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Jurnal Greenation Ilmu Akuntansi
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DOI: https://doi.org/10.38035/jgia.v4i1
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The Relationship Between ESG Performance and Investment Efficiency: A Systematic Literature Review

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Abstract: The relationship between Environmental, Social, and Governance (ESG) performance and Investment Efficiency (IE) is an important issue in modern corporate finance. IE reflects a company's ability to allocate capital optimally, while investment inefficiency is often influenced by information asymmetry and agency conflicts. To provide a more integrated understanding, this study conducted a Systematic Literature Review (SLR) based on the PRISMA protocol by analyzing 26 articles from Scopus and ScienceDirect on September 30, 2025. The SLR results show that research is dominated by Agency Theory, Stakeholder Theory, and Signaling/Information Asymmetry Theory, with a tendency toward an increase in advanced econometric causality approaches. Publications increased rapidly in 2024–2025. In general, there is a strong consensus that ESG performance has a positive effect on IE through the reduction of information asymmetry, financing constraints, and agency costs. However, this effect may vary depending on the institutional context and the reliability of ESG measurements. Research gaps still exist in the context of developing countries, testing transmission mechanisms, and the accuracy of ESG score measurements. These findings confirm that ESG is a strategic asset for companies to improve transparency, capital allocation efficiency.

Keyword: ESG, Investment Efficiency, SLR, Agency Theory, Information Asymmetry.

INTRODUCTION

The relationship between Environmental, Social, and Governance (ESG) performance and investment efficiency (IE) is a highly relevant and interesting topic in the field of corporate finance and sustainability. Investment efficiency (IE) measures the extent to which companies optimally allocate capital to projects with positive Net Present Value (NPV), which is an important factor for a company's long-term growth (Al-Hiyari et al., 2023; Alsayegh et al., 2023; Hammami & Zadeh, 2020). This investment efficiency can manifest in the form of underinvestment (rejecting positive NPV projects due to funding constraints) or overinvestment (taking on negative NPV projects due to opportunistic managerial behavior) (Bilyay-Erdogan & Ozturkkal, 2023; Cao et al., 2025). Several previous studies have found that market friction can cause deviations from the optimal level of a company's investment, both in the form of underinvestment and overinvestment (Alsayegh et al., 2023; Kakinuma, 2025).

ESG performance, which encompasses environmental, social, and corporate governance dimensions, is increasingly recognized as an integral strategic framework, not merely a matter of compliance (Lai & Zhang, 2022). This is driven by increased public demand for companies to pay attention to ethical and environmental issues, and growing interest among investment professionals who incorporate ESG reports into their business decision-making, as shown by a CFA Institute survey (2017) that nearly 75% of investment professionals consider ESG information in their investment decisions (Hammami & Zadeh, 2020). This shows that ESG is considered an important form of corporate performance that contributes positively to the environment and society. This has led to a shift in investor focus, where they no longer view financial returns as the sole factor in decision-making, but also pay attention to ethical, social, and environmental issues disclosed by companies (Z. Li et al., 2025; Lun et al., 2025; Susilawati et al., 2024). Therefore, ESG has evolved not only as moral compliance but also as a vital strategic framework that can create long-term value for companies.

The relationship between ESG and investment efficiency is closely related to agency theory and information asymmetry (Jensen & Meckling, 1976). This theory can explain how strong ESG performance can improve investment efficiency by reducing inefficient investments. Through this theory, strong ESG performance may vary depending on managerial incentives and the specific characteristics of a company. Previous research also shows that investment inefficiency (such as underinvestment or overinvestment) is largely caused by market friction, particularly information asymmetry (IA) and agency conflicts between managers and external stakeholders (Al-Hiyari et al., 2023; Duong et al., 2024; Gao et al., 2025; W. Wang et al., 2022; Zadeh et al., 2021). Although previous literature supports the view that ESG disclosure can reduce information asymmetry and agency conflicts, thereby increasing investment efficiency (Chung et al., 2023; Lian & Weng, 2024), there are other views that state that ESG investment can consume company resources (resource-consuming view) driven by managerial interests (overinvestment hypothesis), which can actually damage value and reduce investment efficiency (Al Frijat et al., 2025; Lin et al., 2023). This has created a gap in research related to the relationship between ESG and investment efficiency.

