Apollo Journals
Accounting and Finance Advances
AFA
Vol. 01 Issue 01 2026

Review

The Emerging-Market Turn in ESG–Financial Performance Research: A Bibliometric Mapping, 2010–2025, and an Agenda for Cross-Border Firms

Siqiang An

Farabi International Business School, Al-Farabi Kazakh National University, Almaty, Kazakhstan;

E-mail: siqiangan@gmail.com

Abstract: This review examines how research on the relationship between environmental, social and governance (ESG) factors and corporate financial performance developed between 2010 and 2025, asking not only what the evidence says but where it is produced, which traditions it draws on, which designs dominate, and which settings remain marginal. A corpus of 4,679 journal articles was retrieved from the open bibliographic database OpenAlex using a reproducible title-and-abstract query. Performance analysis is combined with co-citation and keyword co-occurrence analysis, both clustered with the Louvain algorithm, and with four robustness checks on the search terms, the match between author affiliation and study setting, screening breadth and the outcome terms. Output grew at a compound annual rate of about 56% between 2015 and 2025, and 82.6% of all articles appeared in 2023–2025. Authorship shifted decisively: among articles with known author countries, the share written exclusively by authors affiliated in emerging economies rose from 19.6% in 2010–2019 to 66.3% in 2023–2025. Under a deliberately broad query the direction of this shift holds but its size does not, so the turn is better read as the diffusion of the ESG label into a literature already produced largely outside high-income economies. The newer work attracts few citations—a median of one—which reflects visibility rather than quality, and it is methodologically narrow, while the intellectual base still rests on mostly developed-market work. Cross-border firms, consumer-facing industries and Central Asia remain marginal even when abstracts as well as titles are screened. The paper links this structure to an agenda with five testable propositions.

Keywords: ESG, Corporate Financial Performance, Firm Value, Emerging Markets, Bibliometric Analysis, Multinational Enterprises

Received: 8 October 2026
Revised: 28 October 2026
Accepted: 9 November 2026
Published: 17 November 2026

Copyright: © 2026 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

1. Introduction

Whether environmental, social and governance (ESG) activity pays off financially is one of the most frequently tested questions in corporate finance and accounting. Early debates set the shareholder view, which treats social spending as an agency cost (Friedman, 1970; Jensen & Meckling, 1976), against the stakeholder view, which treats it as an investment in relationships that support long-run value (Freeman, 1984). Meta-analytic work has tilted the balance towards a positive association: Orlitzky et al. (2003) across 52 studies, and Friede et al. (2015), aggregating more than 2,000 empirical studies, who report that roughly 90% found a non-negative relationship. More recent reviews stress that the answer depends on how ESG is measured, which channel is tested—cash flows, cost of capital or risk—and in which institutional setting (Gillan et al., 2021; Huang, 2021).

The setting matters because the empirical base has changed quickly. Foundational studies drew mainly on firms listed in the United States and Western Europe, where rating coverage is dense, disclosure has a long history, and investors use ESG information routinely (Amel-Zadeh & Serafeim, 2018; Eccles et al., 2014). Since around 2020 a large and growing volume of studies has tested the link on firms listed in Indonesia, China, India, Malaysia and other emerging economies, which differ in ownership concentration, enforcement, rating coverage and investor composition—all of which shape the mechanisms through which ESG affects value (Garcia et al., 2017; Duque-Grisales & Aguilera-Caracuel, 2021). Whether this work has extended the theory or mostly replicated established designs on new samples remains open, as does which settings it leaves out.

Existing reviews do not answer these questions. Narrative reviews such as Brooks and Oikonomou (2018), Gillan et al. (2021) and Huang (2021) predate the post-2022 surge, and meta-analyses aggregate effect sizes without describing who produces

the evidence or where its blind spots lie. Six bibliometric and systematic reviews published since 2024 are closer in method but not in question: they map the ESG literature as a whole (Khurshid & Islam, 2025), the moderators of the ESG/CSR–performance relationship (Cardillo & Basso, 2025), the most-cited work (Pathan & Mohanty, 2025), the link with financial stability (Zheng et al., 2025), the ESG investment literature (Sharma & Sharma, 2026), and ESG investment in emerging markets (Meneses Cerón et al., 2026). Each draws on between 108 and 785 Scopus- or Web of Science-indexed documents; Section 2.4 compares them with the present review. Bibliometric methods suit the task because they describe a literature's structure from its publication, citation and keyword records rather than from a reviewer's selection (Donthu et al., 2021; Zupic & Čater, 2015).

This paper therefore maps ESG–financial performance research published between 2010 and 2025 and addresses four research questions:

RQ1. How has the volume and geographic origin of ESG–financial performance research developed, and how visible is the new evidence from emerging economies?
RQ2. Which intellectual foundations does the field draw on, as revealed by co-citation patterns?
RQ3. Which themes and research designs structure the field, and how do emerging-economy studies differ from those produced in high-income economies?
RQ4. Which settings remain under-examined, in particular cross-border (multinational) firms, consumer-facing industries, and the economies of Central Asia?

The paper contributes in three ways. First, it documents a shift in the authorship of the field using a fully open and reproducible data source, OpenAlex (Priem et al., 2022), rather than proprietary indexes, and reports how far that finding depends on the search terms chosen. Second, it shows that the shift has been quantitative more than conceptual: studies with emerging-economy authors rely more heavily on accounting ratios and moderation designs, are cited far less, and continue to build on a developed-market intellectual base. Third, it identifies specific gaps—research on cross-border firms, whose ESG practices are shaped by both home- and host-country pressures, and on consumer-facing industries, where the reputational channel should be strongest—and translates them into an agenda with five testable propositions.

Three terms are kept distinct throughout. Emerging-economy authorship refers to the countries of the authors' institutions; an emerging-market setting to the country whose firms a study examines. Bibliographic metadata identify the first directly and the second only indirectly; Section 4.5 reports how closely they correspond. The "emerging-market turn" of the title refers to the first: a change in who produces the research.

2. Theoretical Background

2.1. Competing Views of the ESG–Performance Link

The shareholder view holds that managers who spend corporate resources on social goals impose a cost on owners and may use such spending to entrench themselves (Friedman, 1970; Jensen & Meckling, 1976); Barnea and Rubin (2010) find that insiders may over-invest in corporate social responsibility (CSR) when they do not bear its cost. The stakeholder view argues instead that firms create value by managing relationships with employees, customers, suppliers, communities and regulators (Freeman, 1984), and the resource-based view adds that capabilities built through sustainable practices can be valuable, rare and hard to imitate (Barney, 1991).

Empirical finance research has since specified the channels through which ESG may affect value. High-sustainability firms outperform their peers over long horizons (Eccles et al., 2014); better CSR is associated with a lower cost of equity (El Ghoul et al., 2011; Dhaliwal et al., 2011) and fewer capital constraints (Cheng et al., 2014); and CSR can act like insurance that protects value when negative events occur (Godfrey et al., 2009), lowers systematic risk (Albuquerque et al., 2019) and preserves value in crises (Lins et al., 2017; Broadstock et al., 2021). Investors also react asymmetrically, responding strongly to negative CSR news and only weakly to positive news (Krüger, 2015).

2.2. Measurement and Materiality

A second strand of work questions the measures used to test these links. ESG ratings from different providers correlate only moderately, mostly because they measure different attributes and measure the same attributes differently (Berg et al., 2022), and are biased towards large firms that can afford to disclose more (Drempetic et al., 2020). Disclosure and performance are not the same thing: the value relevance of ESG performance depends on whether it is disclosed (Fatemi et al., 2018), and controversies can matter more than scores (Aouadi & Marsat, 2018). Khan et al. (2016) show that only material sustainability issues, which differ across industries, predict future returns. Results therefore depend heavily on the rating used and the industry studied.

https://doi.org/10.67728/afa.2026.004

2.3. Why Emerging and Cross-Border Settings Matter

Institutional settings change both the costs and the payoffs of ESG. In many emerging markets rating coverage is thin, ownership is concentrated, enforcement is weaker and the investor base is less ESG-oriented; firms in environmentally or socially sensitive industries there score higher on ESG, consistent with legitimacy-seeking (Garcia et al., 2017). For multinational firms the setting is doubly complex: Kostova and Zaheer (1999) argue that multinationals must establish legitimacy in several institutional environments at once, and that home- and host-country pressures can conflict. Consistent with this, Duque-Grisales and Aguilera-Caracuel (2021) find that the ESG–performance link of Latin American multinationals depends on geographic diversification, and Sun et al. (2025) examine how Chinese parents' ESG disclosure affects their overseas subsidiaries. Cross-border firms thus offer a strong test of where ESG value comes from, yet how much attention the field gives them is unclear.

