

# BIBLIOMETRIC MAPPING OF CORPORATE SOCIAL RESPONSIBILITY RESEARCH: TRENDS AND INSIGHTS IN THE CONTEXT OF CORPORATE SUSTAINABILITY

Andra-Teodora GORSKI<sup>1</sup>, Mihai-Alexandru TOMA<sup>2</sup>

<sup>1</sup> Lucian Blaga University of Sibiu, 0000-0003-2805-015X

<sup>2</sup> The KPI Institute, 0009-0002-1178-3242

**Abstract:** A commitment to sustainability, with explicit consideration of the "triple bottom line" approach, is central to the concept of corporate social responsibility (CSR). The integration of sustainability objectives into CSR initiatives has the potential to foster shared value creation by generating positive economic, social, and environmental impacts. A holistic and strategic approach of CSR is of particular importance for the achievement of organizational goals and performance measures, as well as for ensuring transparency on matters of social responsibility. The aim of the present research paper is to gain insight into the complex construct of CSR and to understand the interconnections with corporate sustainability. In this regard, a bibliometric analysis was conducted on Web of Science (WOS). The resulting sample data was processed, presented, and analyzed with the VOSviewer and Excel software. Based on both, the literature review and bibliometric analysis, some notable conclusions can be drawn: emphasis on the circular economy as indicative of a transition towards more sustainable and resource-efficient business practices; advancement of sustainability oriented innovation; the role of reporting and disclosure practices in ensuring transparency and adherence to global standards; promotion of sustainability values and business ethics principles to ensure that organizations act responsibly towards society and the environment; and the importance of leadership and human resource management as important drivers in both the implementation of CSR initiatives and transformation towards organizational sustainability. The findings of the present study are of value to both the academic and research community, as well as for practitioners in the field.

**Keywords:** circular economy, corporate social responsibility, corporate sustainability, sustainability, performance

**JEL classification:** C55, L25, M10, M14, Q56

## 1. Introduction

Businesses today are uniquely positioned to pursue and achieve sustainability, given their ability to oversee a wider range of capabilities and resources than any other entity, including stakeholders (Geissdoerfer et al., 2017, p.764; Gorski & Dumitrașcu, 2024).

In response to the recent challenges, threats, and opportunities that organizations are facing, an increasing number these entities are integrating a range of concepts, including corporate social responsibility (CSR), business ethics, corporate citizenship, accountability, and sustainability, into their strategic agendas (Fatima & Elbanna). These concepts extend beyond mere philosophical or theoretical considerations to encompass tangible actions, with businesses adopting and integrating them into their core mission statements, thereby becoming inextricably linked to their organizational identity (Carroll, 2015, p. 95).

CSR is currently a popular concept, with many similar or identical approaches, meanings, names and terms emerging in its wake (Munro, 2020). These include social responsibility, corporate responsibility, corporate social performance (CSP), responsible business, corporate societal responsibility, corporate citizenship, business citizenship, sustainable and ethical business, sustainable

<sup>1</sup> andra.teodora.gorski@gmail.com

<sup>2</sup> mihai.toma.int@gmail.com

responsible business (SRB). Moreover, it shares significant conceptual overlap with related concepts such as organizational sustainability, business sustainability, corporate sustainability, firm sustainability or enterprise sustainability.

The ability to recognise and comprehend the convergence of economic, environmental, and social interests and to achieve all three (Wang et al., 2020), represents a significant challenge for organizations of all types in the context of growing concerns regarding sustainability and sustainable development. In this regard, CSR serves as a unifying framework for addressing some of the most pressing current and future opportunities and challenges (Ásványi & Zsóka, 2021). The inherently multifaceted nature of the issues addressed by CSR has resulted in a proliferation of definitions of the concept, as proposed by academics, researchers, and practitioners alike (Roszkowska-Menkes, 2021). A substantial body of literature and a multitude of definitions pertaining to the topic can now be found in the fields of study concerned with it. Rather than attempting to provide yet another definition of CSR, this paper aims to gain insight into the complex construct of CSR, the significance of integration into organizational strategy, and the interconnections with sustainability at the organizational level, among other factors.

