

ESG Ratings in Emerging Markets: Comparative Systematic Review of ESG Disclosure Regimes in Morocco and Romania**Ayyoub TAGUI**Moulay Ismail University, Higher School of Technology, LAREGS, Meknes, Morocco
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ORCID ID: 0000-0002-9760-6169**Abstract**

This study provides a systematic literature review and bibliometric analysis of the relationship between ESG reporting quality, ESG ratings, and investment attractiveness, focusing on the contrasting regulatory contexts of Morocco (voluntary disclosure) and Romania (mandatory disclosure under the NFRD/CSRD framework). Using a PRISMA 2020 protocol, 372 peer-reviewed articles were selected from the Web of Science database and analyzed through VOSviewer bibliometric networks. Results show a rapid expansion of ESG research since 2019 and identify five dominant themes: ESG governance and disclosure, financial performance, emerging markets, corporate social responsibility, and regulatory frameworks. Co-citation analysis highlights the central influence of Stakeholder, Agency, Institutional, Legitimacy, and Signaling theories. The comparative review indicates that Romania's mandatory disclosure regime enhances reporting credibility, reduces information asymmetry, and strengthens investment attractiveness, while Morocco's voluntary framework remains less effective despite notable initiatives such as the MASI ESG Index and the AMMC's 2019 sustainability reporting guidance. Methodologically, Moroccan studies emphasize innovative approaches adapted to emerging markets, whereas Romanian research relies more heavily on advanced panel econometrics and machine-learning techniques. Together, these two contexts provide a valuable natural laboratory for understanding how disclosure regimes influence ESG information quality and investment attractiveness in emerging economies.

Keywords: ESG reporting; ESG ratings; investment attractiveness; sustainability.**JEL Classification:** G11, G34, M14, O57, Q56, K22**Received on:** 19 April 2026 **Accepted on:** 4 July 2026 **Released on:** 9 July 2026**INTRODUCTION**

Environmental, Social, and Governance (ESG) criteria have become central pillars of modern corporate strategy, capital allocation, and financial regulation. Over the past decade, institutional investors, rating agencies, and regulators have collectively elevated ESG from a subsidiary corporate-responsibility exercise to a material determinant of investment decisions and risk assessment (Friede et al., 2015; Berg et al., 2022). The proliferation of ESG reporting frameworks, from the Global Reporting Initiative (GRI) to the Task Force on Climate-related Financial Disclosures (TCFD) and, more recently, the European Sustainability Reporting Standards (ESRS) mandated by the Corporate Sustainability Reporting Directive (CSRD), reflects a worldwide recognition that non-financial information is both relevant to investors and materially significant for the long-term assessment of firm value (Grewal et al., 2019; Arvidsson et al., 2022).

Yet the relationship between ESG reporting quality, ESG ratings, and investment attractiveness remains far from settled, particularly in emerging and frontier markets where institutional environments, data infrastructures, and regulatory frameworks diverge substantially from those of advanced economies (Garcia et al., 2020; Singhania et al., 2023). This divergence is especially visible when comparing Morocco and Romania two emerging markets with distinct economic trajectories, governance traditions, and positions vis-à-vis mandatory ESG regulation.

As a European Union member state, Romania was required to transpose the EU Non-Financial Reporting Directive (NFRD) into national law by 2017 and is now subject to the progressive expansion of the CSRD, making ESG disclosure a legal obligation for a growing universe of firms. Morocco, by contrast, has adopted a voluntary approach anchored in the 2019 circular of the Moroccan Capital Market Authority (Autorité Marocaine du Marché

des Capitaux, AMMC) and the introduction of the MASI ESG index by the Casablanca Stock Exchange important milestones, yet ones that leave listed companies considerable discretion.

The regulatory imbalance discussed above naturally leads to a quasi-experimental setup for research purposes about the role of several elements, i.e., quality of ESG disclosure, credibility of ESG ratings, etc., on the investment attractiveness of listed companies. Signaling Theory (Spence, 1973) argues that a voluntary disclosure gets converted into a credible signal only when its costs are sufficiently high to keep the low-quality imitators away. If this is the case, then Morocco's voluntary regime may act as a greenwashing tool and systematically underreport, thereby diminishing the ESG premium that investors would normally pay. On the other hand, if Institutional Theory argues that coercive isomorphism leads to the homogenization of reporting practices (DiMaggio et al., 1983), then Romania's mandatory setup will not only produce richer and more comparable ESG data but also lead to disclosure-performance decoupling, a form of ESG decoupling that has been documented in recent literature (Stefanescu et al., 2026).

This paper aims to address three closely connected goals. For starters, it draws the worldwide intellectual framework of the ESG research-related reporting quality, ratings, and investment attractiveness by a PRISMA 2020 systematic review, and a VOSviewer bibliometric analysis of 372 Web of Science articles. The second point is to organize a well-structured comparative study of the ESG practices, the regulatory frameworks, and the investor implications in Morocco and Romania, mainly based on the findings of the 17 Moroccan and 52 Romanian papers identified in the corpus. The third point is to make some theoretical and practical points towards policymakers, regulators, institutional investors, and listed companies in the two jurisdictions.

The remainder of the article is organized as follows. Section 2 presents the theoretical framework and the core conceptual foundations underlying the relationships between ESG reporting quality, ESG ratings, and investment attractiveness. Section 3 describes the research methodology based on the PRISMA 2020 protocol, the article selection criteria, and the bibliometric and comparative analytical methods employed. Section 4 reports the results of the bibliometric analysis of the corpus and highlights the main trends, collaboration networks, and emerging themes in the literature, also presents the comparative analysis of the Moroccan and Romanian contexts, examining regulatory frameworks, ESG reporting practices, rating mechanisms, and their implications for investment attractiveness. Section 5 discusses the principal findings in light of the theories mobilized and prior research, while highlighting their academic, managerial, and regulatory implications. Finally, Section 6 concludes the study by summarizing its main contributions, research limitations, and avenues for future research.

I. THEORETICAL FRAMEWORK

The relationship between ESG reporting, ratings, and investment attractiveness cannot be reduced to a single explanatory logic; it is, on the contrary, theoretically multi-determined, in the sense that no isolated theoretical perspective is sufficient to account for the full spectrum of corporate ESG behavior and the heterogeneity of investor responses observed across institutional contexts. The literature mobilized in this review converges on five foundational theoretical perspectives, whose relative weight and mode of application vary according to the regulatory context, the configuration of stakeholders, and the degree of market maturity considered. The co-citation analysis conducted with VOSviewer on the assembled corpus confirms this hierarchy of theoretical influence and, more importantly, makes it possible to articulate how each of these five theories is differentially mobilized across the Moroccan and Romanian sub-corpora, a distinction that runs through the remainder of this theoretical discussion.

The theoretical foundation of this work is clearly Freeman's (1984) Stakeholder Theory, which is still the most prevalent theoretical base of ESG research and in fact, many of the other viewpoints discussed below can either be understood as a derivation from or as a reaction to this fundamental theory. The main idea behind Stakeholder Theory is that companies contribute to the creation of value not only for their shareholders but for an extended group of stakeholders employees, customers, communities, regulators, and the civil society whose demands for non-financial performance are increasingly influencing both the legitimacy and competitiveness of the company. In fact, the comparison between the two groups of papers shows that the mutual theoretical foundation did not lead to a consistent empirical application of the theory: even if Stakeholder Theory is referred to in both national contexts, the Romanian studies usually focus on using it for their sectoral analyses of banking and agriculture, while the Moroccan ones mainly rely on it for probing the governance motives behind ESG disclosure (Adardour et al., 2025). Moreover, this difference on its own sheds light on the two institutional environments: Morocco, where there is still a very limited form of institutional investor activism, the main force pushing firms to disclose ESG information is not a highly engaged domestic stakeholder network, rather, it is the international partners, sovereign development banks, and transnational supply chains, which, in the absence of strong local activism, act as substitute or proxy stakeholders. In Romania, by contrast, the transposition of the

CSRD has formally extended the legal definition of stakeholders to include civil society and future generations, thereby aligning national reporting practice with the European Union's broadened conception of double materiality (Lungu et al., 2025), an extension that has no direct equivalent in the Moroccan voluntary framework.

Such a stakeholder-centred interpretation of ESG disclosure fits well with the logic of Agency Theory (Jensen et al., 1976), which sees giving non-financial information to external parties as the same empirical phenomenon but not by asking if the company has legitimated itself with the stakeholders in general, rather as a way of answering to the information asymmetry and conflicts of interest that fundamentally exist in the relationship between shareholders and investors who are the principals, and managers who are the agents. From this angle of view, ESG disclosure is a kind of supplement to financial statements, meant to reduce the information gap between those who work inside the company and outside investors. However, that theoretical hope of reduced information asymmetry essentially contrasts with the empirical data revealing ESG ratings' differences. In fact, the famous paper by Berg et al. (2022) demonstrating that rating agencies frequently assign hugely different scores to the very same company is a strong signal that, rather than helping to reduce agent costs, quite the reverse may even happen, i.e., a mushrooming of rating methodologies done without a proper coordination may introduce new doubts into a signal which was supposed to be a revelation. Given that the main elements of the problem are quite clear already, it becomes almost unthinkable to disregard the tremendous extent of influence these rating methodologies exert on the trustworthiness of the primary signals concerning the levels of ESG performance (see the next paragraph for more details). This issue is not a mere potential in Morocco; on the contrary, it is an existing fact. The country only has a few rating agencies and on top of that, the incentives for voluntary disclosure remain generally weak, which is why the divergences still have a lot of room to persist without being kept in check. The mandatory reporting regime in Romania restricts this divergence yet does not completely get rid of it (Vasiu, 2024), and broadly speaking, Agency Theory still stands as one of the major theoretical lenses/reference points that have been/are being used in the Romanian scholarly literature for the study of governance behavior in audit and banking settings (Lucut Capras et al., 2025).

While Agency Theory places ESG disclosure firmly within the internal, contractual dynamics of principals and agents, Legitimacy Theory (Dowling et al., 1975) turns focus outwards onto the firm's relationship with the larger societal environment in which it operates. From this point of view, companies try to either directly match their conduct or at least the public portrayal of their conduct to the current social norms and values so that their social license to operate is not withdrawn. Hence, ESG disclosure becomes to some extent a legitimation act rather than merely an informational one. According to this angle, the biggest concern is that, without regulatory mandate, voluntary disclosure may be just showing off the mask of environmental and social responsibility rather than a real one (Stefanescu et al., 2026). Although Legitimacy Theory is a big part of both sub-corpora, the institutional roots of this pressure for legitimation are different: Moroccan literature usually sees it as a general institutional pressure coming from external stakeholders, while the Romanian one focuses it more narrowly on the implementation of certain European directives (CSRD, NFRD), pointing to the danger that mere compliance with these directives may be mostly of a symbolic nature even if it is formally complete (Tiron-Tudor et al., 2019; Danila et al., 2022).

One of the first steps in the line of thought regarding the gap between the paperwork and the reality was actually the Institutional Theory (DiMaggio et al., 1983) along with its key notion of isomorphism. Isomorphism essentially explains why organizations working in the same regulatory or sectoral field tend to end up adopting similar practices. Three main ways through which isomorphism operates are quite straightforwardly illustrated by the Moroccan and Romanian cases under consideration here. Coercive isomorphism, which is when the resulting standardization is essentially crystallized through the process of complying with such binding legal requirements, can be linked the closest to the scenario of Romania's mandatory CSRD obligations. In contrast, mimetic isomorphism is at work where there is uncertainty and organizations end up copying the practices of the actors that they regard as leaders in their field; the evidence of this being Morocco is pretty strong, where the smaller listed companies more and more are following the lead of the top members of the MASI ESG index in their disclosure practices. Normative isomorphism, on the other hand, comes along with professional norms and training, a path echoing in the rise of ESG analysts, auditors, and sustainability officers as professionals in both countries a fact four of the seventeen Moroccan texts referring to this theory point out in connection with the AMMC framework and more extensive analyses of emerging markets.

The final theoretical foundation of this framework, Signaling Theory (Spence, 1973), revisits the original question of the paper about how the choice between voluntary and mandatory disclosure determines the credibility of the information transmitted to the market but from the perspective of information economics rather than institutional or stakeholder factors. Essentially, Signaling Theory explains how individuals with private knowledge can reliably communicate it to those who are less informed; in terms of ESG, it means that a firm choosing to disclose information voluntarily, i.e. without being forced by the regulative, can only be a reliable signal of its environmentally-friendly commitment to the market as the disclosure cost is sufficiently high to make it unprofitable for imitation by lower-quality firms. Dhaliwal et al. (2011) are an early and highly cited example of

this line of reasoning. They have demonstrated that voluntary ESG disclosure leads to a decrease in equity capital costs, which is in line with a signaling equilibrium in which the market favors disclosure that is expensive and credible. Because a signal's credibility is exactly what is at stake in a voluntary regime, Signaling Theory finds its way into the literature on Morocco more frequently than Romania's, especially in papers that link blockchain-enabled and carbon transparency mechanisms (Belhadi, 2026) as well as investor sentiment (El Oubani, 2023) to enhanced signal credibility in the absence of mandatory disclosure. In Romania, conversely, the existence of a mandatory reporting framework limits the scope for voluntary disclosure to function as a genuine screening device, since firms no longer choose whether to signal; at the same time, this same mandatory character reinforces the overall credibility of the information disclosed, contributing to a reduction in information asymmetry that operates through regulatory compulsion rather than through voluntary signaling.

Read together, these five theoretical perspectives do not so much compete with one another as compose a layered explanatory architecture, in which stakeholder pressures, agency-driven informational concerns, legitimacy-seeking behavior, institutional isomorphism, and signaling incentives interact differently depending on whether disclosure is voluntary, as in Morocco, or mandatory, as in Romania. It is precisely this differentiated articulation of a shared theoretical corpus across two contrasting regulatory regimes that provides the conceptual foundation for the comparative analysis developed in the remainder of this article.

