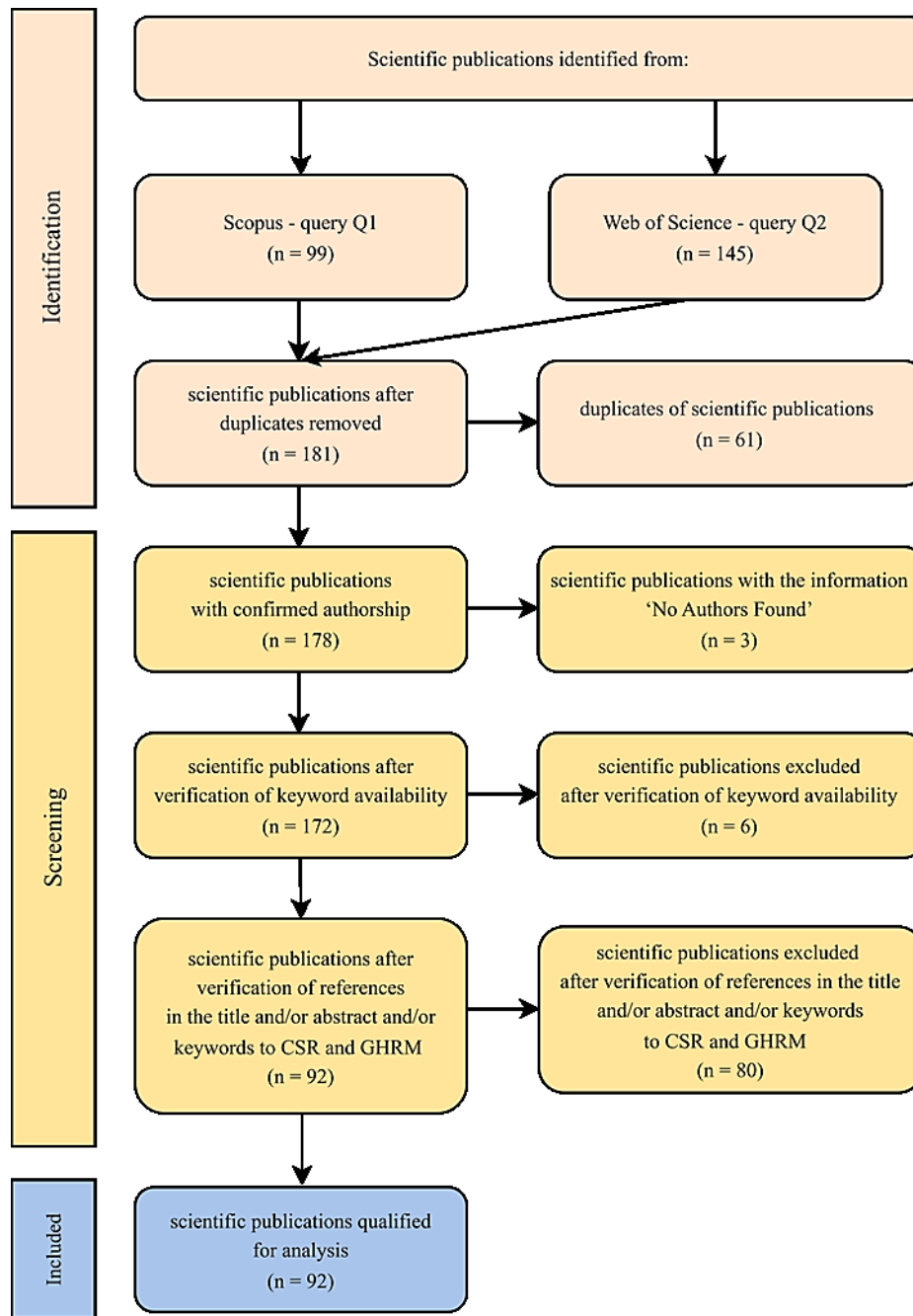
The final research activity conducted at the 'Conceptual and methodological design of the study' stage was the construction of two bibliometric queries. As demonstrated in Table 1, bibliometric query Q1 was formulated to explore the Scopus database, and bibliometric query Q2 was created to search the Web of Science database. Notwithstanding syntactic disparities, both queries facilitate the extraction of a set of scientific publications in English that pertain to both CSR and GHRM (the reference is made in the abstract and/or keywords and/or title). In both cases, publications that have been withdrawn for various reasons were not included in the analysis.