It is important to emphasise that the present paper is part of an extensive and complex research on topic “corporate sustainability”. A strategic approach to CSR is of particular importance for achieving organizational goals and performance, as well as for ensuring transparency and communicating the social responsibility efforts of organizations (Gorski & Gorski, 2021).

The aim of the present research paper is to analyse the role of CSR in the context of corporate sustainability. To achieve this scope, the following specific objectives were set forth:

- (1) To examine how CSR is conceptualized within the framework of corporate sustainability;
- (2) To examine the concepts connected with CSR;
- (3) To identify the most prevalent and influential concepts in CSR literature;
- (4) To analyse the evolution of the key concepts associated as well as the trends within CSR research.

A bibliometric analysis was conducted employing Web of Science (WOS), a comprehensive database of scientific literature, with the specific aim of addressing this issue. In order to process and present maps based on the resulting sample data exported from WOS, VOSviewer software was employed. As a means of addressing the previously outlined objectives, three distinct types of maps were developed:

- Density Visualization: This was used to identify areas of concentrated research activity and to highlight the most prominent themes within the field.
- Network Visualization: This was employed to map and display the complex relationships between the keywords.
- Overlay Visualization: This was used specifically to track the emergence and evolution of key concepts over time, based on the publication year.

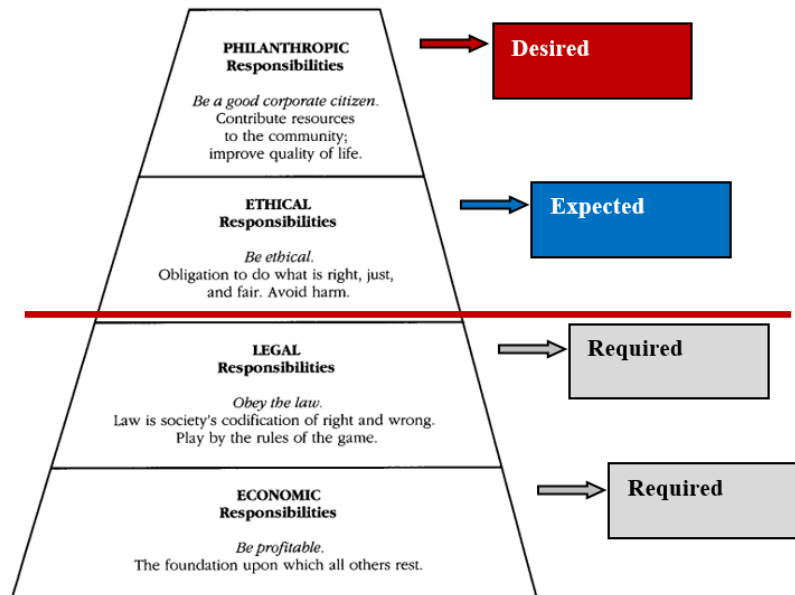
The methodology outlined in this paper provides a structured and rigorous approach to the analysis of the intersection between corporate social responsibility (CSR) and corporate sustainability. It offers valuable insights and delineates potential areas of future research in this field.

## 2. Literature review

In 1991, Carroll presented a conceptual model of organizational responsibilities comprising four distinct types, represented in the shape of a pyramid. This illustrative and readily comprehensible representation, which remains relevant over time, identifies four types of responsibilities — economic, legal, ethical, and philanthropic — that organizations should prioritize in order to act in a socially responsible manner (Figure 1). Carroll's framework posits that economic responsibilities as the foundation of a sustainable organization, with financial stability being a prerequisite for success and development. Subsequently, businesses are subject to legal and regulatory frameworks, which are designed to ensure the legitimacy of operations and business development. Furthermore, they are

expected to operate in an ethical manner in relation to all stakeholders. Finally, businesses are called upon to act as responsible corporate citizens, contributing to the development of the communities in which they operate.

