Corporate sustainability and financial performance: A hybrid literature review

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Abstract
The discussion of “whether it pays to be green” is ongoing. This review does not intend to solve the debate, rather it soothes it by contributing to the concept of “when it pays to be green.” By focusing on the shortcomings of existing literature reviews on the topic of corporate sustainability and financial performance (CSFP) in this hybrid review, issues were identified that had been overlooked earlier. In general, CSFP holds a positive relationship but in a time lag. Nonconclusive results about the relationship within CSFP are due to self-selection bias, endogeneity issues, and the use of multiple datasets and industry categories. Surprisingly, we also discovered that the impact of sustainability on financial performance is elusive in capitalist countries considered to be economically rational. Institutional and legitimacy requirements are a good starting point for shaping corporate behaviors in the short term; however, they might not be equally appropriate in the long term in cases when corporations shift operations to pollution havens. A multifaceted, synergistic interaction between governmental institutions, corporations, and other stakeholders is required—without imposing authority—to ensure durable sustainable development.

KEYWORDS
bibliometric analysis, corporate performance, corporate responsibility, CSR, ESG, financial performance, literature review, stakeholder engagement, sustainability, sustainable development

1 | INTRODUCTION

The debate of “whether it pays to be green” has not been resolved. Nor does this paper intend to resolve it. Rather, this literature review contributes to the concept “when it pays to be green.” The corporate sustainability and financial performance (CSFP) relationship has been researched for several decades gaining momentum in the recent past. The main reason for such an increase has been due to an increasing awareness of safeguarding the environment from devastating corporate actions. Corporations’ negative impacts have resulted in recent global warming, major wildfires, and the melting of arctic ice (Pannett, 2022; Tolliver et al., 2020). Corporate sustainability is a multifaced, versatile action with the potential to alleviate metaphorical pain, which makes the concept popular. To strike a balance between shareholders and stakeholders’ notions there is little other option but to embrace sustainability strategies in business decision-making. In operational terms, sustainability strategies can impact financial performance in multiple ways. For example, cost savings (via energy efficiency) and higher yields—sustainable goods and services attract environmentally-conscious stakeholders. Sustainable firms are also in a better position to manage risks. Effective (sustainability) risk management reduces the probability of costly environmental or legal liabilities. In addition, sustainable firms are more likely to improve brand reputation, which in turn can lead to increased customer loyalty (Dal Maso et al., 2023).
Thus far, sustainability, with its multiple meanings, has been used as a buzzword both in academia and practice. The most common and relevant definition of corporate sustainability can be described as implementing business strategies and activities that meet the present needs of companies and their stakeholders while protecting, sustaining, and improving human and natural resources to meet future needs (Adopted from the report Brandtland, 1987). Ecological, social, governance, and economic sustainability all beg to align with this definition. Many earlier studies described sustainability as corporate social responsibility (CSR) (See, e.g., Coelho et al., 2023; Kim et al., 2023). Whereas we consider CSR only as a part of all sustainability actions. Dahlsrud (2008) identified 37 different definitions of CSR; the most common definition outlines a company’s interaction with stakeholders and its voluntary communication of social and environmental information. To achieve holistic sustainability, companies need to strive for ecological, social, governance, and economic dimensions of sustainability consistently through their business-as-usual activities and not just part of voluntary activities as in CSR. In our analysis, only a few articles focused on this holistic view of sustainability, whereas others applied many related definitions, such as sustainable development, CSR, green innovation, and climate change (Dahlsrud, 2008; Gallego-Alvarez et al., 2014; Tang et al., 2016). In general, early research on the topic of CSFP considered only a one-way relationship between corporate sustainability and financial performance; however, the relationship might be multidirectional and shaped by several factors in the macro business environment. For example, Xiao et al. (2018) argue that country-level sustainability has an influence on CSFP where expectations of stakeholders depend on country characteristics. Disli et al. (2022); Setó-Pamies (2015); and Callan and Thomas (2011) argue that women’s participation on management boards and proper executive compensation reduce agency problems and affect the relationship nexus.

Contemporary research of corporate sustainability and financial performance lacks a comprehensive framework; therefore, previous research muddies the water and has produced mixed results—mostly positive but with a few reverse causalities, curvilinear, or paradoxical 1 nexuses when it comes to explaining the relationship in CSFP. This bibliometric (hybrid) review 2 offers a comprehensive framework that aims to conceptualize the link within CSFP, and thereby guide future research agendas. Thus far, several reviews regarding CSFP have been published (i.e., Alshehhi et al., 2018; Goyal et al., 2013; Lu & Taylor, 2016; Ye et al., 2021). Nevertheless, these reviews do not consider or emphasize the intellectual structure 3 nor the evolution of the literature in the chosen field; moreover, none of these reviews followed the bibliometric literature review process. A recent review by Coelho et al., 2023 published in the journal Corporate Social Responsibility and Environmental Management (CSREM) applied only bibliometric co-citations analysis on the topic of social responsibility. However, the focus of our article is not only distinct, but we also employed bibliometric coupling and co-citations analysis to uncover the intellectual and conceptual structure of the field of CSFP. Our bibliometric process encompasses the collection of vast quantities of bibliographic data, which makes the study less susceptible to judgment bias (Elango, 2019; Zupec & Caté, 2015). Using the Bibliometrix package in R and VOSviewer software, as well as the qualitative content analysis approach, we identified research clusters, their historical development and current trends, which will help us to answer the following research questions:

1. What do the literature and theories suggest about the relationship between corporate sustainability and financial performance?