**Table 1.**  
*Details of search query syntax for Scopus databases*

| Database       | Symbol | Query syntax                                                                                                                     | No. results |
|----------------|--------|----------------------------------------------------------------------------------------------------------------------------------|-------------|
| Scopus         | Q1     | TITLE-ABS-KEY (("green human resource management" AND "corporate social responsibilit*")) AND (LIMIT-TO (LANGUAGE, "English"))   | 99          |
| Web of Science | Q2     | ((TS=("green human resource management" AND "corporate social responsibilit*")) AND LA=(English)) NOT DT=(Retracted Publication) | 145         |

Source: Authors' elaboration 14.05.2025.

The penultimate stage of the research commenced with the implementation of bibliometric queries within the Scopus and Web of Science databases. In consequence of the execution of bibliometric query Q1, which was designed to facilitate exploration of the Scopus database, a total of 99 scientific publications were identified (comprising 76 articles, 10 book chapters, 10 reviews and 3 conference papers). In turn, query Q2, which explored the Web of Science database, allowed for the identification of 145 scientific publications (comprising 129 articles, 12 reviews and 4 proceeding papers).



**Figure 2.** Procedure for the selection of scientific publications for analysis.

Source: Authors' elaboration.

Considering the previously mentioned issue that the scope of both explorations may overlap to some extent, a selection of scientific publications was made. The objective of this process was to eliminate from further analysis those scientific publications that are duplicates, for which no authors are assigned in the analysed databases, or for which author keywords are absent, as illustrated in Figure 2. Furthermore, scientific publications in which CSR and GHRM were absent from the title, abstract, and/or keywords were excluded from further analysis. This phenomenon could be attributed to the fact that bibliometric queries scoured a more extensive array of keywords than solely author keywords (in the case of the Scopus database, the query also searched indexed keywords, while in the case of the Web of Science database,

it searched keywords plus). The result of the scientific publication selection procedure was the selection of 92 publications for analysis (73 articles, 8 book chapters, 7 reviews, 4 conference papers/proceedings). The selected set of scientific publications was used both to achieve the research aim and to outline future research directions related to CSR and GHRM.

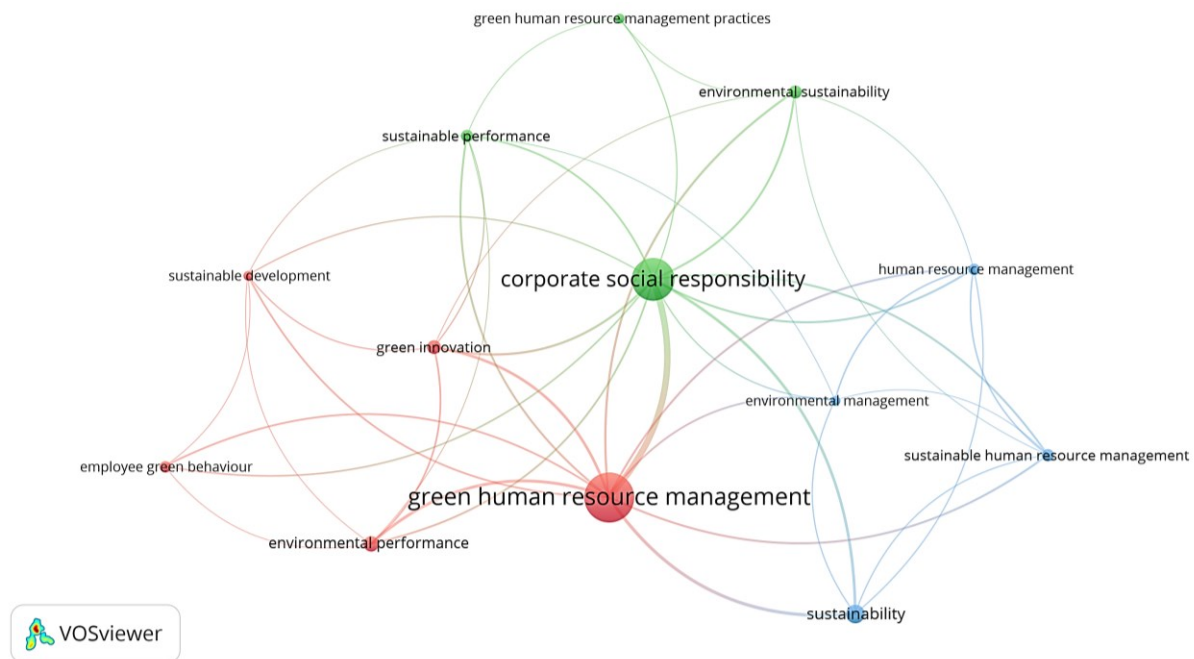
The final procedure conducted in the third stage of the research pertained to the standardisation of author keywords. The application of this procedure was necessitated by the requirement to achieve a high-quality bibliometric map. Standardisation has resulted in the unification of the forms of recording author keywords with equivalent meanings. Consequently, abbreviations were replaced with their full names (e.g. csr - corporate social responsibility; ghrm - green human resource management; ghr management - green human resource management), and a uniform form of singular or plural was adopted for a given research problem (e.g. corporate social responsibilities - corporate social responsibility). Consequently, the number of unique author keywords decreased from 275 to 247.

