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ESG Practices and Company Value: A Literature Review

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Abstract:

Research Question: Carry out a bibliometric analysis and systematic review of the literature on the adoption of sustainable practices and company profitability. **Motivation:** The objective is to answer the following research questions, due to the growing interest in the different strata of society on this topic: (1) Which ESG scores are most associated with companies' value creation?; (2) What are the main proxies related to the creation of value and financial performance of companies?; (3) What are the collaboration patterns between the main authors, institutions and countries in the analyzed sample?; (4) Which articles, authors and journals have the greatest impact on the topic of this research? and (5) What are the main connections between the sample documents? **Idea:** Conduct a review of existing literature and propose an agenda for future research on the relationship between sustainable practices and company profitability. There is a demand for companies to improve their performance, going beyond financial. Therefore, the dissemination of sustainable practices improves the efficiency of investments. **Data**: The initial sample consists of 303 articles that evolved into a final sample of 63 articles, obtained between 2015 and 2022, from the Web of Science and Scopus databases. **Tools**: Bibliometric analysis is carried out using RStudio, Biblioshiny and Rank Words software. It investigates and confirms the main bibliometric laws – Lotka and Bradford. The systematic review is carried out via classification of a (sub)categorization matrix. **Findings:** As a result, the greater importance of the environmental issue in developed countries stands out. A future research agenda aimed at standardizing and mandatory disclosure of sustainable metrics is also identified. The analysis of the effect of these standards on the financial performance of companies can be better supported by the theories of legitimacy and diversification, being operationalized by non-linear or logistic multilevel regression models. **Contribution:** The results obtained can contribute to the evolution of research on the topic of the impact of sustainable practices on company profitability.

Keywords: ESG, financial performance, value creation, systematic review, bibliometric analysis

JEL Classification: G32, Q56, M14

1. Introduction

The impact caused by companies on the environment – and the way they deal with social and governance issues – are becoming increasingly relevant (Huang, 2021). Therefore, companies are adopting initiatives that aim to preserve natural resources, respect human rights and promote social well-being. Such initiatives are understood as sustainable practices, being reflected in their environmental, social and governance (ESG) metrics.

However, despite the existing studies, there are still important gaps in the literature, concerning the extent of the impact of ESG practices on the value and financial performance of companies. Some of them focus on overall ESG scores, while others explore the impact of individual dimensions (Ahmad et al., 2021), having different conclusions about appropriate metrics and evidence of value creation.

While Wong et al. (2020) and Huang (2021) confirm a positive relationship, Sila and Cek (2017) found an opposite or insignificant one. These inconsistencies underline the need for further investigation, which this study addresses by examining the impact of sustainable practices on financial performance and value creation.

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The literature review provides a consolidated view of existing research and proposes a future agenda, answering the following questions: (1) Which ESG scores are most associated with companies' value creation?; (2) What are the main proxies related to the creation of value and financial performance of companies?; (3) What are the collaboration patterns between the main authors, institutions and countries in the analyzed sample?; (4) Which articles, authors and journals have the greatest impact on the topic of this research? and (5) What are the main connections between the sample documents?

To answer them, we conducted a bibliometric analysis and a systematic review, considering a final sample of 63 articles - published between 2015 and 2022. The data were obtained from the Web of Science (WoS) and Scopus databases. Specialized softwares – RStudio, Biblioshiny, and Rank Words – were used.

Among the contributions of this study is the analysis of the following aspects – not verified by other research on the same topic (Huang, 2021): i. metrics and sources of ESG scores, ii. value creation proxies, iii. level of development of countries whose companies adopt sustainability practices, iv. other determinants of value creation, associated with ESG. Furthermore, another difference lies in the verification of bibliometric laws.

Therefore, the contributions of this study include not only the analysis, but also the challenge and corroboration of different theories – such as those of stakeholders, legitimacy, shareholders and agency. Furthermore, knowledge gaps are identified and new paths for future academic research are proposed.

2. Literature Review

As highlighted by Nirino et al. (2021), financial literature previously considered maximizing shareholder value as the only objective to be achieved by a company. However, the stakeholder theory proposed other objectives related to the interests of all stakeholders in companies – and not just those of shareholders. This fact opens up a new field of scientific research, related to corporate social responsibility and – more recently – ESG.

According to Khan (2022), legitimacy theory demonstrates that companies have an explicit social contract and an implicit moral obligation to society. These facts dictate an organization's relationship with its environment, causing it to act in order to legitimize its actions to meet these requirements. Those that use ESG index disclosure – to validate their actions – gain value in the eyes of investors. In turn, signalling theory indicates that managers usually have more information about the company than its shareholders. Thus, more comprehensive reporting – including non-financial data and sustainability practices – reduces this knowledge gap (Spence, 1973; Lueg & Pesheva, 2021).

Thus, stakeholder, legitimacy, and signalling theories support a positive relationship between ESG practices and corporate value. However, they do so through different approaches. While stakeholder theory emphasizes the impact on different interest groups, legitimacy theory focuses on compliance with social expectations. The signalling theory, on the other hand, highlights the mitigation of information asymmetries between managers and investors. This set of factors, present in ESG practices, has the potential to strengthen social support, enhance market confidence, and, consequently, increase corporate value.