2. What are the factors affecting the relationship between corporate sustainability and financial performance?

3. How can the nexus between corporate sustainability and financial performance be conceptualized?

The main motivation for posing three research questions is to comprehend the literature and theories used to conceptualize the relationship between corporate sustainability and financial performance and to contribute to the discussion on when it pays to be green (King & Lenox, 2001; Orsato, 2009). Our review suggests that earlier literature considers that the relationship between sustainability and financial performance is solely dependent on corporate actions while ignoring macro business environmental factors that might impact the relationship. The outcome further suggests that under a favorable macro business environment, it pays to be green but in time lag. Corporate sustainability and financial performance are not solely dependent on corporate actions, rather, they are shaped, transformed, and modified by multiple actors in the trajectories of the macro business environment.

The remainder of the paper is designed as follows, Section 2 introduces the methodology and data extraction process. Section 3 deals with the results of the bibliometric and keyword co-occurrence analysis. In Section, 4 we exhibited the synthesis from the qualitative content analysis process. Finally, in Section 5, we discuss and conclude this review by recommending future research agendas.

2 | METHODOLOGY

To conceptualize the relationship, we examined the intellectual structure of the research field to identify the attributes of the knowledge base that can provide an organized and comprehensive understanding of the relationship within CSFP. With this aim in mind, we employed both bibliometric and content analysis in our methodology. The process is explained in depth throughout the subsections of Section 2.

2.1 | Bibliometric and content analysis: A hybrid analysis

There are different types of literature review processes that exist, from those with no rules to those with rigid rules (Massaro et al., 2016). In this study, we applied a process based on non-rigid rules, and we also

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1We mean paradoxical as self-contradictory.
2In this article, the terms hybrid, bibliometric, and systematic literature review are used interchangeably.
3Intellectual structure is defined as a “set of salient knowledge base attributes that can provide an organized and holistic understanding of the chosen scientific domain” (Shafique, 2013).
combined different literature review techniques including bibliometric coupling, citation analysis, keywords co-occurrence, and content analysis, all of which allowed us to answer the three research questions. In this regard, this study employs both quantitative and qualitative approaches of a literature review process, a hybrid approach. The qualitative approach of bibliometric review allows us to identify, describe, and evaluate published research on the chosen topic. We aim to provide transparent and reproducible search and review processes for improving the quality of the findings and to minimize personal biases in the article selection process (Bretas & Alon, 2021; Maditati et al., 2018; Zupic & Čater, 2015). In addition to the bibliometric analysis, we further applied the traditional qualitative content analysis approach, which helped us to summarize the selected articles based on the bibliometric coupling clusters. Manual assessment of the selected articles helps us to find trends, focus, critique, and emphasis in the research field. This technique is helpful for gaining sufficient insights and confidence into the field of CSFP. This enabled us to both track hot and blind spots in the research field and to direct future research agendas. In addition, we followed the suggestion from Gaur and Kumar (2018) that mixing content analysis with other methods ensures the greatest possible benefit from the review process.

In this paper, we used Biblioshiny (built on R software) and VoS viewer software that allowed us to identify performance citations of the relevant studies, most contributing authors, and the journals. Further, with the help of Biblioshiny, we analyzed data through the bibliographic coupling technique to describe the intellectual structure and evolution of the literature in the chosen field. Bibliometric coupling is one of the most used techniques which identifies the similarity between two documents using the number of references shared among them (Bretas & Alon, 2021; Elango, 2019; Zupic & Čater, 2015). Application of this technique helped us to identify three clusters in this literature review process. Finally, we conduct a content analysis to gain a better understanding of the intellectual and conceptual structures of the research area. This assessment helped us to examine the literature, which cannot be achieved alone through bibliometric techniques.

### 2.2 Data extraction process

Like other studies, the methodology of a bibliometric literature review is crucial in order to produce scientific knowledge. Therefore, we carefully outlined the search protocol, selection and removal of articles, selection of impactful journals, as well as reliability and credibility of the literature review. For the purpose of bibliometric analysis, data were extracted from the Scopus database. The choice of selecting Scopus over the Web of Science (WoS) database was to cover more impactful articles that could contribute to answering research questions. Scopus has more than 20,000 peer-reviewed journals, including but not limited to the following reputed publishers: Elsevier, Emerald, Taylor and Francis, Springer. WoS only covers 12,000 journals which are indexed in ISI (International Scientific Indexing) journals (Bretas & Alon, 2021).

In the next step of the data extraction process, following the protocol of systematic literature review, the four authors together discussed and defined suitable keywords for the review study. Database search and extraction of data were conducted in September 2022. We considered the following search term “sustainability” for capturing variations of the term such as “sustainable” and “sustainability” (See Table 1). The use of the asterisk (*) helped us to find possible variations of the term. Because sustainability-related research is closely related to CSR, sustainability reporting, and environmental control, we extended the first part of the search using keywords like “CSR” OR “Social” OR “environment” OR “governance” OR “report” OR “sustainable development”. The purpose of step one of the search was to find articles that focused on corporate sustainability or environmental performance issues. Next the addition of “AND” provided the opportunity to find articles that focused on financial performance; hence, keyword combinations like the following were used: “financial performance” AND “performance management” OR “profitability” OR “organizational effectiveness.” This round of search results gave us a total of 1043 articles. In the remaining steps, we filtered for only articles published in English, as in “LANGUAGE, English:”. Also, in step two, we excluded typical review articles. In step three, a detailed examination of articles was performed. First, we read the title and abstracts to check whether the articles identified were suitable for the analysis. In this process, we removed a few critical review articles that had not been removed through the previous automatic filtering option. We also excluded articles that were not related to business, economics, finance, and accounting domains; for example, articles

