

ESG AND PROFITABILITY IN THE EUROPEAN BANKING SECTOR: A LITERATURE REVIEW

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Purpose: The aim of this paper is to examine the relationship between environmental, social, and governance (ESG) factors and the profitability of banks in the European banking sector, with a particular focus on identifying the main research trends.

Design/methodology/approach: The study is based on a systematic literature review conducted in accordance with selected PRISMA guidelines. The analysis includes peer-reviewed articles retrieved from the Web of Science and Scopus databases using predefined search queries applied to titles, abstracts, and keywords between years 2020-2026.

Findings: The results reveal no clear consensus regarding the impact of ESG on bank profitability. While some studies indicate a negative short-term relationship due to increased operational and investment costs, others highlight long-term benefits such as improved financial stability, reduced risk, and enhanced resilience. The findings also show that the effects differ across ESG dimensions and depend on methodological approaches, including the choice of variables and econometric models.

Research limitations/implications: The study is limited by its reliance on secondary data, focus on the European banking sector, and the heterogeneity of ESG measurement across studies. Future research should aim to standardize ESG indicators, explore causal relationships, and extend the analysis to other regions and banking systems.

Practical implications: The findings suggest that bank managers and policymakers should adopt a long-term perspective when implementing ESG strategies, taking into account both potential short-term costs and long-term benefits related to stability and risk reduction.

Social implications: The study highlights the importance of ESG practices in promoting sustainable development, improving transparency, and strengthening stakeholder trust in the banking sector.

Originality/value: This paper contributes to the literature by providing a comprehensive and up-to-date synthesis of research on ESG and bank profitability in Europe, identifying key research streams, methodological differences, and directions for future studies.

Keywords: ESG, profitability, ROE/ROA, banking sector.

Category of the paper: Literature review.

1. Introduction

The growing importance of environmental, social, and corporate governance (ESG) factors is one of the key trends in today's financial sector. In particular, the banking sector, as a vital component of the economic system, plays a fundamental role in capital allocation and in supporting the transition toward sustainable development. Although banks have not traditionally been viewed as environmentally harmful, they have increasingly engaged in environmental, social, and governance (ESG) activities (Matuszak-Flejszman et al., 2024). The integration of sustainability into banking dates back to the 1990s, when institutions began incorporating environmental considerations into their operations and financial products (Jeucken, 2010; Scholtens, 2009). Prior to the 2008 financial crisis, however, banks showed limited involvement in corporate social responsibility and sustainability reporting. The crisis marked a turning point, forcing banks to restructure their business models, reduce costs, and rebuild trust and reputation (Matuszak-Flejszman et al., 2024). As a result, many institutions intensified their engagement in sustainable and socially responsible activities. The expansion of non-financial disclosures has since been driven by growing stakeholder expectations and regulatory pressure for transparency.

There is growing interest in the relationship between ESG factors and the financial performance of banks and various financial sector institutions. Existing empirical research on the relationship between ESG and the financial performance of banks has yielded mixed results. On the one hand, it is suggested that implementing ESG practices may generate additional operating and investment costs, which in the short term may negatively impact profitability metrics such as return on assets (Jílková et al., 2025). On the other hand, the literature highlights the potential long-term benefits of sustainability initiatives, including improved reputation, risk mitigation, and increased financial stability for banks (Chiaramonte et al., 2022; Izcan, Bektas, 2022; Tóth et al., 2021). This points to the complex and multidimensional nature of the relationship under analysis.

Furthermore, research indicates that individual ESG pillars may affect financial performance in different ways, and factors such as corporate governance structure, market maturity, and the regulatory environment may modify the observed relationships. For this reason, the European banking sector, given its high level of regulation and the rapidly evolving landscape of sustainable finance policy, represents an interesting and still under-explored field.

Accordingly, the aim of this article is to fill this gap by conducting a literature review on the impact of ESG factors on bank profitability in the European banking sector. The study will involve a systematic analysis of available academic publications, focusing on identifying the main research trends and the relationships between ESG-shaping factors, with particular emphasis on profitability indicators. Thus, the article aims not only to organize existing knowledge but also to identify areas requiring further empirical research.