On the contrary, shareholder and agency theories indicate that ESG practices negatively impact corporate value. Shareholder theory argues that an excessive focus on sustainable practices diverts resources from corporate priority activities – which is the maximization of shareholder wealth – reducing the company's profitability (Friedman, 1970). In turn, agency theory highlights the existence of interest conflicts between managers and shareholders. Thus, it suggests that agents may adopt sustainable practices in order to obtain reputational benefits or to meet their own agendas, instead of generating shareholder value (Barnea & Rubin, 2010).

3. Methodology

The methodology of this study follows the structured steps proposed by Marzi et al. (2024) for conducting bibliometric analyses and systematic reviews. This approach ensures rigour, transparency, and significant theoretical contributions to the field.

Step 1 – Definition of research questions and study limits, through preliminary literature selection.

Step 2 – Definition of research keywords to be applied in the selected databases.

Step 3 – Selection of Web of Science and Scopus databases, recognized for their quality and comprehensiveness (Garg et al., 2024; Gerasimov et al., 2024).

Step 4 – Selection and verification of articles, including unification, exclusion of duplicate studies and cross-validation (see Table 1).

Step 5 – Data cleaning and export, considering the established inclusion/exclusion criteria (see Table 1).

Step 6 – Bibliometric analysis with the Biblioshiny software, verifying the main bibliometric law.

Step 7 – Reading of all articles in the final sample to define (sub)categories (see Table 2).

Step 8 – Organization and classification of articles according to the defined (sub)categories.

Step 9 – Systematic review of the literature, through critical analysis of existing knowledge, establishing bases for questions not yet explored.

Step 10 – Development of theoretical contributions, integrating the results to generate new insights or expand existing models.

The adoption of both methodologies requires the use of specialized software – RStudio, Biblioshiny and Rank Words. Each of them presents default settings for their parameters, in order to guarantee the consistency and reproducibility of the results, as follows:

RStudio: Used as an environment for executing scripts from the Bibliometrix package. It applies the Louvain algorithm for clustering, through the default resolution of 1.0. The co-occurrence networks were constructed based on the minimum frequency of keywords automatically defined by the software.

Biblioshiny: Used for interactive visualizations and complementary analyses. The default parameters of the tool were maintained, including the automatic adjustment of the minimum size of clusters, the detection of communities in the keyword networks and the generation of maps with automatically adjusted scales.

Rank Words: Used for textual analysis. The tool identified the most frequent words in the titles and abstracts of the articles, based on the absolute frequency of occurrences.

The (sub)categories presented in Table 1 represent those that stood out most during the analysis of the final articles sample. This selection was made based on the analysis of the themes addressed in the reviewed articles, to reflect the most relevant and recurring topics identified in the literature.

Table 1: Evolution of the final sample

Sign	Description	Number of papers	
		WoS	Scopus
(+)	**Initial sample**, obtained through the keywords "ESG" and "valu*" and "regression*" in the article title, abstract, keyword search field	146	157
(-)	Languages other than "English"	1	2
(-)	Document types other than "article" and "review article"	32	9
(-)	Research areas other than: i.WoS: "business economics", "environmental science ecology" ii.Scopus: "business management and accounting", "economics, econometrics and finance", "environmental sciences"	11	14
(-)	Categories different from: i.WoS: "business finance", "environmental studies" ii.Scopus: this database does not have the category filter option	51	n/a
(=)	**Subtotal**	51	132
(-)	Exclusion of duplicate articles in the WoS and Scopus databases	39	
(=)	**Total intermediate sample**	144	
(-)	Articles whose dependent variable is not value creation or financial performance	67	
(-)	Articles whose independent variable is not ESG or its components	3	
(-)	Articles for which the full text file could not be obtained	11	
(=)	**Total final sample**	**63**	

Source: Authors

The final sample of 63 articles was used in both methodologies, allowing for quantitative (bibliometric analysis) and qualitative (systematic review) assessments. Although relatively small for a bibliometric analysis, the sample is sufficient to outline an agenda for future research – which is the main objective of a systematic review.

Table 2: (Sub) categorization matrix

Categories	Subcategories	Description
1. Main themes	A. ESG impact on company value	Effect of ESG practices on company value
	B. Moderating effect of other value creation determinants associated with ESG	Other factors associated with ESG that influence company value
	C. ESG disclosures	Effects of ESG score disclosure on performance
	D. Others	Themes not covered in 1A-1C
2. Theories	A. Stakeholders	Companies must map, monitor and interact with all agents or interested parties that (in)directly have relationships, connections or interests with their operations and activities
	B. Legitimacy	Companies exist as long as society considers them legitimate. These companies seek to maintain this status when carrying out their activities
	C. Agency	Companies consist of a set of contracts. In an ideal contract, there should be alignment of interests or mitigation of conflicts between principals (owners) and their agents (managers)
	D. Diversification	Distributing investments across asset classes mitigates each asset's idiosyncratic risk, reducing the portfolio's total risk
	E. Signalling	Companies emit signals to inform the market and consumers about their actions and the quality of their products and services, aiming to prevent issues caused by information asymmetry
	F. Others	Theories not covered in 2A-2E
3. Research methods	A. Regression with static panel data	Panel data model with spatial and temporal dimensions
	B. Regression with dynamic panel data	When the model includes one or more lagged values of the dependent variable among its explanatory variables
	C. Logistic or probabilistic regression	Both models are non-linear and represent an underlying latent variable – unobservable – whose proxy is a dummy that calculates the probability of an event occurring.
	D. Others	Methods not covered in 3A-3C
4. Value creation proxies	A. Tobin's Q	Ratio between the company's market value and the replacement cost of its assets.
	B. Total shareholder return (TSR)	Investor return considering capital gains and dividends
	C. Return on assets (ROA)	Ratio of net income to total assets
	D. Return on equity (ROE)	Ratio of net income to shareholders' equity
	E. Others	Proxies not covered in 4A-4D
5. ESG metrics	A. Overall ESG score	Weighted average of ESG dimensions
	B. Environmental score (E)	Environmental dimension score
	C. Social score (S)	Social dimension score
	D. Governance score (G)	Governance dimension score
	E. Individual Scores	Separate ESG dimension scores
	F. Others	ESG metrics not covered in 5A-5E (e.g., subcomponents)