<table>
<thead>
<tr>
<th>Step</th>
<th>Keyword combinations and search terms</th>
<th>No. of articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(“sustaina**” OR “CSR” OR “social” OR “environment” OR “governance” OR “report” OR “sustainable development”) AND (“financial performance” AND “performance management” OR “profitability” OR “organizational effectiveness”))</td>
<td>1043</td>
</tr>
<tr>
<td>2</td>
<td>TITLE-ABS-KEY(“sustaina**” OR “CSR” OR “social” OR “environment” OR “governance” OR “report” OR “sustainable development”) AND (“financial performance” AND “performance management” OR “profitability” OR “organizational effectiveness”)) AND (LIMIT-TO(SUBJAREA,”BUSI”) OR LIMIT-TO(SUBJAREA,”ECON”) OR LIMIT-TO(SUBJAREA,”SOCI”) OR LIMIT-TO(SUBJAREA,”ENV”) OR LIMIT-TO(SUBJAREA,”ARTS”) AND (EXCLUDE(DOCTYPE,”re”) AND LIMIT-TO(LANGUAGE,”English”))</td>
<td>838</td>
</tr>
<tr>
<td>3</td>
<td>Articles sorted based on title and abstract</td>
<td>720</td>
</tr>
<tr>
<td>4</td>
<td>Articles filtered for bibliometric analysis (between the years 2000 and 2021)</td>
<td>504</td>
</tr>
</tbody>
</table>

*The conceptual structure aims to structure the knowledge into research domains or topics and highlight the most frequently covered topics and identity trends.
from the domains of politics, medicine, physics and astronomy, mathematics, and chemistry. If the abstract did not provide enough information to verify these conditions, we read further to validate it. Finally, in step four, by restricting the search to a specific timeframe, we were left with 504 articles for bibliometric analysis published between the years 2000 and 2021.

After weeding out and cleaning the data, we ran a bibliometric coupling analysis. The result of the analysis was filtered based on total global citations (TGCs) and journal rankings. The application of this approach has widely been used in previous bibliometric reviews (Alon et al., 2018; Maditati et al., 2018). The articles were filtered based on more than five TGC and journal rankings. Here, journal rank means those journals listed in the (C)ABS (Chartered Association of Business Schools) list. After applying TGC and journal ranking criteria, a total of 38 articles were identified for the content analysis. We read and evaluated the articles thoroughly, and as part of the coding process, we created a concept matrix based on three coupling clusters.

3 | BIBLIOMETRIC ANALYSIS

The aim of this paper is to find emerging themes of the relationship within CSFP that may guide the future research agenda; therefore, we applied both the bibliographic coupling and the keyword co-occurrence techniques under the bibliometric trajectory (Bretas & Alon, 2021).

3.1 | Initial data statistics

The initial sample consisted of 504 articles written by 1596 authors with an increase in the growth rate of the number of articles produced annually of 12.56 percent. In addition, the average global citation per document was calculated as 22.39. The oldest article was published in 2000 and the newest in 2021. Most of the documents were written by two or more authors. Figure 1 shows article production and citation details over the years; the number of articles (N) started rising from 2009 with a sharp rise of production observed between 2016 and 2021. Contrastingly, mean citations per article (MeanTCperArt) decreased during the same time span. A citation burst per article was also visible between 2000 and 2001.

3.2 | Bibliographic coupling

Figure 2 represents a network of bibliometric coupling within the field of corporate sustainability and financial performance. In the coupling analysis, output gave us a total of three clusters. Here, the node symbolizes the documents and the edge connected via bibliographic couplings. With the help of this analysis, clusters have been identified in the following order (clockwise): Red = Cluster 1, Green = Cluster 2 and Blue = Cluster 3. Table 2 represents the top 10 authors within the three clusters according to their global citation ranking.

3.3 | Keywords co-occurrence

Keywords co-occurrence analysis help to reveal the thematic structure of the field. Donthu et al. (2021) argued that keywords express the article’s important terms and help to build the intellectual theme and
TABLE 2 Ten most cited articles as applied to journal ranking.

