Banking on Sustainability: A Systematic Review Synthesizing the ESG-Financial Performance Relationship in Banking.

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***Abstract*— Banks play a crucial role in a country's development, and with the current global emphasis on sustainability, this paper evaluates the relationship between Environmental, Social, and Governance (ESG) practices and financial performance of banks. This study uses a systematic review of 40 research articles published from 2019 to 2025, utilizing the TCCM framework along with the Scientific Procedures and Rationales for Systematic Literature Reviews (SPAR-4-SLR) protocol. The search terms used to screen the articles for inclusion were "esg", "profitability", "bank", "financial performance ", "banking". Result reveals that most of studies were based on shareholder theory, in order to further understand the FP variation, the study also discovered that a large number of publications recommended investigating the indirect influence or control variables in the ESG–FP association. Therefore, the findings highlight a need for additional research to investigate indirect links in order to better understand the dynamics of ESG and FP by evaluating potential moderators or mediators, especially bank risk-taking. The results may interest academic researchers, regulators and policymakers and would support stakeholders and decision-makers who wish to discover Relationship between ESG practices and financial performance in banks. This study contributes to previous literature by studying the relationship of ESG practices on the banks' financial performance by examining the TCCM framework along with the Scientific Procedures and Rationales for Systematic Literature Reviews (SPAR-4-SLR) protocol. Indeed, the originality of this research paper is justified by the scarcity of literature review using TCCM Framework and, to the best of the authors' knowledge, constitutes one of the first attempts to examine this relationship.**

***Keywords* :** Financial Performance (FP), ESG, Sustainable Banking, TCCM framework.

1.INTRODUCTION

Organizations are closely examined within the context of "environmental, social, and governance" (ESG) practices as an outcome of growing importance of "sustainable development" in recent years (Prasad & Mondal, 2025). The United Nations Global Compact program "Who Cares Wins" created the concept of "ESG" in June 2004 with the aim of emphasizing the interconnectedness and materiality of environmental, social, and governance challenges (Nizam and others, 2019).

Furthermore, a major contributor to sustainable growth is the financial industry. One of the major trends in the banking industry at the moment is sustainability. Corporate management's emphasis on corporate social responsibility (CSR), investors' interest in sustainable responsible investment (SRI), or investors' attention to sustainability and environmental impact issues are some ways that this can show up. According to Debnath (2024)Prioritizing environmental, social, and governance (ESG) results can help banks become sustainable and ethical business partners by enhancing their unique selling proposition and promoting a sustainable economy. Because FP is directly impacted by sustainability performance, banks are progressively incorporating ESG aspects into their fundamental operations. As a result, ESG is n [po more just an ethical issue; it is now also an economic one. As per Friedman (1962), shareholders are inherently interested in ESG practices that can boost their financial worth. On the other hand, the second group—consumers, investors, firms, employees, and governments—is influenced by a range of ESG matters. For example, because banks serve as risk managers and investment project selectors, politicians and international organizations that work to promote sustainable economic growth rely on banks' significant contribution to national development (Beck et al., 2010).

Although the literature on ESG in the banking industry is gaining (Jaiwani & Gopalkrishnan, 2023; Tekin, 2024)there are still various gaps that need to be filled. Divergent results on the impact of ESG practices on banks' financial performance present a significant challenge for both researchers and practitioners. It might be challenging to comprehend the connection between metrics for financial performance and ESG practices because some research findings suggest a non-linear linkage, while others show a linear relationship.(Ersoy et al., 2022; Krisciukaityte et al., 2023; Salem et al., 2024).

To the best of our knowledge, no research has yet examined the TCCM Framework's ability to synthesis the relationship between a bank's financial status and its ESG to pave the path for further research. This gap emphasizes the necessity of a thorough literature assessment to compile a collection of literature presently in existence. An in-depth understanding of the several elements, including antecedents, mediators, context, and traits, would be provided by such a review. It does so by exploring in both positive and non-positive connections. This study also emphasized the theories underpinning past empirical work on ESG and financial performance.