2.4. Prior Reviews and the Case for an Updated Mapping

Several reviews have organised this literature. Brooks and Oikonomou (2018) concluded that results depend on whether disclosure or performance is measured; Gillan et al. (2021) highlighted unresolved questions about causality, measurement and the role of investors; and Huang (2021) noted the heterogeneity of results across measures and settings. These reviews were written mainly from the perspective of developed-market research, and their search periods end before the large wave of studies published after 2022.

Six bibliometric and systematic reviews published since 2024 are closer in method to the present study (Table 1) but differ from it, and from one another, in four respects. The first is research focus: they map the ESG literature as a whole, the moderators of the ESG–performance link, its most-cited work, its relation to financial stability, or ESG investment rather than firm performance. The second is search scope: their query terms, periods and inclusion rules differ, and they analyse between 108 and 785 documents against 4,679 here. The third is source: all six rely on Scopus, alone or with Web of Science, whereas OpenAlex covers regional and national outlets more widely. The fourth is the question: they summarise what the literature has found, whereas this review asks who produces the evidence, which designs they use, and which settings the field has left out.

These differences need to be kept in view where findings diverge. Sharma and Sharma (2026), working from 168 Scopus-indexed publications on ESG investment and financial performance, conclude that research remains concentrated in developed markets, and Meneses Cerón et al. (2026), from 399 Scopus and Web of Science records, treat emerging-market ESG investment as a field still to be established, whereas the present corpus shows that two thirds of the articles published in 2023–2025 come from authors affiliated in emerging economies. Database coverage is one reason for the difference but not the only one. The earlier reviews have a different focus and a narrower search, and their geographic conclusions appear to concern the markets studied, whereas this review locates research by author affiliation—a different unit, which Section 4.5 shows coincides with study setting only in part. The findings are therefore complementary rather than contradictory.

Table 1. Comparison with recent bibliometric reviews of the ESG–performance literature. Source: Author's compilation.

Guiding Question	Documents	Period	Source Database	Review
How is the ESG literature as a whole structured?	785	1992–2023	Scopus	Khurshid and Islam (2025)
Which variables moderate the ESG/CSR–performance relationship?	108	2019–2023	Scopus and Web of Science	Cardillo and Basso (2025)
What does the most-cited work say about ESG and firm financial performance?	472	2010–2024	Scopus	Pathan and Mohanty (2025)
What is the relationship between ESG performance and financial stability?	396 (140 meta-analysed)	2011–2023	Scopus	Zheng et al. (2025)
What does the ESG investment and firm performance literature cover, and through which theories and methods?	168	Not stated	Scopus	Sharma and Sharma (2026)
How has ESG investment in emerging markets evolved, and what challenges remain?	399 (90 synthesised)	2014–2025	Scopus and Web of Science	Meneses Cerón et al. (2026)
Where is the evidence produced, which designs dominate, and which settings are missing?	4,679	2010–2025	OpenAlex	This review

Note: Document counts are those reported by each review for its bibliometric analysis.

3. Data and Methods

3.1. Data Source and Search Strategy

Data were retrieved from OpenAlex, an open index of scholarly works that covers a broader range of journals and countries than Scopus or Web of Science and provides metadata on authorships, institutional countries, references and keywords (Priem et

al., 2022). Its broader coverage is an advantage here because a large share of the research produced in emerging economies appears in regional and national journals that the proprietary indexes cover only partly.

The search was applied to titles and abstracts with the following Boolean expression:

> (ESG OR "environmental, social and governance") AND ("financial performance" OR "firm value" OR "firm performance" OR "corporate performance")

Results were limited to works of type "article" published from 2010 to 2025. The year 2025 is the last complete publication year at the time of retrieval (24 October 2026). After removing duplicate identifiers, the corpus contained 4,679 articles. The query, filters and retrieval date are reported in full so that the corpus can be reproduced from the public OpenAlex interface. Because OpenAlex is updated continuously, the corpus is defined by the retrieval date given above; the robustness checks of Section 3.4 were run over the following day, when the same query returned 4,682 records, a difference of 0.06%.

3.2. Classification of Author Countries

Each article was assigned to one of four groups based on the countries of its authors' institutions: (a) emerging-economy authors only, where no author is affiliated with a high-income economy; (b) high-income authors only; (c) mixed teams; and (d) country not recorded. High-income status follows the World Bank's current high-income list (86 economies); Taiwan, which the World Bank does not list separately, was treated as high-income. Of the 4,679 articles, 3,751 (80.2%) had at least one recorded country; the remaining 19.8% are reported separately and excluded from country shares. This classification identifies where research is produced, not where the firms it studies are located, so statements about emerging-economy authorship concern the production of research only; Section 4.5 reports a check of how closely authorship and study setting correspond.

3.3. Analytical Procedures

The analysis follows the two-part structure recommended for bibliometric reviews (Donthu et al., 2021; Zupic & Čater, 2015). Performance analysis describes annual output, country contributions and citations within three periods—2010–2019 (formation), 2020–2022 (acceleration) and 2023–2025 (expansion)—because citation counts depend on article age.

Science mapping used two networks. The co-citation network (Small, 1973) links two references cited together by the same corpus article; it was built from the 40 references most frequently cited by the 2,526 corpus articles with reference lists. The keyword co-occurrence network links two keywords assigned to the same article and was built from the 40 most frequent OpenAlex keywords. In both, links with at least 30 co-occurrences were retained and weighted by the association-strength measure, which corrects raw co-occurrence for overall item frequency (van Eck & Waltman, 2009). Clusters were identified with the Louvain algorithm (Blondel et al., 2008); the partition with the highest modularity across 20 random seeds is reported.

Finally, to address RQ4, titles were screened with transparent keyword rules for three settings: cross-border firms, consumer-facing industries, and Central Asia, the last by author affiliation as well as by title; the full term lists are reproduced with the robustness checks in Section 4.5. Titles about retail investors were removed from the consumer-facing count by manual inspection, and banking and energy-related titles were counted the same way for comparison. Title screening is deliberately conservative, since a study can examine any of these settings without saying so in its title, so the counts are lower bounds and Section 3.4 describes a check that repeats the screening on titles and abstracts together.

3.4. Robustness Checks

Five checks address the main threats to inferences drawn from bibliographic metadata; Section 4.5 reports their results. The first concerns the search terms: a deliberately broad alternative to the baseline query was run, widening both sides as set out in Section 4.5. The second concerns the gap between author affiliation and study setting: for the ten most productive countries, the share of articles whose title or abstract names the authors' own market was computed. The third concerns screening breadth: the settings of Section 3.3 were screened again on titles and abstracts together. The fourth concerns the keywords on which the design comparison rests, which record how an article is indexed rather than what it does, so the same comparison was repeated on the text of titles and abstracts. The fifth concerns the outcome terms: because the query requires a firm-performance term, studies relating ESG to market-based outcomes in other language fall outside the corpus by construction, so that excluded literature was measured directly. The checks were run between 24 and 28 October 2026.

Claude (Anthropic; accessed via the Claude app, October 2026) was used only for limited assistive tasks: organising OpenAlex bibliographic metadata, debugging analysis code, and language polishing. It did not contribute to the study design, final data retrieval, final data analysis, interpretation of findings, or conclusions. The author ran and verified the final retrieval and analysis, reviewed and edited all AI-assisted output, and takes full responsibility for the content of the manuscript. Claude is not listed as an author and had no role in the decision to submit the manuscript. No AI-generated references were included.

https://doi.org/10.67728/afa.2026.004

4. Results

4.1. Growth and the Turn in Authorship (RQ1)

Figure 1 shows annual output. The literature was small until the late 2010s, with fewer than 40 articles a year before 2019. Output then rose from 110 articles in 2020 to 304 in 2022 and 2,138 in 2025. Between 2015 and 2025, the compound annual growth rate was about 56%. The three most recent years (2023–2025) account for 3,866 articles, or 82.6% of the corpus, so the field as it exists today is overwhelmingly a post-2022 literature.

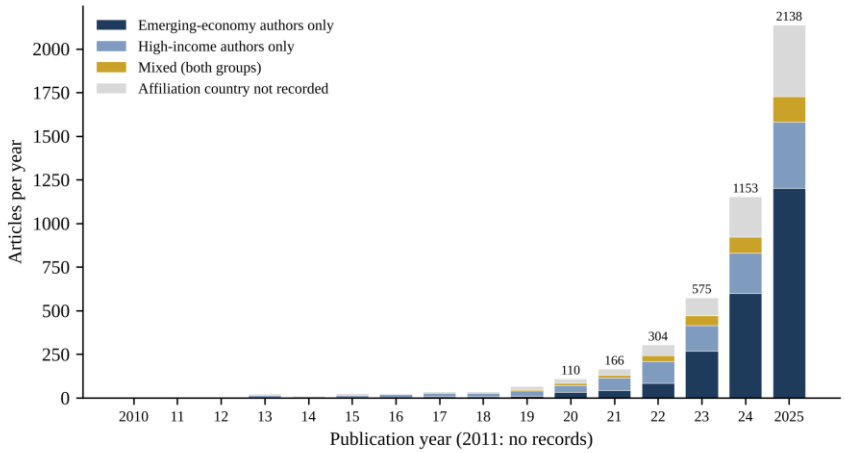


Figure 1. Annual number of ESG–financial performance articles by author-country group, 2010–2025. Source: Author's analysis of OpenAlex data (n = 4679; retrieved 24 October 2026). Country groups based on the World Bank high-income list.