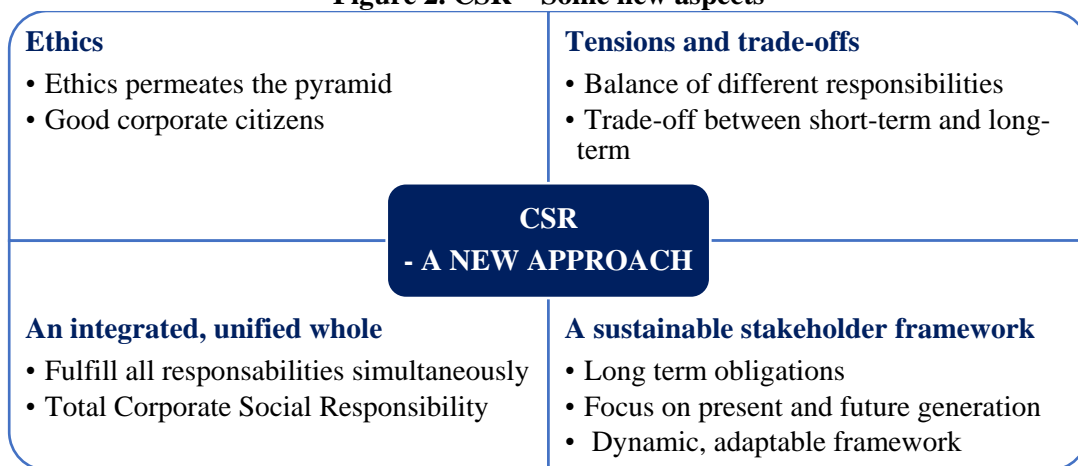
**Figure 1. Carroll’s Pyramid of CSR**



Source: Authors processing based on Carroll (1991)

A new perspective regarding the responsibility pyramid was subsequently introduced (Carroll, 2016), emphasizing several other interesting aspects that are particularly relevant to the CSR topic (Figure 2).

**Figure 2. CSR – Some new aspects**



Source: Authors processing based on Carroll (2016)

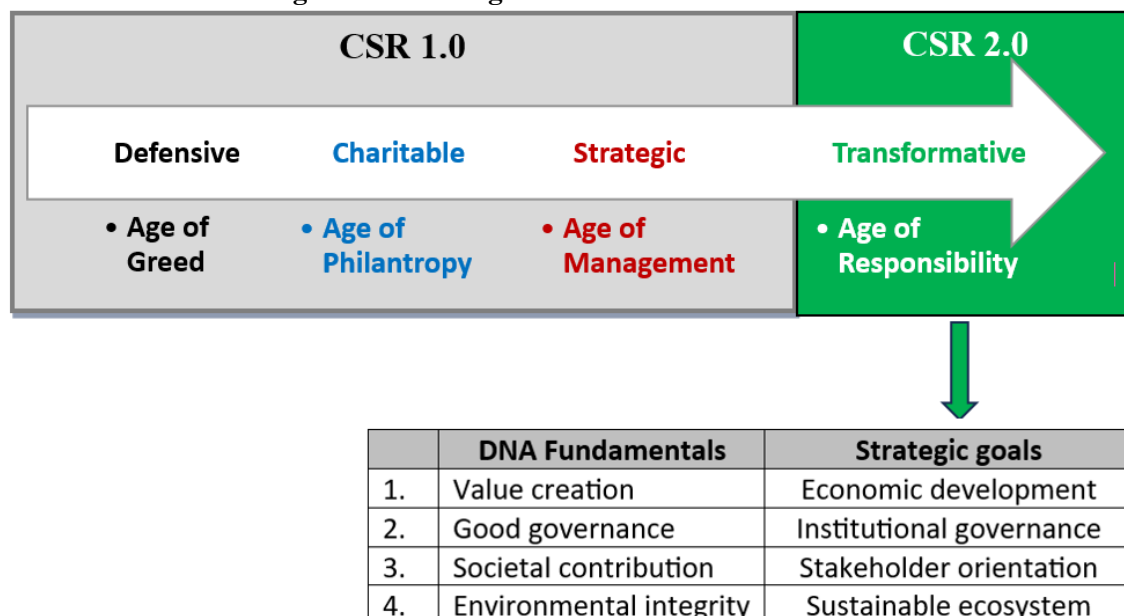
In a recent contribution to the field, Lu and colleagues (2020) put forth a revised conceptualisation of the CSR pyramid, incorporating an environmental dimension into the four traditional dimensions (economic, legal, ethical, and philanthropic). It is thought that this approach will have an impact on organizational performance and is considered to be essential for sustainable development and long-term competitive advantage. Moreover, the authors emphasise that the advent of Industry 4.0, cleaner production, and the circular economy present invaluable opportunities for the