This literature review is motivated to address the fragmentation and disagreement in the empirical literature regarding the impact of ESG on Investment Efficiency (Lin et al., 2023; Maiyarni et al., 2024). Given the central role of investment efficiency in capital allocation and the importance of ESG for corporate sustainability. This requires a more comprehensive synthesis that can start from theoretical arguments and empirical evidence to provide clarity to academics, corporate managers, and policymakers regarding the relationship between ESG and Investment Efficiency. Thus, this literature review aims to systematically synthesize existing empirical findings existing empirical findings on the relationship between ESG performance and investment efficiency (Maiyarni et al., 2024), as well as to identify the methodological trends used and reveal future research gaps.

This systematic literature review can make a significant contribution by expanding on previous literature through three aspects. First, this review systematically synthesizes evidence on how ESG affects investment efficiency through specific transmission mechanisms. For example, research shows that ESG disclosure improves investment efficiency mediated by financial reporting quality (FRQ) (Maiyarni et al., 2024), thereby reducing agency costs and easing financial constraints (Donghui et al., 2025; W. Li et al., 2024; K. Wang et al., 2023). Second, by emphasizing trends in methodology, including the use of fixed-effects models and techniques to address endogeneity (such as 2SLS and GMM), this review provides necessary insights for future research on ESG and investment efficiency (Bilyay-Erdogan et al., 2024; Liu, 2025). Third, this review incorporates recent studies (up to 2025) and explicitly identifies research gaps on ESG and investment efficiency, including the need to explore the impact of ESG rating divergence (ESGRD) on investment efficiency and the role of managerial or functional capabilities (marketing capability) as a new mediator (Hu et al., 2023; Liu, 2025; Ma et al., 2025; Nazari & Poursoleyman, 2025; Zhong et al., 2025).

METHOD

This study uses a systematic literature review approach with the aim of minimizing bias in the literature review. This literature review is also compiled following a strict and structured protocol to ensure that the findings in this study are valid and reliable by referring to other literature reviews on accounting and following the principles of transparency and inclusiveness. This systematic literature review approach is used to address the fragmentation and inconsistency in empirical findings on ESG and investment efficiency, thereby expanding the evidence base and providing a clear roadmap for academics, investors, and policymakers. This review also involves primary studies in the fields of Finance and Accounting, which previously often had limitations in the form of partial analysis or unstructured focus, or tended to be geographically biased.

Furthermore, to present the analysis steps in this literature review, we used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) with the aim of helping to improve reporting in systematic literature reviews. PRISMA is a reporting protocol used for systematic reviews consisting of a checklist and flow diagram, which was originally developed in the field of science to improve the transparency and accuracy of literature reviews (Page et al., 2021). Therefore, this study uses PRISMA for a more structured systematic literature review analysis more structured systematic literature review analysis and to ensure that the analysis results obtained are reliable and valid.

Research Questions

This systematic literature review process is guided by three research questions established based on the subject, object, and scope of this study. The following are the research questions formulated:

1. **RQ1.** What are the trends in theory, methodology, and publication period in studies on ESG and investment efficiency?
2. **RQ2.** How does ESG performance affect investment efficiency according to previous literature?
3. **RQ3.** What research gaps emerge and what are the recommendations for further research on ESG performance and investment efficiency?

These three research questions are used to answer the objectives of this literature review, which are to systematically synthesize existing empirical findings on the relationship between ESG performance and investment efficiency, identify methodological trends, and reveal gaps in future research.

Literature Search

This study used the Scopus and Sciencedirect databases as the main sources of information to ensure the robustness and inclusiveness of the research. The keywords used in this study to obtain literature sources that could be used for the literature review are as follows:

"ESG performance" OR "environmental social governance performance" AND "investment efficiency" OR "capital allocation efficiency" OR "underinvestment" OR "overinvestment" OR "investment decision efficiency".