The growth has been driven mainly by authors affiliated in emerging economies. Among articles with recorded author countries, the share written only by emerging-economy authors rose from 19.6% in 2010–2019 to 35.0% in 2020–2022 and 66.3% in 2023–2025, while the share of high-income-only articles fell from 74.4% to 24.2%. In 2025 alone, 1,201 articles came from emerging-economy-only teams compared with 381 from high-income-only teams. Section 4.5 shows that the direction of this shift is robust to the choice of search terms but that its size is not.

Table 2 lists the 20 most productive countries. Indonesia (925 articles) and China (596) lead, followed by India (304) and the United States (260). The timing differs sharply: almost all Indonesian output (893 of 925 articles) appeared in 2023–2025, and the keyword "Indonesia Stock Exchange" alone occurs in 382 articles, nearly all of them published after 2022.

Table 2. Twenty most productive countries, 2010–2025. Source: Author's analysis of OpenAlex data.

Cit./Article	Citations	2023–2025	2020–2022	2010–2019	Articles	Group	Country	Rank
3.0	2778	893	30	2	925	Emerging	Indonesia	1
24.0	14,276	547	47	2	596	Emerging	China	2
21.4	6495	261	34	9	304	Emerging	India	3
52.8	13,738	170	54	36	260	High income	United States	4
64.4	12,361	143	31	18	192	High income	United Kingdom	5
28.9	5166	144	29	6	179	Emerging	Malaysia	6
32.3	4108	89	27	11	127	High income	South Korea	7
62.6	7322	76	32	9	117	High income	Italy	8
63.6	6039	57	20	18	95	High income	Spain	9
25.1	2383	80	13	2	95	Emerging	Pakistan	10
44.3	3983	72	18	0	90	Emerging	Türkiye	11
76.1	5860	45	16	16	77	High income	Australia	12
8.9	671	67	5	3	75	Emerging	Thailand	13
9.1	676	60	13	1	74	High income	Russia	14
23.0	1680	67	5	1	73	High income	Saudi Arabia	15
15.8	1139	61	9	2	72	High income	Taiwan	16
112.8	8010	39	22	10	71	High income	France	17
21.9	1423	52	8	5	65	Emerging	Egypt	18
20.4	1307	46	17	1	64	High income	Romania	19
40.2	1971	37	12	0	49	Emerging	Tunisia	20

Note: Full counting (an article is counted once for each country among its authors' affiliations). Citations as recorded in OpenAlex on 24 October 2026.

https://doi.org/10.67728/afa.2026.004

The literature is also widely dispersed across outlets and mostly openly accessible. The corpus spans more than 200 publication venues, and the 15 largest together account for only about 15% of articles. Three quarters of the articles (75.1%) are open access.

Citation impact differs strongly by group even within the same period (Table 3). For 2023–2025, the median emerging-economy-only article has one citation and 46.7% have none, compared with a median of four citations and 24.0% uncited among high-income-only articles. Mixed teams that combine authors from both groups perform best, with a median of seven citations and only 16.8% uncited. The same ordering appears in 2020–2022. Mixed teams are also larger on average (3.6 authors per article, compared with 2.6 for emerging-economy-only and 2.5 for high-income-only teams).

These counts measure how far work has been taken up within the indexed literature, not how good it is, and several mechanisms unrelated to quality push them in the same direction: articles in regional and national journals are indexed less completely, so citations to them are recorded less often; they reach smaller citing communities; English-language journals based in high-income economies dominate the reference lists from which citations are generated; and the newest work is concentrated in the group whose counts are lowest. The defensible reading is that the shift in authorship has increased the volume of evidence much faster than its visibility, and the claim developed in Section 5.1 rests on the design evidence of Section 4.3 rather than on these counts.

Table 3. Citation impact by author-country group and period. Source: Author's analysis of OpenAlex data.

% Uncited	Median Citations	Mean Citations	Articles	Author-Country Group	Period
6.1	25	100.1	33	Emerging-economy authors only	2010–2019
3.2	86	233.0	125	High-income authors only	2010–2019
0.0	98	227.1	10	Mixed teams	2010–2019
11.2	23	76.6	161	Emerging-economy authors only	2020–2022
3.8	38	78.4	237	High-income authors only	2020–2022
0.0	77.5	126.5	62	Mixed teams	2020–2022
46.7	1	5.7	2,070	Emerging-economy authors only	2023–2025
24.0	4	13.0	755	High-income authors only	2023–2025
16.8	7	20.3	298	Mixed teams	2023–2025

Note: Articles without recorded author countries are excluded. Citation comparisons should be read within periods because older articles have had more time to be cited.

Table 4 lists the ten most-cited articles. All were published between 2015 and 2022, before the post-2022 surge, and most rely on developed-market or international samples; Duque-Grisales and Aguilera-Caracuel (2021), on Latin American multinationals, and Zhou et al. (2022), on Chinese listed companies, are the emerging-market exceptions. The most influential articles therefore come from a small, early and largely developed-market core, while the large emerging-economy output of 2023–2025 has not yet produced comparably influential work.

Table 4. Ten most-cited articles in the corpus. Source: Author's analysis of OpenAlex data.

Citations	Journal	Article	Rank
4,697	Journal of Sustainable Finance & Investment	Friede et al. (2015)	1
1,603	Global Finance Journal	Fatemi et al. (2018)	2
1,143	The British Accounting Review	Li et al. (2018)	3
1,104	Journal of Business Ethics	Duque-Grisales & Aguilera-Caracuel (2021)	4
1,075	Business Strategy and the Environment	Xie et al. (2019)	5
1,035	Journal of Business Ethics	Aouadi & Marsat (2018)	6
992	International Review of Financial Analysis	Chen & Xie (2022)	7
979	Journal of Global Responsibility	Velte (2017)	8
910	Business Strategy and the Environment	Zhou et al. (2022)	9
836	The British Accounting Review	Brooks & Oikonomou (2018)	10

Note: Citations as recorded in OpenAlex on 24 October 2026 (all sources, not only citations from within the corpus).

https://doi.org/10.67728/afa.2026.004

4.2. Intellectual Foundations (RQ2)

Table 5 reports the three clusters of the co-citation network (modularity Q = 0.25). The most frequently co-cited reference is the meta-study by Friede et al. (2015), cited by 574 corpus articles.

Table 5. Co-citation clusters of the 40 most-cited references. Source: Author's analysis of OpenAlex data.

References (Number of Citing Corpus Articles)	No. of Refs	Cluster
Fatemi et al. (2018) [339]; Velte (2017) [308]; Duque-Grisales & Aguilera-Caracuel (2021) [283]; Buallay (2019) [204]; Li et al. (2018) [198]; Aydoğmuş et al. (2022) [190]; Aouadi & Marsat (2018) [187]; Alareeni & Hamdan (2020) [186]; Xie et al. (2019) [185]; Atan et al. (2018) [185]; Garcia et al. (2017) [172]; Nollet et al. (2016) [158]; Zhao et al. (2018) [153]; Zhou et al. (2022) [150]; Chen & Xie (2022) [149]; Wong et al. (2021) [147]; Yoon et al. (2018) [144]; Chen et al. (2023) [140]	18	C1 Firm-level empirical tests
Jensen & Meckling (1976) [274]; Orlitzky et al. (2003) [266]; Eccles et al. (2014) [249]; Waddock & Graves (1997) [229]; Cheng et al. (2014) [211]; Lins et al. (2017) [206]; Freeman (1984) [199]; Friedman (1970) [188]; El Ghoul et al. (2011) [174]; Dhaliwal et al. (2011) [170]; Barney (1991) [159]; Barnea & Rubin (2010) [158]; Krüger (2015) [141]; Godfrey et al. (2009) [130]	14	C2 Theoretical and corporate finance foundations
Friede et al. (2015) [574]; Gillan et al. (2021) [242]; Broadstock et al. (2021) [192]; Berg et al. (2022) [152]; Drempetic et al. (2020) [145]; Amel-Zadeh & Serafeim (2018) [140]; Suchman (1995) [136]; Huang (2021) [129]	8	C3 Synthesis, measurement and legitimacy

Note: Louvain clustering of the association-strength-weighted co-citation network of the 40 most co-cited references (links ≥30 co-citations; modularity Q = 0.25), built from the 2,526 corpus articles with reference lists retrieved on 25 October 2026.