enhancement of environmental management and production efficiency, thereby contributing to sustainable development.

It is widely acknowledged that Industry 4.0 plays a pivotal role in transforming enterprises into "smart factories". This CSR framework, which incorporates an environmental dimension, enables these "smart" companies to achieve not only economic, ethical, and social responsibility but also environmental sustainability.

In the context of the challenges associated with the "Age of Responsibility," Visser has proposed a transformative approach to CSR (Visser, 2014). The author puts forth that if the objective of CSR was to address social and environmental issues, then it has ultimately been unsuccessful. Visser addresses the stages of CSR, from CSR 1.0 (defensive, charitable, promotional, and strategic) to CSR 2.0 (transformative). The author puts forth the argument that CSR 2.0, which is also referred to as Transformative CSR, Systemic CSR, Radical CSR, or Holistic CSR, represents a holistic model. In CSR 2.0, the fundamental principles of the DNA model – value creation, good governance, societal contribution, and environmental integrity – are presented in correlation with the strategic objectives, namely economic development, institutional governance, stakeholder orientation, and sustainable ecosystem (Figure 3).

**Figure 3. CSR stages – From CSR 1.0 to CSR 2.0**



Source: Authors processing based Visser (2014)

In the contemporary business environment, which is characterised by a shift towards collaborative practices, organizations are increasingly networked with a diverse range of business partners. In this context, it is no longer feasible to examine corporate social responsibility (CSR) from the standpoint of a single entity. Rather, it must be considered in the context of the entire supply chain and the extended business network (Eriksson et al., 2016, p.3).