The data search was conducted on September 30, 2025, and obtained 60 documents in the Scopus database and 88 documents in the Sciencedirect database. Furthermore, the data from the two databases were combined and further selection was carried out, which found 23 duplicate data (remove duplicates), 5 data that were not in English (Remove Non-English) data (3 data), data whose articles did not undergo peer review (Exclude non-blind review) (5 data), and data unrelated to the research topic (Exclude Unrelated Topic) (89 data). Thus, a total of 26 articles or documents were used in this literature review. Table 1 below presents the literature search using the PRISMA approach.

Table 1. Literature Search Using the PRISMA Approach

Literature Search Criteria	**Number of Documents**
Scopus Database	60
Sciendirect Database	88
Total Articles in All Databases	**148**
Remove Duplicates	-23
Remove Non-English	-3
Exclude non-blind review	-7
Exclude Unrelated Topic	-89
Final Article Analyzed	**26**

PRISMA Diagram

Figure 1 below presents the research steps in using the PRISMA diagram that has been adapted to improve the suitability of this study for qualitative systematic reviews. The following PRISMA flow diagram illustrates the flow of information through the various phases of a systematic review. This diagram maps the number of records identified, included, and excluded, as well as the reasons for exclusion.

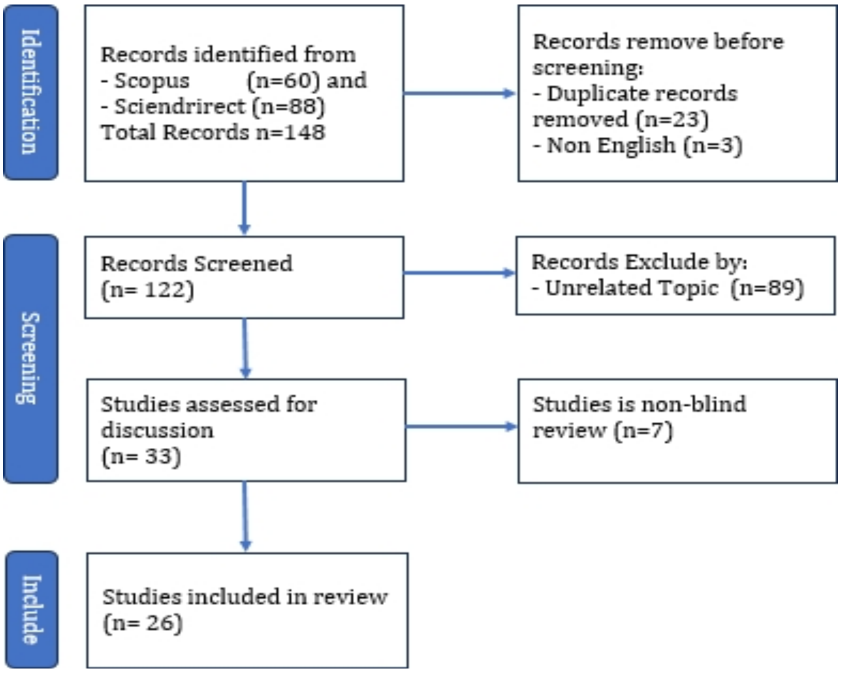

Figure 1. PRISMA Diagram.

RESULTS AND DISCUSSION

Trends in Theory, Methodology, and Research Period

(RQ1) Trends in Theory

Figure 2 explains the use of theory in research examining the relationship between Environmental, Social, and Governance (ESG) performance and Investment Efficiency (IE). The results of the analysis show that the conceptual foundation of this literature is still strongly rooted in Agency Theory and Stakeholder Theory, which historically have been the main pillars of corporate governance and market behavior research. A total of 8 articles used Agency Theory, reflecting the research focus on understanding how ESG can play a role in reducing agency conflicts, information asymmetry, and the risks of overinvestment and underinvestment faced by companies (Alsayegh et al., 2023; da Silva & Vieira, 2025; Donghui et al., 2025; W. Li et al., 2024; Lin et al., 2023; Nazari & Poursoleyman, 2025; W. Wang et al., 2022). In this perspective, ESG functions as a monitoring mechanism that improves the quality of investment decisions and ensures that managers act in line with shareholder interests.