Cluster C1, "Firm-level empirical tests" (18 references), contains the studies most often used as templates: they regress accounting or market performance on ESG scores or disclosure, usually with a moderator—disclosure (Fatemi et al., 2018), CEO power (Li et al., 2018), diversification and slack (Duque-Grisales & Aguilera-Caracuel, 2021), controversies (Aouadi & Marsat, 2018). A few draw on emerging-market samples (Garcia et al., 2017; Zhao et al., 2018; Zhou et al., 2022).

Cluster C2, "Theoretical and corporate finance foundations" (14 references), combines the classic theoretical positions with the corporate finance studies that identified specific value channels (Table 5); almost all of this work uses US data.

Cluster C3, "Synthesis, measurement and legitimacy" (8 references), groups the meta-evidence and reviews with work on rating divergence, size bias and investor use of ESG information (Table 5), together with Broadstock et al. (2021) and Suchman (1995), a legitimacy-theory source and the only theory reference outside C2.

Two observations follow. First, even as most new articles come from emerging economies, the field's shared references remain developed-market studies, especially for theory (C2) and measurement (C3). Second, the measurement cluster is cited but rarely acted on: only 14 titles in the corpus refer to rating divergence, disagreement or inconsistency, even though rating disagreement should be largest where coverage is thinnest.

4.3. Thematic Structure and Research Designs (RQ3)

The keyword co-occurrence network (Figure 2) splits into five clusters (Q = 0.21), summarised in Table 6 with keyword frequencies by period.

Table 6. Keyword clusters and keyword frequencies by period. Source: Author's analysis of OpenAlex data.

Keywords (Total: 2010–2019/2020–2022/2023–2025)	No. of Keywords	Cluster
financial performance (1,449: 60/185/1,204); ESG performance (1,013: 39/99/875); ESG ratings (961: 45/152/764); corporate sustainability (717: 25/77/615); firm performance (713: 26/88/599); ESG (709: 27/92/590); corporate social responsibility (683: 85/132/466); sustainable development (289: 4/24/261); ESG investing (235: 11/34/190); Chinese listed companies (231: 2/17/212); sustainable investment (229: 16/40/173); mediating effect (204: 5/14/185); sustainable finance (195: 1/19/175); ESG integration (190: 6/11/173); corporate reputation (181: 4/18/159); environmental, social and governance (174: 8/22/144); COVID-19 pandemic (174: 0/40/134); ESG reporting (146: 3/15/128)	18	K1 ESG performance and sustainable finance
return on assets (767: 18/95/654); corporate financial performance (489: 33/64/392); return on equity (464: 12/64/388); Tobin's Q (455: 15/64/376); listed companies (367: 18/37/312); emerging markets (329: 13/25/291); stakeholder theory (311: 10/40/261)	7	K2 Accounting and market performance metrics
firm value (899: 36/92/771); moderating effect (553: 3/39/511); Indonesia Stock Exchange (382: 0/9/373); firm size (314: 10/31/273); profitability (272: 7/21/244); leverage (176: 6/15/155); non-financial firms (149: 1/10/138)	7	K3 Firm-value moderation designs
corporate governance (1,317: 70/158/1,089); environmental performance (335: 18/53/264); social performance (208: 15/29/164); ESG practices (150: 4/14/132)	4	K4 Governance and pillar-level performance
ESG disclosure (1,057: 41/106/910); sustainability reporting (406: 21/62/323); environmental disclosure (236: 10/29/197); social disclosure (182: 11/23/148)	4	K5 Disclosure and reporting

Note: Louvain clustering of the association-strength-weighted keyword co-occurrence network (40 most frequent OpenAlex keywords, links ≥30 co-occurrences; modularity Q = 0.21).

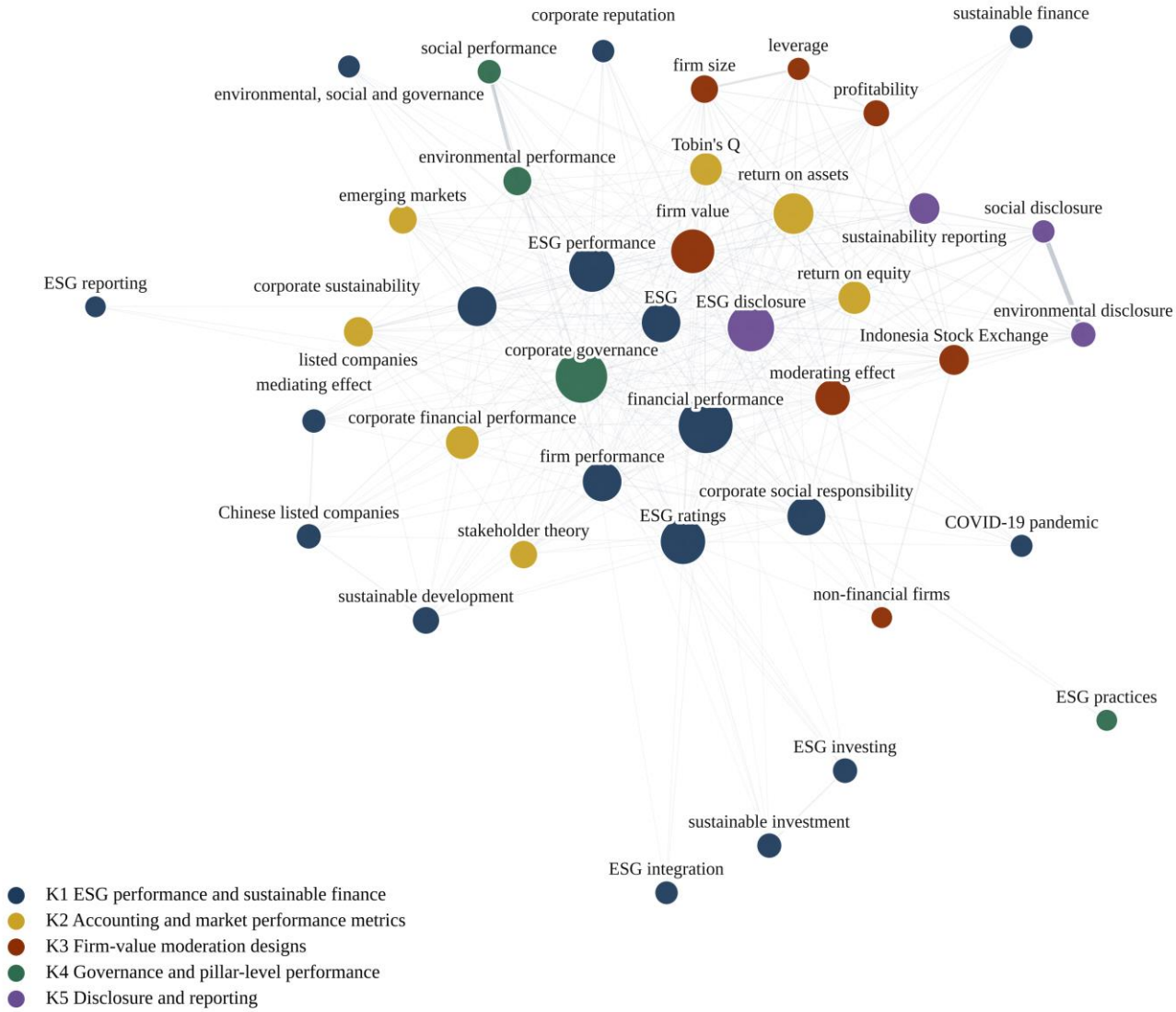


Figure 2. Keyword co-occurrence network of ESG–financial performance research (40 most frequent keywords). Source: Author's analysis of OpenAlex data. Node size reflects keyword frequency; links show association-strength-weighted co-occurrence (≥30 joint occurrences); colours show Louvain clusters.

https://doi.org/10.67728/afa.2026.004

K1, ESG performance and sustainable finance (18 keywords), is the core of the field, joining the main constructs with investment topics and context labels such as "Chinese listed companies" (231 occurrences, 212 of them in 2023–2025).

K2, Accounting and market performance metrics (7 keywords), collects the dependent variables together with "listed companies", "emerging markets" and "stakeholder theory". Because the cluster holds a setting label and a theory label alongside the outcome measures, the co-occurrence structure says little on its own about how the emerging-market setting is used; that question is answered by the design evidence in Table 7.

K3, Firm-value moderation designs (7 keywords), combines firm value with "moderating effect", the standard control variables and "Indonesia Stock Exchange". It describes a standard research template that grew fast after 2022: "moderating effect" appears three times in 2010–2019 and 511 times in 2023–2025.

K4, Governance and pillar-level performance (4 keywords), joins corporate governance with environmental and social performance and "ESG practices", so the governance pillar sits with the other two rather than with the outcome constructs. K5, Disclosure and reporting (4 keywords), covers ESG disclosure, sustainability reporting and environmental and social disclosure.