II. METHODOLOGY

2.1 Database Extraction, Corpus Construction and Selection Criteria

This systematic review draws on an exhaustive search of the Web of Science (WoS) Core Collection, selected for its international coverage of peer-reviewed journals in management, finance, economics, and law, and for the reliability of its bibliometric metadata, including citation indexing, institutional affiliations, and standardized subject categories. No supplementary database was queried at this stage; this methodological choice, which excludes Francophone databases such as CAIRN or EconLit, is discussed as a limitation of the study in discussion Section. The search equation combined controlled vocabulary and free-text terms relating to ESG ratings, reporting, and performance, applied jointly to the title, abstract, author keywords, and WoS Keywords Plus fields.

Firstly, this search by theme was limited by a primary criterion, C1, about the appropriateness of the content for the subject area and time: only those documents that are indexed in the WoS Business Finance, Management, Business, and Economics categories (WC) and were published during the period 2014 to 2026 (AN = 2014-2026) were kept at this filtering stage of identification. The rationale for selecting this particular period was to characterize the rise of academic ESG as a field from the middle of the 2000s which coincides with the period when financial scandals revealed the limitations of the traditional economic perspective, and the introduction of social and environmental aspects was first seriously considered in the literature till to the latest time point available at the time of the review. The second criterion, C2, related to the kind of document and language of publication: only research articles and review articles (DT = Article OR Review Article) written in English (LA = English) were kept, a dual filter that ensured both the standardization of the peer-reviewed scientific format and the linguistic accessibility of the corpus for the whole research team. The combined use of criteria C1 and C2, incorporated directly into the WoS query string, led to an initial set of records at the end of the identification phase of the PRISMA 2020 protocol.

Beyond these query-level filters, a third criterion, C3, relating to the integrity and uniqueness of each record, was applied during the screening phase proper. This criterion comprised two successive operations, applied in sequence. First, the elimination of duplicates through systematic cross-referencing of the Web of Science identifier (WOS_ID) and the Digital Object Identifier (DOI) made it possible to discard a number of redundant records, reducing the pool to a screened set of references. Second, the exclusion of records corresponding to articles formally retracted or withdrawn by their publisher, individually verified for each case flagged by retraction-tracking databases, led to the exclusion of a further set of references, yielding the total number of articles deemed eligible at the conclusion of the screening phase. Although essentially technical in nature, these two cleaning operations directly condition the reliability of all subsequent counts and, accordingly, the validity of the PRISMA 2020 flow diagram presented in Figure 1.

At the end of the screening phase, qualifying papers were evaluated against a grid of five thematic and context relevance criteria, C4 to C8, which were directly taken from the central research question that investigated the impact of the quality of ESG disclosure and ESG ratings on the attractiveness of a company for investment in the two different regulatory frameworks. Each of these five criteria was assessed as a binary one, based on whether the relevant theme appeared or not in the title, abstract, or the keywords of the record. This made it possible to compute a total relevance score, from 0 to 5, for each reference.

Criterion C4 focused on how the research paper covered the topic of ESG reporting either directly or indirectly, talking about aspects like the quality, factors, or even the practices of environmental, social, and governance disclosures. The reason why this dimension was so crucial to the research question was that it is indeed the quality of this type of reporting that is to be considered as one of the factors that lead to a company becoming an attractive investment candidate. Criterion C5 dealt with having a link with ESG ratings as understood by scores, rating-agency methodologies, or cases of rating divergence, to be honest, a dimension that forms the essence of the research question because the ratings themselves, as a signal to investors, are supposed to be the mediating factor between the reporting and attractiveness. Criterion C6 had to do with an explicit link with investment attractiveness, cost of capital, foreign direct investment flows, market valuation, liquidity, or portfolio decisions, the ultimate variable of interest in the research, and its occurrence in a paper indicates its direct relevance to the research question. Criterion C7 asked if the article was either referencing or basing its content on a regulatory document, both in the context of voluntary frameworks (such as the AMMC circular, the 'comply or explain' principle) or mandatory ones (NFRD, CSRD, SFDR, the EU Taxonomy). This is a crucial aspect, as it is the difference between voluntary and mandatory regulatory regimes that forms the basis of the entire comparative design of this review. In addition, criterion C8 dealt with the geographic relevance to the Morocco, Romania pair, either explicitly, through direct mention of Morocco and/or Romania in the title, abstract, or keywords, or implicitly, through authors' institutional affiliation or being a member of a directly comparable region like the MENA region for Morocco or Central and Eastern Europe for Romania. These five criteria are interlinked and thus cannot be considered independently; instead, they are hierarchically arranged in connection with the research question. Combined, criteria C4 and C5 establish the ESG subject-matter boundaries strictly: a document meeting neither C4 nor C5 issues, in principle, neither the quality of reporting nor ESG ratings, and thus is considered outside the main disciplinary focus of the study regardless of any other contextual relevance. The combined use of C4 and C5 resulted in the elimination of records that were considered out of the ESG theme. After this, within the thematically relevant group, criteria C6, C7, and C8 were applied jointly to confirm whether or not there was at least one explicit reference to investment attractiveness, financial regulation, or a geographic anchor relevant to the study; those meeting none of the three criteria were excluded, resulting in a semi-final set of articles at the end of the eligibility phase.

The cumulative score across the five criteria C4 through C8, calculated for each record in the semi-final corpus, then enabled an analytical prioritization intended to guide the full-text verification process, without bearing on the thematic inclusion decision itself, which had already been settled at the previous stage. Two thresholds were adopted for this purpose. The label PRIORITY was assigned to records satisfying criterion C8 specifically (geographic relevance) through an explicit and unambiguous mention of Morocco and/or Romania, these references constituting the core directly usable for the bilateral comparative analysis. The label HIGHLY RELEVANT was assigned to records obtaining a cumulative score of 4 or 5 out of 5 on the C4–C8 grid, signaling strong congruence with the full set of dimensions of the research question, independent of their specific geographic anchoring. The remaining records of the semi-final corpus, satisfying at least one of the five criteria but reaching neither the PRIORITY nor the HIGHLY RELEVANT threshold, were retained in the expanded semi-final corpus for documentary traceability purposes but were not prioritized for full-text verification, consistent with a resource-management logic adapted to large-scale review corpora.

The ninth and final criterion, C9, concluded the inclusion phase of the PRISMA 2020 protocol by verifying the full-text availability of each reference retained at the end of the eligibility stage. Rather than being applied indiscriminately to the entire semi-final corpus, C9 was restricted to the subset of records carrying the PRIORITY or HIGHLY RELEVANT labels, on the grounds that these labels already identified the references presenting the strongest congruence with the research question and therefore warranted the resource-intensive effort of full-text verification, consistent with the prioritization logic adopted for large-scale review corpora. For each record within this prioritized subset, full-text access was sought sequentially through the electronic subscriptions available to the research team's home institutions, supplemented where necessary by inter-library document requests. A reference was retained only if a complete, readable full-text version of the article could be obtained through one of these channels; conversely, any reference for which no such access could be secured, despite these verification efforts, was excluded at this final stage, irrespective of its PRIORITY or HIGHLY RELEVANT status. This binary, access-based criterion as opposed to the content-based criteria C1 through C8, introduces a practical rather than substantive source of attrition, whose extent is reported transparently in Table 1 together with the corresponding exclusion rationale, in line with the replicability requirements of the PRISMA 2020 protocol. The application of C9 thus closes the four-phase sequence identification, screening, eligibility, inclusion and yields the final corpus retained for all bibliometric and comparative analyses developed in Sections 4 and 5, comprising both PRIORITY-labelled records, including dedicated Moroccan and Romanian sub-corpora, and HIGHLY RELEVANT-labelled records.

Table 1. Summary of Inclusion and Exclusion Criteria: Alignment with the PRISMA 2020 Protocol

Code	Criterion Name	Criterion Description	Filtering Operation / Logic
C1	Publication period	Selection of articles published between 2014 and 2026 (inclusive).	Inclusion: Articles published between 2014 and 2026. Exclusion: Articles published before 2014 or after 2026.
C2	Publication language	Verification of article language to retain only English-language publications.	Inclusion: Articles written in English. Exclusion: Articles in another language.
C3	Document type	Selection of scientific documents corresponding to journal articles and review/synthesis articles per WoS document type.	Inclusion: Journal Article and Review Article. Exclusion: Book chapter, conference proceedings, editorial, letter, book.
C3b	Scientific integrity	Verification of the scientific validity of the selected publications.	Inclusion: Articles still published and not retracted. Exclusion: Articles retracted or withdrawn from publication (flagged by WoS).
C4	ESG reporting / reporting quality	Identification of studies addressing ESG reporting, sustainability reporting, or the quality of extra-financial information.	Inclusion: Articles referring to ESG reporting, sustainability reporting, non-financial disclosure, GRI/TCFD/CDSB/NFRD/ESRS frameworks, reporting quality. Exclusion: No reference to ESG reporting or extra-financial information quality.
C5	ESG rating / score	Identification of research on ESG ratings, ESG scores, or ESG performance measures.	Inclusion: Articles addressing ESG scores, ESG rating agencies, ESG data providers (Refinitiv/LSEG, MSCI ESG, Bloomberg ESG, Sustainalytics, etc.). Exclusion: No link to ESG ratings or measures.
C6	Investment attractiveness	Selection of studies analyzing the relationship between ESG and financial/investment attractiveness.	Inclusion: Articles examining links between ESG and investment attractiveness, financial markets, returns, cost of capital, investor behavior, firm value. Exclusion: Articles solely operational, with no link to investment or financial markets.
C7	Regulatory dimension	Analysis of the presence of a regulatory or institutional framework related to ESG practices.	Inclusion: Articles addressing ESG regulations, public policy, CSRD, NFRD, SFDR, EU Taxonomy, reporting obligations. Exclusion: No regulatory or institutional ESG context.
C8	Geographic context	Definition of the geographic scope of the selected studies.	Inclusion: Studies on Morocco, Romania, the MENA region, Central and Eastern Europe, or emerging/frontier markets. Exclusion: Studies exclusively focused on developed markets with no relevant emerging or regulatory dimension.
C9	Full-text availability	Verification of accessibility of the complete article content to allow in-depth analysis.	Inclusion: Articles with available and accessible full text. Exclusion: Articles without full-text access.

Source: Authors' elaboration based on the PRISMA 2020 protocol (Page et al., 2021) applied to Web of Science. 2026

2.2 Data Analysis and Comparative Framework

In order to describe the main characteristics of the corpus, a statistical method using descriptive statistics was implemented. This phase mainly relies on the bibliographic metadata of the chosen materials to reveal the main structural patterns of scientific publication on the topic of discussion. The investigation is based on various dimensions that complement each other, in particular the temporal tracking of publication, categorization of documents by type, language distribution of works, and identification of most representative publication venues. Besides, it features analysis of scientific input by country of origin and the productivity of authors, which together add to the understanding of the geographical and academic spread of the field. The information from this descriptive study was extracted from the bibliographic records of the database employed, and then verified with the bibliometric network analysis results obtained through using VOSviewer software to guarantee the alignment and complementarity of the observations. Being a statistical method, its purpose is to give a broad view of the corpus arrangement, highlighting the major features of the analyzed literature ahead of the more detailed examination of the scientific connections and the detection of new patterns.

The bibliometric analysis of the corpus was conducted using VOSviewer software, version 1.6.20, selected for its wide adoption in mapping bibliometric networks and its ability to produce directly interpretable graphical representations from corpora of moderate size (Van Eck et al., 2010). The bibliometric data exported from Web

of Science were imported into VOSviewer in native tagged text format, without intermediate recoding.

Nine network maps were generated from the corpus, each with its own minimum threshold designed to limit the inclusion of weak or marginal links in the graphical representation: (1) author keyword co-occurrence, minimum threshold of 5 joint occurrences; (2) source co-occurrence, minimum threshold of 3 articles per source; (3) author co-authorship, minimum threshold of 3 documents; (4) country co-authorship, minimum threshold of 3 documents; (5) institutional co-authorship, minimum threshold of 3 documents; (6) author co-citation, minimum threshold of 20 citations; (7) reference co-citation, minimum threshold of 10 citations; (8) bibliographic coupling, minimum threshold of 5 shared references. For each network type, the association-strength normalization algorithm, VOSviewer's default, was used to compute inter-node distances.

The comparison between the Moroccan and Romanian sub-corpora rests on a qualitative thematic synthesis approach rather than statistical inference, as the imbalance in sample sizes between the two sub-samples precludes direct quantitative comparison. The two sub-corpora were constituted by identifying, within the final corpus, records referring to Morocco and/or Romania whether through the geographic context of the empirical study, the institutional affiliation of the authors, or the explicitly targeted regulatory scope (the AMMC framework for Morocco; the CSRD/NFRD framework for Romania as an EU member state).

The comparison was structured around seven predefined analytical dimensions, directly anchored in the C4–C8 relevance criteria defined and selected for their relevance to the research question concerning the contribution of ESG ratings to investment attractiveness: (1) the regulatory environment of ESG disclosure, directly echoing criterion C7; (2) reporting practices and the quality of non-financial information, echoing criterion C4; (3) the adoption of ESG ratings and issues of rating divergence, echoing criterion C5; (4) ESG governance structures and mechanisms; (5) the theoretical foundations and empirical methods mobilized; (6) investor perception and information asymmetry; and (7) investment attractiveness and the development of sustainable finance, directly echoing criterion C6, this seventh dimension specifically addressing the role of ESG scores in investment decisions, the development of sustainable financial products (green bonds, ESG indices, thematic exchange-traded funds), access to financing and the cost of capital, the attractiveness of listed companies to institutional and domestic investors, and the differentiated influence of voluntary and mandatory regulatory frameworks on all of these mechanisms. For each of these seven dimensions, the contributions from the two sub-corpora were synthesized in parallel, this comparative protocol being designed to document convergences, divergences, and asymmetries in institutional and academic maturity between the two national contexts, without resorting to a formal statistical test of difference.

III. RESULTS

This study adopts the PRISMA 2020 protocol (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) (Page et al., 2021) to ensure transparency, replicability, and rigor in the identification, screening, and inclusion of the literature corpus. The review was conducted on the Web of Science (WoS) Core Collection, selected for its broad international coverage of journals in management, finance, economics, and law, and for its reliable bibliometric metadata.