<table>
<thead>
<tr>
<th>TGC</th>
<th>Authors with year</th>
<th>Journal name</th>
<th>Title</th>
<th>ABS ranking</th>
<th>Cluster</th>
</tr>
</thead>
<tbody>
<tr>
<td>284</td>
<td>(Ortiz-de-Mandojana &amp; Bansal, 2016)</td>
<td>Strategic Management Journal</td>
<td>The long-term benefits of organizational resilience through sustainable business practices.</td>
<td>4*</td>
<td>3 (Green)</td>
</tr>
<tr>
<td>206</td>
<td>(Crittenden et al., 2011)</td>
<td>Journal of the Academy of Marketing Science</td>
<td>Market-oriented sustainability: a conceptual framework and propositions.</td>
<td>4*</td>
<td>1 (Red)</td>
</tr>
<tr>
<td>200</td>
<td>(Callan &amp; Thomas, 2009)</td>
<td>Corporate Social Responsibility and Environmental Management</td>
<td>Corporate financial performance and corporate social performance: an update and reinvestigation.</td>
<td>1</td>
<td>1 (Red)</td>
</tr>
<tr>
<td>187</td>
<td>(Trumpp &amp; Guenther, 2017)</td>
<td>Business Strategy and the Environment</td>
<td>Too little or too much? Exploring U-shaped relationships between corporate environmental performance and corporate financial performance.</td>
<td>3</td>
<td>2 (Blue)</td>
</tr>
<tr>
<td>174</td>
<td>(Seto-Pamies, 2015)</td>
<td>Corporate Social Responsibility and Environmental Management</td>
<td>The relationship between women directors and corporate social responsibility.</td>
<td>1</td>
<td>1 (Red)</td>
</tr>
<tr>
<td>160</td>
<td>(Przychodzen &amp; Przychodzen, 2015)</td>
<td>Journal of Cleaner Production</td>
<td>Relationships between eco-innovation and financial performance—evidence from publicly traded companies in Poland and Hungary.</td>
<td>2</td>
<td>2 (Blue)</td>
</tr>
<tr>
<td>153</td>
<td>(Xie et al., 2019)</td>
<td>Business Strategy and the Environment</td>
<td>Do environmental, social, and governance activities improve corporate financial performance?</td>
<td>3</td>
<td>1 (Red)</td>
</tr>
<tr>
<td>107</td>
<td>(Moneva et al., 2007)</td>
<td>Industrial Management &amp; Data Systems</td>
<td>The corporate stakeholder commitment and social and financial performance</td>
<td>2</td>
<td>1 (Red)</td>
</tr>
<tr>
<td>100</td>
<td>(Hawn et al., 2018)</td>
<td>Strategic Management Journal</td>
<td>Do investors actually value sustainability? New evidence from investor reactions to the Dow Jones Sustainability Index (DJSI).</td>
<td>4*</td>
<td>3 (Green)</td>
</tr>
<tr>
<td>64</td>
<td>(Atan et al., 2018)</td>
<td>Management of Environmental Quality: An International Journal</td>
<td>The impacts of environmental, social, and governance factors on firm performance: Panel study of Malaysian companies.</td>
<td>1</td>
<td>3 (Green)</td>
</tr>
</tbody>
</table>

Structure of any research field. Figure 3 represents a network of keywords between 2000 and 2021 that appeared together in at least five articles. The size of a node indicates its occurrence as a keyword; the proximity and thickness of the lines connecting two keywords indicate how frequently they co-occur (Donthu et al., 2021). Three major clusters of keywords are identified based on the occurrence of keywords (i.e., red, green, and blue. See Figure 3). The three main clusters—red, blue, and green—are equally spread, and each color represents a thematic knot. The red cluster contains a set of connected terms, such as sustainable development, CSR, environmental performance, and performance management. The blue cluster relates to terms such as finance, investment, performance, and economics. The green cluster connects to terms like sustainability, corporate governance, environmental performance, and management. Notable, we condense the initially identified five clusters to three core clusters since a close relationship exists between the blue and the purple clusters and the yellow and the green clusters. See Figure 3 for details. From keyword occurrence analysis nodes, it is evident that sustainability, sustainable development, corporate governance, and environmental policy were the main areas of research in the field. These terms are directly or indirectly connected to measuring financial and business performance. This thematic map aids in conceptualizing the research agenda in the chosen field where macro-environmental mechanisms (e.g., environmental policy, taxation, institutional framework etc.) and governance mechanisms (corporate governance) relate to sustainability and sustainable development, as well as financial performance. This will be further explored in Figure 4.

4 CONTENT ANALYSIS AND DISCUSSION OF CLUSTERS

4.1 The red cluster (Cluster 1)—The impact of CSR and sustainability on financial performance and competitiveness

In Cluster 1 (red), a total of 13 articles have been categorized based on the bibliographic coupling analysis (see Table 3). Table 3 summarizes four identified streams outlining Cluster 1 (red), that is,
(a) Sustainability and competitive advantage; (b) Impact of Corporate Social Responsibility (CSR) on financial performance; (c) Impact of financial performance on social innovation; and (d) Board (gender) diversity and CSR. Two main streams are crystallized based on 11 of the 13 articles. These 11 articles outline the two streams: (a) Sustainability and competitive advantage and (b) Impact of Corporate Social Responsibility (CSR) on financial performance.

The main theme of Cluster 1 (red) is labeled as the impact of CSR and sustainability on financial performance and competitiveness. Except for one, all the articles (12 of 13) in the cluster employed quantitative analysis to determine the relationship’s nexus. Only Crittenden et al. (2011) used conceptual mapping by applying resource advantage theory to develop a market-oriented sustainability framework. In the article, the authors identified three factors that lead to corporate sustainability and a firm’s unique competitive advantage such as a company’s value-belief-behavioral norms (metaphorically called firm DNA), stakeholders’ involvement, and finally performance management mechanism. In short, firm intention, stakeholders’ involvement, and a proper mechanism for performance management can ensure a unique competitive advantage, ensuring sustainability and financial performance. In the same stream of (a) Sustainability and competitive advantage four more articles dealt with linking environmental and financial performance (Pislaru et al., 2019), relationships among executive compensation, financial performance, and CSR (Callan & Thomas, 2011), the impact of ESG disclosure on efficiency, financial, and market performance (Xie et al., 2019), and investor reactions to the sustainable (ethical) pension plan (Martí-Ballester, 2015). In brief, there are many factors that influence the relationship between corporate sustainability and financial performance; executive compensation is crucial to achieving a competitive advantage. In the next stream (b) Impact of Corporate Social Responsibility (CSR) on financial performance, most of the articles tried to identify the nexus between CSR on financial performance. The overall outcome to determine the relationship is paradoxical and non-conclusive. The main reason identified for such paradoxical and non-conclusive results is due to deploying a variety of econometric models (i.e., discriminant analysis, multiple regression, one-way ANOVA, panel vector error correction model [VECM], and generalized method of moments [GMM]). However, only a few dynamic econometric models, such as 3SLS and GMM, enable the use of instrumental variables (IV) to address the issue of endogeneity; otherwise, the results may be affected by incorrect inference. However, the last two research steams (c) and (d) identified a positive