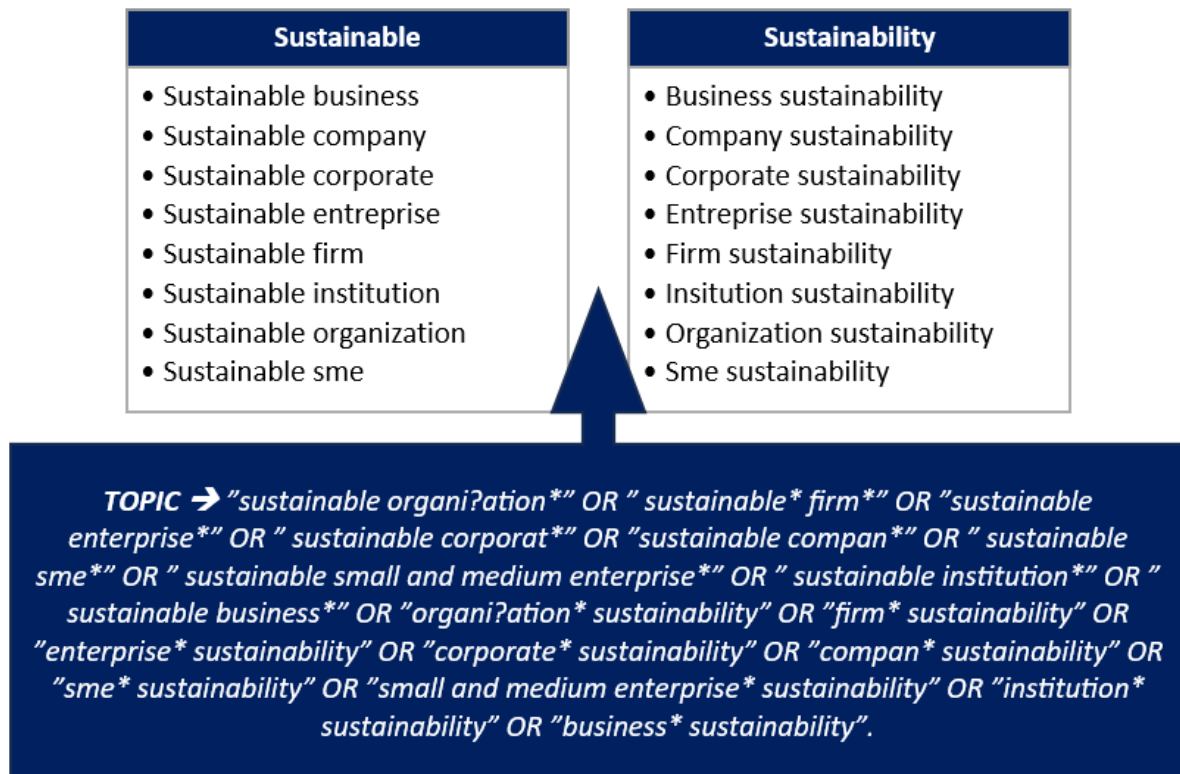
Sustainability is contingent upon the alignment of an organization's fundamental elements, including its values, strategy, goals, objectives, key performance indicators (KPIs), targets, and initiatives, with environmental and social considerations. Additionally, the integration of sustainability objectives into corporate social responsibility (CSR) initiatives has the potential to foster shared value creation by generating positive economic, social, and environmental impacts (Ranf et al., 2024).

### 3. Results and discussion

The search on topics related to "sustainable organization" was conducted using the WoS database. In this regard, all types of entities were considered, including company, corporate, enterprise,

firm, institution, organization, and SME, in conjunction with other two keywords - "sustainable" and "sustainability". For all types of entities, both singular and plural forms were included, and the asterisk symbol ("\*") has been used to indicate this (Figure 4).

**Figure 4. WoS search on "sustainable organization" topic**



Source: Authors processing

The search yielded a sample of 10,218 documents, 9,378 of which were in English. The data set was exported in text format in batches of 500, subsequently merged, and the resulting file imported into the VOSviewer software for further processing and analysis. Following the loading of the thesaurus file, a total of 22,965 keywords were identified. Given the considerable number of keywords, a decision was taken to retain only those with more than ten occurrences. Therefore, research was conducted using bibliometric maps based on 910 keywords that met this criterion (more than ten occurrences).

As illustrated in Figure 5, several key concepts that are central to the current research topic are clearly delineated. The keywords in question are situated in close proximity to one another and are represented in terms of size in a manner that reflects their high frequency of occurrence. Thus, the keywords "management" (Occ.: 1,362), "performance" (Occ.: 1,538), and "corporate sustainability" (Occ.: 1,452) are positioned centrally, adjacent by terms directly related to sustainability: "sustainability" (Occ.: 1,963), "CSR" (Occ.: 1,421), and social responsibility (Occ: 574).