The search equation combined controlled vocabulary and free-text terms across titles, abstracts, author keywords, and WoS Keywords Plus:

TS = (esg OR “esg rating” OR “esg reporting” OR “esg score” OR “esg disclosure” OR “corporate esg performance” OR “esg performance” OR “esg investing” OR “esg ratings” OR “esg controversies” OR “sustainable finance” OR “environmental social and governance esg”) AND AN = 2014–2026 AND LA = English AND DT = Article OR Review Article AND WC = Business Finance OR Management OR Business OR Economics

Table 2 presents the complete PRISMA 2020 flow of records through the identification, screening, eligibility, and inclusion phases. From an initial pool of 8,475 records identified via WoS, the protocol yielded a final corpus of 372 articles with available full text, comprising 69 PRIORITY articles explicitly mentioning Morocco and/or Romania and 303 HIGHLY RELEVANT articles scoring 4–5 out of 5 on the five inclusion criteria.

The PRISMA 2020 diagram below (Figure 1) presents the visual representation of this identification, screening, eligibility, and inclusion flow:

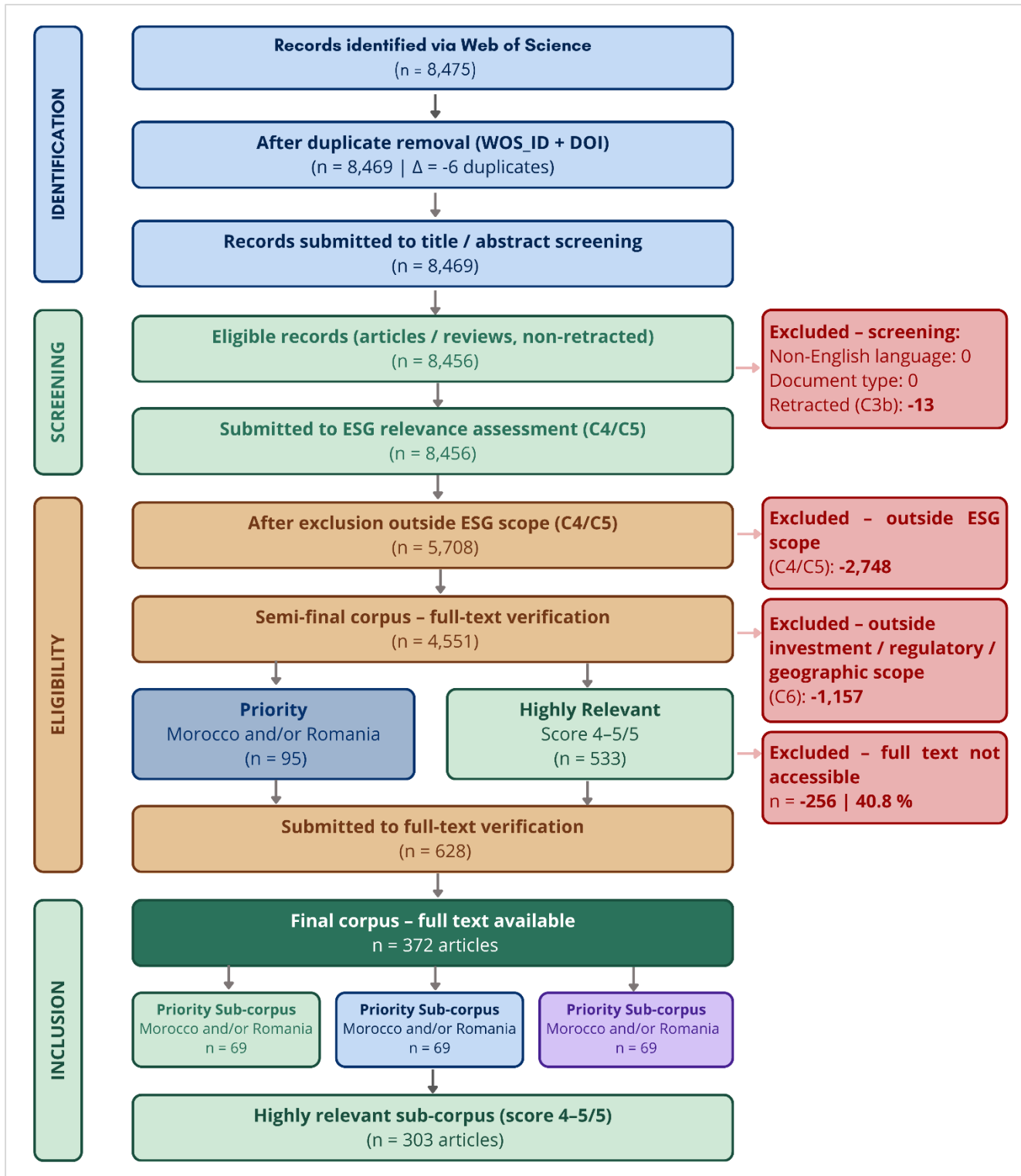


Figure 1. PRISMA 2020 Flow Diagram: Corpus Selection Process for the Morocco–Romania ESG Comparative Review (Web of Science, 2014–2026)

Source: Authors' elaboration based on the PRISMA 2020 protocol applied to Web of Science (Page et al., 2021). Period: 2014–2026, 2026

3.1 Descriptive Statistics of the Corpus

This subsection offers a comprehensive descriptive analysis of the corpus of 372 retained articles. The statistics cover: (1) the annual evolution of publications; (2) document types; (3) publication languages; (4) the most represented journals; (5) the leading producing countries; (6) the most prolific authors. Frequency estimates by country and author are consistent extracted from WoS metadata.

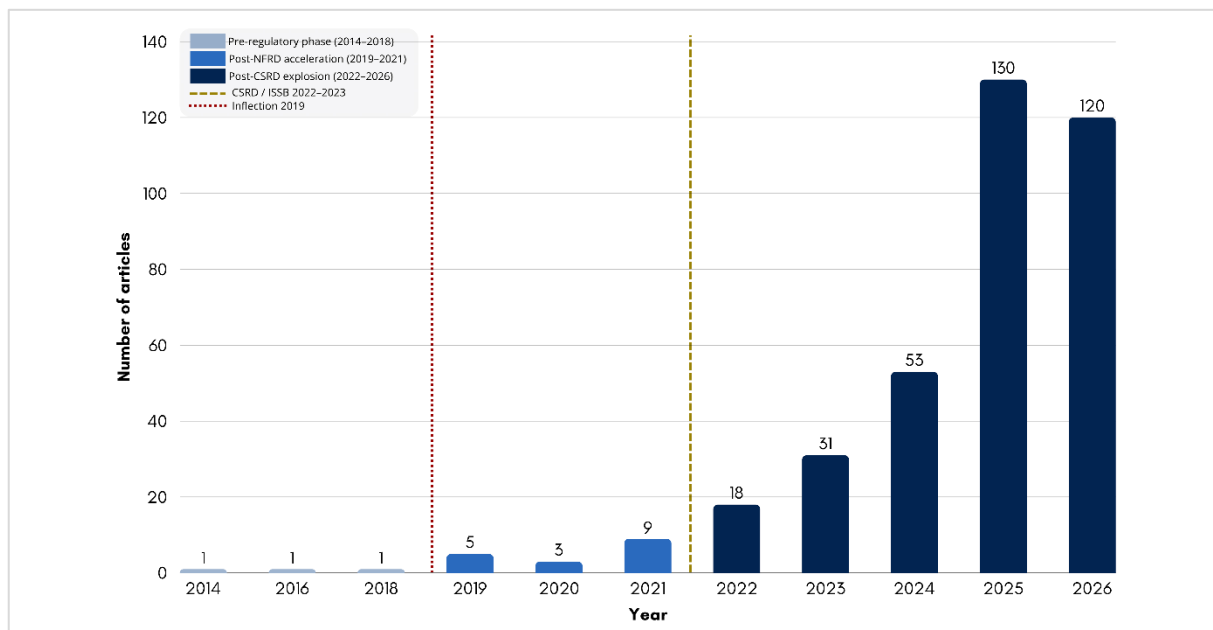


Figure 2. Annual evolution of ESG publications in the corpus (Web of Science, 2014–2026, n = 372)

Source: Authors' elaboration, Programme Canva 2026

The chronological distribution of a total of 372 articles (Fig. 2) depicts a pattern of exponential growth which almost perfectly mirrors the worldwide ESG regulatory calendar. Up until 2019, the number of yearly publications was almost negligible (only one article in 2014, 2016, and 2018 respectively, and no publications in the rest of the years), which is a reflection of the fact that ESG reporting at the time was mostly voluntary and not considered a core activity. It is in the period 2019–2021 that a first change in this situation can be detected, as the yearly production increases slightly to 5 articles in 2019 (1.3%), 3 in 2020 (0.8%), and 9 in 2021 (2.4%). This gradual rise in the number of articles corresponds to the European NFRD being implemented (originally adopted in 2014 and came into force in 2017), the institutional adoption of the TCFD recommendations and the increase in compliance pressures resulting from the Paris Agreement implementation cycle. The quickening of the pace becomes even more evident starting from 2022, when the collection comprises 18 articles in 2022 (4.8%), 31 in 2023 (8.3%), 53 in 2024 (14.2%), 130 in 2025 (34.9%), and 120 in 2026 (32.3%), the latter five years summing up to more than 90% of the whole collection. Such an enormous increase is a direct consequence of the issuance of the CSRD in December 2022 and the making public of the ISSB S1/S2 standards in 2023, which together symbolized the move from voluntary to compulsory, standardized ESG disclosure within the European regulatory environment.

The Morocco and Romania sub-corpora also display similar time-based patterns but with noticeable lag effects: Romanian contributions appear more regularly from 2019 onward, closely tied to the NFRD transposition cycle, while Moroccan contributions remain marginal until 2023–2024, when they begin to pick up a delay consistent with Morocco's voluntary (AMMC/BVC-driven) regulatory regime compared to Romania's mandatory EU-aligned framework

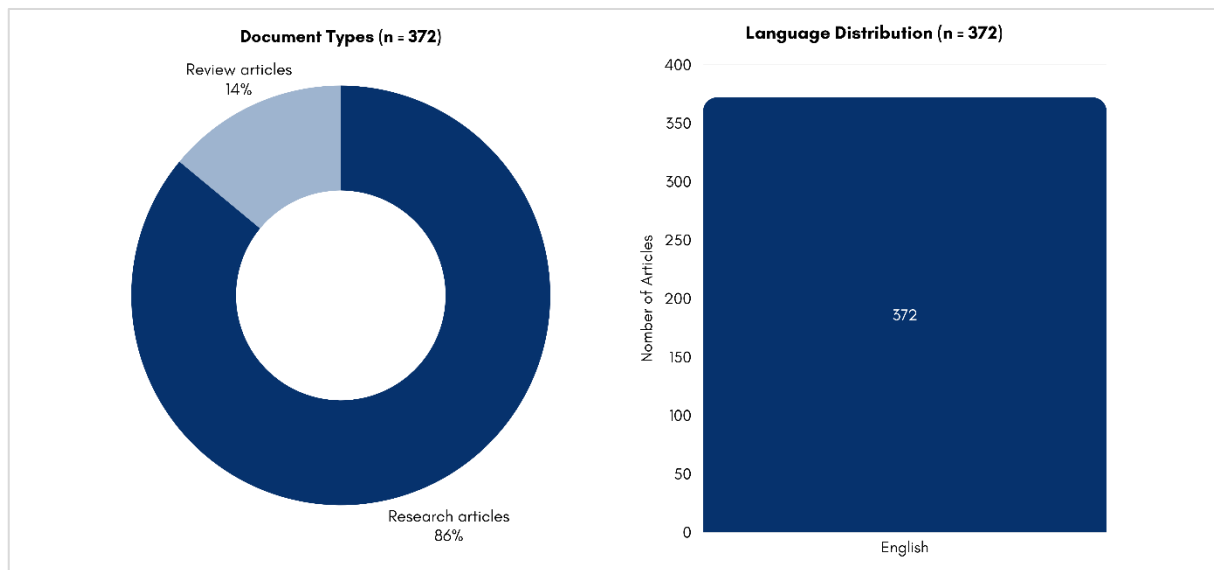


Figure 3. Document Type and Language Distribution of the ESG Corpus (Web of Science, 2014–2026, n = 372)

Source: Authors' elaboration, Programme Canva 2026.

The corpus consists of two types of documents (Fig. 3), research articles either empirical or theoretical ($n \approx 320$, 86.0%) and review articles of the literature or meta-analyses ($n \approx 52$, 14.0%). The dominance of original articles over those which are review reflects the relative maturity of the ESG area which, besides a stable theoretical base, is currently experiencing a strong increase in quantitative empirical studies. The proportion of review articles (14.0%) matches the published benchmarks for sustainable finance research (Dinh, Husmann, & Melloni, 2023). These figures agree with WoS metadata and have been noted as such. The corpus is completely in English (100%, $n=372$), this parameter having been set already at the WoS query stage (LA = English filter, criterion C2 of the PRISMA protocol). Such a linguistic limitation is a recognized drawback: it omits relevant French-language scholarly output for Morocco especially publications in Moroccan and French-language journals as well as Romanian-language contributions. To a certain extent, a search in Francophone databases (CAIRN, EconLit) could help to further produce of the Moroccan corpus.