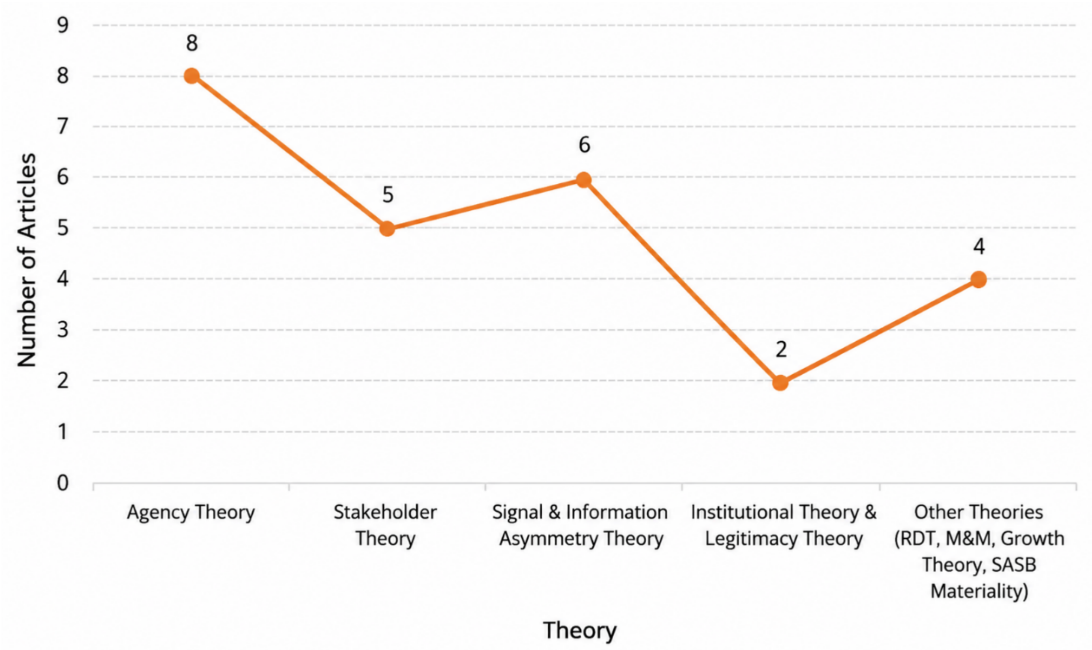

Figure 2. Mapping of Articles based on the Theory used

Meanwhile, five articles use Stakeholder Theory, emphasizing that companies engage in ESG activities not solely for internal interests, but to meet the expectations of a wider range of stakeholders, such as the community, investors, creditors, and regulators (Hammami & Zadeh, 2020; W. Li et al., 2024; Lin et al., 2023; X. Wang et al., 2024; Zadeh et al., 2021). Ultimately, this can strengthen the company's reputation, trust, legitimacy, and in turn increase the efficiency of capital allocation.

Figure 2 also shows that Signal Theory and Information Asymmetry occupy an important position in the literature, with 6 articles using this theory in their research (Bilyay-Erdogan et al., 2024; Donghui et al., 2025; Lai & Zhang, 2022; Zhang et al., 2025). This may reflect a shift in research focus from simply examining the direct relationship between ESG and IE to understanding mediating mechanisms. ESG is considered a credible signal of company quality, operational stability, and managerial competence. This trend is in line with the increasing number of studies examining how ESG improves efficiency through indirect channels such as reducing capital costs, improving the quality of financial reporting, or reducing information risk.

Although the number of articles using Institutional Theory and Legitimacy Theory is relatively small (only 2 articles), their emergence marks a new stage of development in ESG and IE research (Hammami & Zadeh, 2020; Kouaib, 2022). These two theories show that the influence of ESG on IE is not uniform across all corporate contexts and jurisdictions. External factors such as regulatory power, institutional pressure, the level of marketization, and even the level of digital transformation can moderate the effect of ESG on investment efficiency. Thus, the literature has begun to expand the scope of analysis from the micro (managerial) context to the macro (external environment) context, and this is reflected in the graph through the emergence of a more contemporary group of theories.