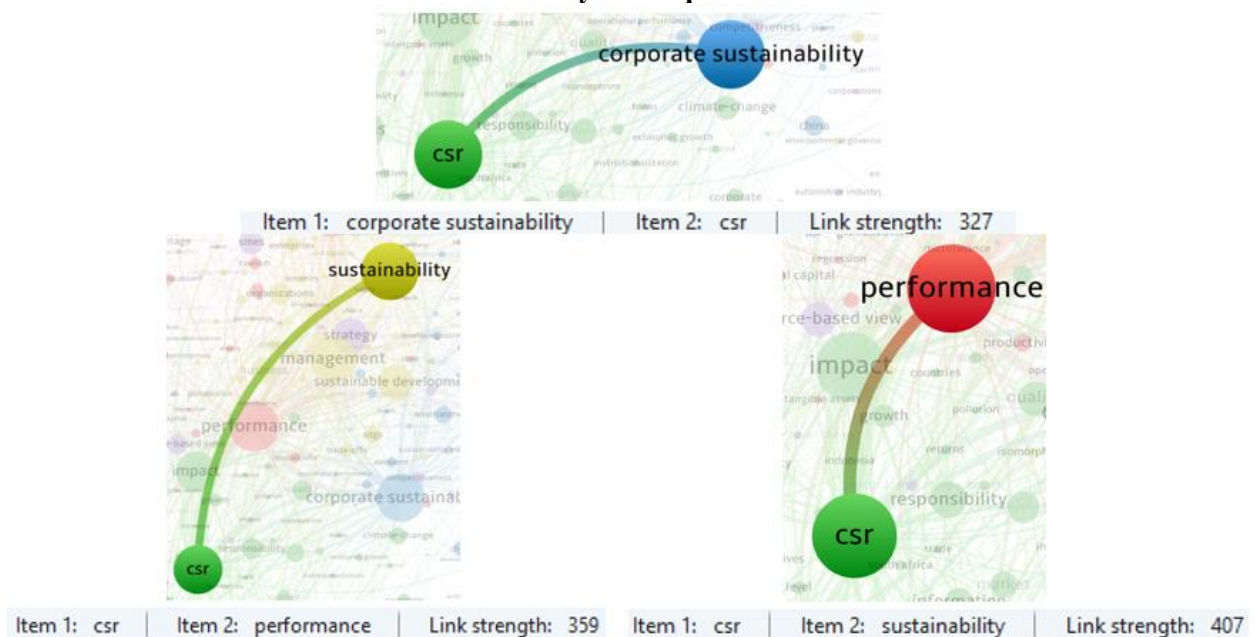


As can be observed in Figure 6, in the context of the research topic, CSR has links with keywords from the same cluster, but also from different clusters:

- **Cluster 1 (red)** – "performance", "model", "business sustainability", "sustainable business", "business ethics", "ethics", "orientation", "commitment", "leadership", "human resource management", "behavior", "values", "customer satisfaction", "engagement", "mediating role", and so on;
- **Cluster 2 (green)** – "impact", "social-responsibility", "responsibility", "firm performance", "financial performance", "environmental performance", "climate-change", "sustainable performance", "governance", "corporate governance", "ownership", "investment", "legitimacy", "accountability", "stakeholders", "stakeholder engagement", "reporting", "gri", "sustainability reports", "sustainability reporting", "disclosure", "environmental disclosures", "nonfinancial disclosure", and so on;
- **Cluster 3 (blue)** – "corporate sustainability", "triple bottom line", "green", "environment", "environmental management", "environmental sustainability", "indicators", "performance measurement", "balanced scorecard", "framework", "integration", "implementation", "barriers", "systems", "industry", "supply chain", "supply chain management", and so on;
- **Cluster 4 (yellow)** - "sustainability", "sustainable development", "management", "innovation", "sdgs", "circular economy", "business model", "sustainable business model", "design", "challenges", and so on;
- **Cluster 5 (magenta)** – "strategy", "resource-based view", "competitive advantage", "drivers", and so on.

In the context of the research topic, there is particular interest in the link strength (LS) between "csr" and three other concepts – "performance", "corporate sustainability", and "sustainability". These can be identified in the Network Map (Figure 6) and represented individually as links between two terms (Figure 7).

**Figure 7. Link Strengths between “csr” and three important keywords: “corporate sustainability”, “sustainability” and “performance”**



Source: Authors processing in VOSviewer

For the same purpose - based on the VOSviewer data - a summary chart was created in Excel, containing the terms for which the links (LS) with "csr" are greater than 100 (Figure 8).





and light orange colour scheme: "strategy", "supply chain", "supply chain management", "management", "performance", "framework", "model", "perspective", and "innovation", among others. As new concepts emerge after 2020, they are highlighted in red and presented in Table 1. The terms highlighted in purple, blue, and green as part of the Overlay Visualization based on the APY are specific to the year 2017 and, as a result, are considered to be 'older terms'.