The comparison of country groups in Table 7 shows how articles with emerging-economy authors differ in design and emphasis. They are markedly more likely to use accounting ratios, Tobin's Q, moderation and mediation, and to focus on disclosure, and markedly less likely to use ESG ratings, which is consistent with thinner rating coverage of their firms. The newer emerging-economy literature has mostly applied an established design—an accounting ratio regressed on an ESG measure, with a moderator—to new samples. Within this corpus it rarely examines the market-based channels identified in cluster C2, although Section 4.5 shows that most of the field's market-based work falls outside the corpus by construction.

Table 7. Research-design signatures by author-country group (% of articles carrying the keyword). Source: Author's analysis of OpenAlex data.

Mixed Teams	High-Income Only	Emerging-Economy Only	Keyword Group
369	1,117	2,263	Articles (n)
18.2	16.8	28.7	Accounting ratios (ROA, ROE, profitability)
10.3	7.3	11.6	Tobin's Q
14.4	6.3	15.4	Moderating effect
3.5	1.8	6.1	Mediating effect
30.1	24.5	35.6	Disclosure / reporting
22.2	27.8	17.3	ESG ratings / scores

Note: Shares of the 3,749 articles with recorded author countries in the keyword retrieval of 24 October 2026, two fewer than in Table 3 because the keyword and citation retrievals were issued separately against a continuously updated index. The shares are based on OpenAlex's algorithmically assigned keywords, which record how an article is indexed rather than what it does; Section 4.5 reports a check of these design signatures against the text of the abstracts.

4.4. Coverage of Selected Settings (RQ4)

Table 8 reports the coverage of selected settings. Cross-border firms are rare: only 44 titles (0.9%) use keywords such as multinational, foreign, cross-border, overseas or subsidiary, and screening abstracts as well raises the count only to 151 (3.2%). Of the 596 China-affiliated articles, six name such terms in their titles. Both figures are lower bounds, since a study can use such a sample without saying so; what they establish is an order of magnitude. The scarcity matters because cross-border firms face home- and host-country ESG pressures at once, which makes them a natural setting for testing institutional mechanisms.

Table 8. Coverage of selected settings in the corpus (n = 4679). Source: Author's analysis of OpenAlex data.

% of Corpus	Articles	Setting (Title Keyword Rule)
0.9	44	Cross-border firms (multinational, foreign, cross-border, overseas, subsidiary, internationalisation)
1.0 of China-affiliated	6	of which China-affiliated articles (n = 596)
0.4	17	Consumer-facing industries (consumer goods, FMCG, retail sector, personal care, cosmetics)
<0.1	1	of which cosmetics firms
0.5	25	Central Asia (author affiliation in KZ, UZ, KG, TJ or TM)
0.1	5	of which a Central Asian country named in the title
5.3	248	For comparison: banking
4.1	194	For comparison: energy, extractive and utility firms

Note: Title-based screening (see Section 3.3); titles about retail investors are excluded from the consumer-facing count. KZ = Kazakhstan, UZ = Uzbekistan, KG = Kyrgyzstan, TJ = Tajikistan, TM = Turkmenistan.

https://doi.org/10.67728/afa.2026.004

Consumer-facing industries are similarly rare. Only 17 titles (0.4%) study consumer goods, retail, personal care or cosmetics firms, rising to 40 (0.9%) when abstracts are screened as well, and only one concerns cosmetics companies. Banking, by comparison, appears in 248 titles and energy, extractive and utility firms in 194. The imbalance is surprising because the reputational and customer channels through which ESG creates value (Lins et al., 2017) should be most direct for brand-driven consumer firms, whose material issues differ from those of banks or energy firms (Khan et al., 2016).

Central Asia is almost invisible. Only 25 articles (0.5%) have an author affiliated in Kazakhstan, Uzbekistan or Kyrgyzstan, and none in Tajikistan or Turkmenistan. Five titles name a Central Asian country, rising to 11 on the wider screen, and these deal with banks and agriculture. Orazalin et al. (2024) compare developed and developing countries in a Kazakhstan-based journal, but no study in the corpus examines foreign-owned or consumer-facing firms operating in the region—a gap that matters because Central Asia is a growing destination for Chinese trade and investment.

The region is worth attention for a reason beyond its absence from the literature. Home- and host-country ESG pressures are usually confounded, because firms from many home environments operate in many host environments at once. Central Asia separates them unusually cleanly: Chinese firms are a visible and growing presence, their listed parents face mandatory ESG disclosure at home, and the host economies' own ESG regulation is recent. Kazakhstan adds a second feature—membership of the Eurasian Economic Union alongside an international-standards financial centre in Astana—so a firm there faces several regulatory reference points at once. That is the configuration in which the predictions of Kostova and Zaheer (1999) about legitimacy under institutional complexity can be distinguished from simple home-country compliance.

4.5. Robustness Checks (RQ1–RQ4)

Table 9 reports Checks A, C, D and E. The broad query returns 19,890 articles, 4.3 times the baseline corpus, and the two give different answers about the level of emerging-economy authorship: under the broad query that share was already 52.2% in 2010–2019, against 19.6% in the baseline. The direction of change and the citation gap between author groups are the same in both. The reason is visible in the baseline itself: only 168 articles published before 2020 have recorded author countries, and early adopters of the ESG label were concentrated in high-income economies, whereas the broad query also captures the older corporate social responsibility literature. Section 5.1 draws the implication.

Check C repeats the screening of Section 3.3 on titles and abstracts together. Widening the screen roughly triples the cross-border count, from 44 (0.9%) to 151 (3.2%); more than doubles the consumer-facing count, from 17 (0.4%) to 40 (0.9%); and raises the number naming a Central Asian country from 5 to 11. Banking moves from 248 to 377 articles and energy, extractive and utility firms from 194 to 598. The gaps in Section 4.4 are therefore narrower than title screening implies but remain large: at the wider bound, cross-border firms appear in about one article in thirty and consumer-facing industries in about one in a hundred and twenty, against roughly one in twelve for banking.

Check D tests whether the design signatures of Table 7 survive a different operationalisation. Those signatures come from OpenAlex keywords, which record how an article is indexed rather than what it does. Repeating the comparison on the text of titles and abstracts, for the ten largest emerging-economy and eleven largest high-income producers, gives the same ordering on all four features: authors in emerging economies are more likely to use accounting ratios (35.6% against 26.8%), moderation (17.5% against 11.3%), mediation (11.7% against 6.4%) and Tobin's Q (5.8% against 3.1%). The levels, however, are not interchangeable. Abstract text finds more use of ratios and of moderation and mediation than the keywords do and much less use of Tobin's Q (4.5% of the corpus against 9.7% under the keyword measure), and the gap between the two groups narrows on three of the four features. Table 7 should therefore be read as indexing relative emphasis across groups rather than as measuring how often a method is used.

Check E measures what the outcome terms leave out. Searching titles and abstracts for the ESG label together with a market-based outcome—cost of capital, cost of equity or debt, stock returns or prices, systematic, idiosyncratic or firm risk, crash risk, credit ratings or bond spreads—returns 1,676 articles for 2010–2025, of which only 368 also use one of the four firm-performance terms that define the baseline corpus. Market-based outcomes are therefore genuinely uncommon within the corpus, appearing in 7.9% of articles, but the remaining 1,308 articles—78.0% of the market-based literature—lie outside it by construction rather than being absent from the field. The finding in Section 4.3 is thus a statement about the firm-performance literature specifically, not about the field as a whole, which has a substantial market-based strand this corpus does not reach.

https://doi.org/10.67728/afa.2026.004

Table 9. Robustness of the search strategy, the setting screening, the keyword measures and the outcome scope. Source: Author's analysis of OpenAlex data.