This study has significant ramifications for investors, politicians, business experts, and scholars. By clarifying the complex relationships between sustainable practices and financial results, this study synthesizes the corpus of research on the impact of ESG on bank financial performance and enhances theoretical knowledge. As a result, the following is an outline of the research objectives and their justification:

RO1 "*What theoretical mechanisms, contextual factors, characteristics, and methodological approaches explain ESG-Financial performance relationship of bank?"*

This article uses the Scientific Procedures and Rationales for Systematic Literature Reviews (SPAR-4-SLR) methodology with the Theory—Context— Characteristics—Methodology (TCCM) framework to provide a summary in order to achieve the mentioned goal. Three steps are used in the research to achieve its goals. First, prior studies on ESG and financial performance of bank were located using the Scopus and Web of Science databases. Second, Paul et al. (2021) established the "Scientific Procedures and Rationales for Systematic Literature Reviews" (SPAR-4 SLR) methodology(Paul et al., 2021), which is utilized to gather data from electronic databases. Lastly, we use Paul and Rosado-Serrano's (2019) TCCM framework to arrange our findings. Presenting and evaluating the results from the literature is made possible by this framework, which aids in evaluating and assessing the validity of the findings in the literature.

The paper's organized structure defines conceptual boundaries and details the systematic review. The findings from existing literature are systematically categorized and amalgamated, culminating in the presentation of the TCCM framework followed by discussion, conclusion and research directions.

2.CONCEPTUAL FRAMEWORK

1.1. ESG:

Since its official proposal in 2004, the ESG principle has been aggressively applied in industrialized nations such as America and Europe (Li et al., 2021). Environmental, social, and governance are the three pillars of ESG (Ed-Dafali et al., 2024; Jaiwani & Gopalkrishnan, 2023; Li et al., 2021). According to Li et al. (2021), investors typically utilize ESG as a standard and technique to assess corporate behavior and future financial success. As India's main securities market regulator, SEBI has taken a number of steps to encourage ESG compliance and reporting among publicly traded companies. Standardizing ESG reporting across Indian businesses has been greatly aided by international frameworks such as the Sustainability Accounting Standards Board (SASB) and the Global Reporting Initiative (GRI) (Garg, n.d.). ESG incorporates non-financial considerations into business and investment decisions, demonstrating a firm's dedication to ethical governance, social responsibility, and sustainable development (Friede et al., 2015). Stakeholder theory (Freeman, 1984), corporate social responsibility (CSR) (Bowen, 1953; Carroll, 1979; Carroll, 1991), and sustainable finance form the theoretical underpinnings of ESG.

1.2. Financial performance:

financial performance is defined as the result of measuring the financial performance of an organisation in monetary terms. The financial performance is measured in this study using return on assets.Asset quality (NPL ratio), capital adequacy (CAR), profitability ratios (ROA, ROE, NIM), and liquidity metrics (LDR) are commonly used to assess a bank's financial performance (Berger and Humphrey, 1997; Athanasoglou et al., 2008). Studies link performance to both internal (efficiency, scale, risk management) and external (regulation, GDP growth, inflation) aspects (Dietrich and Wanzenried, 2014; Goddard et al., 2004). ESG integration enhances sustainability by reducing risk (Boutin-Dufresne and Savaria, 2004) and increasing long-term returns (Eccles et al., 2014). There is increase of Security Threat (Boot et al., 2021) by adopting Fintech and fintech digital transformation boost productivity (Berger, 2003). Digital banking has been boosted by COVID-19, while emphasis has been placed on asset quality (Demirguc-Kunt et al., 2022). Macroeconomic instability causes emerging markets to become more volatile (Levine, 2005), yet developed banks benefit from diversification (Stiroh, 2004).