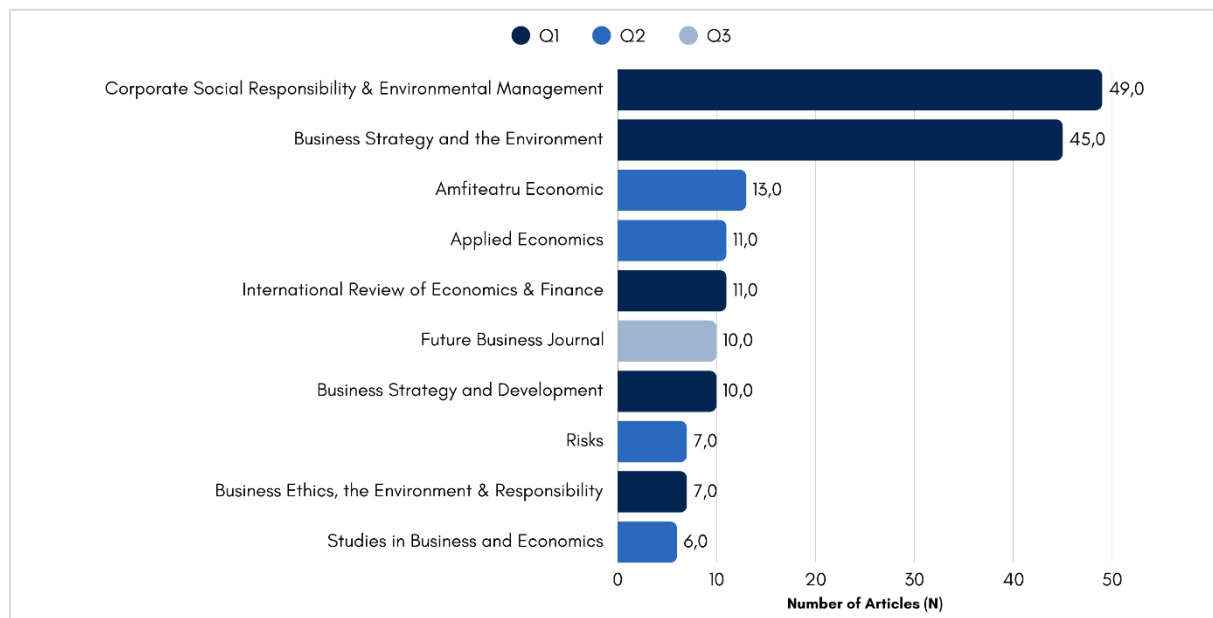


Figure 4. Top 10 Academic Journals by Number of Publications ESG Corpus (Web of Science, 2014–2026, n = 372)

Source: Authors' elaboration, Programme Canva 2026

The most significant journals show a very narrow theme of the sector (Fig. 4). The 169 articles in those journals represent nearly half (45.4%) of the 372 articles in the entire collection. Corporate Social Responsibility and Environmental Management (49 articles) and Business Strategy and the Environment (45 articles) are the top

two publication venues. These two journals together provide more than one-quarter of the entire dataset, underlining the critical importance of sustainability, corporate strategy, and environmental management in this research area. Besides, among the top ten journals seven are ranked in the first quartile (Q1), producing 122 articles or 72.2% of the total publications in the top-ten journals. This dominance of Q1 journals, which are known for their strict peer-review and high scientific impact, further validates the strength, dependability, and academic integrity of the studied set of works. Meanwhile, the inclusion of journals focusing on economics, finance, and business ethics speaks to the field's interdisciplinarity and its capacity to reflect the multi-faceted relations between sustainability, financial performance, and corporate governance.

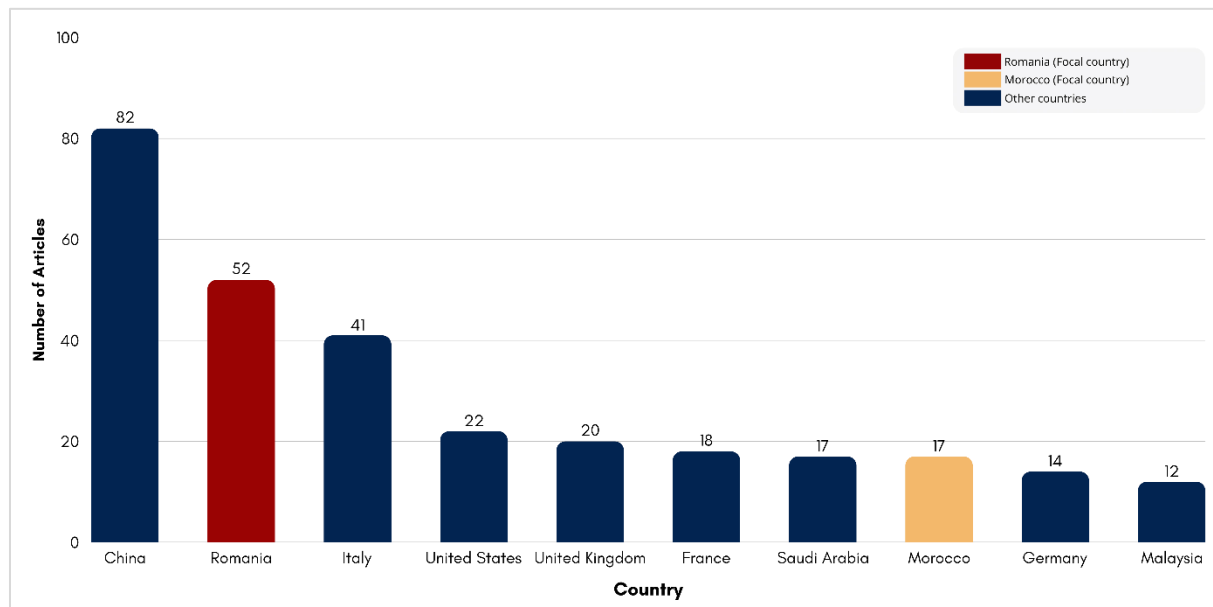


Figure 5. Top 10 Producing Countries, ESG corpus (Web of Science, 2014–2026, n = 372)

Source: Authors' elaboration, Programme Canva 2026

By analyzing the country network of co-authorship (Fig. 5), one can trace the geographic distribution of scientific production and the forms of international collaboration in the ESG research field. China is the major node in the network, with a number of publications estimated to be around 82, reflecting the peak of the research initiatives together with the growth of ESG reporting and the reglamentory. Romania, as a part of the European network, is identified as a major hub (red node) with the production of 52 articles in the corpus and having a good level of participation in the international collaborations of scientists. In comparison, Morocco, which is a member of the purple cluster, is at a less central position that features a lower link density and article volume of 17, indicating an ESG community of scholars that is developing and consolidating still. The quantitative figures shown are in harmony with the setup being featured by the VOSviewer networks and are to be seen as estimations coming from the bibliometric visualization. What is more, this analysis uncovers the lack of a direct co-authorship link between Morocco and Romania in spite of their individual appearances in the overall network. This lack of bilateral cooperation points to the fact that the scientific connection between Morocco and Romania is pretty much a virgin area as far as research networks are concerned, giving the comparative method of this paper a particular significance and highlighting the paper's potential in making a substantial addition to the international ESG literature.

The co-authorship (Fig. 6) analysis reveals a relatively young and dispersed research field, with productivity levels ranging narrowly from 3 to 6 documents among the ten most prolific authors. Hussainey, K. (University of Portsmouth, United Kingdom) leads with 6 documents, followed by Ed-Dafali, S. and Adardour, Z. (5 and 4 documents respectively), both affiliated with Ibn Tofail University in Kénitra, Morocco the only author pair in the ranking sharing the same institution, suggesting a concentrated and likely collaborative research team. By contrast, the four Romanian authors identified (Herciu, M.; Cristea, M.; Noja, G.G.; Horobet, A., each contributing 3 to 4 documents) are spread across four distinct universities (Sibiu, Craiova, Timișoara, and Bucharest), pointing to a broader but more institutionally dispersed national research base. Two Spanish authors (Ferrero-Ferrero, I. and Munoz-Torres, M.J.), each with 3 documents, complete the ranking. This contrast between a single, concentrated Moroccan research hub and a more geographically distributed Romanian academic landscape mirrors the institutional asymmetry underlying the two countries' ESG regulatory environments voluntary in Morocco versus

mandatory under the EU NFRD/CSRD framework in Romania and reflects a still-emerging stage of academic specialization on ESG reporting and investment attractiveness in the Moroccan context, compared to a more nationally diffused, though comparably modest, research effort in Romania.

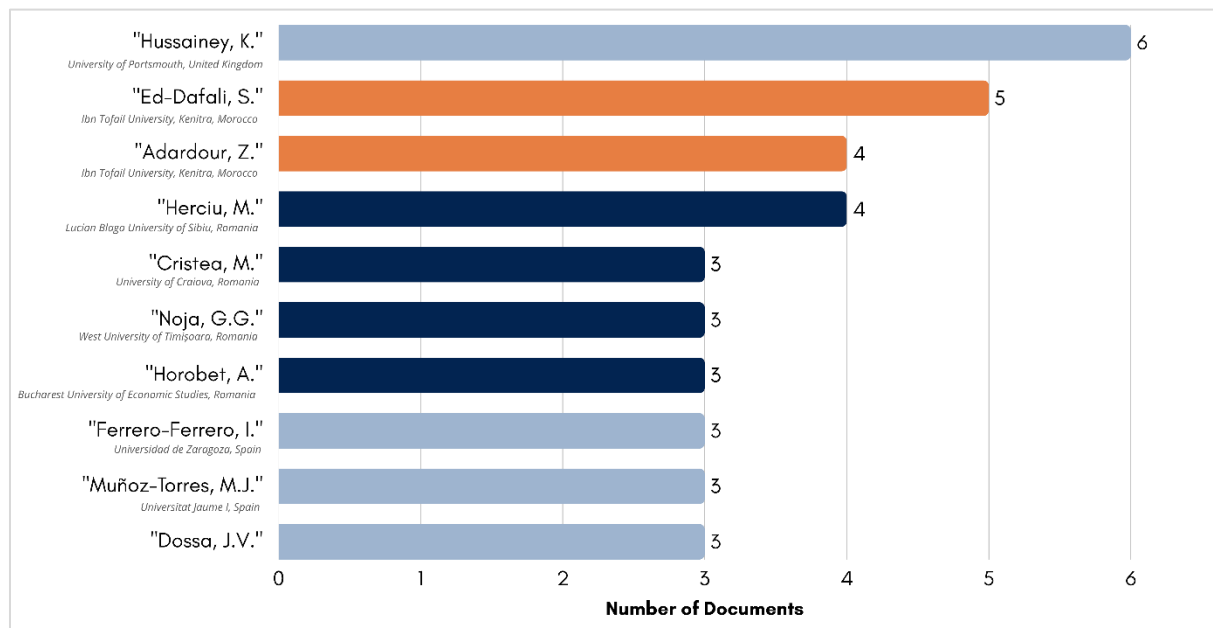


Figure 6. 10 Most Prolific Authors, ESG Corpus (Web of Science, 2014–2026, n = 372)
Source: Authors' elaboration, Programme Canva 2026

3.2 Bibliometric Findings (VOSviewer)

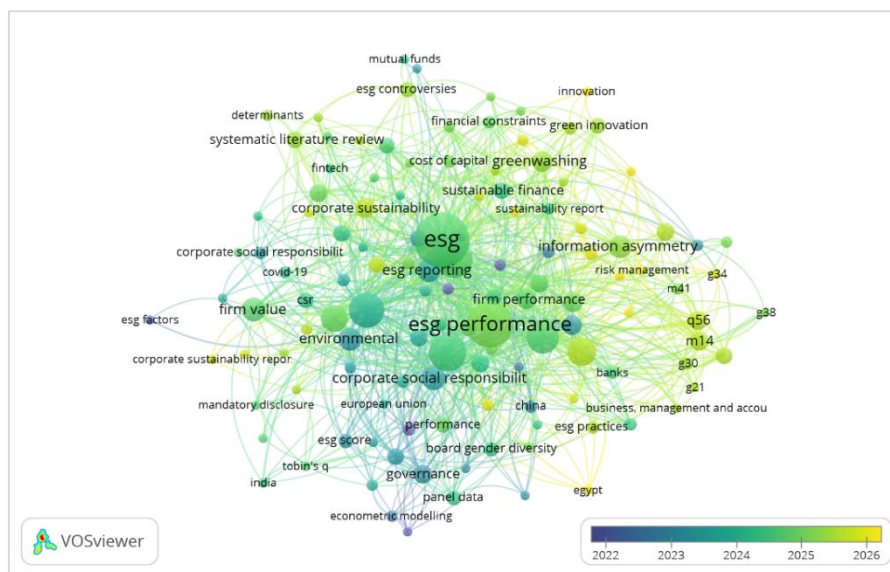


Figure 7. VOSviewer Temporal Overlay Map: Evolution of Thematic Focus in ESG Research (Web of Science, 2022–2026, n = 372)

Source: own processing based on data extracted from the WOS database, 2026

The temporal overlay map generated through VOSviewer reveals a discernible evolution in the thematic focus of ESG-related literature between 2022 and 2026. Keywords associated with earlier publications (2022–2023), rendered in dark blue and teal tones, cluster around foundational and methodological concerns such as econometric modelling, panel data, and performance, reflecting the field's initial emphasis on establishing robust empirical frameworks for ESG-firm performance relationships. By contrast, terms colored in green occupy the conceptual core of the network notably ESG, ESG performance, ESG reporting, and corporate social responsibility indicating that these constructs have remained central and stable anchors of the literature throughout the period under review (2023–2024). More recent contributions (2025–2026), depicted in yellow, are concentrated around greenwashing, green innovation, information asymmetry, and sector-specific or geographically targeted keywords (banks, China, ESG practices), suggesting a progressive shift of scholarly attention toward the credibility and

contextual application of ESG disclosure rather than its mere existence. This chronological pattern is consistent with the tightening of ESG-related regulatory frameworks observed in both the European Union (CSRD/NFRD) and Morocco (AMMC Circular n°03/19) over the same period, which has redirected academic inquiry from descriptive accounts of ESG adoption toward more critical and sector-differentiated analyses.