In terms of theoretical investigation, many articles in Cluster 1 (red) investigate the issues using domain theories such as stakeholder theory, followed by agency, legitimacy, and resource advantage theories to argue the relationship between sustainability and/or CSR with corporate financial performance. Only Setó-Pamies (2015) used method theory as a critical mass theory to argue for a critical mass effect, or synergistic effect, in management boards due to the participation of women. While looking at the analytical method at Cluster 1 (red), a variety of econometrics models have been deployed by the authors. Due to the endogeneity issue, static econometric models used in Cluster 1 (red) are prone to incorrect inference. Because of non-randomness, the error term in the static statistical analysis might
be correlated with one or several independent variables, which may create bias in the form of omitted variables (Antonakis et al., 2010; Arora et al., 2020). Most of the studies did not check the robustness of their findings by applying different measures to identify the relationship. However, the overall outcome of deploying dynamic 3SLS and GMM is positive.

The main outcome of Cluster 1 (red) can be summarized as:

1. The literature suggests that corporate sustainability activities have an impact on financial performance and competitive advantage.
3. Executive compensation and women on boards reduced agency problems and play an important role in this regard.
4. CSR and its nexus with financial performance are paradoxical and nonconclusive.
5. Stakeholders, agency, legitimacy, and resource dependency theories are used to demonstrate the impact of corporate sustainability on financial performance.
6. Most of the econometrics models used in Cluster 1 (red) are static. Due to endogeneity, this could result in incorrect inference.

### 4.2 The green cluster (Cluster 2)—Factors influencing corporate sustainability and financial performance

Cluster 2 (green) is comprised of 13 articles based on coupling analysis and is further categorized into three research streams during the content analysis process. These research streams are (a) Influential factors affecting the relationship between sustainability and financial performance; (b) Sustainability and bank performance; and (c) Sustainability and financial performance. Table 4 summarizes the three streams. All the articles in Cluster 2 (green) applied quantitative analysis. The main theme of Cluster 2 (green) is labeled as Factors influencing corporate sustainability and financial performance. Streams are created based on the closest research themes of the selected articles. Stream (a) Influential factors affecting the relationship between sustainability and financial performance is made of six articles; the outcome is inconclusive. The outcome from this stream is not surprising; different authors tried to measure different aspects that affect the relationship between sustainability and financial performance. In this stream, Ortiz-de-Mandojana and Bansal (2016) are the most influential authors with 284 TGCs. The article deals with long-term business resilience through sustainable business practices; the authors argued that social and environmental practices ensure long-term resilience-related benefits, while any such resilience is difficult in the short term. Five more articles in this stream tried to identify other influential factors that might impact the relationship, such as the impact of appointing corporate sustainability executives on financial performance (Arora et al., 2020), the impact of socially responsible funds on corporate social performance (Gangi & Varrone, 2018), investor’s valuation of corporate sustainability (Hawn et al., 2018), the impact of country-level sustainability influence on corporate sustainability performance (Xiao et al., 2018), and finally the impact of cultural environment on environmental practices in manufacturing plants (Miras-Rodríguez et al., 2018).

In short, corporate sustainability and financial performance are not entirely dependent on company's sole activities; rather, there are multiple trajectories in the relationship, also including macro-environmental aspects, for example, the impact of country-level factors and cultural context (Tagesson et al., 2009). Investor valuation on sustainability plays a role in this regard.

In the next stream (b) Sustainability and bank performance, two articles in this cluster identify the relationship nexus. Laguir et al. (2018) investigated the link between corporate financial performance and corporate environmental performance among environmentally committed French banks and found a very strong bidirectional relationship. This relationship phenomenon may be common in the banking sector, since Weber, 2017 discovered a similar trend for Chinese banks. Gangi et al. (2019) further investigated 142 banks from 35 different countries and concluded that bank governance mechanism is influential on environmental engagement and such engagement stimulates banks’ CSR engagement and thereby reduces risk. Finally, in the last stream (c) Sustainability and financial performance, five more articles are categorized. Most of the articles emphasized clarifying the relationship nexus. In this regard, articles identified a positive relationship but contrarily Atan et al. (2018) identified an indifferent relationship for Malaysian companies. In this stream, Soytas et al. (2019) wrote a method article focusing on why the nexus of the relationship between corporate sustainability and financial performance is inconclusive. The authors exemplified many circumstances with the ordinary least squares (OLS) and instrumental variable (IV) regression approach, where endogeneity is a reason for the inconclusive result. Using many illustrations, the authors concluded that on average corporate sustainability increases financial performance. Finally, in the relationship nexus, Lawal et al., 2017; Nyame-Asiamah & Ghulam, 2019; Wong et al., 2014 identified that corporate social disclosure, CSR activities, and environmental reputation help to increase financial performance.