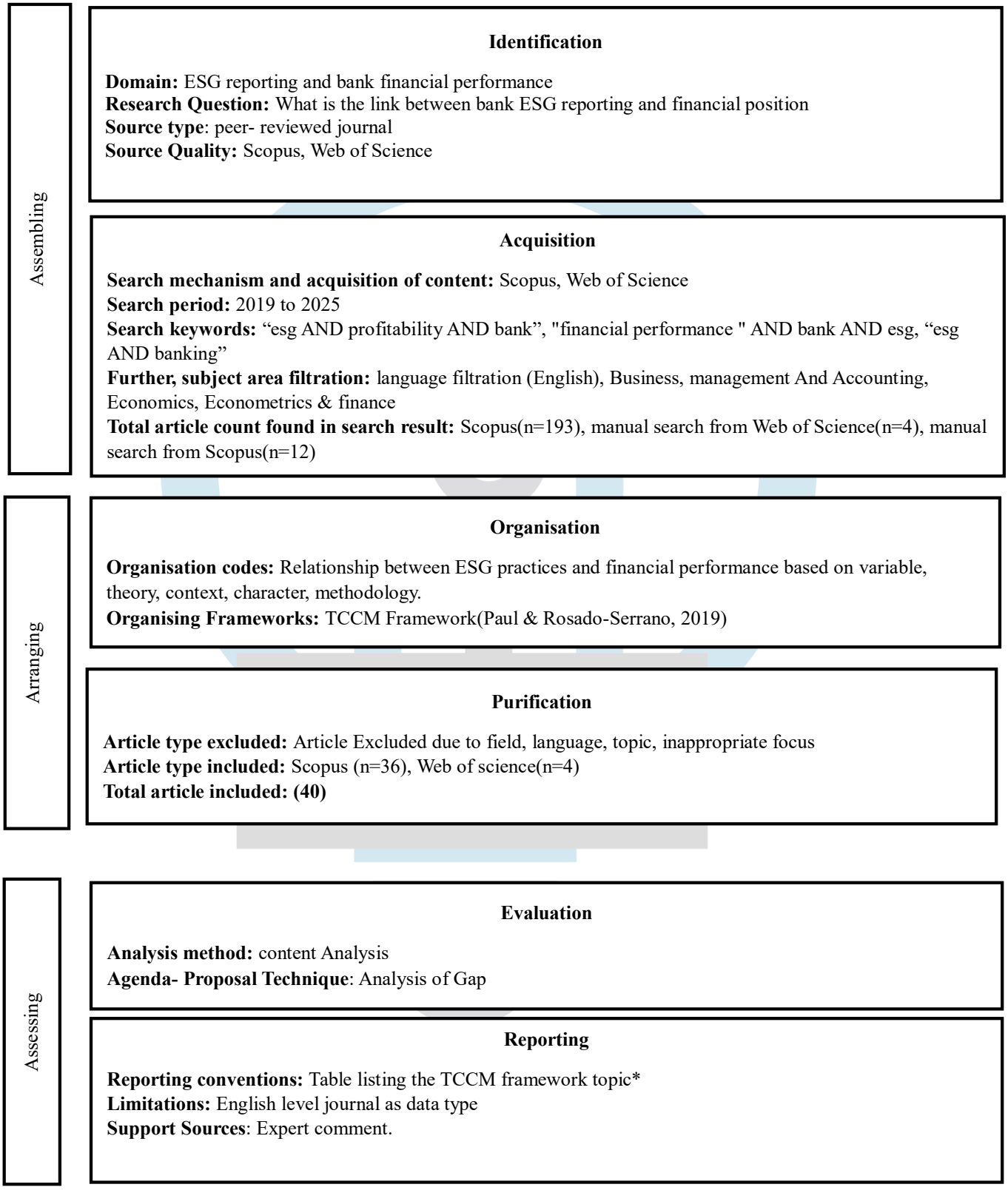
3.METHODOLOGY

To assess the body of knowledge regarding ESG and financial performance, a thorough review of the literature was carried out, utilizing the Scopus and Web of Science database. To maintain transparency in the literature review study the SPAR-4-SLR protocol(Paul et al., 2021), a scientific procedure, and a rationale for systematic literature reviews were followed. The SPAR-4 SLR consists of three stages (i.e., assemble, arrange, and assess) and sub-stages include (identifying, acquiring, organizing, purifying, evaluating, and reporting) (Kareem and Hussain 2025). The research objective was to conduct an extensive and transparent systematic review using the approaches provided by(Harju, 2022; Paul & Benito, 2018a; Paul & Criado, 2020). A framework-based review approach called TCCM was utilized in the study to structure the assessment result and analysis of the literature review