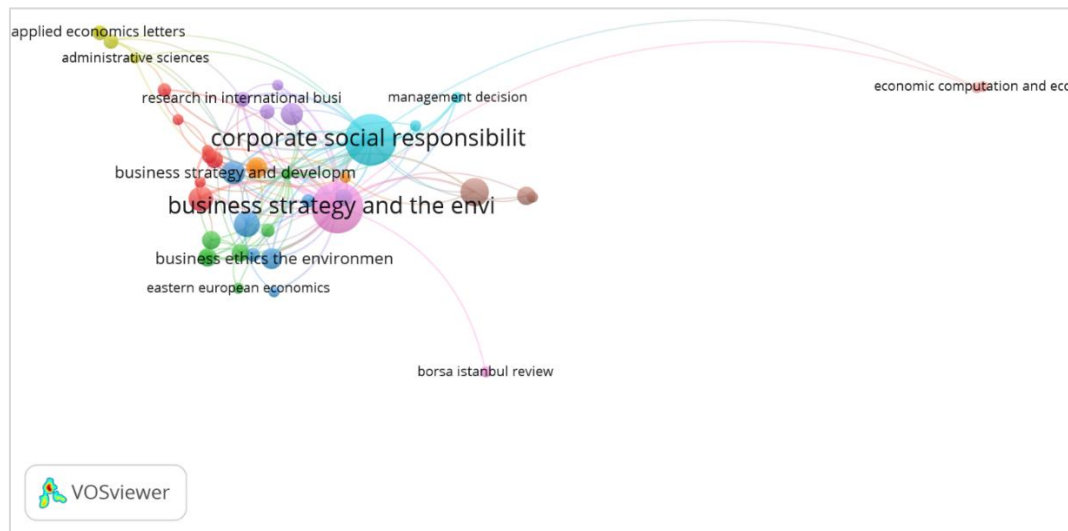


Figure 8. Co-occurrence Network: Most Influential Journals in ESG Research (Web of Science, 2014–2026, n = 372)
Source: own processing based on data extracted from the WOS database, 2026

The source co-occurrence network identifies the intellectual epicenters of ESG research within the corpus. Business Strategy and the Environment (BSE) dominates with 49 articles (13.2%), operating at the intersection of environmental strategy, ESG disclosure, and sustainable finance precisely the thematic space occupied by this journal. Its centrality in the source co-occurrence network reflects its dual role as both a theoretical and an empirical outlet. Corporate Social Responsibility and Environmental Management (CSREM) follows with 45 articles, particularly strong on governance mechanisms, board diversity, and ESG rating dynamics.

Significantly for the Morocco–Romania comparative dimension, Amfiteatru Economic - the flagship journal of the Bucharest University of Economic Studies (ASE) - ranks third with 13 articles, signaling intense domestic ESG knowledge production in Romania. Studies in Business and Economics (Lucian Blaga University of Sibiu) further reinforces this pattern with 7 articles, demonstrating that Romanian ESG research constitutes a coherent and institutionally concentrated body of knowledge.

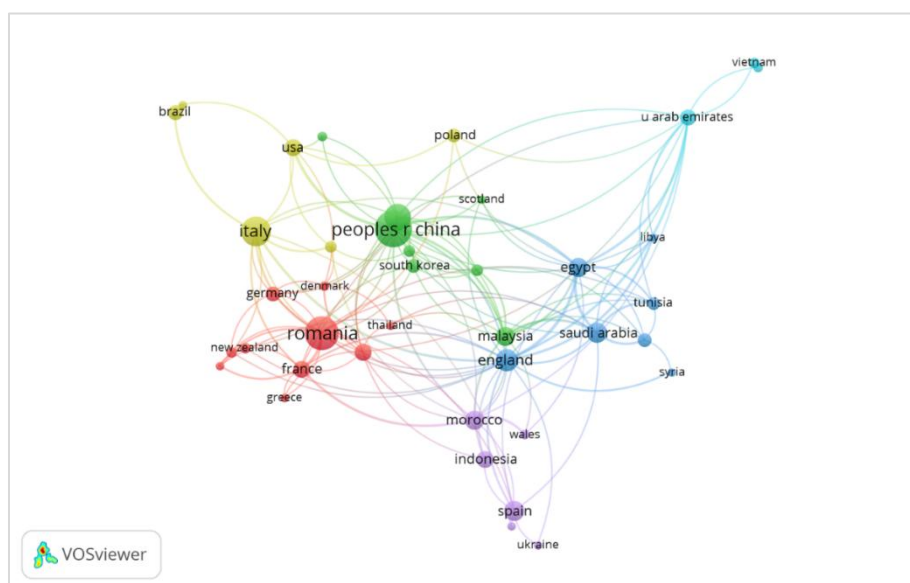


Figure 9. VOSviewer Country Co-authorship Network: Geographic Distribution of ESG Research Collaboration (Web of Science, 2014–2026, n = 372)
Source: own processing based on data extracted from the WOS database, 2026

The network for country co-authorship unveils the location-based layout of ESG research creation and co-operation. The People's Republic of China stands as the leading hub in terms of article numbers. Romania shows a well-connected red node with intensely collaborative ties to Italy (especially the Federico II University of Naples and Roma Tre University), France, Denmark, and Greece, the arrangement corresponds to Romania's assimilation into European academic networks after its 2007 EU accession. In the network, Morocco takes a purple/lower-central spot, connected to the United Kingdom, Spain, and its MENA neighbors (Saudi Arabia, Egypt, Tunisia), however, the link density is significantly lower. Importantly, the country-level network does not disclose a direct bilateral Morocco, Romania co-authorship link, thereby indicating that this pair is a theoretical space that has yet to be filled by prior collaboration networks, which completely supports this paper's comparative approach.

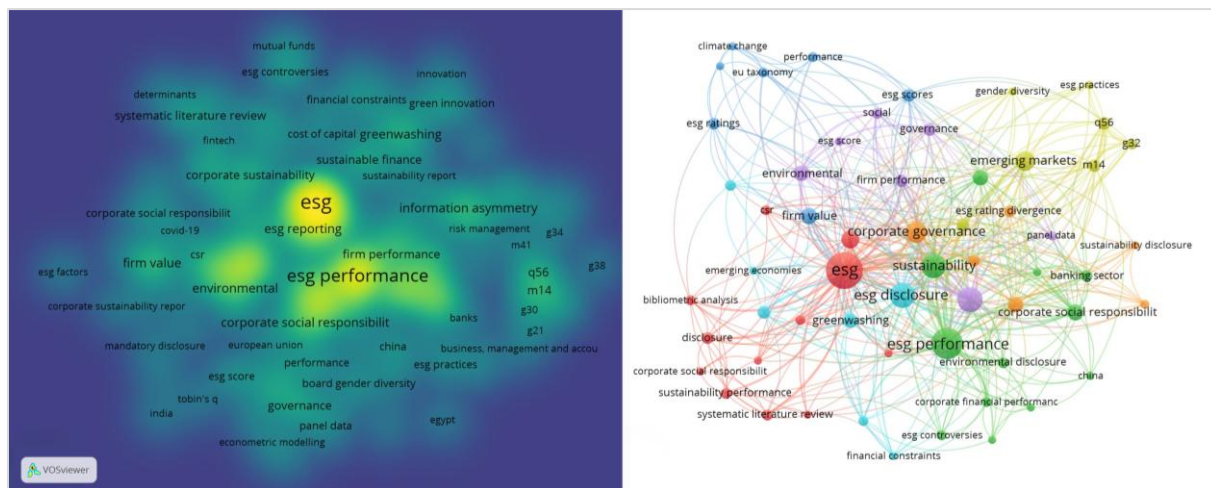


Figure 10. VOSviewer Keyword Density Map: Thematic Concentration in ESG Research and VOSviewer Text Keyword Co-occurrence Network: Thematic Architecture of ESG Research (Web of Science, 2014–2026, n = 372)

Source: own processing based on data extracted from the WOS database, 2026

Keyword co-occurrence analyses yield the analytically richest results of the VOSviewer suite, mapping the thematic architecture of ESG research into five major clusters.

Table 2. Keyword Co-occurrence Clusters: Thematic Architecture of ESG Research (Web of Science, 2014–2026, n = 372)

VOSviewer Cluster	Key Terms	Anchor References
Cluster 1: ESG Governance & Disclosure (Red/Central)	ESG disclosure, corporate governance, sustainability reporting, greenwashing, CSRD/NFRD/GRI	Freeman (1984); Jensen et al. (1976)
Cluster 2: Financial Performance & Value (Green)	ESG performance, firm value, financial performance, Tobin's Q, cost of capital, returns	Friede et al. (2015); Fatemi et al. (2018)
Cluster 3: Emerging Markets (Yellow-green)	Emerging markets, gender diversity, panel data, banking sector, MENA	Buallay (2019); Aevoae et al. (2023)
Cluster 4: CSR & Institutional Context (Orange)	Corporate social responsibility, China, institutional theory, legitimacy	DiMaggio et al. (1983); Dowling et al. (1975)
Cluster 5: Regulatory Environment (Light Blue)	EU Taxonomy, ESG ratings, climate change, mandatory disclosure, SFDR	Berg et al. (2022); Grewal et al. (2019)

Source: Authors' elaboration, 2026; based on VOSviewer analysis of the final corpus of 372 articles (Web of Science database, 2014–2026).

The central node 'ESG' holds the highest degree of centrality in the network, confirming its role as the field's integrating concept. Three structural points are worth discussing quite in detail. To begin with, the very strong co-occurrence between 'ESG disclosure' and 'greenwashing' indicates that the academic community is increasingly worried about the disconnect between one's pledge to ESG and what is the actual sustainable performance on the ground, such an issue is all the more glaring in the case of a voluntary disclosure context like Morocco. Secondly, the nodes of 'EU Taxonomy' and 'ESG ratings' are found side by side in Cluster 5, thus providing proof that the

European Commission's initiative of regulatory standardization is significantly influencing the conceptual framework and the methodologies of measuring ESG which surely will have an impact on Romania's positioning in this matter. Thirdly, the 'emerging markets' cluster, in fact, includes the term 'banking sector' among its associated words, thereby highlighting the leading thematic and methodological way in which MENA and CEE market research has been oriented.

The keyword density map (Figure 10) adds value to network analysis by showing the extent of thematic concentration in the corpus without the limitation of any temporal aspect. The nicest ribbon of shades of yellow, with its focal point on ESG and ESG performance and some of the words firm value, environmental, and corporate social responsibility forming a secondary cluster, map out the structural center of the co-occurrence network: these words are not only the most commonly used keywords but also the most interlinked ones with the themes of the entire surrounding landscape, which is something that points to them being the idea foundation on which the whole ESG literature is built. On the other hand, the keywords lying at the periphery such as Egypt, India, mutual funds, fintech, and JEL classification codes (g34, g38, m41) find their way into low-density, dark-toned zones, thus signaling that even though they are included in the corpus, they still remain quite loosely integrated into the major thematic structure. This sparsity at the periphery is particularly informative for the present study: it suggests that country-specific and emerging-market applications of ESG research including the Morocco–Romania comparative framework adopted here still occupy an underexplored and weakly connected position within the broader literature, thereby reinforcing the relevance of the present contribution in addressing this gap.

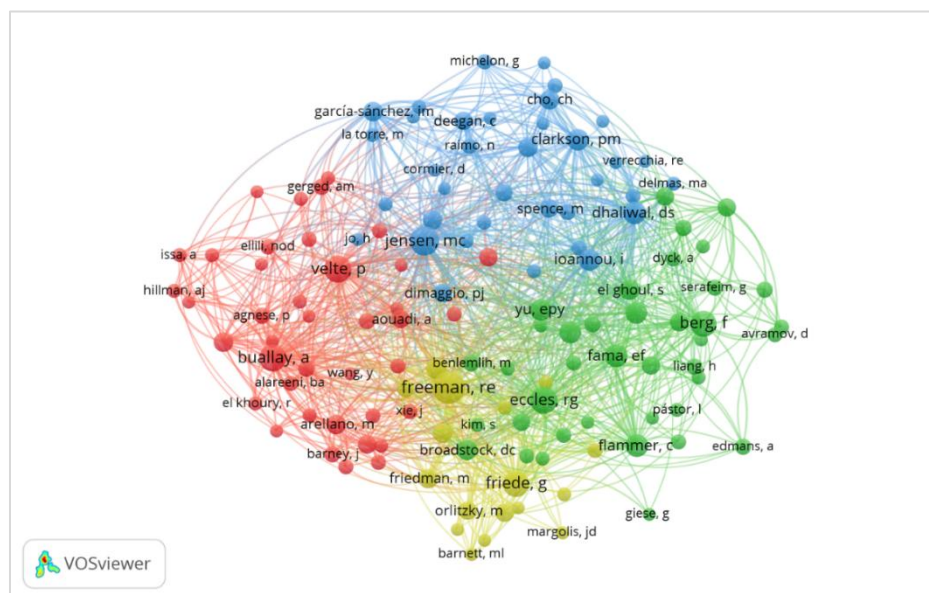


Figure 11. VOSviewer Author Co-citation Network: Theoretical Genealogy of ESG Research (Web of Science, 2014–2026, n = 372)

Source: own processing based on data extracted from the WOS database, 2026

The author co-citation network maps the theoretical genealogy of the ESG field by identifying researchers most frequently cited together, thereby revealing shared intellectual roots. Freeman (1984) anchors the central yellow cluster as the most-cited author in the corpus, flanked by DiMaggio et al. (1983) - together representing the foundations of Stakeholder Theory and Institutional Theory in ESG legitimization. Jensen et al., (1976) and Fama (1970, 1991) anchor the financial (green) cluster, providing the agency and efficiency frameworks underlying ESG–financial performance research.

Berg et al., (2022) are the most highly cited group of authors currently, showing how important ESG rating divergence is becoming a research topic. Their discovery that the highest correlations of ESG scores between major providers hardly ever go beyond 0.6 has turned into the standard of reference in the empirical assessment of any claims regarding the informativeness of ESG. Buallay (2019) is one node in the red cluster which is especially focused on the ESG of banks in the MENA region the closest real-world example of the banking/finance sector that this article is examining from a sectoral perspective.