2. Methods

A systematic literature review was conducted to examine the prevalence of research investigation the profitability of European banks from an ESG perspective. The literature review was conducted according to selected PRISMA guidelines. The analysis was based on three areas: identification, screening, and eligibility. However, it should be mentioned that the exact number of records excluded from the analysis was presented globally both in terms of screening and eligibility assessment. Moreover, during the literature review process no new studies have been included after screening phase. What is more, the study was not registered in PRISMA registry. It can therefore be considered a partial systematic review. The literature review was based on Web of Science and Scopus databases according to abstracts, titles and keywords. The literature search was done on 9th April 2026.

The search strategy involved searching for articles using a combination of the terms “ESG” and “profitability” is presented in Table 1.

Table 1.
Search strategy

Item	Search strategy
Scopus	TITLE-ABS-KEY((ESG OR "environmental social governance")AND (bank* OR "financial institution*" OR "banking sector" OR "commercial bank*")AND (profitability OR performance OR "financial performance" OR "bank performance" OR ROA OR "return on assets"))
Web of Science	TS=((("ESG" OR "environmental social governance")AND ("bank" OR "financial institution" OR "banking sector" OR "commercial bank")AND TS= ("profitability" OR "performance" OR "financial performance" OR "bank performance" OR "ROA" OR "return on assets"))

Source: own elaboration.

A detailed overview of the study is shown in the flow diagram presented in Figure 1. The literature search was done on the basis of the following exclusive criteria:

- Time span: 2020-2026.
- Language: English.
- Document type: article.
- Publication stage: final.
- Source type: journal.
- Country: Europe.
- Open access: All open access.