3.1 Assembling The preliminary assembling stage involves finding and categorizing previously published literature (Paul et al., 2021). Next in the sub-stage of identification the domain, research goals, research questions, and source type are chosen. Figure 1 presents an overview of the domain and research questions that provide direction to this review. The study's main source of information was limited to peer-reviewed research articles published in internationally recognized peer-reviewed journals. To ensure the quality of source and journal identification the quality lists of Scopus and Web of Science were referred and the predatory articles were thus removed. Further, two electronic databases such as Scopus, and Web of Science were accessed to retrieve research publications on sustainable business and development goals using keywords such as "esg AND profitability AND bank", "financial performance " AND bank AND esg, "esg AND banking" for titles, abstracts, and keywords. The search outcome of 604 studies from Scopus was generated. Further limitations were introduced to further refine the results, such as limiting the search to publications written in English and confining the search to the disciplines of business, management, and accounting & Economics, Econometrics and Finance. This study includes papers from the years 2019 to 2025 that assure comprehensive coverage of the data. Further, the results yielded 193 from Scopus. Furthermore, through the manual search from Scopus database & the WoS database published abstracts and titles 16 additional studies were included into the final corpus of the study (Paul et al., 2021; Paul & Benito, 2018).

3.2 Arranging During the arranging stage of the SPAR-4-SLR process, all the data gathered is thoroughly examined, and the literature is categorized using the suggested organizing codes provided by(Paul et al., 2021). The articles were coded in accordance with (Paul & Rosado-Serrano, 2019)interpretation of the TCCM framework's themes, and the codes were defined utilizing organizational frameworks. During the purification stage, studies that met the inclusion parameters were included in the systematic review.

3.3 Assessing The final phase of the assessment process includes reporting and evaluating the reviewed data (Paul et al., 2021). The analysis of the data used in this literature review study was done by utilizing the content analysis approaches. Content analysis was employed to investigate the themes of the TCCM framework, which include theory development, context, characteristics, and methods. The reliability of the outcomes was further enhanced by employing the TCCM framework as an organizational structure for the evaluation and content analysis of the literature. Based on the evaluation of research gap analysis of the studied literature a future studies agenda was further devised. To ensure the transparency of the reporting results' reporting, they are presented in the following section using the TCCM framework. The subsequent section presents the literature's contents in various tables based on theory development, study setting, characteristics, and methodology. Finally, the study's limitations are assessed and explored in the article's conclusion (*Fig. 1)*.



Source: Author's interpretation

Fig. 1. Application of the SPAR-4-SLR technique for the systematic literature review.

4.RESULTS

The TCCM model is used to present the findings in this section as proposed(Paul & Rosado-Serrano, 2019). The sections that follow include the relevant tabular depictions of the categories.

4.1 Theoretical development (T): The literature review covers articles from 2019 to 2025. Table 1 provides a summary of the journal name, research title, number of citations, theoretical approaches used in the study. The majority of the articles used a Stakeholder theory (22), legitimacy theory (6), Resource- based view (8) and some other theories were used. (as shown in Table 1)

4.2 Context (C): Most of the studies have been published in the areas of Banking Sector, some were published in insurance, banking sector & companies. (as shown in Table1).