Like Cluster 1 (red), stakeholder’s theory prevailed in this cluster to argue for the association nexus followed by instrumental stakeholders, slack resources, and institutional and legitimacy theories. On the other hand, a few authors tried to apply different theories such as communications (Wong et al., 2014), trade-off, and eco-efficiency (Miras-Rodríguez et al., 2018) and neoclassical economics (Arora et al., 2020) theories. The former is applied to accounting and finance literature and the latter to marketing and operations management literature. In terms of analysis, a wide range of econometrics models have been applied in the Cluster 2 (green), but event studies, regressions, factor analysis and structural equation modeling are the most common. Most of the authors in this cluster check for the robustness of findings; among them, only a few authors, such as (Arora et al., 2020; Gangi et al., 2019; Laguir et al., 2018; Soytas et al., 2019) applied the instrumental variable approach (IV) to address the issue of
endogeneity, time-varying unobserved confounders and omitting unobserved variables to avoid incorrect inference. In the cluster, a few authors only applied univariate and bivariate analysis, that is, Gangi & Varrone, 2018; Nyame-Asiamah & Ghulam, 2019. These analyses may lead to a wrong conclusion as the relationship might not be linear and ignore self-selection bias and endogeneity issues (Achen, 2005; Balcaen & Ooghe, 2006; Maiga & Jacobs, 2011). Endogeneity, unobserved confounders, and omitting variables issues can also emerge in studies that only used static econometrics models for both primary analyses and robustness validation, that is, Atan et al., 2018; Xiao et al., 2018.

The main outcome of the Cluster 2 (green) can be summarized as:

1. There are many factors affecting corporate sustainability and financial performance such as country-level sustainability performance, the appointment of sustainability executives, and investor’s valuation of corporate sustainability efforts.
2. In the long run, the corporate sustainability outcome is more resilient and evident. But in the short run, the effect of sustainability might not be visible.
3. The relationship of sustainability and financial performance is reciprocal and very strong for banks due to the slack resource effect. Proper governance and CSR reduce bank’s financial and reputational risks.
4. Nonconclusive result of corporate sustainability and financial performance is due to self-selection bias and endogeneity issues. In addition to that, it might be due to the various datasets used and the various industry categories that might be analyzed.
5. Stakeholder’s theory prevailed in this cluster followed by slack resources, institutional and legitimacy theories.

### TABLE 4

Summary of Cluster 2 (green)—Factors influencing corporate sustainability and financial performance.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Streams</th>
<th>Authors journals (TGC)</th>
<th>Type of analysis</th>
<th>Method</th>
<th>Theories</th>
<th>Main outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>a. Influential factors affecting the relationship between sustainability and financial performance</td>
<td>(Arora et al., 2020) JOM (15)</td>
<td>Quantitative</td>
<td>Event study and regression analyses</td>
<td>Neoclassical economic theory</td>
<td>Positive</td>
</tr>
<tr>
<td>2</td>
<td>b. Sustainability and bank performance</td>
<td>(Gangi &amp; Varrone, 2018) JCP (25)</td>
<td>Non-parametric test</td>
<td>Stakeholder theory, agency theory</td>
<td>Negative (a lower level of CSP)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>c. Sustainability and financial performance</td>
<td>(Hawn et al., 2018) SMJ (100)</td>
<td>Event study and regression analysis</td>
<td>Shareholder theory, neo-institutional theory, CSR theory</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>(Xiao et al., 2018) EE (38)</td>
<td>Hierarchical linear modeling, fixed effects regressions</td>
<td>Instrumental stakeholder theory</td>
<td>Mixed</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>(Ortiz-de-Mandojana &amp; Bansal, 2016) SMJ (284)</td>
<td>Matched-pairs t-tests, repeated measures ANOVA, and survival analysis.</td>
<td>No theoretical framework</td>
<td>Positive (in long run performance)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>(Miras-Rodríguez et al., 2018) JCP (17)</td>
<td>The partial least squares (PLS)</td>
<td>Institutional theory, trade-off theory, eco-efficiency theory</td>
<td>Mixed</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>(Laguir et al., 2018) MD (30)</td>
<td>A panel regression analysis</td>
<td>Slack resource theory, instrumental stakeholder theory, legitimacy theory</td>
<td>Strongly positive</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>(Gangi et al., 2019) CSREM (56)</td>
<td>Probit model.</td>
<td>Stakeholder theory</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>(Atan et al., 2018) MEQ:AJ (64)</td>
<td>Pooled OLS, fixed effect, and random effect regressions.</td>
<td>Stakeholder theory</td>
<td>Indifferent</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>(Soytas et al., 2019) IJEPE (24)</td>
<td>OLS and IV regressions</td>
<td>Slack resource theory</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>(Lawal et al., 2017) CSREM (29)</td>
<td>Hierarchical multiple linear regression</td>
<td>Stakeholder theory, slack resource theory</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>(Nyame-Asiamah &amp; Ghulam, 2019) SRJ (7)</td>
<td>Bivariate correlation analysis.</td>
<td>Stakeholder theory</td>
<td>Mixed, mostly positive</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>(Wong et al., 2014) BSE (43)</td>
<td>Confirmatory factor analyses and structural equation modeling</td>
<td>Communications theory</td>
<td>Positive</td>
<td></td>
</tr>
</tbody>
</table>
Only a few articles handled endogeneity issues to check for robustness while dealing with the corporate sustainability and financial performance relationship. Authors applied IV approach (instrumental variables), that is, (Arora et al., 2020; Gangi et al., 2019; Laguir et al., 2018; Soytas et al., 2019) confirmed a positive relationship.