Categories	Subcategories	Description
6. Data source	A. Global	Companies operating in countries located on several continents
	B. North America	Companies operating in the United States and Canada
	C. Europe	Companies operating in Europe
	D. Asia/Oceania	Companies operating in Asia and Oceania
	E. Latin America	Companies operating in Latin America
	F. Africa	Companies operating in Africa
7. Analysis period	A. 2-5 years	Analysis period of 2-5 years
	B. 6-10 years	Analysis period of 6-10 years
	C. 11-15 years	Analysis period of 11-15 years
	D. Others	Periods not covered in 7A-7C
8. Results	A. New perspectives	Studies offering new theories, variables, or methods
	B. New conclusions	Studies that bring new conclusions on topics already discussed
	C. Conclusions similar to previously presented works	Studies that do not present new perspectives
9. Conclusions	A. Confirmation of the main hypothesis	Study confirms the main hypothesis
	B. Non-confirmation of the main hypothesis	Study does not confirm the main hypothesis
	C. Inconclusive result in relation to the main hypothesis	Study presents inconclusive results regarding the main hypothesis
10. Future avenues	A. Analysis of data from companies in developing countries	Consideration of samples of companies from developing countries
	B. Analysis of individual scores for each ESG dimension	Analysis of individual scores for each ESG dimension
	C. Analysis of the moderating effect of other interaction variables with ESG	Analysis of other determinants in companies' value creation, associated with ESG - e.g.: ownership structure, incentives for executives, market competition, etc.
	D. Standardization of ESG metrics	Need to standardize criteria for measuring ESG scores
	E. Reliability of data to obtain ESG scores	Possibility of verifying/confirming data to measure ESG scores - e.g., existence of accounting reports for this purpose
	F. Others	Avenues not covered in 10A-10E

Source: Authors

4. Results Analysis

4.1 Bibliometric analysis

Both databases – Web of Science and Scopus – began the research in 1945. However, the first article on ESG was published only in 2015, with a great increase in publications from 2019 onward, reflecting a growing research interest. Figure 1 illustrates co-occurrence between key keywords such as “environmental,” “corporate social responsibility,” “financial performance,” and “ESG.”

Figure 1: Co-occurrence map between top keywords
Source: Biblioshiny

Note: Node size refers to the number of times the keyword appears in the sample articles. The colour of the nodes corresponds to the relationship cluster of the keywords in the publications.

Concerning the bibliometric main laws, we highlight Bradford's and Lotka's law, which are mentioned below:

Bradford's Law (1934): According to it, there are few periodicals that produce many articles and many periodicals that produce few articles on a given topic. Bradford's Law estimates the degree of relevance of academic periods in specific areas of knowledge. Thus, if periodicals are classified in descending order of productivity, they can be distributed into zones with variation in the proportion 1: n: n^2 and so on. These zones are formed by dividing the total number of articles published by three.

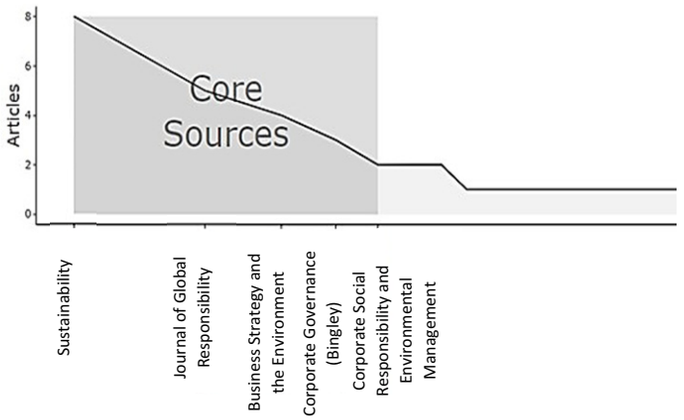

Figure 2: Bradford's Law on journals
Source: Biblioshiny

The analysis of articles based on Bradford's law is presented in Figure 2. It shows that few journals concentrate the majority of publications on ESG. For example, 11.11% of the journals (zone 1) published 34.92% of the articles analyzed, including Sustainability and Corporate Social Responsibility and Environmental Management. This distribution pattern confirms the relevance of the few journals in the field. Furthermore, these journals are especially relevant for studies that explore research gaps, such as the use of alternative proxies for financial performance or specific investigations of ESG metrics, such as greenhouse gas emissions or board diversity.