Table. 1. **List of academic publications selected for systematic literature review (2019–2025)**

Sr.No	Journal	Article title	Citation	References	Theoretical approach	Context
1	Journal of Business Economics and Management	Linking financial performance and efficiency to sustainability in banking sector: a literature synthesis	2	(Krisciukaitytе et al., 2023)	Systematic literature review	banking sector,
2	Journal of Risk and Financial Management	What Is the Relationship between Corporate Social Responsibility and Financial Performance in the UK Banking Sector?	7	(Giannopoulos et al., 2024)	stakeholder theory	Banks publicly listed on the London Stock Exchange
3	Research in International Business and Finance	ESG and asset quality in the banking industry: The moderating role of financial performance	6	(Cantero-Saiz et al., 2024)	stakeholder theory, skimping theory	banks from 33 countries
4	Journal of Business Economics and Management	Corporate social performance and financial performance relationship in banks: Sub-industry and cross-cultural perspective	12	(Daszyńska-żygadło et al., 2021)	stakeholder theory, good management theory	Banks registered in both Americas, Europe, Middle East and Africa and Asia Pacific.
5	International Journal of Islamic and Middle Eastern Finance and Management	ESG activities and bank performance with the moderating influence of competition and regulatory quality: a study in the organization of Islamic countries	0	(Azmi et al., 2021)	Institutional theory	46 banks
6	Measuring Business Excellence	Sustainability reporting and performance of MENA banks: is there a trade-off?	110	(Buallay et al., 2020)	neoclassical economics theory and the agency theory	59 conventional retail (commercial) banks and 372 bank-year observations for the period 2008-2017
7	Corporate Social Responsibility and Environmental Management	Environmental, social, and governance and company profitability: Are financial intermediaries different?	235	(Brogi & Lagasio, 2019)	stakeholder theory	industrial companies, banks, and insurance companies.
8	Vision	Profitability Is Not a Ticket to Increase the Investments in ESG: Evidence from Indian Banks	0	(Rastogi et al., 2024)	Stakeholder theory	34 banks operating in India for 12 years (from 2010 to 2021)
9	Administrative Sciences	The Influence of Environmental, Social, and Governance Issues in the Banking Industry	6	(Gonzalez-Ruiz et al., 2024)	bibliometric and scientometric approaches	banking industry
10	Journal of Cleaner Production	The relationship between environmental, social, and financial performance in the banking sector: A European study	233	(Bătae et al., 2021)	stakeholder theory and the resource-based view	39 European banks.
11	Corporate Social Responsibility and Environmental Management	Banks and environmental, social and governance drivers: Follow the market or the authorities?	79	(La Torre et al., 2021)	stakeholder theory	European banks, specifically those listed in the STOXX Europe 600 index.
12	Journal of Multinational Financial Management	The impact of social and environmental sustainability on financial performance: A global analysis of the banking sector	234	(Nizam et al., 2019)	Relative-Market-Power (RMP) Hypothesis,	713 banks period from 2013 to 2015