### 4.3 The blue cluster (Cluster 3)—Durability of green performances and neutralizers against financial crises

Cluster 3 (blue) comprises 12 articles with three research streams. All the articles in this cluster employed the quantitative research method. The three research streams are identified as (a) Green dynamism and financial performance; (b) Performance in economic crises; and (c) Foreign ownership and environmental disclosure. Table 5 summarizes all the streams and labels the cluster as durability of green performances and neutralizers against financial crises. The mainstream of this cluster is (a) green dynamism and financial performance comprised of nine articles.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Streams</th>
<th>Authors journals (TGC)</th>
<th>Type of analysis</th>
<th>Method</th>
<th>Theories</th>
<th>Main outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>a. Green dynamism and financial performance</td>
<td>(Tang et al., 2016) Int. J. Pecon (45)</td>
<td>Quantitative Study</td>
<td>Confirmatory factor analysis (CFA)</td>
<td>No theoretical framework</td>
<td>Positive</td>
</tr>
<tr>
<td>2</td>
<td>b. Performance in economic crises.</td>
<td>(Niemann et al., 2020) BSE (20)</td>
<td>Moderated regression analyses</td>
<td>Contingency theory</td>
<td>Positive</td>
<td></td>
</tr>
</tbody>
</table>

Table 5 Summary of Cluster 3 (blue)—Durability of green performances and neutralizers against financial crises.
socio-economic environment of the United States is well known for capitalism. Therefore, it can be concluded that the impact of sustainability on financial performance is elusive in capitalist-centric countries, wherein the trade-off between sustainability and profitability is often judged on a short-term basis.

In this stream, Pätäri et al. (2012), Przychodzen and Przychodzen (2015) and Teng and Wu (2018) identified that sustainability-driven firms are better able to control cost, generate profit as well as generate value of the intangible asset while facing lower financial risk. Boakye et al. (2020) and Trumpp and Guenther (2017) further identified that the relationship between corporate sustainability and financial performance might not be linear and the type of relationship (positive, negative) depends on the level of sustainability input. Meaning that relationship might be negative for companies with low sustainability input and inversely positive for higher input (Trumpp & Guenther, 2017). In the next stream (b) performance in economic crises, Gallego-Álvarez et al. (2014), Niemann et al. (2020) confirmed that the synergistic effect of corporate sustainability and financial performance is more visible during the time of crisis. Meaning that corporate sustainability practices might work as corporate vaccines during times of crisis (Pizzutilo, 2023). Finally in the last stream (c) foreign ownership and environmental disclosure, Saini and Singhania (2019) claimed that the noble effect of sustainability might be reversed in the case of foreign investment in developing countries. This means that foreign ownership is centered more on gaining profit than on being sustainable in the context of developing countries (Saini & Singhania, 2019).

Just as in the two preceding clusters, stakeholder, institutional, legitimacy and natural resource-based views theories dominate. However, a wide variety of different theories have been used as well, such as contingency, efficient market, and too-little-of-a-good-things theories. In terms of econometrics models, regression analysis prevails. A few researchers used dynamic econometrics models (with IV) such as Boakye et al., 2020; Saini & Singhania, 2019 to validate the robustness of the findings. In general, both mentioned authors identified positive associations in the relationship.

The main outcome of Cluster 3 (blue) can be summarized as:

1. Green initiatives ensure financial performance but in time lag.
2. The impact of corporate sustainability on financial performance is elusive in capitalist countries.
3. The relationship between corporate sustainability and financial performance might not be linear and the degree of the relationship depends on the level of sustainability input.
4. Corporate sustainability practices might work as corporate vaccines during times of crisis.
5. Alike preceding clusters stakeholder's theory prevailed in this cluster followed by slack resources and institutional and legitimacy theories.
6. However, the noble effect of sustainability might be canceled out in the case of foreign investment in the context of developing countries.

4.4 | In the search for a comprehensive framework

A comprehensive framework on the relationship within CSFP is outlined in Figure 4. After analyzing 38 articles for this review, we found a common trend of having a positive impact of corporate sustainability on financial performance. Our literature review suggests that corporate sustainability is shaped and governed by institutional qualities and legitimacy requirements. In a country where macro-environmental and institutional qualities (effective governance) are favorable, corporations face competition from peers and challenge to satisfy stakeholders' needs following institutional isomorphism (Drucker, 1984; Rahi et al., 2023). In this regard, corporations take different eco-friendly and sustainable initiatives that might affect financial performance in the long run, causing a time lag effect. The fundamental idea is that corporate sustainability activities create slack resources for companies by avoiding critical costs attached to sustainability risks (such as the probability of costly environmental or legal liabilities) (Dal Maso et al., 2023) also enabling companies to increase revenues by charging a sustainability premium for their products or services by capturing public sentiment. In the case of slack resources, the relationship between sustainability and financial performance is reciprocal and synergistic (Laguir et al., 2018). Therefore, shareholders, as well as other stakeholders require companies to adopt efficient governance of sustainability to ensure long-term resilience. To eliminate agency problems, firms must ensure governance mechanisms such as assuring competitive executive compensation, as well as assuring inclusion and heterogeneity through female and sustainability committee representation on management boards (See e.g., Khatri, 2023). In the time lag, sustainability activities will eventually have an impact on financial performance, which in return has an impact on the macro environment mechanisms. For instance, in terms of taxation and other corporate infrastructure development, boosting GDP, and lowering unemployment. Figure 4 outlines as such how macro-environmental mechanisms impact and is impacted by corporate governance mechanisms and how the relationship is transformed, modified, and shaped through the interactions of multiple actor trajectories in the macro environment.