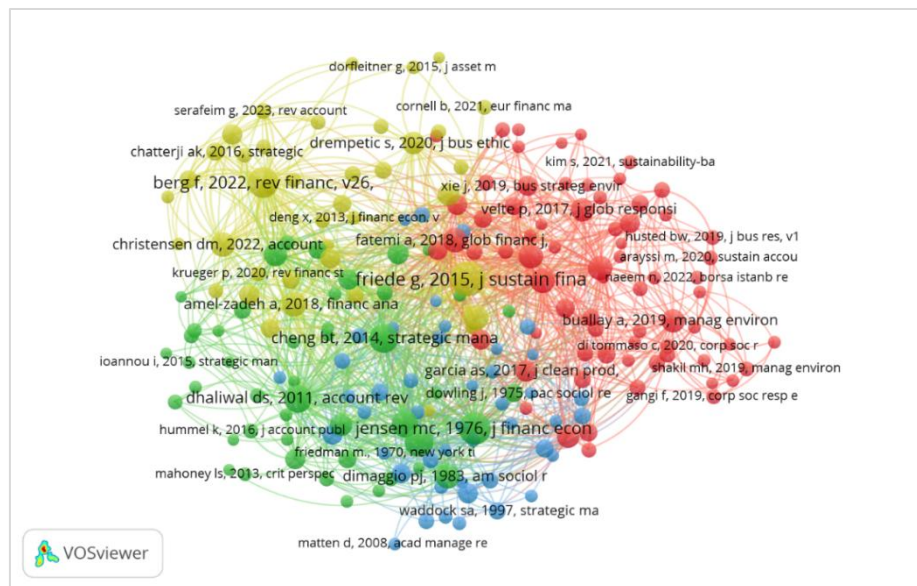


Figure 12. VOSviewer Reference Co-citation Network: Foundational Articles Shaping ESG Research (Web of Science, 2014–2026, $n = 372$)

Source: own processing based on data extracted from the WOS database, 2026

The reference co-citation network reveals the key foundational articles that have most influenced the field. The meta-analysis by Friede et al. (2015) of over 2,000 studies linking ESG and financial performance is the central yellow node, indicating the field's empirical agreement: in roughly 63% of the studies, total ESG performance is positively correlated with financial performance. The article by Berg et al. (2022) on the divergence of ESG ratings is the leading recent publication in the co-citation list along with Kimbrough et al. (2024) on voluntary ESG reporting and inter-agency disagreement, and Dumrose et al. (2022) on the EU Taxonomy, ESG ratings relationship. This combination is the current research frontier on the 'ESG measurement problem', a doubly relevant issue for Morocco (limited rating coverage) and Romania (ongoing CSRD standardization).

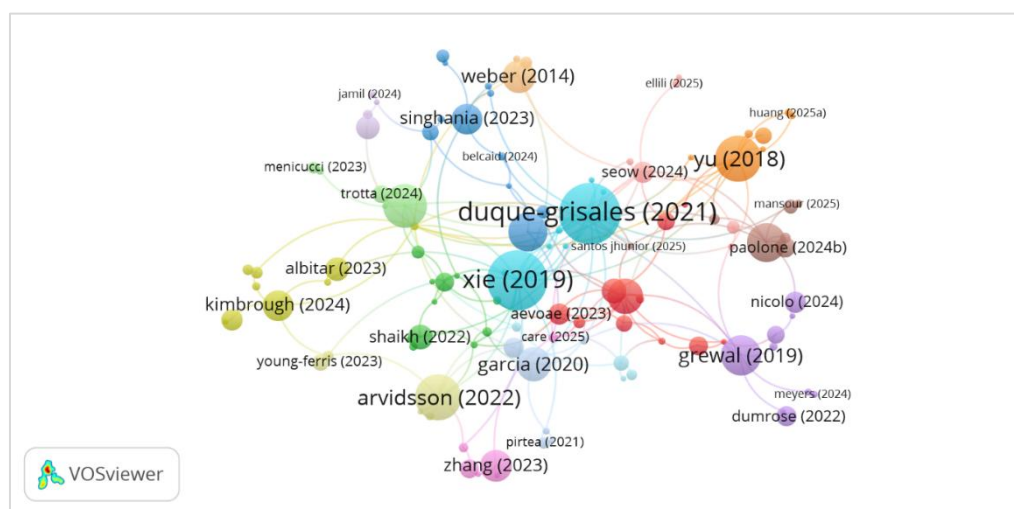


Figure 13. VOSviewer Bibliographic Coupling Network: Emerging Research Fronts in ESG Studies (Web of Science, 2018–2025, $n = 372$)

Source: own processing based on data extracted from the WOS database, 2026

The bibliographic coupling network identifies the most recently published articles (2018–2025) sharing the highest density of common references, revealing the active frontier of ESG research. Duque-Grisales et al., (2021) and Xie et al. (2019) anchor the central blue and green clusters respectively, both centered on ESG–financial performance in emerging-market multinationals direct methodological precedents for the Morocco–Romania investment attractiveness analysis proposed in this review.

Two country-specific articles from the priority sub-corpora appear in the coupling network: Aevoae et al. (2023) on ESG and systemic risk in Romania, and Belcaid (2024) on Moroccan ESG stock performance under

global uncertainties. Their proximity on the coupling map despite their geographic difference suggests that both articles operate within the same emerging research conversation on ESG in peripheral European and MENA markets, further supporting the comparative analytical design of this review.

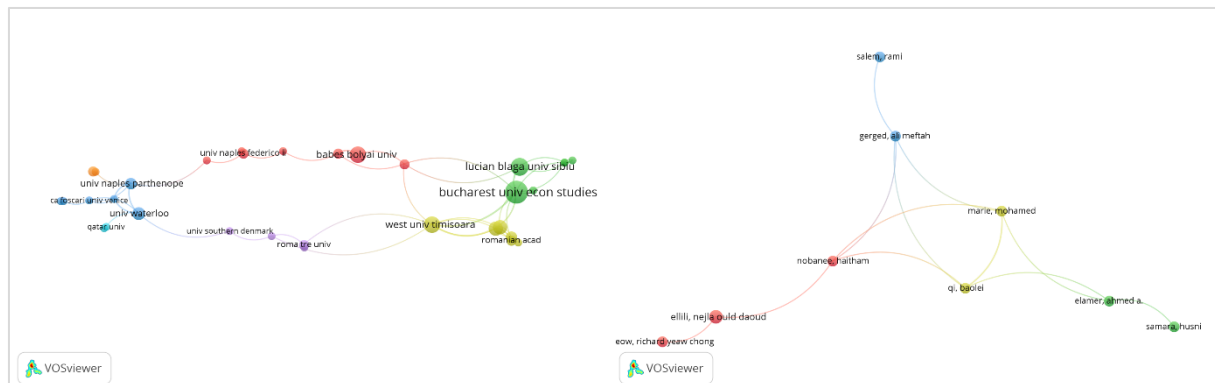


Figure 14. VOSviewer Institutional Co-authorship Network: University and Research Centre Collaboration in ESG Research (Web of Science, 2014–2026, n = 372)

Source: own processing based on data extracted from the WOS database, 2026

The co-authorship analysis conducted via VOSviewer reveals a markedly fragmented collaboration structure across the 372-article corpus. At the author level (Figure 14), a mere eleven authors achieve the primary criterion for participation in the network, and they are scattered among four completely isolated groups, with no single author acting as a link between one group and another. The first group revolves around Gergerd, Ali Meftah, who serves as the main connection point between Salem, Rami and Marie, Mohamed; the second group connects Nobanee, Haitham with Qi, Baolei and Marie, Mohamed; the third group includes Ellili, Nejla Ould Daoud and Seow, Richard Yeaw Chong; and the fourth group connects Elamer, Ahmed A. with Samara, Husni. Such a pattern of groups suggests that the production of ESG research within the present corpus is dependent on small, frequent author pairs or trios rather than on a single, highly collaborative research community a typical hallmark of a still developing research field.

At the institutional level (Figure 14), the co-authorship network exhibits a denser yet remaining clearly compartmentalized structure, formed of two geographically distinct groups. The first group is led by Bucharest Univ Econ Studies, the largest node in the network, symbolizing its key role in Romanian ESG studies and is linked to Lucian Blaga Univ Sibiu, West Univ Timisoara, and Romanian Acad. The second group associates several Italian and partner institutions, including Univ Naples Parthenope, Ca Foscari Univ Venice, Univ Waterloo, and Qatar Univ. The only two connections between the clusters are via Univ Naples Federico II, Babes Bolyai Univ, and via Univ Southern Denmark, Roma Tre Univ), showing a rather limited level of cross-cluster institutional collaboration. Interestingly, a Moroccan institution does not show up in this corpus-derived network, which is a finding that not only confirms the relative invisibility of Moroccan academic production on ESG within the indexed literature but also supports the present Morocco, Romania comparative framework's endeavor to fill this gap.

3.3 Comparative results Morocco vs Romania

The comparative analysis draws on the full set of 17 articles from the Moroccan sub-corpus and 52 articles from the Romanian sub-corpus, synthesized according to the seven structuring dimensions defined in Subsection 2.5 and directly anchored in the C4–C8 relevance grid: the regulatory environment, ESG reporting practices, the adoption and divergence of ESG ratings, ESG governance, theoretical and methodological foundations, investor perception and information asymmetry, and investment attractiveness and the development of sustainable finance. Table 3 offers an overview of the differentiating dimensions, complemented by the detailed sectoral analyses in Subsections 3.3.1 to 3.3.7.

Table 3. Synthetic Comparative ESG Framework: Morocco vs Romania

Dimension	Morocco MA	Romania RO
Regulatory framework	Voluntary (AMMC Circular, 2019); 'comply or explain' principle	Mandatory (EU NFRD 2017; CSRD 2024); reinforced legal obligation
Legal basis	Soft law, market-authority guidelines	Hard law, EU Directive transposition
Reporting standards	GRI (voluntary), AMMC framework; high disparity across firms	GRI, CSRD/ESRS (binding); double materiality integrated
ESG stock index	MASI ESG (Casablanca Stock Exchange, 20 firms)	BET ESG (Bucharest Stock Exchange) emerging
ESG rating coverage	Limited (~30–40 firms); divergence acknowledged	Refinitiv, Bloomberg, Sustainalytics; documented divergence
Academic output (WoS)	17 articles (final corpus)	52 articles (final corpus)
Leading institutions	Hassan II Casablanca, UIR Rabat, Ibn Tofail Kénitra	ASE Bucharest, Univ. West Timișoara, Babeș-Bolyai Cluj
Dominant methods	NARDL, TOPSIS, NLP/AI, Fuzzy Delphi, mixed methods	OLS/GMM panel, SEM, Machine Learning, PCA+K-means
Dominant theories	Stakeholder, Legitimacy, Signaling, Portfolio Theory	Stakeholder (dominant), Institutional, Agency
Information asymmetry level	High (opaque voluntary disclosures)	Moderate (mandatory framework reduces asymmetry)
Investment attractiveness signal	Weak-moderate (voluntary compliance limits credibility)	Moderate-strong (European regulatory credibility)
Access to financing / cost of capital	Limited; no large-scale documented financing premium (Oukhouya et al., 2025)	ESG reduces total funding and deposit costs for large banks in developed countries (Andries & Sprincean, 2023)
Sustainable finance instruments	Nascent (green bonds, MASI ESG)	Developing (Green Deal, green bonds, EU Taxonomy)
Overall ESG maturity	Level 2/5 (Emerging)	Level 3–4/5 (Intermediate to advanced)

Source: Authors' synthesis (2026) based on the analysis of the final corpus (17 Moroccan articles + 52 Romanian articles), documents, and VOSviewer bibliometric findings.

3.4.1 The Regulatory Environment: Voluntary vs Mandatory Disclosure

The most basic difference factor between Morocco and Romania is their different legal systems for ESG disclosure. Romania as a part of the EU has undergone multiple mandatory layers of ESG requirements: the NFRD (Directive 2014/95/EU), which was transposed in 2017; the EU Taxonomy Regulation (2020); the SFDR (2021); and the CSRD (2022), starting the count at around 50, 000 European companies. Tiron-Tudor et al. (2019), analyzing the impact of the NFRD on a sample of listed Romanian energy-sector companies (paired pre/post-2017 t-test), find a small but statistically significant increase in the level of non-financial disclosure, a coercive isomorphic response that matches the predictions of Institutional Theory. This regulatory mechanism that is one-sided has in a way been, step by step, forming a very dense and comparable information environment.

Morocco's policymaking in this area is inherently different. AMMC Circular No. 03/19 of February 20, 2019 was a major initiative as it directed the companies listed on the Casablanca Stock Exchange to publish annual environmental, social and governance practice reports (AMMC, 2019). Yet, the penalty system is based on the principle of 'comply or explain' rather than made mandatory by law, and the AMMC's ability to check the quality of the ESG reports is, at the same time, quite limited. In their paper, Namoussi et al. (2025) are, in fact, the only authors who have analyzed the effect of AMMC legislation on the quality of environmental disclosure, and they find a positive but not full effect: industrial companies that are listed on the Moroccan stock exchange have improved their environmental reporting since 2019; however, when it comes to social and governance areas, disclosure is still largely neglected Bartlett. This within-ESG deficiency is further corroborated by Qachach et al. (2025), who, through their TOPSIS analysis of 20 companies from the MASI ESG Index, show a median score of about 0.43 on a 0-1 continuum. This means even the most spectacular players operate far below the standards of

best practices. In their recent paper, Tagui et al. (2026) offer an organized classification of ESG criteria adoption models in investment decision-making targeted, particularly, at the Moroccan setting. They underscore the limitations of the currently voluntary system and indicate ways that lead towards a stricter regime compliant with the new international standards.

3.4.2 ESG Disclosure Practices and Reporting Quality

The quality gap between Moroccan and Romanian ESG disclosure practices manifests along three dimensions: comprehensiveness, comparability, and assurance. On comprehensiveness, both corpora converge in documenting significant cross-firm heterogeneity within each country an expected finding in emerging markets where ESG adoption follows a gradual diffusion pattern. In Romania, Cojocaru et al. (2025), drawing on a sample of 141 respondents (employees of Romanian firms), find that all three ESG dimensions positively affect CSR quality (Environmental $\beta = 0.294$; Social $\beta = 0.275$; Governance $\beta = 0.189$), with the model explaining 49.7% of the variance in CSR quality.

On comparability, Romania benefits from the mandatory adoption of the ESRS under the CSRD, which imposes standardized disclosure requirements based on a double-materiality perspective. Lungu et al. (2025), testing the double-materiality concept on a sample of non-financial firms (Refinitiv Eikon, 2015–2024), identify significant differences between EU and non-EU firms regarding financial and impact materiality with strong associations between ESG and SDG scores in the EU context. Stefan et al. (2025), on a panel of 432 firms from 18 EU countries (2014–2023), find that the Social factor is the most influential driver of ROA and that the CSRD is expected to generate confirmed positive effects on financial performance over the medium term.