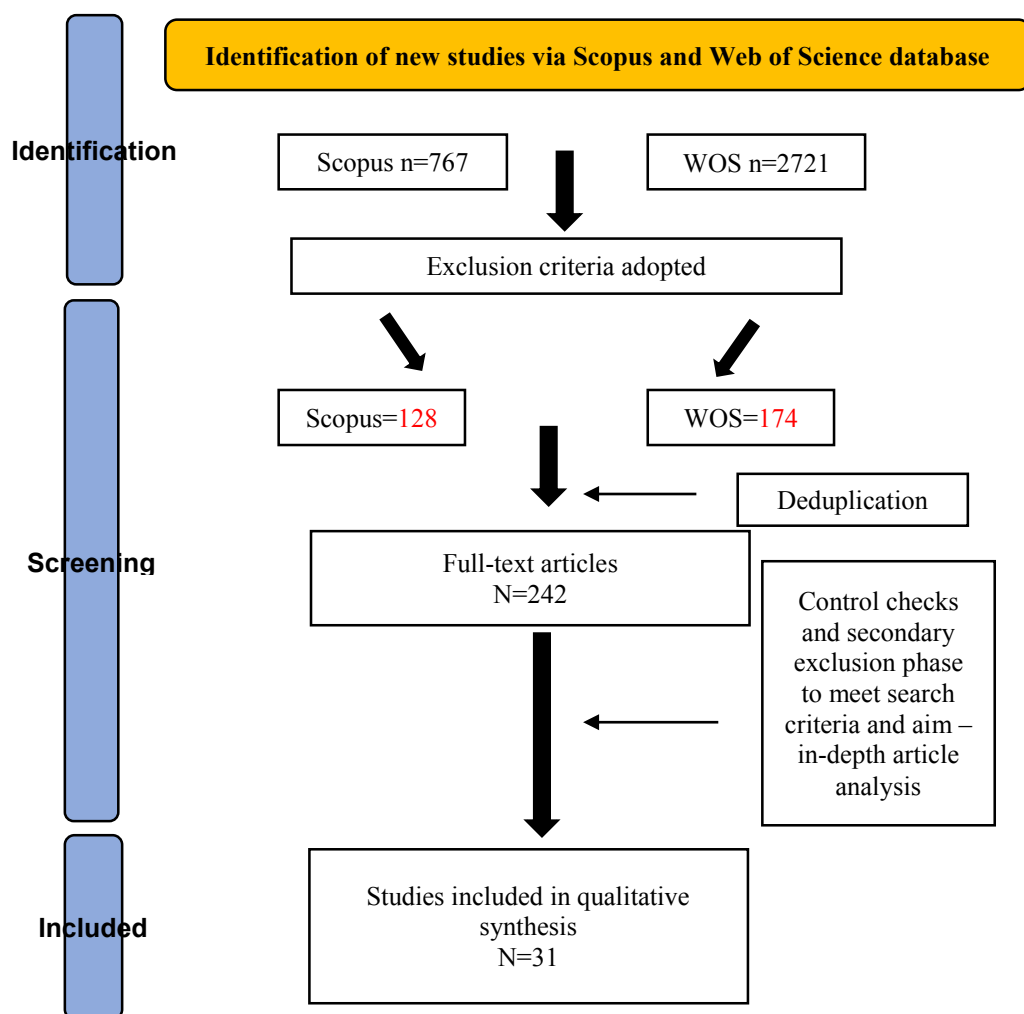


Figure 1. Flow diagram of search strategy.

Source: based on (PRISMA, 2026).

3. Results

The conducted literature review clearly indicates a significant increase in interest in the topic of bank profitability in the context of ESG since 2020. Most of the studies analyzed were conducted on a pan-European sample. Only a few studies focused on individual countries, i.e., Poland (Klimontowicz et al., 2021; Matuszak-Flejszman et al., 2024), Italy (D'Apolito et al., 2023; Menicucci, Paolucci, 2022, 2023), Romania (Nitescu, Cristea, 2020; Tóth et al., 2021), Turkey (Kaya, Ertuğrul, 2025) and UK (Giannopoulos et al., 2024).

The vast majority of studies focused on general issues related to examining the relationship between ESG and bank profitability (as many as 49% of the studies). In contrast, less than 20% of the studies addressed risk-related aspects: risk management (Del Sarto, 2025; Mandas et al., 2024; Manta et al., 2025; Nitescu, Cristea, 2020), climate related risk (Jiang et al., 2025; Paolone et al., 2024) or idiosyncratic risk (Izcan, Bektas, 2022). Figure 2 presents the details.

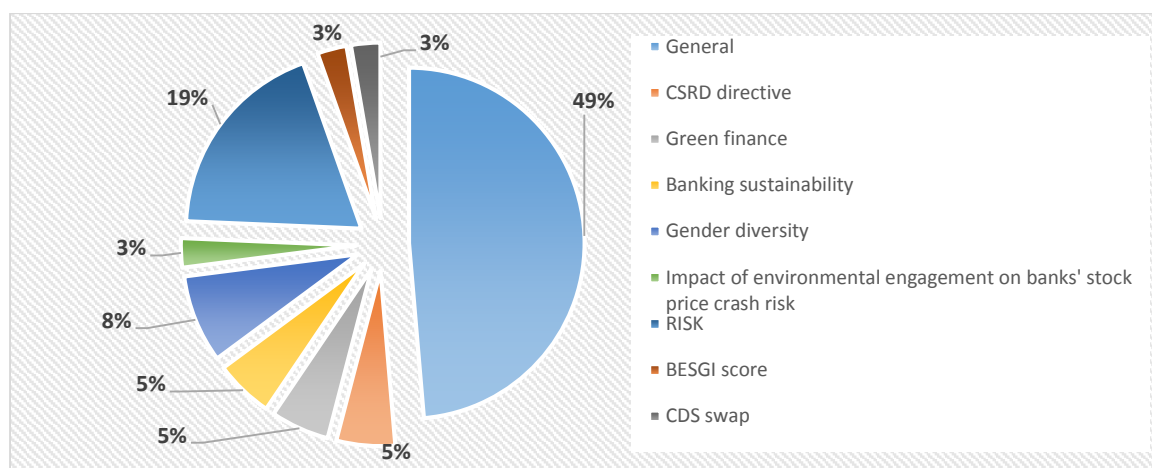


Figure 2. Research topics.

Source: own elaboration.

Upon analyzing the collected articles from the perspective of recurring keywords, it was noted that, in addition to ESG, the terms “financial performance” and “corporate social responsibility” appeared with equal frequency. Figure 3. illustrates the details of these relationships.