In addition, other theoretical groups in Figure 2, such as Resource Dependence Theory, Market & Managerial Theory, Growth Theory, and the SASB materiality concept, illustrate the latest developments in an increasingly complex and multidimensional literature (Bilyay-Erdogan et al., 2024; Maiyarni et al., 2024; Nazari & Poursoleyman, 2025). These theories are used to explain new dynamics that have emerged, such as the non-linear relationship between ESG and IE. For example, an inverted U-shape, where excessive ESG investment can reach a saturation point and begin to reduce investment efficiency. This indicates that research should not only focus on the direction of the relationship, but also on the intensity, optimization, and boundary conditions that influence the effectiveness of ESG in improving investment efficiency.

ESG Performance and Investment Efficiency (RQ2)

Table 3 below presents the mapping of articles based on the research findings. Based on the analysis of the research findings from 26 relevant sources related to the relationship between ESG and IE, it shows that overall, ESG and IE are positively and significantly related. In general, ESG performance can improve IE by reducing corporate investment inefficiencies. In the context of investment inefficiencies, which include underinvestment (less than optimal investment) and overinvestment (excessive investment), most studies show that strong ESG performance successfully mitigates both

Table 3. Mapping of Articles Based on Research Findings

No.	(Researcher Year)	ESG and IE Research Results			Pattern of Findings
		Positive	Negative	N/A	
1	(Hammami & Zadeh, 2020)	√			Improving investment efficiency by mitigating underinvestment
2	(Nazari & Poursoleyman, 2025)			√	Not Significant
3	(Poursoleyman et al., 2024)	√			Improving investment efficiency by mitigating underinvestment
4	(Lai & Zhang, 2022)	√			Improving investment efficiency by mitigating underinvestment
5	(Zhang et al., 2025)	√			Improving overall investment efficiency
6	(Kouaib, 2022)	√			Improving overall investment efficiency
7	(Song, 2024)	√			Improving overall investment efficiency
8	(Chun & Yang, 2024)	√			Improving overall investment efficiency
9	(W. Wang et al., 2022)	√			Improving overall investment efficiency
10	(K. Wang et al., 2023)	√			Improving investment efficiency by mitigating overinvestment
11	(Hu et al., 2023)			√	Not significant
12	(da Silva & Vieira, 2025)	√			Improving overall investment efficiency
13	(Cai et al., 2025)	√			Improving overall investment efficiency
14	(Liu, 2025)	√			Improving overall investment efficiency
15	(Zadeh et al., 2021)	√			Improving overall investment efficiency overall
16	(Bilyay-Erdogan et al., 2024)	√			Improving investment efficiency by mitigating underinvestment

No.	(Researcher Year)	ESG and IE Research Results			Pattern of Findings
		Positive	Negative	N/A	
17	(Lian & Weng, 2024)	√			Improving overall investment efficiency
18	(Al-Hiyari et al., 2023)	√			Improving overall investment efficiency
19	(W. Li et al., 2024)	√			Improving investment efficiency by mitigating underinvestment
20	(Duong et al., 2024)	√			Improving investment efficiency by mitigating overinvestment
21	(Susilawati et al., 2024)			√	Not Significant
22	(Maiyarni et al., 2024)	√			Improving overall investment efficiency
23	(Petcharat et al., 2025)	√			Improving overall investment efficiency
24	(Z. Li et al., 2025)	√			Improving overall investment efficiency
25	(Donghui et al., 2025)	√			Improving overall investment efficiency
26	(Lin et al., 2023)	√			Improving overall investment efficiency

problems. For example, (Liu, 2025) found that an increase in ESG ratings significantly inhibits inefficient investment behavior, including underinvestment and overinvestment, while (Petcharat et al., 2025) also found that strong ESG performance mitigates overinvestment and underinvestment. Specifically in China, (W. Li et al., 2024) found that although ESG mitigates both inefficiencies, its impact on mitigating the problem of underinvestment is more pronounced.