5 | CONCLUSION

Using a sample of 504 articles for this hybrid literature review on the topic of CSFP, we investigated the intellectual and conceptual structure of the field to identify the relationship nexus. As a result of bibliometric analysis, we identified three influential research clusters after analyzing sample articles for this review. Under each cluster, we further categorized the selected articles into different streams based on the adjoining research themes. These processes helped us to dissect and find the core meaning of each cluster. Focusing on the first research question, in general, the literature suggests a positive relationship within CSFP. However, non-conclusive results are also observed especially when sustainability was measured with CSR as a
proxy. Previous research in this field muddies the water assuming that sustainability and financial performance are primarily based on corporate activities and disregarding macro business environmental factors that may affect the relationship. Our conceptual framework depicts the relationship’s nexus and further confirms that corporate sustainability and financial performance are shaped, transformed, and modified by multiple actors in the trajectories of the macro business ecosystem, not just by corporate actions. By focusing on theories used by researchers, the review shows that stakeholder, institutional, and legitimacy theories are widely used. This supports our proposed comprehensive framework that corporate practices are governed and supported respectively by institutional qualities (IQ) and other actors. When there is macroenvironmental support for institutional isomorphism, corporate sustainability becomes more intense. In such a macro business ecosystem, it pays to be green but in time lag. This is due to the fact that the benefit of sustainability takes time to be realized in terms of financial performance, as sustainability requires an initial investment to alter production, service, and operations mechanisms, and the benefit can only be realized in the long run (time lag). At this point, we answer the first research question.

In the case of developing countries where IQs are weak, foreign corporations might be opportunistic by focusing only on profit while ignoring sustainability issues (Saini & Singhania, 2019). This phenomenon for foreign investment has been labeled as a pollution haven strategy (Li & Zhou, 2017). In addition to that, measuring the relationship with only univariate and bivariate analysis could be another reason for paradoxical findings. Nevertheless, self-selection bias, endogeneity issues, and the use of multiple datasets and industry categories may result in such inconclusive outcomes. Most interestingly, we found that the relationship’s nexus is negative when the data belong to capitalist countries. Here, the capitalist countries are represented as the United Kingdom, Ireland, and the United States of America. This indicates that companies and investors from capitalist countries undervalued or ignored sustainability practices, instead preferring a purely economic rationale. There are many types and versions of capitalism (Baumol et al., 2007; Rhodes & van Apeldoorn, 1997). This review could not take into account the characteristics of varieties of capitalism. However, the impact of corporate sustainability is more vivid when corporations have slack resources. This indicates that sustainability and financial performance have reciprocal bidirectional relationships. Nonetheless, the elimination of agency problems, ensuring competitive executive compensation and appointment of female and sustainability committee representation on management boards plays a greater role in this.
regard. Sustainability outcome is resilient and more visible in the long run which might work as a corporate vaccine during times of crisis (Pizzutilo, 2023). With this point, we answer our second research question.

In this review, we have observed that institutional pressure and legitimacy requirements are considered a driver for corporate sustainability practices. We agree that this could be a starting point for shaping corporate behavior. However, in the long run, institutional pressure and legitimacy requirements might not be equally effective, as the corporation might shift business to lower IQ-ranked countries to a pollution haven (Li & Zhou, 2017). These aspects have been previously well-documented in the context of corporate tax, institutional pressure, and offshoring to tax haven countries (Su & Tan, 2018).

Power distance and hierarchy hamper the relationship among actors in the long run; corporate sustainability and financial performance are not shaped by linear institutional pressure but by the trajectories of multiple actors (stakeholders) in the macro environment. A multifaceted, synergistic interaction between governmental institutions, corporations, and other stakeholders is required to ensure durable sustainable development. In such a scenario, institutional and legitimacy theory might not be appropriate. There is a scope to deploy the Actor-Network Theory (ANT) or to develop a completely new theory(ies) that incorporates all actors’ spontaneous involvement in the macro environment without forcing or exercising authority. In this regard, Figure 4 illustrates the relationship between corporate sustainability and financial performance, thereby answering our final research question.

In addition to the theoretical discussion, this study may assist practitioners in understanding and developing sustainable strategies. From the practitioners’ perspective, one key-take away of the study is that even though the literature review, by and large, seems to indicate a positive relationship between corporate sustainability and financial performance (in time lag), many questions still remain. It could, for example, be that the positive relationship is contingent on certain conditions or even that the positive (causal) relationship sometimes is reversed even under a favorable macro business environment. One possible interpretation is that corporations should prioritize sustainability-related work and the effects of that work if they want their sustainability efforts to be financially successful (for example, in the form of higher yields through increased brand loyalty or reduced costs). There is a risk that the positive effects will not materialize if the sustainability efforts are not prioritized. Most likely, sustainability-related work that is perceived as merely a marketing instrument, that is, greenwashing, will not have a positive financial impact. So, one practical advice to corporations could be; if they want to increase the probability of reaping the benefits of their sustainability actions, they need to make sure that the actions have some sort of feasible impact. The reason why previous studies on the positive relationship between sustainability and financial performance have been inconclusive maybe because only high-quality sustainability-related work (with consequent impact) has positive effects on financial performance, while others do not.

In the concluding remarks, we have a few suggestions for future researchers: It would be interesting to examine how institutional pressure leads to greenwashing or how institutional pressure contributes to a pollution-haven strategy. In addition to that, it would be interesting to apply the actor-network theory to determine the nexus between corporate sustainability and financial performance. Finally, this study is not out of limitations. In the study, we applied very strict filtering criteria such as TGC and journal ranking; therefore, we ended up with only 38 articles. Thus, there is a possibility that we may have excluded intriguing publications from journals that are not ranked by CABS. In addition, we ignored book chapters, conference papers, and other types of publications. To conclude, we gave more emphasis to subject matters; therefore, we did not focus on citation analysis, the ranking of top journals in the data set, or top authors’ workplaces. Future research could focus on our limitations to present a vibrant presentation of those issues.

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