Alternative Specification	Baseline	Quantity	Check
19,890	4,679	Articles retrieved, 2010–2025	A. Search terms
52.2%	19.6%	Emerging-economy-only authorship, 2010–2019	
63.7%	35.0%	Emerging-economy-only authorship, 2020–2022	
72.7%	66.3%	Emerging-economy-only authorship, 2023–2025	
0 / 4 / 6	1 / 4 / 7	Median citations, 2023–2025 (emerging / high-income / mixed)	
55.9% / 22.6% / 17.1%	46.7% / 24.0% / 16.8%	Uncited, 2023–2025 (emerging / high-income / mixed)	
151 (3.2%)	44 (0.9%)	Cross-border firms	C. Screening breadth
40 (0.9%)	17 (0.4%)	Consumer-facing industries	
11 (0.2%)	5 (0.1%)	Central Asian country named	
377 (8.1%)	248 (5.3%)	Banking (comparison)	
598 (12.8%)	194 (4.1%)	Energy, extractive and utility firms (comparison)	
35.6% / 26.8%	28.7% / 16.8%	Accounting ratios (emerging / high-income authors)	D. Keyword validity
17.5% / 11.3%	15.4% / 6.3%	Moderation (emerging / high-income authors)	
11.7% / 6.4%	6.1% / 1.8%	Mediation (emerging / high-income authors)	
5.8% / 3.1%	11.6% / 7.3%	Tobin's Q (emerging / high-income authors)	
1,676	368 (7.9% of corpus)	Articles combining the ESG label with a market-based outcome term	E. Outcome scope
1,308 (78.0%)	-	of which outside the baseline corpus	

Note: Check A compares the baseline query with a deliberately broad query adding corporate social responsibility, corporate social performance, sustainability performance, sustainability disclosure and non-financial disclosure on the exposure side and profitability, return on assets, return on equity, Tobin's Q, market value, cost of capital, stock returns and firm risk on the outcome side; authorship shares are of articles with recorded author countries. Check C applies one set of term lists twice through the OpenAlex search index—to titles alone (baseline, the counts reported in Table 8) and to titles and abstracts together (alternative)—so the two columns differ only in the fields searched. The term lists are: cross-border firms—multinational, cross-border, foreign, subsidiary, internationalisation, overseas, outward, host country, Belt and Road; consumer-facing industries—cosmetics, beauty, personal care, consumer goods, consumer products, fast-moving consumer goods, FMCG, retail sector; Central Asia—Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan, Central Asia; banking—bank, banks, banking; energy, extractive and utility firms—energy, oil, gas, mining, extractive, utility, utilities, petroleum, coal. Check B is reported in Table 10. Check D compares the keyword-based design signatures of Table 7 with the share of articles whose title or abstract contains the corresponding expression, for the ten largest emerging-economy and eleven largest high-income producers. Check E searches titles and abstracts for the ESG label together with any of: cost of capital, cost of equity, cost of debt, stock returns, stock price, systematic risk, idiosyncratic risk, firm risk, crash risk, credit rating, bond spread. Checks C, D and E were run on 24–25 October 2026 against the corpus described in Section 3.1; the broad query of Check A is a separate retrieval of 13 October 2026 and is reported as retrieved.

Check B addresses the distance between author affiliation and study setting. Table 10 reports it for the ten most productive countries, matching each country's name, demonym and principal market or index. The share of articles naming the authors' own market ranges from 74.5% (Indonesia) to 11.0% (the United States), and is 61.0% for authors affiliated in emerging economies against 18.2% for those in high-income economies. Read from the other direction, the settings that dominate the corpus are studied mainly by local authors: 87.3% of the articles naming Indonesia have Indonesian authors, against 59.1% for China and 61.2% for India. These shares are lower bounds, since large markets are often identified by index rather than by country name: adding market names raises the United States from 7.3% to 11.0% and the United Kingdom from 3.0% to 11.4%, while barely changing the emerging-economy figures. The correspondence is therefore closer for the emerging-economy literature that drives the result in Section 4.1 than for the high-income literature, and author affiliation is a usable but imperfect proxy for study setting.

https://doi.org/10.67728/afa.2026.004

Table 10. Author country and study setting: articles naming the authors' own market.

%	Naming Own Market	Articles with an Abstract	Author-Country Group	Country
74.5	688	923	Emerging	Indonesia
56.0	150	268	Emerging	India
53.2	59	111	High income	South Korea
51.9	264	509	Emerging	China
39.1	34	87	Emerging	Pakistan
34.3	59	172	Emerging	Malaysia
12.4	11	89	High income	Spain
12.0	13	108	High income	Italy
11.4	19	166	High income	United Kingdom
11.0	24	218	High income	United States
61.0	1195	1959	Emerging	All emerging-economy producers above
18.2	126	692	High income	All high-income producers above

Note: The ten countries with the largest output in Table 2 (Spain and Pakistan tie in ninth place), restricted to the 4,321 articles with an abstract in OpenAlex. An article counts as naming its authors' own market if the title or abstract contains the country name, its demonym, or the principal national exchange or index: Indonesia, Indonesian, Indonesia Stock Exchange, IDX; China, Chinese, Shanghai Stock Exchange, Shenzhen Stock Exchange; India, Indian, Bombay Stock Exchange, National Stock Exchange, Nifty, Sensex; Korea, Korean, KOSPI; Malaysia, Malaysian, Bursa Malaysia; Pakistan, Pakistani, Pakistan Stock Exchange, Karachi Stock Exchange, PSX; United States, American, S&P 500, NYSE, NASDAQ; United Kingdom, Britain, British, FTSE, London Stock Exchange; Spain, Spanish, IBEX; Italy, Italian, Borsa Italiana. Figures are lower bounds, since a study need not name its market. Source: Author's analysis of OpenAlex data, 24 October 2026; the Pakistan row was retrieved on 28 October 2026, when the Pakistani article count matched Table 2.

5. Discussion and Research Agenda

5.1. A Quantitative Rather than Conceptual Turn

The results show that ESG–financial performance research has become predominantly an emerging-economy literature in output but not in influence or theory. The field now has evidence from markets with very different institutions, which is necessary to test whether ESG creates value outside the setting where the theory was developed. But most of that evidence applies one design—accounting ratios regressed on ESG measures with a moderator—and treats "emerging market" as a sample rather than as a set of institutional conditions that might change the mechanism. The design evidence of Section 4.3 supports this reading; the citation gap of Section 4.1 is consistent with it but cannot carry it alone.

The sensitivity analysis also changes how the shift itself should be understood. Under the broad query, authors affiliated in emerging economies already produced a majority of the CSR- and sustainability-labelled performance literature in 2010–2019, before the ESG label became common. What the baseline corpus records is therefore not the arrival of emerging-economy scholarship in this research area but the diffusion of a particular label into work already being produced there. That fits the intellectual structure found in Section 4.2: the label travelled with a small set of developed-market empirical templates, which is why references and designs have remained concentrated even as the authorship base widened—a composition that the reviews in Table 1, given their different focus, scope and sources, were not designed to observe.

Several factors may explain why the turn has been quantitative rather than conceptual. These are conjectures: the bibliometric record identifies the pattern but cannot test its causes. The first is data—ESG ratings for emerging-market firms became widely available only recently, and accounting data are easier to obtain than market microstructure, cost-of-capital or subsidiary-level data. The second is publication incentives, since many universities in emerging economies now require journal publications for graduation and promotion, favouring designs that can be completed quickly. The third is the template effect visible in cluster C1: a small set of highly cited studies offers a ready-made model with a clear dependent variable, standard controls and a moderator. Together these would encourage replication on new samples rather than new explanations, though testing them would require evidence outside the bibliographic record.

The strong performance of mixed teams points to a practical remedy: collaboration between emerging- and high-income-economy researchers is associated with higher visibility, which editors and funders could encourage.

https://doi.org/10.67728/afa.2026.004

5.2. Measurement in Thinly Covered Markets

The field cites the work on rating divergence and size bias (Berg et al., 2022; Drempetic et al., 2020) but rarely acts on it. In emerging markets the problem is likely to be more serious because fewer providers cover each firm, local and international ratings may disagree, and disclosure-based scores may reward reporting rather than performance. Researchers can also make greater use of settings where ESG information changes for reasons unrelated to firm performance—mandatory disclosure rules, the initiation of rating coverage, changes in index membership. Such events offer more credible identification than cross-sectional regressions, which cannot separate the effect of ESG on performance from the tendency of profitable firms to invest more in ESG.

5.3. A Research Agenda for Cross-Border and Consumer-Facing Firms

The near-absence of cross-border and consumer-facing studies points to an agenda with five directions (Table 11).

Table 11. Research agenda. Source: Author's synthesis.

Anchor Literature	Suggested Data and Design	Guiding Question	Direction
Kostova & Zaheer (1999); Sun et al. (2025)	Parent–subsidiary panels; matched home/host regulatory indicators	How do home- and host-country ESG requirements jointly shape subsidiary ESG practice and its financial effect?	1. Home–host institutional pressure
Lins et al. (2017); Khan et al. (2016)	Firm ESG data linked to platform reviews, ratings and sales; industry-specific materiality	Do consumers in host markets reward ESG, and through which product-level issues?	2. Consumer and reputational channel
El Ghoul et al. (2011); Krüger (2015); Albuquerque et al. (2019)	Event studies on rating changes, controversies and disclosure mandates	Does ESG lower the cost of capital and risk in emerging markets?	3. Market-based channels
Berg et al. (2022); Drempetic et al. (2020); Fatemi et al. (2018)	Multiple ratings; disclosure vs. performance measures; domestic vs. foreign-owned firms	Do findings survive rating disagreement and size bias?	4. Measurement robustness
Duque-Grisales & Aguilera-Caracuel (2021); Orazalin et al. (2024)	Comparative designs across Central Asian and other host economies	Does the ESG–value link differ across host economies for the same parent firms?	5. Under-represented host regions

Direction 1: Home–host institutional pressure. Building on Kostova and Zaheer (1999), studies should model how home-country ESG requirements—Chinese listing and disclosure rules, for example—and host-country expectations jointly shape subsidiary ESG practice and its financial effect. Parent–subsidiary data, as used by Sun et al. (2025), allow the link to be estimated where host-country pressures act. Proposition 1. The financial effect of a subsidiary's own ESG practice rises with the stringency of host-country ESG requirements, while the effect of the parent's ESG disclosure falls as host-country requirements become more stringent.