For the 10 most cited journals, there is a total of 529 citations. Among them, the Journal of Global Responsibility (131 or 24.76%), Corporate Governance (71 or 13.42%) and Management of Environmental Quality: An International Journal (65 or 12.29%) stands out. As for the top 10 universities, they have 26 author affiliations or 41.27% (26/63) of the articles in the final sample. The University of Sfax – located in Sfax, Tunisia – stands out with 19.23% or 5 of these 26 published articles. Next is Ahlia University – established in Manama, Bahren – with 15.38% (4/26). As for the University of Macedonia – in Thessaloniki, Greece – it presents 11.54% (3/26) of the articles, whose authors are affiliated with it.

Lotka's Law (1926): It states that a small number of authors produce many articles and that the production obtained by this small number of researchers is equal in quantity to the performance of the others. This law is called the inverse square law – see Equation 1.

$$a_n = \frac{a_1}{n^2}, n = 1, 2, 3 \quad (1)$$

Where: a_n = number of authors who published n articles; a_1 = number of authors who published an article; n = number of articles published by author

In Equation 2, the number of authors with a single published article - according to Lotka's Law - would be 60.8%. As for the number of authors with two published articles, this should have a frequency of 15.2% (60.8%/22). For authors with three published articles, it would be 6.8% (60.8%/32).

$$a_1 = \frac{6}{\pi^2} = 0.6079 = 60.8\% \quad (2)$$

Figure 3 presents the analysis based on Lotka's Law, showing the number and percentage of articles published by the sample authors. It indicates that only 1.99% (3/151) of the authors in the sample published 3 or more articles on the impact of sustainability practices on financial performance and value creation. Thus, it can be seen that, in fact, there is a smaller percentage of authors publishing a greater number of articles, confirming Lotka's Law.

Among the most productive authors, Amina Buallay (Ahlia University, Bahrain) and Jamel Chouaibi (University of Sfax, Tunisia) stand out. Their papers address topics such as sustainability reporting and corporate governance. This concentration of productivity suggests that these authors could lead discussions on important gaps, such as the analysis of emerging countries or specific ESG sub-dimensions.

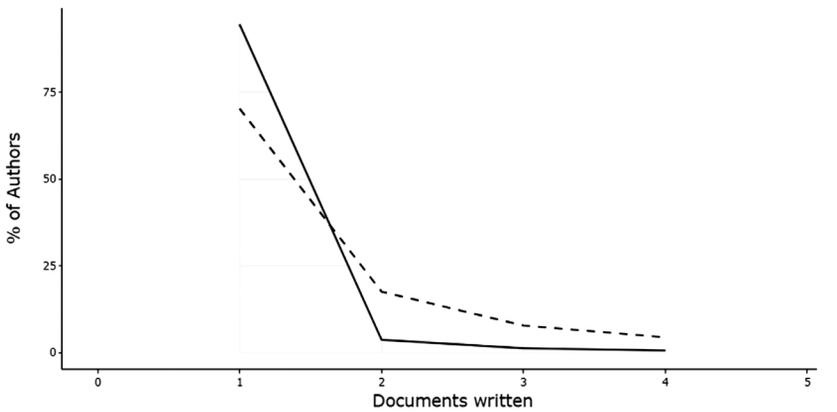

Figure 3: Lotka's law on articles
Source: Biblioshiny

In summary, adherence to Bradford and Lotka's laws reinforces the fact that the ESG topic is in a developing stage, with a high concentration in specific authors and journals. This dynamics reflects the potential to expand the scope of publications, connecting theoretical, methodological, and geographic gaps with the areas of interest of leading authors and journals. Identifying prolific authors and journals highlights opportunities for these agents to catalyze future research, especially in underexplored topics, such as individual ESG metrics and regional contexts.

Table 3 summarizes the research questions of this study and their corresponding answers. This synthesis aims to facilitate a comprehensive understanding of the study's findings.

Table 3: Summary of research questions and corresponding findings

Research questions	Findings
Which ESG scores are most associated with companies' value creation?	Governance scores are most frequently associated with value creation, while social and environmental scores are less explored.
What are the main proxies related to the creation of value and financial performance of companies?	ROA and Tobin's Q are the most frequently used proxies in the analyzed studies.
What are the collaboration patterns between the main authors, institutions and countries in the analyzed sample?	Malaysia leads in collaborations, followed by Germany. Most authors collaborate locally, with limited international partnerships.
Which articles, authors and journals have the greatest impact on the topic of this research?	Journals like Sustainability and Corporate Social Responsibility and Environmental Management are the most prolific, while authors such as Amina Buallay and Jamel Chouaibi are leading contributors.
What are the main connections between the sample documents?	Co-citation analysis reveals strong connections among studies focusing on governance metrics and their financial impacts.

4.2 Systematic review

The systematic review seeks to identify knowledge gaps related to a given topic. In case of this study, the idea is to develop an agenda that points to future avenues regarding the adoption of sustainability practices and financial performance or the creation of value for companies. To this end, Steps 7 to 10 at section 3 – Methodology clarify that, initially, there is the definition of a (sub) categorization matrix – see Table 2. After reading the 63 articles in the final sample, they are classified and coded into non-exclusive categories and subcategories. Each article can be classified into up to 3 subcategories, per category. Next, the frequency of the subcategories is counted. The least frequent combinations of subcategories are those that potentially point to knowledge gaps. Figure 4 summarizes these results.