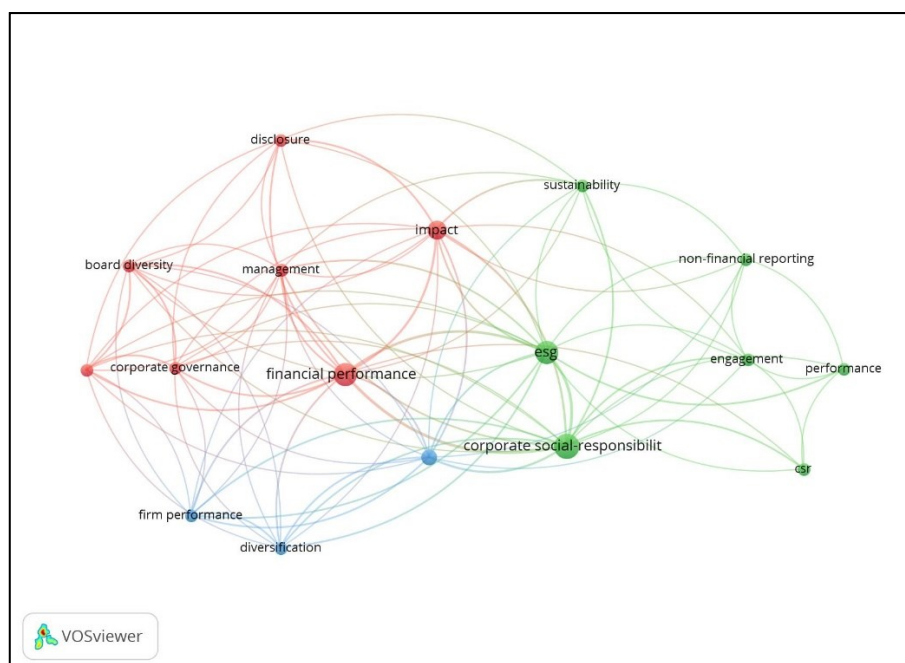


Figure 3. Research keywords.

Source: own elaboration in VOSviewer.

As part of the study, a summary of the objectives and conclusions from each article was also compiled. The details are presented in Table 2.

Table 2.*Research aims and results of analyzed articles*

No.	RESEARCH AIM	AUTHOR/AOTHS	RESULTS
1	Analysis of board of directors (BoD) and the environmental, social and governance (ESG) performance of 105 Italian banks during the period 2017-2021.	(Menicucci, Paolucci, 2022)	The main empirical results reveal that the board size, board independence and the presence of a CSR/sustainability committee positively influence a bank's ESG performance. No significant relationship between board average age and ESG performance is found. The relationship between gender-balanced boards and ESG performance is positive .
2	The influence of 6 distinct types of institutional investor on the ESG performance of companies.	(Giordino et al., 2026)	A positive association between a long-term institutional ownership structure and a company's ESG performance. Short-term oriented institutional investors exhibit a negative correlation with ESG performance.
3	The impact of ESG performance on the profitability of 192 European listed banks over the period 2009-2019	(Conca et al., 2025)	Environmental practices deliver more immediate benefits. Governance practices are vital for ensuring stability, they do not appear to be sufficient to drive short-term variations in profitability. Social practices are negatively related to profitability.
4	The potential bidirectional linkage between reputational risk exposure associated with ESG factors and market valuation.	(Mandas et al., 2024)	An inverse bidirectional causality between ESG reputational risk exposure and banks' market valuation. The impact of ESG reputational risk shocks on market valuation is more significant for high-exposed banks.
5	The dynamics between Corporate Social Responsibility (CSR), quantified through ESG scores, and financial performance	(Giannopoulos et al., 2024)	A negative correlation between the ESG score and both the ROA and ROE -> elevated CSR commitments may inversely impact short-term financial returns.
6	Banks' preparation for the new reporting rules based on the latest ESG reports	(Matuszak-Flejszman et al., 2024)	European banks, especially in Poland, are committed to integrating environmental and social issues into their business practices. However there are identified significant gaps in the preparation of polish banks for non-financial reporting.
7	The relationship between bank risk profile and ESG disclosure score	(Manta et al., 2025)	A positive relationship between bank risk and ESG disclosure score.
8	Banks' environmental engagement vs. future stock price crash risk	(Fiordelisi et al., 2023)	A negative relationship has been observed.
9	Which factors, including ESG factors, impacted the decline of book-to-market ratio	(Markoulis et al., 2025)	Return on equity and volatility of stock returns are important determinants of bank valuation.
10	How ESG controversies impact bank risk? How corporate governance can mitigate these risks?	(Del Sarto, 2025)	Strong governance structures, characterized by board diversity and independence, are found to mitigate the financial risks associated with ESG controversies, whereas weak governance amplifies these risks
11	The impact of board diversity on bank performance	(Aureli et al., 2026)	The board diversity contributes positively to performance. ESG investments adversely affect profitability ratios, but a more diverse board mitigates the possible detrimental effects of ESG expenses on company returns.
12	The asymmetric effects of climate-related actions on the profitability of European banks	(Jiang et al., 2025)	Positive changes in both country-level and bank-level climate actions enhance profitability in the long run.