13	Asia-Pacific Journal of Regional Science	Does environmental, social, and governance disclosure affect financial performance? An empirical study of Southeast and East Asia commercial banks	1	(Pham et al., 2024)	stakeholder and resource-based theories	40 Southeast and East Asian banks from 2009 to 2021
14	Economic Computation and Economic Cybernetics Studies and Research	The influence of esg factors on financial performance in the banking sector during the covid-19 pandemic	10	(Dragomir et al., 2022)	stakeholder theory and the resource-based view	Europe (23 countries – 90 banks), the USA and Canada (91 banks), and East Asia (4 countries – 61 banks). 2019 – 2021
15	Corporate Law and Governance Review	Exploring environmental, social, and governance and bank performance in the gulf cooperation council region	3	(Michael et al., 2023)	overinvestment theory, value creation theory	29 banks located in the six GCC countries — namely the United Arab Emirates (UAE), Kuwait, Qatar, Oman, and Saudi Arabia. It studies data for the period 2010–2022
16	International Review of Economics and Finance	Influence of key ESG factors on Islamic banks' financial performance: Evidence from GCC countries	6	(Alghafes et al., 2024)	stakeholder theory	29 Islamic banks operating within the GCC region. period 2010–2021
17	Review of Accounting and Finance	Green banks, golden returns? Unraveling the ESG–Financial performance nexus in European banking	0	(Horobet et al., 2024)	risk management theory, stakeholder theory	10years (2014–2023 and includes 61 European banks
18	Corporate Governance (Bingley)	Mediating effect of ESG performance on executive incentive compensation-financial performance relationship: evidence from MENA banking sector	6	(Ben Ali & Chouaibi, 2024)	agency theory, the stakeholder theory and the legitimacy theory	57 Islamic and conventional banks operating in the MENA region 2015-2021
19	Finance Research Letters	CSR in the banking industry: A longitudinal analysis of the impact on financial performance and risk-taking	8	(Hojer & Mataigne, 2024)	stakeholder influence capacity theory	Swiss banks and a sample of European banks 2005 to 2022
20	Global Business Review	Websites Visits and Financial Performance for GCC Banks: The Moderating Role of Environmental, Social and Governance Performance	19	(Amosh & Khatib, 2022)	public relations theory	64 GCC banks from 2014 to 2020
21	Cogent Economics and Finance	The nexus of environmental, social, and governance practices with the financial performance of banks: A comparative analysis for the pre and COVID-19 periods	13	(Zahid et al., 2023)	Stakeholder theory	19 banks were utilized as a sample for 03 years, i.e., year 2018–2019) and the year 2020
22	Green Finance	ESG and bank profitability: the moderating role of country sustainability in developing and developed economies	0	(Cantero-Saiz et al., 2025)	stakeholder theory, Institutional theory	159 banks from 42 countries during the period 2018–2023
23	Journal of Economics and Development	The environment, social and governance (ESG) activities and profitability under COVID-19: evidence from the global banking sector	46	(Yuen et al., 2022)	stakeholder view, the shared value, the legitimacy theory and the resource-based view	487 banks from 51 countries from 2006 to 2021.
24	Journal of applied economics	Bank profitability under environmental and climate pressures: the case of European banks	0	(Jiang et al., 2025)	Signaling theory, stakeholder theory	40 European banks.
25	SUSTAINABILITY	Examining the Quadratic Impact of Sovereign Environmental, Social, and Governance Practices on Firms' Profitability: New Insights from the Financial Industry in Gulf Cooperation Council Countries	13	(Athari et al., 2024)	stakeholder and trade-off theories	between 2000 and 2022

26	Corporate social responsibility and environmental management	Corporate governance, social responsibility and sustainability commitments by banks: Impacts on credit risk and performance	2	(Ngamvilaikorn et al., 2024)	Trade-off theory, queen bee theory, upper-echelon theory, agency cost theory, legitimacy theory, Resource-based theory, stewardship theory,	listed commercial banks 2015 to 2020
27	JOURNAL OF INTERNATIONAL FINANCIAL MARKETS INSTITUTIONS & MONEY	ESG activities and banking performance: International evidence from emerging economies	260	(Azmi et al., 2021)	stakeholder theory and trade-off theory	251 banks. period 2011–2017
28	Sustainability (Switzerland)	The Impact of ESG Scores on Bank Market Value? Evidence from the U.S. Banking Industry	36	(Ersoy et al., 2022)	legitimacy theory, stakeholder and resource-based theories, agency theory	U.S. commercial banks period of 2016–2020
29	Sustainability (Switzerland)	The Effect of ESG Performance on Bank Liquidity Risk	1	(Liu & Xie, 2024)	The study utilizes stakeholder theory, risk management theory, and ESG investment theory	54 banks 2009–2022
30	Asian Journal of Accounting Research	Nexus between ESG scores and financial performance: evidence from the Indian banking sector	0	(Prasad & Mondal, 2025)	stakeholders'theory, social contract theory, signalling theory, agency theory, neoclassical theory,	Indian banks (28 banks, including 12 public sector and 16 private sector)
31	Journal of Risk and Financial Management	Does Mediation Matter in Explaining the Relationship between ESG and Bank Financial Performance? A Scoping Review	2	(Salem et al., 2024)	Scoping Review	Banking firms
32	Corporate Law and Governance Review	Nexus between esg reporting and financial performance in the banking sector	0	(Debnath et al., 2024)	**	32 banking companies 2017–2018 to 2020–2021
33	Sustainability (Switzerland)	Do Sustainability Activities Affect the Financial Performance of Banks? The Case of Indonesian Banks	21	(Gutiérrez-Ponce & Wibowo, 2023)	stakeholder theory	Indonesian banking companies during the period 2010–20
34	AIP Conference Proceedings	The value relevance of ESG disclosure in Indonesian listed bank: A preliminary study	0	(Kim & Martowidjojo, 2023)	Psychology theory,	five listed banks in the period 2009-2019
35	Management of Environmental Quality: An International Journal	Do environmental, social and governance performance affect the financial performance of banks? A cross-country study of emerging market banks	185	(Shakil et al., 2019)	stakeholder theory, agency theory	93 banks from 2015 to 2018
36	Environmental Science and Pollution Research	The relationship between corporate social responsibility disclosures and financial performance: a mediating role of employee productivity	48	(Tunio et al., 2021)	stakeholder theory	30 Chinese commercial banks. Period 2008 to 2019
37	International Research Journal of Multidisciplinary Scope	The Impacts of Banks Financial Performance on Environmental Social Governance Disclosures: The Case of Asean Banks	0	(Edi et al., 2024)	Resource-based view (RBV), Legitimacy theory, agency theory, Market-Based Theory, and Stakeholder Theory, single theory	47 banks in ASEAN between 2018 and 2022
38	Management of Environmental Quality: An International Journal	Is ESG disclosure associated with bank performance? Evidence from the Visegrad Four countries	12	(Lamanda & Tamásné Vőneki, 2024)	stakeholder theory, legitimacy theory, resource-based theory and agency theory	26 banks 4 Central European countries (Czech Republic, Poland, Hungary and Slovakia) in the period of (2017–2021)
39	Finance: Theory and Practice	Do CAMEL and Sustainability Influences a Bank Performance	1	(Anantadjaya et al., 2024)	signalling theory,	10 banks
40	Journal of International Accounting, Auditing and Taxation	The different dimensions of sustainability and bank performance: Evidence from the EU and the USA	20	(Moufty et al., 2021)	stakeholder theory,	European and US banks (2006–2012)