The results of the bibliometric analyses were presented and discussed at the culmination of the research. A comprehensive account of this stage can be found in the subsequent sections of this article. It should be noted that the results presented in this section were influenced by limitations inherent in the research, which could not be eliminated. This study utilised two bibliometric databases, Scopus and Web of Science, to analyse the data obtained. Consequently, conducting analyses based on a larger number of databases or on bibliometric databases that are entirely different may yield different results. Moreover, the configuration of the bibliometric queries imposed constraints on the search field. Nevertheless, the adopted detailed research methodology allows for both the repetition of the study in the future and the comparison of its results with other bibliometric studies on CSR and GHRM (both those already conducted and published in scientific papers and those to be carried out in the future). Therefore, the premises limiting the study are also important premises determining its quality.

### **3. Results and discussion**

The bibliometric database obtained in the third stage of the research (detailed in the Research methodology section) was used to create a bibliometric map in VOSviewer software (version 1.6.20), which presents the main areas of research addressed in scientific publications that also deal with CSR and GHRM (Figure 3). The decision to utilise this specific software for bibliometric analysis was primarily influenced by three key factors. Firstly, this software is one of the most widely utilised in bibliometric analysis by numerous researchers dealing with CSR or GHRM issues. Secondly, it should be emphasised that VOSviewer software provides very high-quality visualisations (e.g. by allowing some of the analysed keywords to be excluded from the visualisation). Thirdly, the software facilitates the visualisation of bibliometric

connections between individual author keywords. From a technical perspective, the bibliometric map presented in Figure 3 was created by selecting the co-occurrence option (type of analysis), author keywords (unit of analysis) and full counting (counting method) from the map creation panel in VOSviewer. In the subsequent panel of the software, entitled 'choose threshold', the minimum number of occurrences of a keyword was set at 5, as indicated by the software. Fourteen author keywords satisfied this criterion. In the final panel preceding the creation of the bibliometric map (verify selected keywords), the author keyword 'bibliometric analysis' was excluded. Such exclusions are customary in bibliometric analyses and are intended to enhance the quality of the visualisation obtained. It has been demonstrated by means of empirical observation that the most frequently excluded keywords are those referring to research methods, types of visualisations, geographical names or, in some cases, the names of individual countries. The bibliometric map generation procedure described above resulted in 13 author keywords being included, which, as previously indicated, also constitute the main areas of research identified in scientific publications that address both CSR and GHRM issues.



**Figure 3.** Bibliometric map of co-occurrence identifying key green research areas.

Source: Authors' elaboration in VOSviewer software (version 1.6.20).

The author's keywords in Figure 3 were assigned by the VOSviewer software to one of three clusters, which differ in colour (red, green, blue). It should also be noted that the author's keywords on the bibliometric map are marked as signed nodes. In addition, each node is characterised by two key bibliometric measures: occurrences and links. The occurrences measure determined the size of the node on the bibliometric map and also indicates the number of scientific publications (out of 92) in which a given research area was an author's keyword. When analysing this measure, it should be borne in mind that these are already author keywords after standardisation. The second measure, i.e. links, taking into account the type of bibliometric

map, shows with which visualised keywords the analysed main research area co-occurred as an author keyword. It should be noted here that the thicker the link between the identified main research areas on the bibliometric map, the more frequently these words co-occurred as author keywords. The values of the above-mentioned bibliometric measures assigned to the visualised author keywords on the bibliometric map are presented in Table 2.