Direction 2: The consumer and reputational channel. Brand-driven consumer firms provide the most direct test of whether customers reward ESG. Studies could link firm ESG information to platform-level consumer signals such as reviews, ratings and sales; industry-specific materiality (Khan et al., 2016) suggests focusing on product-level issues rather than generic scores. Proposition 2. The association between ESG performance and firm value is stronger in consumer-facing than in business-to-business industries, and the difference widens where consumers can observe ESG attributes at the point of purchase.

Direction 3: Market-based channels in emerging markets. Within the firm-performance literature mapped here, few emerging-market studies test the cost-of-capital, risk and investor-reaction channels that dominate the theoretical cluster (El Ghoul et al., 2011; Albuquerque et al., 2019; Krüger, 2015); Asmi et al. (2026) synthesise the wider ESG–risk literature from which such designs could be drawn. Event studies around rating changes, controversies or new disclosure mandates would move the literature beyond accounting ratios. Proposition 3. In emerging markets, ESG-related events lower the cost of capital and idiosyncratic risk by more than they raise accounting profitability, so designs using accounting ratios alone understate the value relevance of ESG.

Direction 4: Measurement robustness. Studies should compare multiple ratings and examine how coverage and disagreement differ between domestic and foreign-owned firms. Proposition 4. Estimated ESG premia in emerging markets fall as rating coverage of the sampled firms improves, because thin coverage selects larger and better-disclosing firms.

Direction 5: Under-represented host regions. Central Asia, and Kazakhstan in particular, combines rising foreign investment with new ESG regulation and very little firm-level evidence, and—for the reasons set out in Section 4.4—offers an unusually clean separation of home- and host-country pressures. Comparative designs following the same multinational parents across several host economies would help separate the two. Proposition 5. For the same parent firms, the ESG–performance relationship varies more across host economies than across industries, which would indicate that host-country institutions rather than industry characteristics drive the heterogeneity reported in single-country studies.

https://doi.org/10.67728/afa.2026.004

5.4. Practical Implications

Three practical statements follow from the bibliometric evidence. For managers of emerging-market multinationals, the evidence covering firms in their own situation is thin—about one article in thirty examines cross-border firms even on the wider screen—so claims that ESG investment pays off abroad rest largely on evidence gathered elsewhere. For regulators and stock exchanges, disclosure-based measures dominate the literature, so what disclosure rules require determines what can later be learned about ESG and value in that market. For investors, the evidence for emerging markets rests overwhelmingly on single ratings and accounting outcomes, so ESG scores there carry more measurement uncertainty than the volume of published studies suggests.

6. Conclusion and Limitations

This paper mapped 4,679 articles on the ESG–financial performance relationship published between 2010 and 2025. Authorship has shifted decisively towards emerging economies, while the field's shared references and research designs have not, and cross-border firms, consumer-facing industries and Central Asia remain almost unstudied. The sensitivity analysis qualifies the first of these findings: the shift is better described as the diffusion of the ESG label into a literature already produced largely outside high-income economies than as the arrival of new producers. What the field needs now is not more samples but designs that turn institutional differences into explanations.

The study has limitations. OpenAlex metadata are imperfect: 19.8% of articles lack author-country information, keywords are assigned algorithmically, and some duplicate records may remain, so country results are shares of articles with known countries. The corpus is also defined by an English-language query over titles and abstracts, and Section 4.5 shows that the level of emerging-economy authorship depends materially on which exposure terms that query includes—the direction of the change is the robust finding, not its size—while the outcome terms bound what the corpus can say about research designs, since work relating ESG to market-based outcomes in other language is excluded by construction. Citation comparisons are made within periods but cannot fully remove age effects for 2025 articles, and citation counts measure visibility rather than quality. Finally, the screening of under-examined settings yields lower bounds, and author affiliation is an imperfect proxy for study setting. Despite these limitations, the settings identified as thin account for no more than about three per cent of the corpus even on the wider screen, so the main conclusions are unlikely to be reversed by finer measurement. Future reviews could combine OpenAlex with Scopus or Web of Science and extend the analysis to full texts.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The data were retrieved from the open OpenAlex database (https://openalex.org) on 24 October 2026 using the query and filters reported in Section 3.1. The aggregated data used for the tables and figures are available from the author on request.

Conflicts of Interest: The author declares no conflicts of interest.

References

Albuquerque, R., Koskinen, Y., & Zhang, C. (2019). Corporate social responsibility and firm risk: Theory and empirical evidence. *Management Science, 65*(10), 4451–4469. https://doi.org/10.1287/mnsc.2018.3043

Alareeni, B. A., & Hamdan, A. (2020). ESG impact on performance of US S&P 500-listed firms. *Corporate Governance, 20*(7), 1409–1428. https://doi.org/10.1108/CG-06-2020-0258

Amel-Zadeh, A., & Serafeim, G. (2018). Why and how investors use ESG information: Evidence from a global survey. *Financial Analysts Journal, 74*(3), 87–103. https://doi.org/10.2469/faj.v74.n3.2

Aouadi, A., & Marsat, S. (2018). Do ESG controversies matter for firm value? Evidence from international data. *Journal of Business Ethics, 151*(4), 1027–1047. https://doi.org/10.1007/s10551-016-3213-8

Asmi, F., Neher, A., & Wong, A. (2026). The evolution of environmental, social, and governance (ESG) and risk and its implications for sustainable finance: A systematic literature review. Corporate Social Responsibility and Environmental Management, 33(4), 5929–5949. https://doi.org/10.1002/csr.70402

Atan, R., Alam, M. M., Said, J., & Zamri, M. (2018). The impacts of environmental, social, and governance factors on firm performance: Panel study of Malaysian companies. *Management of Environmental Quality, 29*(2), 182–194. https://doi.org/10.1108/MEQ-03-2017-0033

Aydoğmuş, M., Gülay, G., & Ergun, K. (2022). Impact of ESG performance on firm value and profitability. *Borsa Istanbul Review, 22*(Suppl. 2), S119–S127. https://doi.org/10.1016/j.bir.2022.11.006

Barnea, A., & Rubin, A. (2010). Corporate social responsibility as a conflict between shareholders. *Journal of Business Ethics, 97*(1), 71–86. https://doi.org/10.1007/s10551-010-0496-z

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99–120. https://doi.org/10.1177/014920639101700108

Berg, F., Kölbel, J. F., & Rigobon, R. (2022). Aggregate confusion: The divergence of ESG ratings. *Review of Finance, 26*(6), 1315–1344. https://doi.org/10.1093/rof/rfac033

Blondel, V. D., Guillaume, J.-L., Lambiotte, R., & Lefebvre, E. (2008). Fast unfolding of communities in large networks. *Journal of Statistical Mechanics: Theory and Experiment, 2008*(10), P10008. https://doi.org/10.1088/1742-5468/2008/10/P10008

Broadstock, D. C., Chan, K., Cheng, L. T. W., & Wang, X. (2021). The role of ESG performance during times of financial crisis: Evidence from COVID-19 in China. *Finance Research Letters, 38*, 101716. https://doi.org/10.1016/j.frl.2020.101716

Brooks, C., & Oikonomou, I. (2018). The effects of environmental, social and governance disclosures and performance on firm value: A review of the literature in accounting and finance. *The British Accounting Review, 50*(1), 1–15. https://doi.org/10.1016/j.bar.2017.11.005

Buallay, A. (2019). Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector. *Management of Environmental Quality, 30*(1), 98–115. https://doi.org/10.1108/MEQ-12-2017-0149

Cardillo, M. A. dos R., & Basso, L. F. C. (2025). Revisiting knowledge on ESG/CSR and financial performance: A bibliometric and systematic review of moderating variables. *Journal of Innovation & Knowledge, 10*(1), 100648. https://doi.org/10.1016/j.jik.2024.100648

Chen, S., Song, Y., & Gao, P. (2023). Environmental, social, and governance (ESG) performance and financial outcomes: Analyzing the impact of ESG on financial performance. *Journal of Environmental Management, 345*, 118829. https://doi.org/10.1016/j.jenvman.2023.118829

Chen, Z., & Xie, G. (2022). ESG disclosure and financial performance: Moderating role of ESG investors. *International Review of Financial Analysis, 83*, 102291. https://doi.org/10.1016/j.irfa.2022.102291

Cheng, B., Ioannou, I., & Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal, 35*(1), 1–23. https://doi.org/10.1002/smj.2131

Dhaliwal, D. S., Li, O. Z., Tsang, A., & Yang, Y. G. (2011). Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *The Accounting Review, 86*(1), 59–100. https://doi.org/10.2308/accr.00000005