Source: Author`s Interpretation

4.3 Characteristics (C): The articles focus on a particular subject of interest and the factors that contribute to it. It also explores the factors that affect or moderate it and presents the findings. According to Table 2, most of the studies (31) used control variables to show the effect of antecedents on outcomes. A small number of studies (7) used mediator variables.

4.4 Methodology (M): Table 2 displays the various strategies used in the examined literature. Based on the results of the literature review, quantitative methods (34) were the most widely used methodology. For example, Panel regression models, F-test, Breusch–Pagan Lagrange Multiplier test, Hausman test, correlation, descriptive analysis. Some of the studies used, such as content analysis, literature review (3). Few studies (3) have combined quantitative and qualitative methodologies in a mixed-methods approach.

Table. 2. **Characteristics of the studies including antecedents, mediators, Control, outcomes and methodology used.**

Sr.No.	Study	Antecedents	Control variable	Mediator (process - cause and effect)	Outcomes	Methodology
1	(Krisciukaityte et al., 2023)	Indicators of sustainable banking	-	-	the financial performance metrics, such as Return on Assets (ROA) and Return on Equity (ROE)	qualitative MAXQDA package (2016-2021)
2	(Giannopoulos et al., 2024)	Corporate Social Responsibility (CSR), quantified through ESG scores	leverage and bank Size		Financial performance, measured by return on assets (ROA) and return on equity (ROE).	Quantitative, Panel regression models and Pearson correlation matrix, (2017-22), n= 32
3	(Cantero-Saiz et al., 2024)	ESG scores	profitability, which influences the strength and direction of the relationship between ESG and asset quality		asset quality, which reflects the overall health and risk profile of the banks	Quantitative, econometric modeling techniques, secondary data, (2017-Q4 to 2022-Q3) n=96
4	(Daszyńska-żygadło et al., 2021)	Corporate social performance (CSP), measured through environmental, social, and governance characteristic	The cultural context of the banks' country of origin serves as a moderator		corporate financial performance (CFP), assessed through various financial metrics such as Tobin's q and return on assets (ROA)	Quantitative, Regression analysis, Secondary data (2009 to 2016) n= 2693 and 931 observations
5	(Islam et al., 2025)	ESG score	size, liquidity, asset quality, business model and capitalization.		profitability with the ROA	Quantitative, generalized method of moment (GMM), n=46, Secondary data, 2010–2020
6	(Buallay et al., 2020)	ESG scores	annual growth of the GDP and governance, size of the bank, macroeconomic specifications, fluctuation		ROA, ROE and Tobin's Q	Quantitative, Secondary data, econometric techniques, (IV-GMM) (2008-2017), n=59,
7	(Brogi & Lagasio, 2019)	ESG scores	the type of firm (industrial vs. financial intermediaries		profitability, measured by return on assets (ROA)	Quantitative, Secondary data, multiple regression analysis 2000 to 2016 N= 17,358 observations
8	(Rastogi et al., 2024)	Environmental, social and governance (ESG)	Total asset, Income	(Profitability) Net interest margin, Return on asset	financial distress (Altman Z-score)	Quantitative, secondary data, panel data approach (PDA), Altman Z-score (FD), multi-model