Danila et al.'s (2022) qualitative analysis in the context of the European Green Deal identifies good ESG disclosure practices in Romania and highlights the need for a more structured framework to harmonize practices across the EU. This finding directly anticipates the standardization requirements introduced by the ESRS. In Morocco, no equivalent standardization framework exists, which explains the wide disparities in ESG maturity observed by Qachach et al. (2025). In response to this gap, El Aziz et al. (2025) propose an NLP/TF-IDF clustering analysis of 70+ articles that identifies six clusters of ESG reporting determinants, offering a two-dimensional analytical framework (factors plus strategic motivations) suited to emerging-market contexts.

Regarding assurance, a risk of disclosure–performance decoupling runs through both contexts. In Morocco, this risk is heightened by the still-emerging state of banking-sector supervision of ESG risks. Bank Al-Maghrib published its first regulatory directive on banks' climate-risk management in 2021 (BAM, 2021), and subsequently conducted, in partnership with the World Bank, a study on climate risk in the Moroccan banking sector, whose results were published in April 2024 the first of its kind in the MENA region (BAM & World Bank, 2024). Stefanescu and Suci (2026), in their PRISMA systematic review of 62 empirical articles (2021–2025), document that the majority of studies report decoupling identifying four clusters of mechanisms (greenwashing, symbolic conformity, governance gaps, contextual vulnerabilities). This finding is particularly concerning for Romania, where the CSRD's regulatory pressure may paradoxically accelerate symbolic reporting at the expense of substantive transformation of actual ESG practices.

3.4.3 Adoption of ESG Ratings and Rating Divergence

The ESG rating landscape in Morocco and Romania reflects the global rating-divergence problem identified by Berg et al. (2022), whose study is the most central reference in the co-citation network (Subsection 3.4.6). Refinitiv's coverage of MASI-listed companies in Morocco is limited. Only 30 to 40 companies are completely scored for their ESG performance. This gap in the coverage poses a huge challenge for allowing institutional investors from ESG-mandate funds into the market. Belcaid (2024), a study that uses the MASI ESG index as a proxy for the Moroccan sustainable finance market and employs an NARDL model, is one of the few studies that give direct empirical evidence of the index's response to exogenous factors (oil prices, economic uncertainty, geopolitical risk, climate change) besides providing a theoretical analysis of the situation. This paper also sets the stage for the work of Tagui et al. (2025), who focus on the combined effects of ESG ratings on the attractiveness of responsible investment in the Casablanca Stock Exchange within a Supply Chain 5.0 context. Their research reveals that embedding ESG ratings in supply-chain management greatly enhances investor credibility signals, thus making a strong argument for the collaborative building of rating infrastructure and disclosure practices in Morocco. When it comes to rating divergence, two methodological innovations quite directly originate from the Moroccan sub-corpus. Initially, Qachach et al. (2025) invent a 12-indicator, equally weighted TOPSIS method for the 20 firms on the MASI ESG index, a clear and local alternative to Refinitiv/Bloomberg scores which are quite different from a Moroccan economic fabric largely dominated by family firms. Secondly, El Aziz et al. (2025) make use of NLP and AI clustering methods to reveal the main factors behind ESG reporting. In this way, they provide an informative reading of ESG signals, one that does not depend on rating agencies' proprietary methodologies.

The country Romania is more advanced in a sense, but it is still transitionally changing. VasIU (2024) not only contrasts the Morningstar, Refinitiv and Bloomberg ESG scores for firms in EU emerging markets but also points to considerable inter-agency divergence, which results in less investor confidence. Horky et al. (2024), when looking at the influence of rating divergence on EuroStoxx 600 portfolio returns (Fama-French model, 458 firms, 2016-2022), discover that the adverse impact of divergence vanishes after taking into account book-to-market and market capitalization, which seems to imply that astute investors incorporate divergence risk in their pricing decisions. Dinca et al. (2025), going for a machine-learning study (ARIMA, XGBoost, Random Forest) with 2,548 companies in 98 countries, find that incorporating ESG does not always lead to better financial forecast accuracy, this is a finding that in essence questions the informational content of ratings for long-term investment decisions.

3.4.4 *ESG Governance: Structures, Mechanisms, and Institutional Specificities*

The two institutional contexts produce distinct ESG governance configurations. In Romania, corporate governance is strongly shaped by European requirements regarding board composition and audit. Aevoae et al. (2023), using a dynamic panel of 367 listed banks across 47 countries (2007–2020), demonstrate that the overall ESG score and the governance pillar reduce banks' contribution to systemic risk a foundational result justifying ESG integration into banking supervision. Paolone et al. (2024), on STOXX 600 companies (Refinitiv, 2018–2021), show that board gender diversity significantly improves ESG performance following the COVID-19 crisis, confirming resource-dependence theory. Ionascu et al. (2026), in a study employing a structural break at the CSRD mandate (7,242 firm-years, 2015–2023), document an inverted-U relationship between managerial ability and ESG performance after the CSRD's entry into force signaling a saturation effect whereby managerial discretion is moderated by regulation. Lucut Capras et al. (2025), on 1,025 non-financial EU firms (EGLS, 2018–2023), confirm that both traditional and innovative audit mechanisms significantly reduce fraud risk. In Morocco, the dominant family-ownership structure creates distinctive governance dynamics. Adardour et al. (2026), on a panel of 61 French SBF120 companies (EGLS, 2012–2022) work involving Morocco-affiliated researchers show that ESG significantly reduces liquidity and default risk, but that this effect is stronger in non-family firms, suggesting that family ownership dampens the governance benefits of ESG. Along similar lines, Nekhili et al. (2021) show that employee representation on the board can create conflicts of interest that negatively affect the market valuation of ESG a finding with important implications for the governance of large Moroccan companies. Furthermore, Adardour et al. (2025), in the only mixed-methods study (PLS-SEM plus semi-structured interviews, 66 + 19 Moroccan experts), reveal that gender positively moderates the relationship between ESG disclosure motives and actual practices.

3.4.5 *Theoretical and Methodological Foundations: Divergences and Complementarities*

Analysis of the frequency and use of theories mobilized in the two corpora reveals a differentiated architecture reflecting their respective institutional contexts. Stakeholder Theory is mobilized in 8 of 17 Moroccan articles (47%) and 22 of 52 Romanian articles (42%) a comparable frequency, but with distinct thematic orientations: governance and disclosure in Morocco, financial performance and banking systemic risk in Romania. Signaling Theory is proportionally more present in Morocco (3 of 17 articles, 18%) than in Romania (2 of 52 articles, 4%), reflecting the centrality of the signal-credibility problem under a voluntary regime. Institutional Theory is more frequently mobilized in Romania (9 of 52 articles, 17%) logically so, since it is the EU's coercive regulatory framework that constitutes the principal explanatory variable for Romanian disclosure behavior. The Resource-Based View (RBV) is virtually absent in Morocco (1 of 17 articles) and only marginally present in Romania (2 of 52 articles), notably in studies of Romanian SMEs and green innovation (Fülöp & Cifuentes-Faura, 2026).

Methodological analysis shows that both corpora primarily rely on quantitative methods but employ quite different toolkits. The Moroccan corpus is distinguished by its focus on methods that can handle data asymmetries and reflect conditions in emerging markets. These include a NARDL model (Belcaid, 2024) to measure the asymmetric effects of oil and geopolitical shocks on the MASI ESG index; TOPSIS (Qachach et al., 2025) to develop a clear and locally adapted ESG metric; quantile and frequency connectedness methods (El Oubani, 2023) to study spillovers between investor sentiment and ESG indices; Fuzzy Best-Worst Method (Benhamida et al., 2025) to identify the most significant issues in incorporating SDGs into MENA sovereign credit ratings; and propensity score matching combined with difference-in-differences (Belhadi, 2026) to causally evaluate the impact of blockchain on carbon transparency. Among other things, the Romanian corpus, enjoying more extensive access to European institutionalized databases (Refinitiv Eikon, Bloomberg, LSEG) seems to be more inclined towards employing highly sophisticated panel econometric techniques, such as: system GMM for solving the endogeneity issue (Aevoae et al., 2023; Horobet et al., 2023); Gaussian Graphical Models (GGM) to uncover direct and indirect causal relationships in agri-food firms Sichigea et al. (2025); PCA together with K-means clustering to types of

macroeconomic ESG clusters in 27 EU countries (Avram et al., 2025), machine learning (XGBoost, Random Forest, ARIMA) for financial forecasting (Dinca et al., 2025; Tugui et al., 2026). In fact, these two methodological profiles are not rivals, but rather they complement each other: Morocco's pioneering approaches help address the problem of data scarcity in less researched markets, whereas Romania's panel-based methods lead to more powerful statistical inferences over big samples. Methodology convergence can be application of TOPSIS or Fuzzy BWM models to EU emerging-market samples or application of system GMM to Casablanca Stock Exchange data which would be a promising possibility for bilateral collaboration.

Table 4. Methodological Comparison: Morocco vs. Romania, Dominant Methods, Data Sources, and Common Gaps

Dimension	Morocco	Romania	Common Gaps
Dominant quantitative methods	NARDL, TOPSIS, panel OLS/EGLS/FMOLS, smart beta, EVT, PSM+DiD, quantile connectedness	OLS/GMM panel, EGLS, GGM+CFA, FGLS, SEM, PCA+K-means, QQR+Wavelet, ML (XGBoost, RF)	Limited cross-fertilization between the two corpora's methods
Systematic literature reviews (SLR)	Present (3/17): ESG PRISMA, NLP, FinTech & sustainability	Present (4/52): ESG controversies, symbolic practices, ESG & stock prices	Few SLRs centered on each country's specific context
Main data sources	MASI ESG, Bloomberg ESG, Refinitiv, local survey data	Refinitiv Eikon (dominant), Bloomberg, LSEG, Morningstar, BVB, Eurostat	Lack of standardized local ESG databases in both countries
Local sample sizes	Modest: 20 firms (TOPSIS), 69 firms (CSE), 66+19 experts	Variable: 13 banks (Italy) to 7,242 firm-years (EU); local studies rare	Few longitudinal studies on local data in either country
Machine learning	Underdeveloped on local data (NLP/AI clustering)	Strongly developed (XGBoost, RF, PCA); rarely applied to the pure Romanian context	ML on local ESG data in both countries = major gap

Source: Authors' synthesis based on the comparative corpus analysis, 2026.

3.4.6 Investor Perception and Information Asymmetry

The investor implications of the Morocco–Romania regulatory asymmetry are most clearly visible through the lens of information-asymmetry theory. Mandatory disclosure reduces information asymmetry by creating a legal obligation to disclose material sustainability information, independent of managers' private interest in concealing it (Dhaliwal et al., 2011; Grewal et al., 2019). Empirical findings from the Romanian corpus support this mechanism: Sahlian et al. (2024), using the Ohlson price model on European listed companies (2003–2021), find that ESG scores are value-relevant for investors, but that this relevance declines following economic crises a finding that raises questions about the persistence of the ESG premium in volatile markets.

In the case of Romania, Horobet et al. (2026)'s research on 280 banks from 30 European countries during 2014–2023, a major focus of the paper, find that simply disclosing ESG is not a significant factor in improving banking performance, and banks with high ESG scores may be associated with lower results (as they incur higher operating costs). On the other hand, conformity with the MSCI ESG index is shown to have a positive effect on ROE and ROA, implying that investors consider the quality and consistency of ESG involvement, rather than mere disclosure, as a source of informational value.

In Morocco, investor perception of ESG is to some extent influenced by the even bigger issue of signal credibility. El Oubani (2023), the only research paper on the topic of ESG and investor sentiment directly in Morocco and Egypt, not only built a sentiment index but also used quantile, frequency, and time-domain connectedness techniques on the weekly data (2018, 2023). Findings reveal an ongoing mutual influence between investor sentiment and ESG index returns that was made even stronger during the times of crisis such as COVID-19 and wars, indicating that ESG stocks in Morocco are still linked to market speculation without the typical risk-return trade-offs of non-ESG stocks. This finding is consistent with Belcaid's (2024) observation that the MASI ESG index is exposed to oil-price shocks and regional geopolitical uncertainty, reflecting Morocco's structural energy dependence.

3.4.7 Investment Attractiveness and the Development of Sustainable Finance

This sub-section of the draft compares ESG scores' role in investment decision-making, the proliferation of green financial instruments, financing availability and cost of capital, listed companies' appeal to investors, and voluntary and mandatory regulatory frameworks' different levels of influence on these mechanisms. These

discussions are based on the seventh comparative dimension expressed in methodology section and corresponding to relevance criterion C6 i.e. directly. In fact, the main issue stemming from this comparative analysis is whether the quality of ESG reporting and ratings really leads to a significant increase in their investment attractiveness. The theoretical hypothesis based on Agency and Signaling Theory is that companies which disclose their ESG information more transparently and accurately have a lower cost of capital (equity and debt), are better able to lure in institutional investors who invest only ESG funds, and enjoy better market liquidity.

Romania's adoption of this instrument is in line with empirical evidence from a number of studies. Andries and Sprincean (2023), based on a sample of 493 banks from 39 countries for the period 2003, 2020, reveal that ESG lowers the total cost of funds and the cost of deposits, however, a major qualifying point: this positive effect happens only for large banks in developed countries, thereby limiting its direct application to the SME-oriented Romanian context. Dan et al. (2021), emphasizing the EU members as of 2014, 2019, illustrate that the sovereign ESG index is a significant factor influencing the amount of green bond issuance, thus, emphasizing the role of institutional ESG quality as a foundation for the growth of the green finance market. Gheorghe et al. (2025) reveal that ESG ETFs are more resistant than AI ETFs during times of high uncertainty (QQR plus Wavelet Coherence, 2016, 2025), a key insight for institutional investors aiming at portfolio protection. Serban et al. (2025), on 484 S&P 500 securities (MPT plus PMPT, 2018, 2023) conducted internationally, conclude that portfolios maximizing ESG provide a superior risk-return ratio, especially for risk-averse investors.