The positive effect of ESG on IE is driven by several key mechanisms. First, ESG can improve IE by reducing information asymmetry and alleviating financing constraints. Superior ESG performance serves as a credible signal to the market, increasing transparency and investor confidence, thereby making it easier for companies to access funding and allocate capital optimally. Second, ESG acts as an effective external governance mechanism, reducing agency costs. Better oversight, including increased analyst attention, restricts managers from opportunistic behavior that leads to overinvestment. (Donghui et al., 2025) explicitly identifies the reduction of financing constraints and agency costs as key mediators. Additionally, (Maiyarni et al., 2024) found that Financial Reporting Quality mediates the relationship between ESG and IE, suggesting that ESG improves IE through enhanced financial information quality.

However, some studies show contingent or less direct results. Lai and Zhang (2022) found that ESG improves IE by inhibiting the negative impact of over-indebtedness. Meanwhile, Susilawati et al. (2024), who conducted research in Indonesia, concluded that ESG disclosure and prosperity disclosure do not directly affect IE; instead, Financial Reporting Quality (FRQ) is considered the main determining factor. Additionally, divergence or disagreement in ESG ratings was found to exacerbate corporate underinvestment issues and negatively impact IE.

Figure 3 below is a mapping of findings based on the results of Table 2 analysis. Overall, there are 16 articles that find that ESG can improve IE either by reducing overinvestment or underinvestment. Meanwhile, 3 articles find that ESG can improve IE by reducing overinvestment and 4 articles by reducing underinvestment, while 3 articles find no significant relationship between ESG and IE.

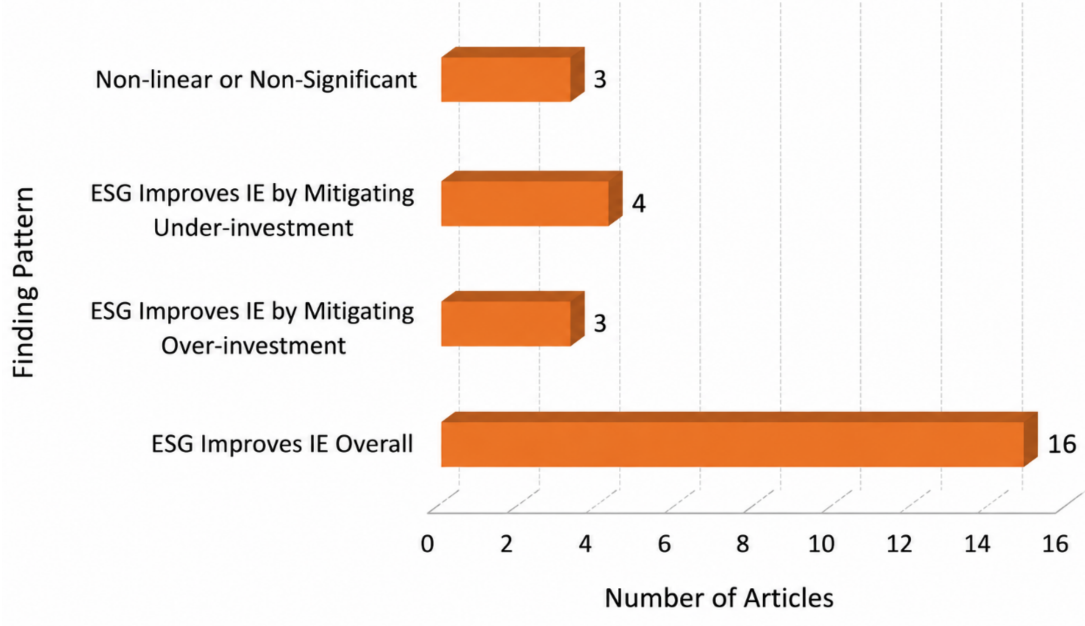

Figure 3. Mapping of Articles Based on Findings Patterns

These findings convincingly support the view that ESG is not merely a compliance cost, but a strategic asset that can enhance qualitative value (through transparency, governance, and reputation), which is then translated into quantitative value through increased investment efficiency and better capital allocation. ESG's ability to reduce market friction (such as information asymmetry and financing constraints) is the main channel for achieving investment optimality, although its effectiveness is moderated by the characteristics of the company and the institutional environment in which it operates (Donghui et al., 2025; Lin et al., 2023; Liu, 2025).