In category 1, which deals with the main theme or focus of the study, subcategory A – The impact of ESG on the company's performance/value – is the one with the highest frequency, being present in 63.5% (40/63) of the articles. According to Nizam et al. (2019), ESG practices promote operational efficiency and attract investors who value sustainability. On the other hand, subcategory C which encompasses studies that investigate the disclosure of ESG practices, is present in only 1.6% (1/63) of them (Cordazzo et al., 2020). This fact indicates that the issue of sustainability is not always associated with ESG scores, which is an opportunity for investigation.

In turn, category 2 analyzes theories related to hypotheses, subcategory A – stakeholder theory – is the most cited by authors, being present as the only theory related to hypotheses in 31.7% (20/63) of the articles. This theory emphasizes companies' engagement with stakeholders, showing how ESG practices can generate value for their stakeholders, as investigated by Lopez-Toro et al. (2021). On the contrary, legitimacy theory (Foster et al., 2022) - subcategory B - is cited in only 2 articles, or 3.2% of the final sample, which makes them potential theories to be investigated in future studies. It shows how companies seek to align their practices with the society's expectations to achieve legitimacy and social acceptance.

Category 3, which deals with the research method used by the studies, has subcategory A – regression with static panel data – as the most cited by the authors to test the hypotheses, 79.4% (50/63). The predominant use of panel data regression reflects its effectiveness in capturing the relationships between sustainable practices and business performance over time. This method, as demonstrated by Ahmad et al. (2021), has proven to be suitable for testing hypotheses in this context. On the other hand, less explored methods, such as logistic or probabilistic regressions - subcategory C - can offer new perspectives, representing an opportunity for future investigations (Cordazzo et al., 2020).

In turn, category 4, which analyzes value creation proxies, has subcategory A – Tobin's Q – as the most used by authors who consider this single dependent variable to test the hypotheses of their study (Chouaibi et al., 2022), being present in 17.5% (11/63) of the articles. The predominance of Tobin's Q reflects its ability to capture the ratio between market value and cost of assets replacement, as discussed by Chouaibi et

al. (2022). They compared ESG practices between United Kingdom and Germany companies. Although less frequent proxies, such as TSR (subcategory B) and ROE (subcategory D), are cited in only 1.6% of the articles' sample, they represent an opportunity for studies that seek to explore different ways to measure value creation.

As for category 5 – which indicates the considered ESG metrics by the authors – the conjunction of subcategories A and E – general and individual scores – stands out, being frequent in 44.4% (28/63) of the articles. Daszynska-Zygadlo et al. (2021) demonstrated that the combined use of these metrics offers a more robust perspective, when considering variations between ESG dimensions and financial outcomes. Despite being rare (4.8%, 3/63), investigations of only individual ESG subcomponents, as in Carmo et al. (2022), represent an opportunity to explore specific nuances of each dimension, proposing an agenda for new studies.

Category 6 – data origin, indicates that the majority of articles analyzes companies from Asia and Oceania (subcategory D), being presented at 33.3% (21/63) of total sample (Tripathi & Bhandari, 2015). On the other hand, Latin America (subcategory E) has only one study identified (Garzon Jimenez & Zorio-Grima, 2021), representing 1.6% of the sample. This discrepancy can be explained by factors such as lower institutional and regulatory development in the region. In addition, there is a lack of prioritization of ESG practices in these countries due to their more immediate economic challenges (Wong et al., 2020). These differences suggest opportunities for future studies that examine the impact of sustainable practices on value creation in Latin American companies.

Regarding category 7 – period of analysis, it is observed that 47.6% (30/63) and 33.33% (21/63) of the articles analyze data over a period of 6 to 10 and 2 to 5 years – subcategories B and A, respectively (Foster et al., 2022). However, only 12.7% (8/63) of them consider a period of 11 to 15 years, subcategory C. This low representativeness can be attributed to the limited availability of historical series of ESG scores in many regions. Future studies using longer periods of ESG metrics may reveal more robust patterns and trends, as highlighted by Garzon Jimenez and Zorio-Grima (2021).

In category 8 – results, subcategory B brings together studies that show new conclusions on topics already discussed in 49.2% (31/63) of the articles (Daszynska-Zygadlo et al., 2021). However, there are only two studies in the sample classified in subcategory A – new perspectives, such as the one of Carmo et al. (2022). This fact indicates that new research that brings theories, variables, methodologies or econometric models different from those presented in the sample studies will expand the frontier of knowledge on the topic, as suggested by Garzon Jimenez and Zorio-Grima (2021).

As for category 9, it deals with the conclusion of hypotheses. 71.4% (45/63) of the studies confirm their main hypothesis – subcategory A. Another 20.6% (13/63) do not – subcategory B, leaving only 7.9% (5/63) that are inconclusive – subcategory C. This scenario shows that, although most studies confirm their hypotheses, there is still significant room for future investigations, especially in cases with inconclusive results. According to Foster et al. (2022), exploring new theoretical dimensions or regional contexts may be essential to uncover neglected aspects of ESG practices and their relationship with companies' financial performance.