For Morocco, the proof is still developing yet quite steady. Oukhouya et al. (2025), conducting Markowitz mean-variance optimization for 69 Casablanca Stock Exchange-companies and a minimum ESG constraint, discover that ESG-constrained portfolios do not actually fare worse than conventional portfolios in terms of risk-adjusted returns at all, this is a rather promising result pointing towards the fact that incorporating ESG in Moroccan portfolio management is, at best, financially neutral to positive. El Wardi et al. (2026) give the clearest indication of investment potential: employing an FMOLS panel of 250 countries (2000, 2024), they reveal that country-level ESG risks have a substantial negative effect on the decrease of inbound FDI flows, with the level of economic development and innovation capacity being some of the factors that mitigate the effects. Morocco's relatively high ESG risk scores, particularly on the governance and social aspects, act as a structural barrier for ESG-sensitive FDI. Belcaid's (2024) study of MASI ESG dynamics (NARDL model, weekly data 2019–2023) introduces an important nuance: while global economic uncertainty harms the Moroccan ESG index in the long run, climate uncertainty strengthens it implying that the transition to a low-carbon economy could act as a catalyst for Moroccan sustainable finance, provided the AMMC regulatory framework evolves toward greater binding force and standardization. In this respect, the AMMC published a Guide on Socially Responsible Investment (SRI) for mutual fund management in December 2023, aimed at both investors and asset managers, which sets out the specificities of SRI and provides clear definitions of the related concepts and strategies (AMMC, 2023). This guide builds on previous AMMC initiatives toward a more sustainable and inclusive capital market, following the publication of guides on green, social, and sustainability bonds (2016, 2018) and an anti-corruption guide (2022).

IV. DISCUSSION

The cross-analysis of the 17 Moroccan and 52 Romanian studies reveals structuring convergences and divergences. In terms of convergence, the two corpora share three cross-cutting findings. First, the ESG–financial performance relationship remains mixed and context-dependent: neither in Morocco nor in Romania can studies conclude a systematically positive effect of ESG on performance results vary by sector (banking vs. agriculture vs. industry), by ESG pillar considered (E vs. S vs. G), by period of analysis (pre/post-COVID, pre/post-CSR), and by firm size. This finding is consistent with the meta-analysis of Friede et al. (2015) and with the questions raised by Dinca et al. (2025) regarding the predictive value of ESG ratings for future financial performance. Second, ESG rating divergence across agencies constitutes a common problem that reduces the comparability and reliability of scores for investment decisions in Romania (Vasiu, 2023, 2024; Horky et al., 2024) as in Morocco (Berg et al., 2022, cited in both corpora; TOPSIS alternatives developed by Qachach et al., 2025). Third, both countries suffer from an over-representation of studies focused on international contexts rather than the local economic fabric: most Moroccan articles in the corpus in fact draw on French, European, Asian, or MENA data, and most Romanian articles draw on multi-country EU panel data limiting the direct transferability of findings to the specific national contexts.

Looking at divergence, two structural asymmetries arise. The first one relates to the level of institutional maturity: Romania holds a significant regulatory and informational advantage due to, among others, a mandatory ESG framework, a denser data infrastructure, and connection to the European academic networks, etc. Morocco is recognized to lag in institutions by 5-10 years, this lag is try to be covered by the new academic dynamism of the country after 2023-2024 and also by the great methodological creativity in adapting methods to the emerging

market's specifics. The second divergence is about geopolitical and regional positioning: while Romania is embedded in the EU regulatory framework and gets also the benefit of intra-European ESG investment flows, Morocco's doors are open through its positioning as an ESG hub for Africa and MENA a very different comparative advantage that the European ESG maturity metrics do not show.

Being part of the European Union is, for Romania, the main and most influential institutional factor that explains why it is somewhat ahead in developing ESG. The regulatory back and forth between NFRD and CSRD has gradually resulted in a richer informational environment but at the same time, it has raised the risk of only symbolic compliance, which Stefanescu et al. (2026) have documented in detail. The managerial saturation effect that Ionascu et al. (2026) detected after the CSRD mandate going into effect, an inverted-U relationship between managerial ability and ESG performance, is a major alert signal for the Romanian regulators: very strict regulation can limit the innovative freedom of the best ESG managers.

For Morocco, a thorough examination of the consequences of regulatory framework leads to a very important question: is a move towards mandatory framework the right thing to do in the near future? Since the results of Namoussi et al. (2025), who demonstrate a positive but still partial effect of AMMC regulation on disclosure quality, and the critical findings of Tagui et al. (2025), who highlight the persistent lack of robustness and comparability in ESG ratings for Casablanca-listed firms under the voluntary regime, are more in favor of a gradual step-by-step scaling up rather than a whip-fast switch to mandatory compliance, in order to not burden excessively poorly equipped SMEs. On the other hand, Romania's working experience after NFRD Phase 1, which led to a slight but genuine increase in disclosure (Tiron-Tudor et al., 2019), can be a sample of gradual transition the Moroccan regulator might consider adapting.

The bibliometric data and comparative study results presented here help to further the theory of ESG from different angles. Firstly, it is an updated and more detailed empirical analysis of the Morocco-Romania bibliometric field, revealing clearly and in detail that these two countries are the main players of two structurally different yet complementary ESG research environments an example of two countries where voluntary vs. mandatory disclosure can be naturally studied. This comparative study adds a completely new South-Mediterranean/Eastern-European dyad to the list of institutional-difference cases of Garcia et al. (2020). Secondly, the review helps to clarify the ESG research theoretical model: Normative background of why ESG is important is covered by Stakeholder Theory, the explanation of how ESG helps to reduce one side dominance of information comes from Agency Theory, the spread of mandatory disclosure through coercive isomorphism is explained by Institutional Theory, why disclosure can be separate from performance is Legitimacy Theory, and marketing of ESG credibility in the markets is Signaling Theory. Together, these theories make an interconnected explanatory system whose differentiated application in the two datasets matches their institutional environments. Thirdly, bibliographic coupling shows the formation of a research frontier that is deliberately addressing the ESG measurement challenges rating divergence, greenwashing, and disclosure, performance decoupling. This newly formed frontier is highly relevant to Morocco (rating coverage gaps and the absence of standardization) and to Romania (ongoing CSRD convergence but documented symbolic decoupling).

The evidence reviewed suggests that Morocco's voluntary ESG disclosure regime, while a significant first step, generates insufficient signal quality to attract ESG-sensitive international capital at scale. The AMMC should consider a gradual transition toward mandatory disclosure, modeled on the EU's 'comply or explain' approach under NFRD Phase 1, while developing: (1) a standardized ESG disclosure model aligned with GRI standards and the forthcoming ISSB S1/S2 standards; (2) a nationally validated ESG rating methodology for MASI-listed companies, drawing on the TOPSIS model developed by Qachach et al. (2025); (3) mandatory third-party assurance of ESG reports for companies above a market-capitalization threshold; and (4) the development of a national green taxonomy aligned with MENA standards, the SDGs, and progressively the EU Taxonomy.

Romania's mandatory disclosure framework is structurally solid but faces implementation challenges. Romanian policymakers should prioritize: (1) strengthening the supervisory capacity of the Financial Supervisory Authority (ASF) to audit CSRD compliance and detect the symbolic decoupling documented by Stefanescu et al. (2026); (2) accelerating the development of an ESG rating framework adapted to Romanian SMEs, currently underrepresented in the literature; (3) expanding the BET ESG index to improve the visibility of listed companies committed to sustainability; and (4) promoting bilateral academic collaboration with MENA countries notably Morocco for the development of ESG frameworks suited to non-EU emerging markets.

Institutional investors particularly those subject to SFDR Article 8/9 classification requirements should adopt differentiated due-diligence frameworks for Moroccan and Romanian companies. For Morocco, the absence of standardized ESG ratings calls for proprietary rating methodologies or engagement-based assessments, complemented by the Casablanca Stock Exchange's local TOPSIS scores. For Romania, the emerging CSRD data infrastructure allows for more systematic integration of ESG criteria into portfolio construction, provided the inter-agency divergence biases documented by VasIU (2024) are corrected for. In both markets, the finding by Gheorghe et al. (2025) on ESG ETF resilience during periods of systemic stress provides a concrete argument for integrating

ESG into institutional risk-management strategies.

This systematic review also has limitations of its design, which we consider as the result of informed methodological choices rather than weaknesses. The use of an English-language corpus indexed in WoS was a deliberate choice to guarantee the quality of bibliometric metadata and the replicability of the PRISMA protocol, although it excludes relevant French- and Romanian-language academic publications. Also, full-text access limitations and the transitional nature of the period studied, at the middle of CSRD implementation, are the usual limitations of this type of study and do not change the main trends identified. The greatest limitation is the unbalance between the national sub-corpora: most Moroccan papers use international data rather than strictly local data, which highlights the territorial empirical gap instead of a selection bias intrinsic to our protocol. Finally, our comparative analysis is based on a secondary literature review, which is in line with the main objective of this systematic review. On the contrary, these limitations reveal places where science can be further developed and our paper is a good start to the future empirical research that will fill these gaps.

In the end, the systematic review is successful in its aim to do an intellectual mapping of the ESG area and shows the regulatory framework as a big factor that influences the quality of reporting, on the other hand, it also unveils a glaring lack of local data comparability between Morocco and Romania. Indeed, this discovery does not put an end to our inquiry; rather, it marks the beginning of it. The next reasonable phase in this research according to the logic would be to undertake a primary comparative empirical analysis, utilizing homogeneous panel data from the Casablanca and Bucharest Stock Exchanges, after the secondary synthesis. Using the regulatory disadvantage as a natural quasi-experiment, a future research of this kind will allow that the impact of ESG ratings on the cost of capital and attractiveness for investment in these two emerging markets is causally tested, at the same time, it will turn the existing documentary gaps into a source for the production of new, contextualized and evidence directly useful to both policymakers and investors.

V. CONCLUSION

This review of literature, combined with a bibliometric analysis of 372 peer-reviewed articles indexed in Web of Science, provides a variety of structuring points for ESG theory and sustainable finance practice in emerging economies. The academic field of ESG research has, in fact, doubled or even tripled in size annually since 2019. This growth has been largely driven by: The speeding up of the European regulatory framework (notably the NFRD, the CSRD, and the ISSB standards) and; Growing investor pressure for standardized sustainability data. The result of this, is a quite marked concentration of scientific output over time, with the years 2025, 2026 alone representing as much as 66.1% of the entire corpus analyzed. Simultaneously, co-occurrence network analysis employing VOSviewer points out that the intellectual structure of the field is centered around five thematic clusters which include: ESG governance and disclosure, financial performance, emerging-market specificities, corporate social responsibility and institutional context, and the regulatory environment all of which are supported by five complementary theoretical frameworks. Now focusing on the geographical dimension of research, Romania and Morocco act in very different ways but at the same time complement each other perfectly. Romania, on the one side, is very strongly linked to European academic networks (52 articles were identified, with ASE Bucharest and Babeş-Bolyai University Cluj being the two major and very active centers) and, as a result, its ESG institutional and academic framework is vastly more mature. The comparative analysis shows that: its mandatory disclosure regime provides much better conditions for making the country attractive for investment, which is exhibited by a lower information gap, higher rating coverage, greater comparability of reporting and, above all, a regulatory-credibility premium that is quantifiable. Therefore, the ESG efforts made in Romania are rooted in a mature European sustainable-finance setting. At the same time, Romania has to deal with various issues related to the actual roll-out of these measures, such as the ESG divergence uncovered by Stefanescu and Suci (2026), the ongoing disagreement between the agencies over ratings (Vasiu, 2024; Horky et al., 2024), the fatigue of the managers after the CSRD implementation (Ionascu et al., 2026), and, alongside others, the very high compliance costs for small and medium-sized enterprises. Morocco, on the other hand, with a much smaller number of publications (17 articles) and mainly emerging centers at Hassan II University of Casablanca and Ibn Tofail University of Kénitra, has been showing increased academic vigor since 2023, 2024 and great methodological inventiveness. Since the country has its own institutional limitations, the research done there has come up with "outside-the-box" ways to tackle issues, such as contextualizing TOPSIS models, making semantic clustering analyses based on AI, applying quantile-frequency connectedness methods, and using asymmetric NARDL approaches. These unique works are indicative of significant scholarly potential as well as an ability to adapt in data-scarce environments. They also hold a great promise of being applicable to other MENA and African countries. The regulatory asymmetry between the two countries with Romania subject to the demanding requirements of the CSRD while Morocco begins scaling up under the auspices of the AMMC constitutes an

exceptionally rich quasi-experimental research setting. This configuration underpins this review's central recommendation, namely the establishment of a bilateral research and policy dialogue, materialized through a Morocco–Romania ESG partnership that we explicitly advocate. In this respect, the complete absence of bilateral co-authorship links in the VOSviewer-identified bibliometric networks underscores a gap that the academic community should urgently work to close, given the evident potential synergies.

The research agenda emerging from these findings unfolds along several priority axes. On one hand, it calls for longitudinal studies assessing the improvement in ESG disclosure quality following AMMC regulation in Morocco, as well as difference-in-differences analyses exploiting the natural design generated by the regulatory asymmetry between the two countries, with Romanian firms serving as the treatment group and Moroccan firms as the control group. On the other hand, this agenda calls for multi-country research on ESG rating divergence in Central and Eastern European and MENA markets, policy-evaluation studies examining the causal effect of EU Taxonomy alignment on the cost of capital and on attracting foreign direct investment in Romania, as well as comparative investigations into the relative effectiveness of Moroccan TOPSIS models versus European Refinitiv scores for predicting investment behavior.

Ultimately, the comprehensive alignment of the global structure of ESG reporting with the requirement for a regular, standardized, and third-party verified disclosure system, the individual journeys of Morocco and Romania provide two different insightful perspectives on the advantages and disadvantages of this major change in corporate openness. Morocco, a leading African ESG center, and Romania, an exceptional example of the CSRD implementation among the Central and Eastern European countries, are jointly showcasing the wide diversity in the level of ESG institutional development. A comparative analysis of these two paths is thus offering a great input to theory and policy as it will provide guidance to both policymakers and practitioners on how to effectively and sustainably implement environmental, social, and governance criteria in emerging markets.

ACKNOWLEDGMENT

This research project was carried out with the support of the National Center for Scientific and Technical Research (CNRST) under the "PhD-Associate Scholarship PASS" program, as well as with the support of the Ministry of Foreign Affairs of Romania and the Agence Universitaire de la Francophonie (AUF) through the "Eugen Ionescu Programme", whose resources and opportunities significantly contributed to the completion of this work.

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