Research Gap and Recommendations for Further Research
(RQ3) ESG and IE Research Gap

The analysis conducted to answer RQ3 related to the research gap was carried out by grouping these gaps into three categories, namely (1) empirical contextual gaps, (2) transmission mechanism gaps (mediation and moderators), and (3) methodological-measurement gaps. The following is a discussion of each gap that has been analyzed.

First, based on the results of the analysis related to empirical contextual gaps, many studies on ESG and IE are still focused on the market context. advanced (US/Europe), thereby ignoring the context of emerging markets and specific industries. This has prompted several studies to conduct research that can fill this gap (Al-Hiyari et al., 2023; Bilyay-Erdogan et al., 2024; W. Li et al., 2024; Petcharat et al., 2025). The first cross-country study to examine ESG–IE in the context of emerging countries was conducted by (Al-Hiyari et al., 2023). This study was conducted due to the lack of studies in emerging markets that consider the moderating effect of board cultural diversity on the relationship between ESG and IE, and provides support for stakeholder theory.

Second, based on the results of the analysis related to the transmission mechanism gap, ESG-IE research was initially only tested through direct relationships without considering internal or external mechanisms that explain how ESG can affect IE. This has prompted several studies to include internal and external factors through mediation and moderation mechanisms. For example, studies by Hammami & Zadeh (2020) and W. Wang et al. (2022)

included the role of audit quality as a mediator in the relationship between ESG and IE, and found that audit quality can improve ESG transparency, thereby increasing IE by mitigating information asymmetry. In addition, Maiyarni et al. (2024) included financial reporting quality as a mediator in the relationship between ESG and IE, due to gaps in cross-country studies that show inconsistent results regarding the relationship between ESG and IE, thus including financial reporting quality as a mediator that is thought to overcome problems related to ESG and IE.

In addition to mediation mechanisms, several studies have also filled this gap by adding moderating variables in the relationship between ESG and IE (Al-Hiyari et al., 2023; Bilyay-Erdogan et al., 2024; Donghui et al., 2025; Lin et al., 2023; Petcharat et al., 2025). For example, (Bilyay-Erdogan et al., 2024) fills the gap related to studies in European markets that examine the asymmetric impact of ESG on under- and over-investment and the moderating role of Information Asymmetry. These results find that ESG significantly reduces overinvestment. ESG reduces underinvestment only for companies with higher IA.

Third, based on the results of the analysis related to measurement gaps in ESG and IE research methodologies, it was found that previous studies testing the relationship between ESG and IE used methods that were considered too simplistic in measuring ESG, thereby potentially causing bias and failing to address the issue of endogeneity. Thus, several studies filled this gap by using two measurements for ESG to overcome the bias in ESG measurement, which usually comes from only one source. For example, Maiyarni et al. (2024) used two sources to measure ESG, namely by calculating the average ESG score from the Refinitiv and Bloomberg composites with the aim of improving the reliability of ESG.

Recommendations for Further Research

Table 4 below presents directions for future research based on an analysis of the 26 articles reviewed in this study.

No	Direction for Further Research	Research Question Opportunities
1.	Cross-Border Expansion and Emerging Markets	• How does the impact of ESG performance on investment efficiency (IE) differ between developing and developed countries? • Does the ESG–IE relationship remain consistent when tested using cross-country data with differences in regulation, culture, and institutional environment? • How do differences in ESG regulatory pressure across countries moderate the relationship between ESG and corporate investment?
2.	Mechanisms Macroeconomics and Risk	• How does economic policy uncertainty (EPU) moderate the relationship between ESG and investment efficiency? • Does geopolitical risk (GPR) strengthen or weaken the influence of ESG on investment decisions? • How do global macroeconomic conditions influence corporate sensitivity to ESG-based investments?
3.	More Novel Use of Instrumental Variables (IV)	• Does the use of IV based on local ESG medians provide stronger causal estimates in testing the ESG–IE relationship? • How do regional ESG regulatory innovation-based instruments affect the estimation of the causal relationship between ESG and investment efficiency?
4.	Studies Longitudinal Long-term	• How do long-term ESG trends affect changes in corporate investment behavior over a decade or more? • Can gradual ESG improvements create structural