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research, 133*, 285–296. https://doi.org/10.1016/j.jbusres.2021.04.070

Drempetic, S., Klein, C., & Zwergel, B. (2020). The influence of firm size on the ESG score: Corporate sustainability ratings under review. *Journal of Business Ethics, 167*(2), 333–360. https://doi.org/10.1007/s10551-019-04164-1

Duque-Grisales, E., & Aguilera-Caracuel, J. (2021). Environmental, social and governance (ESG) scores and financial performance of multilatinas: Moderating effects of geographic international diversification and financial slack. *Journal of Business Ethics, 168*(2), 315–334. https://doi.org/10.1007/s10551-019-04177-w

Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The impact of corporate sustainability on organizational processes and performance. *Management Science, 60*(11), 2835–2857. https://doi.org/10.1287/mnsc.2014.1984

El Ghoul, S., Guedhami, O., Kwok, C. C. Y., & Mishra, D. R. (2011). Does corporate social responsibility affect the cost of capital? *Journal of Banking & Finance, 35*(9), 2388–2406. https://doi.org/10.1016/j.jbankfin.2011.02.007

Fatemi, A., Glaum, M., & Kaiser, S. (2018). ESG performance and firm value: The moderating role of disclosure. *Global Finance Journal, 38*, 45–64. https://doi.org/10.1016/j.gfj.2017.03.001

Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman.

Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: Aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance & Investment, 5*(4), 210–233. https://doi.org/10.1080/20430795.2015.1118917

Friedman, M. (1970, September 13). The social responsibility of business is to increase its profits. *The New York Times Magazine*, 32–33, 122–126.

Garcia, A. S., Mendes-Da-Silva, W., & Orsato, R. J. (2017). Sensitive industries produce better ESG performance: Evidence from emerging markets. *Journal of Cleaner Production, 150*, 135–147. https://doi.org/10.1016/j.jclepro.2017.02.180

Gillan, S. L., Koch, A., & Starks, L. T. (2021). Firms and social responsibility: A review of ESG and CSR research in corporate finance. *Journal of Corporate Finance, 66*, 101889. https://doi.org/10.1016/j.jcorpfin.2021.101889

Godfrey, P. C., Merrill, C. B., & Hansen, J. M. (2009). The relationship between corporate social responsibility and shareholder value: An empirical test of the risk management hypothesis. *Strategic Management Journal, 30*(4), 425–445. https://doi.org/10.1002/smj.750

Huang, D. Z. X. (2021). Environmental, social and governance (ESG) activity and firm performance: A review and consolidation. *Accounting & Finance, 61*(1), 335–360. https://doi.org/10.1111/acfi.12569

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Khan, M., Serafeim, G., & Yoon, A. (2016). Corporate sustainability: First evidence on materiality. *The Accounting Review, 91*(6), 1697–1724. https://doi.org/10.2308/accr-51383

Khurshid, R., & Islam, A. U. (2025). ESG literature mapping: Insights from bibliometric analysis. *International Journal of Disclosure and Governance, 22*(2), 476–503. https://doi.org/10.1057/s41310-024-00244-5

Kostova, T., & Zaheer, S. (1999). Organizational legitimacy under conditions of complexity: The case of the multinational enterprise. *Academy of Management Review, 24*(1), 64–81. https://doi.org/10.5465/amr.1999.1580441

Krüger, P. (2015). Corporate goodness and shareholder wealth. *Journal of Financial Economics, 115*(2), 304–329. https://doi.org/10.1016/j.jfineco.2014.09.008

Li, Y., Gong, M., Zhang, X.-Y., & Koh, L. (2018). The impact of environmental, social, and governance disclosure on firm value: The role of CEO power. *The British Accounting Review, 50*(1), 60–75. https://doi.org/10.1016/j.bar.2017.09.007

Lins, K. V., Servaes, H., & Tamayo, A. (2017). Social capital, trust, and firm performance: The value of corporate social responsibility during the financial crisis. *The Journal of Finance, 72*(4), 1785–1824. https://doi.org/10.1111/jofi.12505

Meneses Cerón, L. Á., Bernal González, I., Gómez López, J. M., Caicedo Domínguez, Y. C., & Larrondo García, A. (2026). Evolution, challenges, and future research directions of ESG investment in emerging markets: A systematic literature review. Administrative Sciences, 16(6), 294. https://doi.org/10.3390/admsci16060294

Nollet, J., Filis, G., & Mitrokostas, E. (2016). Corporate social responsibility and financial performance: A non-linear and disaggregated approach. *Economic Modelling, 52*, 400–407. https://doi.org/10.1016/j.econmod.2015.09.019

Orazalin, N. S., Kozhakhmetova, A. K., & Abdrashova, K. (2024). The effects of ESG practices on corporate financial sustainability: Evidence from developed and developing countries. *Central Asian Economic Review*, (4), 98–110. https://doi.org/10.52821/2789-4401-2024-4-98-110

Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies, 24*(3), 403–441. https://doi.org/10.1177/0170840603024003910

Pathan, K., & Mohanty, M. (2025). Bibliometric analysis on ESG (environmental, social, and governance) practices and firm's financial performance. *International Journal of Management Science and Engineering Management, 20*(2), 197–214. https://doi.org/10.1080/17509653.2024.2426504

Priem, J., Piwowar, H., & Orr, R. (2022). *OpenAlex: A fully-open index of scholarly works, authors, venues, institutions, and concepts* (arXiv:2205.01833). arXiv. https://doi.org/10.48550/arXiv.2205.01833

Sharma, A., & Sharma, R. (2026). Reviewing the ESG investment and financial performance literature: A bibliometric and systematic review for future research. Corporate Social Responsibility and Environmental Management. Advance online publication. https://doi.org/10.1002/csr.70857

Small, H. (1973). Co-citation in the scientific literature: A new measure of the relationship between two documents. *Journal of the American Society for Information Science, 24*(4), 265–269. https://doi.org/10.1002/asi.4630240406

Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. Academy of Management Review, 20(3), 571–610. https://doi.org/10.5465/amr.1995.9508080331

Sun, Z., Feng, J., Yuan, Y., & Sun, J. (2025). How does parent firms' ESG disclosure affect overseas subsidiary financial performance? The case of Chinese multinationals. *Asian Business & Management*. Advance online publication. https://doi.org/10.1057/s41291-025-00291-y

van Eck, N. J., & Waltman, L. (2009). How to normalize cooccurrence data? An analysis of some well-known similarity measures. *Journal of the American Society for Information Science and Technology, 60*(8), 1635–1651. https://doi.org/10.1002/asi.21075

Velte, P. (2017). Does ESG performance have an impact on financial performance? Evidence from Germany. *Journal of Global Responsibility, 8*(2), 169–178. https://doi.org/10.1108/JGR-11-2016-0029

Waddock, S. A., & Graves, S. B. (1997). The corporate social performance–financial performance link. *Strategic Management Journal, 18*(4), 303–319. https://doi.org/10.1002/(SICI)1097-0266(199704)18:4<303::AID-SMJ869>3.0.CO;2-G

Wong, W. C., Batten, J. A., Ahmad, A. H., Mohamed-Arshad, S. B., Nordin, S., & Adzis, A. A. (2021). Does ESG certification add firm value? *Finance Research Letters, 39*, 101593. https://doi.org/10.1016/j.frl.2020.101593

Xie, J., Nozawa, W., Yagi, M., Fujii, H., & Managi, S. (2019). Do environmental, social, and governance activities improve corporate financial performance? *Business Strategy and the Environment, 28*(2), 286–300. https://doi.org/10.1002/bse.2224

Yoon, B., Lee, J. H., & Byun, R. (2018). Does ESG performance enhance firm value? Evidence from Korea. *Sustainability, 10*(10), 3635. https://doi.org/10.3390/su10103635

Zhao, C., Guo, Y., Yuan, J., Wu, M., Li, D., Zhou, Y., & Kang, J. (2018). ESG and corporate financial performance: Empirical evidence from China's listed power generation companies. *Sustainability, 10*(8), 2607. https://doi.org/10.3390/su10082607

Zheng, C., Mannan Khan, M. A., Rahman, M. M., Moudud-Ul-Huq, S., & Rahman, M. S. (2025). ESG performance and financial stability: A bibliometric and meta-analysis. *SAGE Open, 15*(4). https://doi.org/10.1177/21582440251381772

Zhou, G., Liu, L., & Luo, S. (2022). Sustainable development, ESG performance and company market value: Mediating effect of financial performance. *Business Strategy and the Environment, 31*(7), 3371–3387. https://doi.org/10.1002/bse.3089

Zupic, I., & Čater, T. (2015). Bibliometric methods in management and organization. *Organizational Research Methods, 18*(3), 429–472. https://doi.org/10.1177/1094428114562629

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of Apollo and/or the editor(s). Apollo and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.