**Table 2.**

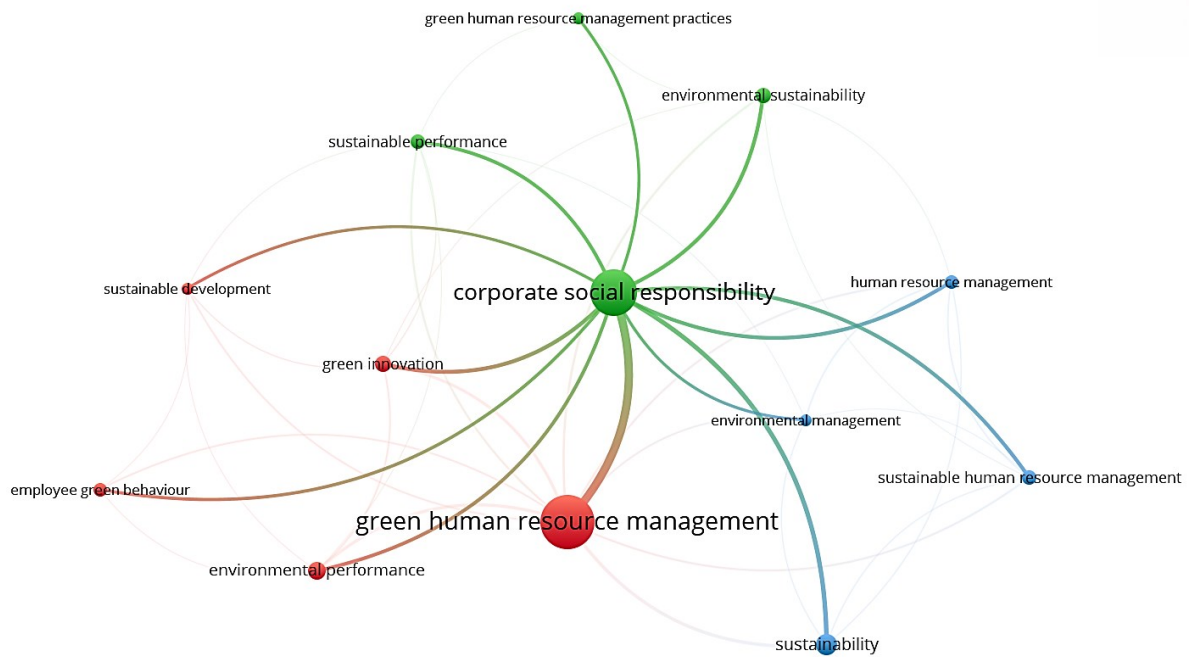
*The clusters generated with VOSviewer software and shown in Figure 3*

| Cluster | Keywords                                   | Occurrences | Links |
|---------|--------------------------------------------|-------------|-------|
| red     | employee green behaviour*                  | 6           | 4     |
|         | environmental performance                  | 10          | 6     |
|         | green human resource management*           | 72          | 11    |
|         | green innovation                           | 9           | 6     |
|         | sustainable development                    | 5           | 6     |
| green   | corporate social responsibility*           | 56          | 12    |
|         | environmental sustainability               | 8           | 6     |
|         | green human resource management practices* | 5           | 3     |
|         | sustainable performance                    | 7           | 7     |
| blue    | environmental management                   | 5           | 6     |
|         | human resource management*                 | 6           | 6     |
|         | sustainability                             | 14          | 5     |
|         | sustainable human resource management      | 6           | 7     |

\*for these keywords, procedures were carried out to standardise the spelling of the author's keywords

Source: Authors' elaboration.