No	Direction for Further Research	Research Question Opportunities
		changes in corporate investment efficiency?
5.	More detailed ESG measurement	• Do specific ESG pillars (E, S, or G) have a stronger influence on investment efficiency than aggregate ESG scores? • How does the combination of pillars (e.g., E×G or S×G) affect overinvestment and underinvestment decisions?

CONCLUSION

Based on a Systematic Literature Review (SLR) of these 26 articles, it appears that research on the relationship between Environmental, Social, and Governance (ESG) and Investment Efficiency (IE) has shown significant theoretical and methodological developments over the past few years. Theoretically, this literature is dominated by Agency Theory, Stakeholder Theory, and Signaling and Information Asymmetry Theory, which consistently position ESG as an important instrument in reducing agency conflicts, narrowing information asymmetry, and increasing corporate legitimacy (Bilyay-Erdogan et al., 2024; Duong et al., 2024; Maiyarni et al., 2024; Donghui et al., 2025). Additionally, Institutional and Legitimacy theories expand the analytical framework by viewing ESG as a response to external pressures, while modern theories such as Resource Dependence Theory enrich the interpretation of the relationship between ESG and IE in an increasingly complex global context. Methodologically, research trends confirm a strong tendency to use advanced econometric-based quantitative approaches, with a predominance of causality methods such as IV/2SLS, LIML, and Dynamic GMM to address endogeneity issues. In addition, quasi-experimental designs (DID, PSM) as well as mediation and moderation models are also important approaches in identifying the mechanism of ESG's influence on IE. In line with this, publication trends show a significant increase since 2022, peaking in 2024 and 2025, indicating that this topic is a very active and growing field of research.

From an empirical perspective, the majority of articles show that ESG performance has a positive and significant effect on corporate investment efficiency. ESG has been proven to reduce investment inefficiencies, both overinvestment and underinvestment, as shown by Liu (2025), Petcharat et al. (2025), and W. Li et al. (2024). This positive effect is mainly mediated by a reduction in market friction through a reduction in information asymmetry, a reduction in financing constraints, and an improvement in the quality of governance and financial reporting (Maiyarni et al., 2024; Donghui et al., 2025). However, a small number of studies show insignificant findings, such as Susilawati et al. (2024) in Indonesia, who found that ESG does not directly affect IE without an improvement in financial reporting quality. In addition, divergent ESG ratings between data providers were found to exacerbate underinvestment, indicating that the reliability of ESG measurement is an important issue in the literature.

These findings have important implications at three levels. At the company level, ESG is a strategic asset that not only enhances legitimacy and reputation, but also contributes to strengthening governance and optimizing capital allocation. At the investor and capital market level, ESG is used as a credible signal that reduces information risk and lowers capital costs, thereby supporting the needs of institutional investors who are increasingly integrating sustainability factors into their decision-making. At the policy level, the SLR results emphasize the importance of regulations that strengthen sustainability reporting standards in order to increase transparency and reduce the risk of information distortion that affects investment efficiency.

This SLR has a number of limitations. First, empirical findings remain fragmented due to the heterogeneity of country contexts and differences in the quality of ESG measurements, so that generalization of results must be done with caution. Second, the dominance of quantitative approaches based on panel data limits a deeper understanding of ESG and IE phenomena from a qualitative or mixed methods perspective. Third, there is a strong geographical bias, particularly the dominance of studies focusing on the US, Europe, and China, which limits understanding of ESG and IE dynamics in other emerging markets. Nevertheless, the findings in this SLR still provide a comprehensive picture of the current state of ESG and investment efficiency research, while opening up opportunities for more diverse, contextual, and methodologically robust follow-up research.

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