Finally, category 10 points to avenues for future studies in view of the authors of the articles in the final sample. The majority of studies 52.4% (33/63) highlight the need to analyze the moderating effect of other interaction variables with ESG – category C (Lopez-Toro et al. 2021). This aspect is also verified by subcategory 1B, being the second most frequent item in Figure 11 – 31.7% (20/63). Another 14.3% (9/63) mention the lack of standardization of ESG metrics – subcategory 10D. These results show that researchers recognize the importance of investigating ESG moderating variables, which is in line with the gaps identified by Foster et al. (2022). In addition, the lack of standardization in ESG metrics, mentioned in 14.3% of the studies, represents an obstacle to the comparability and robustness of the conclusions. Future approaches that consider them can broaden the understanding of the impact of ESG practices on corporate results.

As for subcategory 10A, 12.7% (8/63) of the articles show the importance of analyzing developing countries, as mentioned in category 6, subcategories F and E with 4.8% (3/63) and 1.6 % (1/63) frequency. They mention the lack of studies with companies from Africa and Latin America, respectively. As for the lowest frequency items in category 10, that is, those that least suggest an agenda for the future, subcategory B stands out with a single article – 1.6% (1/63). It refers to the analysis of individual scores for each ESG dimension. In fact, the 5AE subcategory is the one with the highest frequency. 44.4% (28/63) of surveys already investigate the impact of general and individual scores on creating value for companies.

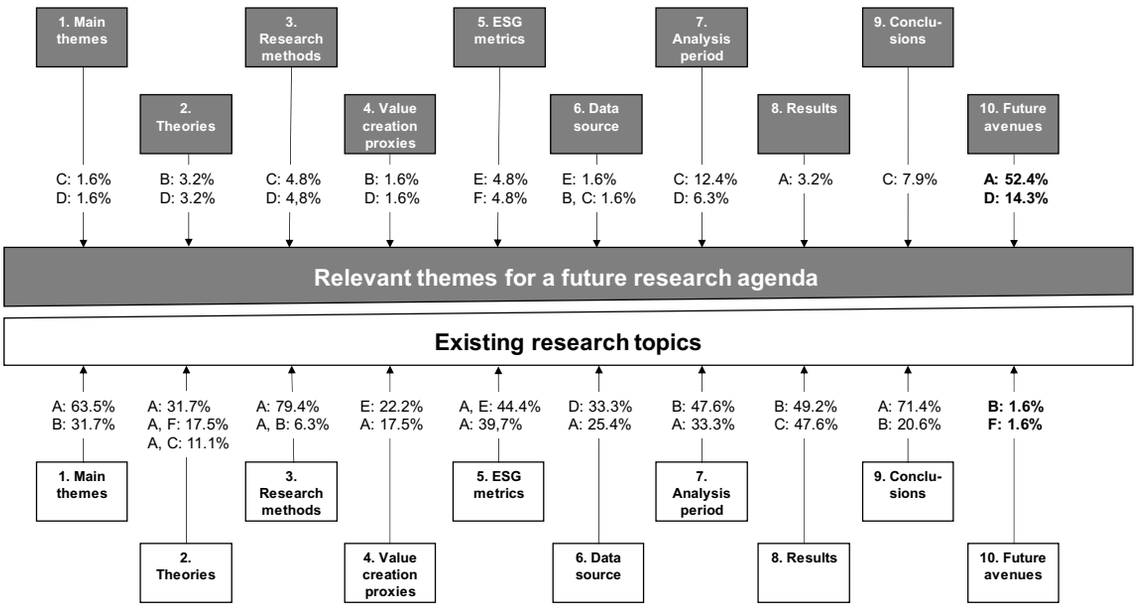

Figure 4: Analysis of (sub)categories to identify knowledge gaps
Source: Authors

Note: The subcategories at the top are those with the least frequency and are subject to future analysis by researchers – with the exception of category 10 – Future Avenues. In this case, the most frequent subcategories are those that suggest avenues for a future agenda.

4.3 Future research directions

The results presented by the bibliometric analysis and systematic review indicate relevant gaps that can be explored in future research. Based on the bibliometric-systematic literature reviews (B-SLR) framework of Marzi et al. (2024) and the findings of this study, these gaps can be structured into three main dimensions: theoretical, methodological innovations, and broadening of the geographic context.

Theoretical gaps: Most of the studies analyzed base their hypotheses on stakeholder theories (Lopez-Toro et al., 2021) and agency theories (Cordazzo et al., 2020), indicating that the interaction between agents or interested parties is directly related to the investigation of the impact of sustainable practices on the value of companies. However, this study identified that there was room to explore alternative theories, such as legitimacy theory (Foster et al., 2022) and diversification theory (Tripathi & Bhandari, 2015), which were cited in only 2 articles in the sample, each.

Methodological innovations: There is a predominance of econometric models - based on regressions with static panel data (Chairani & Siregar, 2021) - present in 79.4% (50/63) of the articles in the final sample. This fact points to the opportunity to adopt alternative approaches, such as logistic or probabilistic regression - used to estimate the chances of a given event occurring (Cordazzo et al., 2020). Another important aspect of methodological innovation is the isolated use of individual ESG scores, or their subcomponents, as in Daszynska-Zygadlo et al. (2021) and Carmo et al. (2022), respectively.