Cont. table 2.

13	The joint and separate effects of Environmental (E), Social (S), and Governance (G) scores on bank stability	(Chiaramonte et al., 2022)	The total ESG score reduces bank fragility during periods of financial distress. This stabilizing effect holds strongly for banks with higher ESG ratings.
145	The relationship between corporate social responsibility and the idiosyncratic risk of Eurozone banks	(Izcan, Bektas, 2022)	Negative relationship between the overall ESG scores and the idiosyncratic risk of banks for medium- to high-risk levels. The effect becomes stronger as the riskiness of the banks increases.
15	The impact of environmental, social and governance (ESG) factors on Romanian banks and the opportunity to implement them in their own risk management strategies.	(Nitescu, Cristea, 2020)	As the return on assets or the leverage multiplier increases, the probability that the bank implements a risk management strategy associated with environmental, social and governance factors decreases, and the number of members of the management body positively impacts the decision to get involved in social responsibility activities.
16	The correlation between a series of indicators that measure the performance of ESG and the financial performance of banks.	(Bunea et al., 2025)	A negative correlation between the return on assets (ROA) and the governance score (G), as well as a positive influence of the ESG score on the return on equity (ROE).
17	Creation of new score – BESGI score	(Ielasi et al., 2023)	Compared to other more traditional ESG scores, the model: a) is bank-specific, b) is based on public data and then highly replicable, c) it can assess the level of a bank's sustainability both in its internal processes and procedures and in its choices about financing and investing activities, and d) is based on an innovative aggregation methodology, the Multidimensional Synthesis of Indicators, to consider the synergies among dimensions and penalize heterogeneity in the multidimensional bank results.
18	The effects of board cultural diversity (BCD) and board gender diversity (BGD) of the board of directors on environmental, social and governance (ESG) performance in the European banking sector.	(Paolone et al., 2024)	The positive linkages between BGD, BCD and ESG scores in the European banking sector. Moreover, the diversity contributes to knowledge sharing by improving ESG performance in a regulated sector. The combined effect of BGD and BCD negatively impacts ESG performance.
19	The relationship between financial stability and ESG performance	(Tóth et al., 2021)	ESG performance reduced the ratio of non-performing loans significantly. The positive effect of regulatory capital has been confirmed.
20	Verify (i) whether financial intermediaries adopt policies and make efforts to reduce the environmental impact of their operations; (ii) the observable trend in the environmental performance of the examined companies and (iii) the existence of a relationship between the environmental performance and the characteristics of the examined companies	(D'Apolito et al., 2023)	An increasing trend in the environmental performance of the examined intermediaries and a wide dissemination of policies aimed at reducing their impact on the environment. Environmental performance is significantly related to company size.
21	The role of ESG materiality in firm value, based on a sample of banks operating in OECD countries	(Aras & Hacıoglu Kazak, 2022)	ESG performance based on ESG materiality has a positive influence on the firm value for both models, price-to-book value ratio (PBV), and Tobin's Q (TQ).

Cont. table 2.