The bibliometric data presented in the table indicate that none of the identified main research areas appeared as an author keyword in all analysed scientific publications. The highest number of occurrences was recorded for green human resource management (red cluster), corporate social responsibility (green cluster) and sustainability (blue cluster). In the case of links, as further indicated in Figure 4, only corporate social responsibility (green cluster) co-occurred at least once with all visualised main research areas as an author keyword in the analysed set of scientific publications. The author keyword green human resource management (red cluster) also had a high number of links. This identified main research area was not exclusively related to green human resource management practices. It can be assumed that authors with limited space for author keywords referred either to GHRM or to GHRM practices. Two author keywords, sustainable performance and sustainable human resource management, ranked third in terms of links. It should be noted here that GHRM should not be equated with sustainable human resource management. The bibliometric analysis revealed that in some publications, these two issues appeared simultaneously as author keywords (e.g. Banga, Gobind, 2025; Gaurav et al., 2025; Mukherji, Bhatnagar, 2022). This aspect only confirms the ongoing scientific discourse highlighting the fundamental differences between GHRM and sustainable human resource management.



**Figure 4.** Visualization of connections with corporate social responsibility on a bibliometric map.

Source: Authors' elaboration in VOSviewer software (version 1.6.20).

The most frequently occurring author-provided keywords in the analysed scientific publications were GHRM and CSR (e.g. Fachada et al., 2022; Tiep Le et al., 2024; Yousaf et al., 2025). These publications referred to various research issues. A content analysis of these scientific publications revealed that, in the context of GHRM and CRS, numerous current important issues are being addressed, including ESG (e.g. Lee, Ahn, 2025; Papademetriou et al., 2023), or various green research issues such as green organisational culture (e.g. Cömert et al., 2025), green recruitment (e.g. Aytekin, 2021; Mishra, 2017), green selection (e.g. Cheema, Javed, 2017), green psychological climate (e.g. Gupta, Kaur, 2024; Sabokro et al., 2021), green psychosocial environment (e.g. Wei, 2023), green human capital (e.g. Sowmiya et al., 2024), and green value strategy (e.g. Mering, 2024).

The green research issues cited above are merely illustrative of the green research topics that have been addressed in the context of CSR and GHRM. In addition to the aforementioned, bibliometric maps (see Figures 3-4) demonstrate references to employee green behaviour (red cluster), green innovation (red cluster) and green human resource management practices (blue cluster). Research indicates the presence of intricate interrelationships between CSR and employee green behaviour, with GHRM acting as a mediating entity (Aukhoon et al., 2024b). It has been posited by certain researchers that CSR and GHRM are contextual factors which have the capacity to stimulate green behaviour among employees in the workplace (D. Zhou et al., 2023). As posited by some researchers, GHRM practices have been demonstrated to be a significant factor in the enhancement of the positive impact of CSR on green employee behaviour (Aukhoon et al., 2024a). In contemporary business enterprises that are committed to the pursuit of sustainable development, a diverse array of green innovations is being

implemented. Numerous scientific studies have identified this issue and emphasised the impact of green innovations on the environmental performance of enterprises (Niazi et al., 2023; S. Zhou et al., 2024) or even their green performance (Azam, Jamil, 2024).

In addition to green research issues, a significant number of issues related to sustainable development and the environment are highlighted in the bibliometric maps presented. For instance, the analysed articles refer to environmental sustainability (e.g. Mittal, Gupta, 2023; Wen et al., 2022) and environmental performance (e.g. Khan et al., 2024; Rana, Arya, 2024; Sun et al., 2024). It is evident that references to both sustainability (blue cluster) and sustainable development (red cluster) can also be found. The author's keywords were not unified at the standardisation stage, as the authors of this article note that subtle differences in meaning are increasingly being observed in scientific research between these research areas.

The bibliometric analysis, which forms the basis for the results presented above, also enabled the identification of significant implications arising from the research conducted to date, while referring to the issues of CSR and GHRM. Firstly, it was observed that there is a diversity of terms and definitions used for both CSR and GHRM. A significant number of researchers have created definitions that are tailored to the specific requirements of their respective studies. It is evident that these factors complicate the process of conducting a comparative analysis of the results obtained in disparate studies. It is therefore evident that there is a clear necessity to standardise the definitions employed for both CSR and GHRM. Another methodological implication that has been observed is the geographical and cultural limitation of the research. Individual researchers tend to concentrate on issues of CSR and GHRM in a given organisation or organisations operating within a strictly limited area (e.g. an administrative region or country). Concurrently, there is a conspicuous absence of research that makes comparisons between the same aspects in companies, for example from the same industry, but operating in different cultural contexts.