**Table 1. Novel concepts in the CSR Map (after 2019)**

No	Keyword	Cluster	Occ.	Links	TLS	APY
1	esg	2	75	178	486	2021.17
2	sdgs	4	166	393	1,240	2020.61
3	mediating role	4	117	301	1,056	2020.33
4	circular economy	4	278	429	2,205	2020.27
5	empirical evidence	2	92	288	888	2020.20
6	firm value	2	52	153	446	2019.90
7	barriers	3	376	1,433	166	2019.70
8	drivers	5	133	341	1,183	2019.66
9	engagement	1	112	314	880	2019.54
10	ownership	2	120	269	966	2019.49
11	impact	2	1,000	788	8,235	2019.40
12	sustainable business model	4	327	451	2,305	2019.39
13	stakeholder engagement	2	98	301	877	2019.34
14	quality	2	240	496	1,852	2019.33
15	firm performance	2	335	544	2,962	2019.29
16	governance	2	477	611	3,961	2019.09

Source: Authors processing in Excel with data from VOSviewer

From the perspective of the novelty of the terms directly related to corporate social responsibility (CSR) on the map, it can be observed that there are a total of 16 terms, which are highlighted in the table in descending order of APY. The terms "esg", "sdgs", "mediating role", "circular economy", "empirical evidence", "firm value", "barriers", "drivers", "engagement", "ownership", "impact", "sustainable business model", "stakeholder engagement", "quality", "firm performance" and "governance" are also prominent in the extant literature. As can be observed, four of the terms in question are dated after 2020. In terms of novelty, the most recent term is ESG (APY: 2021.17, Occ: 75), followed by two other highly significant and well-represented concepts in terms of frequency of occurrence: Sustainable Development Goals (SDGs) (APY: 2020.61, Occ.: 166) and mediating role (APY: 2020.33, Occ.: 117), both of which merit mention in this context.

Furthermore, an analysis of the map and table according to the occurrence of the concepts reveals that "impact" is the most significant (Occ.: 1,000, APY: 2019), followed by "governance" (Occ.: 477, APY: 2019.09), "barriers" (Occ: 376, APY: 2019.70) and "sustainable business model" (Occ: 327, APY: 2019.39).

#### 4. Conclusions

A bibliometric analysis has yielded several notable conclusions for both the academic and research communities, as well as for practitioners within this field. In order to facilitate a more coherent understanding, the keywords appearing in the CSR map can be grouped according to the author's opinion into the following six categories, which are presented in the following section.

- **CSR and Performance:**

- ✓ *Business and Performance* – performance, firm performance, financial performance, environmental performance, sustainable performance;
- ✓ *Performance Measurement* – indicators, performance measurement, balanced scorecard.

- **CSR and Sustainability:**
  - ✓ *Business and Sustainability* – business sustainability, sustainable business, corporate sustainability, sustainability, sustainable development, sustainable business model, social responsibility, responsibility, triple bottom line;
  - ✓ *Reporting and Disclosure* – sustainability reports, sustainability reporting, environmental disclosures, nonfinancial disclosure, GRI (Global Reporting Initiative), SDGs (Sustainable Development Goals);
  - ✓ *Environmental Management* – circular economy, environmental management, environment, climate change, green, environmental sustainability.
- **CSR, Stakeholders, Ethics and Governance:**
  - ✓ *Business and Stakeholders* – stakeholders, stakeholder engagement, customer satisfaction, trust; supply chain, supply chain management;
  - ✓ *Business and Ethics* – Business ethics, ethics, values;
  - ✓ *Governance* – Governance, corporate governance, ownership, legitimacy, accountability, reporting, disclosure.
- **CSR, Management, Strategy, Innovation, Leadership, Human Resource:**
  - ✓ *Management and Leadership* – an essential keywords in the map;
  - ✓ *Human resource* – human resource management, behavior, engagement, commitment;
  - ✓ *Strategic and systemic approach* – strategy, systems, model, framework, design, integration, implementation, impact, challenges, orientation;
  - ✓ *Innovation* – product innovation, service innovation, social innovation, sustainability innovation, sustainable innovation, green innovation, eco-innovation, environmental innovation, technological innovation, model innovation, business model innovation, sustainable business model innovation, open innovation (all these types are present in the general map);
  - ✓ *Mediating role* – Although a clear relationship exists between CSR and performance, it is possible that this relationship may be moderated or amplified by the mediating role of other factors. This suggests that indirect factors, such as leadership, commitment or managerial practices, may affect the success of CSR strategies in improving overall performance.
- **CSR and other specific concepts:**
  - ✓ Competitive advantage, resource-based view;
  - ✓ Barriers, drivers.