22	The influence of economic support measures on banking profitability as measured by the ROA.	(Blaga et al., 2024)	The negative impact of economic support measures on bank profitability, especially for banks associated with the lower and middle quantiles of the distribution of the ROA.
23	The relationship between bank-specific environmental, social, and governance (ESG) performance and credit risk in the European Union	(Porenta et al., 2026)	No significant relationship is found for non-EA banks, and in some emerging-market cases, a reverse dynamic suggests a potential trade-off aligned with shareholder theory.
24	The relationship between sustainability and the financial performance of European banks, focusing on their Return on Average Assets (ROAA) and Return on Average Equity (ROAE).	(Jilková et al., 2025)	A negative correlation between sustainability factors and short-term profitability. A potential association between sustainability engagement and long-term financial resilience, though the exact causal mechanisms remain subject to further re-search.
25	The effect of Environmental, Social and Governance (ESG) scores and Credit Default Swap (CDS) spreads on the profitability of Halkbank	(Kaya, Ertuğrul, 2025)	ESG scores and CDS spreads negatively affect bank profitability
26	The relationship between board gender equality and environmental, social and governance (ESG) performance in the European banking sector.	(Menicucci, Paolucci, 2024)	A significant positive relationship between the number of women on BoD and the ESG performance of European banks only up to a certain threshold of female directors (at least three women).
27	The existence of a possible significant relationship between social disclosure and financial performance in banking institutions.	(Manta et al., 2020)	Our study provides empirical evidence that while there is a lack of efficiency and performance when boards are fragmented, the enactments of equal opportunity policies create a good reputation for the firm and the positive performance of staff.
28	The impact of environmental performance, social responsibility and corporate governance (ESG) on bank performance (BP).	(Menicucci, Paolucci, 2023)	ESG policies negatively affect operational and market performance in the banking sector. However, the relationships between ESG dimensions are mixed if measured individually. The results show a significant positive impact of emission and waste reductions on financial and operating performance, but regarding social aspects, it is proved that better product responsibility decreases accounting performance.
29	The relationship between ESGP and CFP (corporate financial performance) considering different dimensions of financial performance at once, both accounted-based (ROA and ROE) and market-based (Capitalisation to Book Value, Tobin's Q).	(La Torre et al., 2021)	The current approach of banking authorities, focusing on bank ESG risks, more than ESG opportunities, in order to “force” banks into adopting anew ESG business model, at this early stage of transition to sustainability
30	The impacts of board size, gender diversity and independence on ESG performance whilst also examining the impact of country-level social trust on such performance.	(Miranda et al., 2023)	ESG performance is positively associated with board gender diversity and independence and negatively associated with board size. Surprisingly, we find a negative relationship between country-level social trust and ESG performance.

Cont. table 2.

31	The impact of the ESC directive on banks' energy behavior disclosures, explicitly relating to behaviors towards energy use and its impact on banks' performance	(Klimontowicz et al., 2021)	Banks that are more likely to demonstrate energy behaviors (with a high BEB index) are those that better manage their costs and are more attractive for investors. Banks' energy behavior has no statistically significant correlation with other performance indicators.
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Source: own elaboration. Discussion.

The analyses presented in the collected articles highlight the immense importance of environmental, social, and corporate governance (ESG) issues for commercial banks. In recent years, growing interest among policymakers, stakeholders, and researchers in corporate sustainability goals has contributed to the significant development and widespread use of ESG indicators (Blaga et al., 2024). This is reflected in the annually increasing number of academic articles published on this topic. European banks are committed to integrating environmental and social issues into their business practices, as (Matuszak-Flejszman et al., 2024) emphasized in her article. Importantly, they are increasingly exposed to ESG-related controversies situations in which their operations and/or products have a negative impact on the environment, society, or corporate governance (Blaga et al., 2024). Consequently, ESG analyses conducted within the banking sector cover a wide spectrum of diverse aspects: risk, green finance, and gender diversity.

The literature review indicates that the vast majority of studies focus on fairly holistic analyses of the relationship between ESG indicators and bank profitability. Issues related to risk, in particular risk management (Del Sarto, 2025; Mandas et al., 2024; Manta et al., 2025; Nitescu, Cristea, 2020), climate-related risk (Jiang et al., 2025; Paolone et al., 2024), and idiosyncratic risk (Izcan, Bektas, 2022), are also frequently addressed.

Based on an analysis of the articles collected, five main trends were identified. First, interestingly, a lack of clear direction regarding the impact of ESG on bank profitability was observed, which constitutes the first main trend in literature. The analysis of factors influencing bank profitability is crucial for understanding how banks can achieve ESG objectives, given the strong link between them (Blaga et al., 2024). Some studies point to a negative relationship in the short term, suggesting that the implementation of ESG practices generates costs that reduce profitability ratios such as ROA (Giannopoulos et al., 2024; Jílková et al., 2025; Kaya, Ertuğrul, 2025). At the same time, empirical results show that this relationship is strongly dependent on the control variables used, such as leverage or capital adequacy, which significantly affect both the level of ESG and bank profitability (Aras, Hacıoglu Kazak, 2022; Blaga et al., 2024; Manta et al., 2025).