Among the implications for business practice arising from the bibliometric analysis, it should be noted that a significant proportion of researchers recognise that employees are more committed to their work if they believe that the enterprise operates in an ethical or environmentally friendly manner. Consequently, when implemented effectively within a company's operations, both CSR and GHRM can function as instruments to promote employee retention. Concurrently, new opportunities for recruitment are being created. For instance, it has been demonstrated that companies that employ GHRM practices are better positioned to attract young employees, who frequently possess green attitudes. For these employees, the presence of environmental values is a significant factor in determining the selection of a potential employer. It has been observed that the implementation of GHRM in conjunction with CSR can assist an enterprise in maintaining its competitive edge within a market characterised by mounting stakeholder expectations regarding environmental concerns. For instance, GHRM practices have the capacity to contribute to the establishment of a green image for a company within its business environment. Moreover, the integration of

CSR and GHRM has the potential to catalyse the emergence of green innovative solutions within a given company, manifesting, for instance, in the products and/or services offered. The authors of this article posit that CSR and GHRM practices can also stimulate the creation of a green business ecosystem in the market.

#### **4. Summary**

The study successfully achieved its intended aim. The analyses identified 13 main areas of research addressed in scientific publications related to both CSR and GHRM. The discussion also outlined important theoretical implications and those relevant to business practice. In comparison with other bibliometric analyses related to CSR and GHRM, the study distinguished itself not only in terms of the content of the bibliometric query, but also in terms of the research period and the implementation of two important research procedures, namely the selection of scientific publications and the standardisation of author keywords. The latter procedure, in particular, is not frequently employed by researchers, despite the fact that it significantly improves the quality of bibliometric maps.

The study identified the factors limiting its scope. Firstly, as previously stated, the primary constraint pertained to the utilisation of two specific databases: Scopus and Web of Science. Despite the fact that this limitation was founded upon quality considerations, it has the potential to result in the omission of publications that meet the criteria set out in the bibliometric query but are found in other databases. It is also noteworthy that the analysis did not encompass grey literature (e.g. industry reports on CSR and GHRM). The analysis exclusively encompassed English-language publications, a choice that undoubtedly contributed to the marginalisation of scientific achievements presented in other languages. A further limitation inherent to bibliometric methods is that, whilst they facilitate the identification of primary research domains – for instance, via the utilisation of author keywords – they nevertheless preclude the capacity to evaluate the methodological reliability of the analyses undertaken. It is also important to note that research of this type is dependent on the number of publications at the time of the analysis. Consequently, the results obtained on the primary research domains identified in accordance with the methodological assumptions should be interpreted in the context of the period during which the database for the analysis was generated. In this particular type of research, the results may become outdated due to the indexing of new scientific publications related to CSR and GHRM in the Scopus and/or Web of Science databases.

The analyses conducted enabled the observation of numerous green research issues raised in scientific publications referring to both CSR and GHRM. A significant green issue that is being addressed in a multitude of scientific studies pertaining to sustainable development and the green transition in various sectors of the economy is that of green jobs. The analysed set of

publications contains relatively few references to this issue. A review of the scientific publications included in the study reveals that the issue of green jobs in the context of CSR and GHRM was most extensively discussed in the research by Chouhan & Singh (2024). The authors of this article posit that the issue of green jobs has hitherto been the subject of inadequate analysis in the context of studies referring to both CSR and GHRM. This underscores the necessity for additional research in this domain. Firstly, it is imperative to initiate research on the impact of CSR and GHRM on the quality of green jobs created, including their degree of greening. It is also worth noting that while green HRMP practices are increasingly becoming a field of scientific analysis, there is still a lack of sufficient analysis of how such practices affect the professional development and job satisfaction of employees in the context of CSR. The exploration of the potential for integrating GHRM practices within the context of workplace greening initiatives is a subject that merits further investigation. Another potentially fruitful avenue for future research would be to explore the role and importance of green leaders in fostering an organisational culture that supports CSR and GHRM. The authors of this article posit that further research in the aforementioned green areas of research on CSR and GHRM is necessary, as it can provide new scientific knowledge that will support the development of theory and practice in the field of responsible and green organisation management. It is submitted that such research could also provide guidance on how to build sustainable green business ecosystems. Such research could also provide guidance on how to build sustainable green business ecosystems.

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