Broadening the geographic scope: The concentration of studies in regions such as Asia, Europe and North America reveals a window of possibilities for research in emerging countries, especially in Latin America and Africa. Cultural and economic factors in these regions can influence differently the effects of ESG practices on the financial performance and value creation of companies, representing a valuable opportunity for future research, as noted by Garzon Jimenez and Zorio-Grima (2021).

Conclusion

This study analyzed recent literature on this topic through a bibliometric analysis and systematic review. The bibliometric analysis identified a growing interest in the topic throughout the period analyzed, especially in 2022. More recently, the environmental issue has gained greater prominence, matching issues of social responsibility and corporate governance policies in achieving better financial performance of companies. Among these studies, the one of Nizam et al. (2019) addresses the impact of socio-environmental sustainability on the financial performance of banks located in 75 countries. The authors verify that companies' access to environmental financing – granted by banks – positively affects the latter's performance, due to the growth in credit and the quality of management.

Another relevant aspect is the interest of emerging and developed economies in this topic. Studies carried out by researchers linked to institutions located in Malaysia and Germany account for 25.5% and 20.1% of citations in the final sample, respectively. These studies are published in the Journal of Global Responsibility. This is further evidence of the interest of academia, companies and markets in the role of corporations in society, transcending solely the expectations of their shareholders. Furthermore, the main bibliometric laws were verified and confirmed – Lotka (1926) and Bradford (1934).

As for the systematic review, an agenda for future research is identified aimed at standardizing and mandatory disclosure of ESG metrics. An example of this are the initiatives implemented by regulatory bodies, such as IFRS Standards 1 and 2 (IFRS, 2023) and Directive 2014/95/EU (European Union, 2022). The analysis of the effect of these standards on the financial performance of companies can be better supported by the theories of legitimacy and diversification, being operationalized by non-linear or logistic multilevel regression models, for example. Furthermore, the opportunity to investigate (sub)metrics of each of the ESG dimensions stands out. Databases such as Bloomberg, Refinitiv and ASSET4 make it possible to obtain it. Finally, studies that compare the differences between companies from emerging and developed countries can shed light on the former's regularities, supporting their greater insertion in global markets.

This study contributes to different segments of society. For academia, the findings highlight key trends, theories, methodologies, and constructs that can be further investigated in future research. By integrating bibliometric analysis and systematic review, as suggested by Marzi et al. (2024), the study investigates the interaction between ESG practices and different corporate contexts. This is done, among other things, by challenging the assumptions of traditional finance theories. A priori, they point to a positive relationship between sustainable practices and corporate value – stakeholders and legitimacy. However, theories that point to an opposite relationship – shareholders and agency – were also discussed.

Furthermore, important gaps were highlighted, such as the need to investigate specific sustainability metrics for each dimension, as well as the application of non-linear econometric models - to better capture the nuances of these impacts. These contributions foster and broaden the academic debate, indicating directions for future studies. In addition, where companies and investors are concerned, the research insights can help them prioritize the types of sustainable actions or metrics that best contribute to value creation. For regulators and governments, this study highlights the importance of standardizing ESG reports, enabling greater disclosure and comparability of institutions' sustainable practices. This can bring more competitiveness to the local market, attracting foreign investment.

Among the limitations of this study is the investigation of only two academic article databases – WoS and Scopus. Even though they are the main ones, other bases could present different results. Furthermore, this study was interested in analyzing only articles that had regression models in their methodology. The reason for this is due to the need to identify value creation proxies and ESG metrics, presented in categories 4 and 5 of Table 2 - (sub) categorization matrix, respectively. For future studies, in addition to the possibilities mentioned in each subcategory analyzed, expansion of the database and maintenance of articles with different proxies could be considered, in order to verify the tendency to compare ESG metrics related to other business issues.

REFERENCES

[1] Ahmad, N., Mobarek, A., & Roni, N.N. (2021). Revisiting the impact of ESG on financial performance of FTSE350 UK firms: Static and dynamic panel data analysis. *Cogent Business & Management*, *8*(1), 1-18. DOI: 10.1080/23311975.2021.1900500

[2] Barnea, A., Rubin, A. (2010). Corporate social responsibility as a conflict between shareholders. *Journal of Business Ethics*, *97*, 71-86. DOI: 10.1007/s10551-010-0496-z

[3] Bradford, S.C. (1934). Sources of information on scientific subjects. *Engineering: An Illustrated Weekly Journal*, *137*, 85-86. DOI: 10.1177/016555158501000407