The second research direction emphasizes the long-term benefits of ESG, particularly in terms of financial stability and risk mitigation. Research indicates that higher ESG scores are associated with lower levels of non-performing loans (NPLs), lower volatility, and greater resilience of banks to shocks (Chiaramonte et al., 2022; Izcan, Bektas, 2022; Tóth et al., 2021). In this context, measures such as the bank Z-score and loan portfolio quality indicators are

particularly significant, as they demonstrate that ESG acts as a stabilizing mechanism, even if it does not directly translate into short-term profitability (Del Sarto, 2025; Porenta et al., 2026).

The third direction of research focuses on the varying impacts of individual ESG factors and the methods used to measure them. Research findings indicate that environmental factors can have a positive impact on financial performance, while social factors are typically neutral or negative, and corporate governance plays a role in promoting stability (Conca et al., 2025; Menicucci, Paolucci, 2023). At the same time, the widespread use of various ESG measures, such as aggregated ESG scores, disclosure indices, or detailed sub-indices (E, S, G), leads to significant heterogeneity in results and hinders their direct comparison (Aras, Hacıoglu Kazak, 2022; Fiordelisi et al., 2023; Porenta et al., 2026).

The fourth direction of research emphasizes the importance of corporate governance and institutional factors as moderators of the ESG vs. profitability relationship. Board structure, board/cultural and gender diversity, and independence influence both ESG performance and banks' financial results (Aureli et al., 2026; Menicucci, Paolucci, 2022; Paolone et al., 2024). Additionally, strong governance mechanisms can mitigate the negative effects of ESG controversies and stabilize banks' risk profiles (Del Sarto, 2025).

The fifth trend refers to the role of reputation, disclosures, and market valuation of banks. ESG is increasingly analyzed in the context of market indicators, such as Tobin's Q or the price-to-book ratio, which reflect investor perceptions and the value of the bank (Aras, Hacıoglu Kazak, 2022; Manta et al., 2025; Markoulis et al., 2025). At the same time, banks can use ESG disclosures as a tool to mitigate reputational risk and build stakeholder trust (Mandas et al., 2024; Manta et al., 2025).

In addition, a review of the literature indicates that the vast majority of empirical studies rely on econometric modeling, in which the relationship between ESG and bank performance is tested using various configurations of dependent and independent variables. The most commonly used dependent variables are classic profitability measures, such as ROA/ROE, which serve as a benchmark for assessing the impact of ESG (Blaga et al., 2024; Giannopoulos et al., 2024; Kaya, Ertuğrul, 2025; La Torre et al., 2021). At the same time, however, in studies (Chiaramonte et al., 2022; Giordino et al., 2026; Manta et al., 2025; Porenta et al., 2026) ROE/ROA were modeled as independent variables. It is also worth noting that these studies often include a wide range of control variables, such as capital ratios (Tier 1, total capital ratio), financial leverage, and loan portfolio quality, which indicates an attempt to isolate the pure ESG effect on banks' financial performance. The diversity in the selection of dependent and independent variables, as well as the wide range of measures used (e.g., Tobin's Q, NPL, Z-score), confirm the high methodological heterogeneity of the literature, which significantly contributes to the ambiguity of the results obtained.

4. Summary

A review of the literature indicates that the relationship between ESG factors and bank profitability in the European banking sector remains inconclusive. Some studies point to a short-term negative impact of ESG on profitability, which may result from an increase in operating and investment costs. On the other hand, however, some studies point to long-term benefits, including increased financial stability, reduced risk exposure, and greater resilience of banks. The results also show that environmental, social, and corporate governance dimensions affect financial performance in different ways. Furthermore, the results confirm that corporate governance and institutional factors play a key role in shaping the relationship between ESG and profitability.

The review also reveals significant methodological heterogeneity, as most studies rely on econometric models using a variety of dependent and independent variables, such as ROA, ROE, ESG scores, and risk indicators. The study has several limitations, including its focus on European banks and the lack of standardization in ESG measurement. Furthermore, the restriction to selected databases and time frames may have resulted in the omission of relevant studies.

Future research could also look beyond Europe and focus on the long-term effects of applying ESG criteria under different regulatory and market conditions.

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