The bibliometric analysis demonstrates that CSR encompasses numerous aspects of business performance and sustainability, thereby promoting an integrated approach to organizational accountability. In terms of "performance", the CSR map covers different themes, including those relating to the "firm performance", "financial performance", "environmental performance", and "sustainable performance". "Performance measurement", "indicators" and performance management "systems" or "frameworks" – such as "balanced scorecard" - are all aimed at achieving sustainable outcomes. In the context of "climate change", there has been a notable increase in interest surrounding topics such as "green" transition, "environmental management", and "environment sustainability".

The concept of "sustainability" is a central element for CSR, with an explicit focus on the "triple bottom line" approach. The emphasis on the "circular economy" is indicative of a transition towards more sustainable and resource-efficient business practices. The promotion of "innovation", particularly in the advent of the "circular economy", requires the development of dynamic frameworks and the integration of CSR into organizational practices in a responsive manner. Furthermore, the integration of CSR into "industry" practices and "supply chain management" underlines the comprehensive and interconnected nature of CSR initiatives aimed at long-term impact and investment in a sustainable future. Moreover, the advent of "innovation" provides businesses with the chance to play an integral role in the transition to a sustainable economy. It also offers a platform from which to enhance "corporate

sustainability” and gain a “competitive advantage” in an environment where “green” consciousness and responsible practices are on the rise. In this regard, “innovation” is a pivotal factor in the advancement of CSR, exerting a considerable influence on the long-term sustainability and prosperity of an organisation.

The role of “reporting” and “disclosure” practices, such as “sustainability reports” and “environmental disclosures”, is of great consequence in ensuring transparency and adherence to global standards, such as the “gri” and “sdgs”. Furthermore, “values” and “business ethics” principles ensure that organizations act responsibly towards society and the environment. “Governance” and “corporate governance” ensure “accountability”, “transparency”, and “legitimacy” with regard to the management of an organisation. This includes aspects such as “ownership”, “reporting”, and “disclosure”, which are essential for fostering “stakeholder engagement”, “commitment” and “trust” in organizational integrity.

“Leadership” and “human resource management” assume a central role in the implementation of CSR initiatives. Moreover, a successful “integration” of “sustainability” at organizational level requires a “strategic management” approach. In order to effectively implement CSR strategies, it is crucial to acknowledge the “drivers”, but especially the “barriers”. Implementing CSR initiatives to assure “business sustainability” or “corporate sustainability” is not a simple undertaking and it requires the implementation of new “sustainable business models”.

The analysis of keywords with APY after 2020 reveals the emergence of novel interest regarding the concept of a “circular economy”, which is the most prominent, followed by the concepts of “mediating role”, “sdgs”, and “esg” (in terms of occurrences). This underscores the evolving focus and significance of these concepts in the context of contemporary CSR and corporate sustainability research. Finally, it is essential to emphasise that core “values” should shape an organisation's priorities, “strategy”, “leadership”, “behavior”, and operational activities. “Ethics” and “business ethics” should be derived from moral principles in order to guide legal and fair decision-making towards more sustainable and equitable outcomes for all categories of present and future stakeholders.

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