[4] Carmo, C., Alves, S., & Quaresma, B. (2022). Women on boards in Portuguese listed companies: Does gender diversity influence financial performance? *Sustainability*, *14*(10), 1-21. DOI: 10.3390/su14106186
[5] Chairani, C., & Siregar, S.V. (2021). The effect of enterprise risk management on financial performance and firm value: The role of environmental, social and governance performance. *Meditari Accountancy Research*, *29*(3), 647-670. DOI: 10.1108/MEDAR-09-2019-0549
[6] Chouaibi, S., Chouaibi, J., & Rossi, M. (2022). ESG and corporate financial performance: the mediating role of green innovation: UK common law versus Germany civil law. *EuroMed Journal of Business*, *17*(1), 46-71. DOI: 10.1108/EMJB-09-2020-0101
[7] Cordazzo, M., Bini, L., & Marzo, G. (2020). Does the EU Directive on non-financial information influence the value relevance of ESG disclosure? Italian evidence. *Business Strategy and the Environment, 29*, 3470–3483. DOI: 10.1002/bse.2589
[8] Daszynska-Zygadlo, K., Slonski, T., & Dziadkowiec, A. (2021). Corporate social performance and financial performance relationship in banks: Sub-industry and cross-cultural perspective. *Journal of Business Economics and Management*, *22*(2), 424–444. DOI: 10.3846/jbem.2020.13892
[9] European Union (EU). (2022). Directive 2014/95/EU of the European parliament and of the council. *Amending directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and group*. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0095
[10] Foster, B.P., Manikas, A.S., & Kroes, J.R. (2022). Which diversity measures best capture public company value? *Corporate Social Responsibility and Environmental Management*, *30*(1), 236-247. DOI: 10.1002/csr.2351
[11] Friedman, M. (1970, September 13). The social responsibility of business is to increase its profits. *New York Times Magazine*. https://nyti.ms/1LSi5ZD
[12] Garg, S., Ahmad, A., & Madsen, D. O. (2024). Academic writing in the age of AI: Comparing the reliability of ChatGPT and Bard with Scopus and Web of Science. *Journal of Innovation & Knowledge, 9*(4), 100563. DOI: 10.1016/j.jik.2024.100563
[13] Garzon Jimenez, R., & Zorio-Grima, A. (2021). Sustainability engagement in Latin America firms and cost of equity. *Academia Revista Latinoamericana de Administracion*, *34*(2), 224-243. DOI: 10.1108/ARLA-05-2020-0117
[14] Gerasimov, I., Kc, B., Mehrabian, A., Acker, J., & McGuire, M. P. (2024). Comparison of datasets citation coverage in Google scholar, web of science, Scopus, Crossref, and DataCite. *Scientometrics, 129*(7), 3681-3704. DOI: 10.1007/s11192-024-05073-5
[15] Huang, D.Z.X. (2021). Environmental, social and governance (ESG) activity and firm performance: a review and consolidation. *Journal Accounting & Finance*, *61*, 335-360. DOI: 10.1111/acfi.12569
[16] International Accounting Standards Board (IFRS) (2023). *ISSB issues inaugural global sustainability disclosure standards*. https://www.ifrs.org/news-and-events/news/2023/06/issb-issues-ifrs-s1-ifrs-s2/
[17] Khan, M.A., (2022). ESG disclosure and firm performance: a bibliometric and meta-analysis. *Research in International Business and Finance*, *61*, 1-19. DOI: 10.1016/j.ribaf.2022.101668
[18] Lotka, A.J. (1926). The frequency distribution of scientific productivity. *Journal of the Washington Academy of Sciences*, *16*(12), 317-323. https://www.jstor.org/stable/24529203
[19] Lopez-Toro, A.A., Sanchez-Teba, E.M., Benitez-Marquez, M.D., & Rodriguez-Fernandez, M. (2021). Influence of ESG indicators on financial performance of listed pharmaceutical companies. *International journal of Environmental Research and Public Health, 18*(9), 1-16. DOI: 10.3390/ijerph18094556
[20] Lueg, R., & Pesheva, R. (2021). Corporate sustainability in the Nordic countries – The curvilinear effects on shareholder returns. *Journal of Cleaner Production, 315*, 1-12. DOI: 10.1016/j.jclepro.2021.127962
[21] Marzi, G., Balzano, M., Caputo, A. & Pellegrini, M.M. (2024). Guidelines for bibliometric-systematic literature reviews: 10 steps to combine analysis, synthesis and theory development. *International Journal of Management Reviews,* 1-23. DOI: 10.1111/ijmr.12381
[22] Nirino, N., Santoro, G., Miglietta, N., & Quaglia, R. (2021). Corporate controversies and company's financial performance: Exploring the moderating role of ESG practices. *Technological Forecasting and Social Change*, *162*, 1-7. DOI: 10.1016/j.techfore.2020.120341
[23] Nizam, E., Ng, A., Dewandaru, G., Nagayev, R., & Nkoba, M.A. (2019). The impact of social and environmental sustainability on financial performance: A global analysis of the banking sector. *Journal of Multinational Financial Management, 49*, 35-53. DOI: 10.1016/j.mulfin.2019.01.002
[24] Sila, I., & Cek, K. (2017). The Impact of environmental, social and governance dimensions of corporate social responsibility: Australian evidence. *Procedia Computer Science, 120*, 797-804. DOI: 10.1016/j.procs.2017.11.310

[25] Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics, 87*(3), 355-374. DOI: 10.2307/1882010
[26] Tripathi, V., & Bhandari, V. (2015). Socially responsible stocks: a boon for investors in India. *Journal of Advances in Management Research, 12*(2), 209-225. DOI: 10.1108/JAMR-03-2014-0021
[27] Wong, W.C., Batten, J.A., Ahmad, A.H., Mohamed-Arshad, S.B., Nordin, S., & Adzis, A.A. (2020). Does ESG certification add firm value? *Finance Research Letters, 39*, 1-7. DOI: 10.1016/ j.frl.2020.101593.

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