						methodology (2010–2021)
9	(Gonzalez-Ruiz et al., 2024)	ESG factors			banks' financial performance, regional variations in ESG integration within banking, and risk assessment related to ESG factors and credit risk in banks	Qualitative (Literature review) VOS viewer and Bibliometrix tools N= 681 studies
10	(Bătae et al., 2021)	ESG ten dimensions resource use efficiency; emission and waste reduction; environmental innovation; workforce; hu man rights; community involvement; product responsibility; management and oversight; shareholder rights; and CSR strategy.	Bank-specific control variables Size, Capital adequacy ratio, Leverage Loans to total deposits, Customer deposits to total liabilities, Liquid asset ratio Country-specific		Return on assets ROA Return on equity Stock market returns Tobin'sQ	Quantitative, Secondary data, multivariate regression model, 2010-2019, n= 39
11	(La Torre et al., 2021)	ESG	market reaction		corporate financial performance (CFP) of banks, measured through various metrics such as ROA, ROE, and Tobin's Q	Quantitative,panel regression models accounted-based and market-based metrics, and employs VBM (EVA Spread) 2008-2019, n= 44
12	(Nizam et al., 2019)	Access to finance, Financing environmental impact	Capitalization, Asset quality, Management efficiency, Liquidity, Business model, Bank size, Intangibles, Loan growth, Deposit growth 2) Macro-economic variables- GDP growth, Inflation, Bank concentration, Threshold variable		return on equity	Quantitative, Secondary data, empirical model, regression models, 2013–2015, n= 713
13	(Pham et al., 2024)	ESG indicator Environmental, social, and governance Standards are guidelines that dictate the operations of a bank Environment pillar, social pillar, Governance pillar	banks: size, cost-to-income ratio, capital adequacy ratio, and loans to total deposits ratio. Macroeconomics – GDP, FDI		ROE	Quantitative, Secondary data, regression model F-test, Breusch–Pagan Lagrange Multiplier test, Hausman test (2009 to 2021), n= 40,
14	(Dragomir et al., 2022)	ESG Combined from Refinitiv (ESGC), Environmental score (E), Social score (S), Corporate governance quality (G),	Bank size, Leverage, Loans to total deposits, Customer deposits to total liabilities, GDP per capita		Return on assets (ROA), Return on equity (ROE), Stock market returns (SMR), Earnings per share (EPS)	Quantitative, Refinitiv database, Regression analysis(n=333)
15	(Michael et al., 2023)	ESG score, Asset quality	Real GDP growth rate, Bank size		Return on Assets (ROA),	Quantitative Secondary data 2) generalized method of moments (GMM)

						and the OLS regression, n= 29, 2010–2022
16	(Alghafes et al., 2024)	ESG Score (composite), ESG Environmental score, Social score, Governance score,	Size, Capitalization (CAP), Liquidity (LIQ), Efficiency (EFFI) **Macro variables** (country level) GDP (Growth) Financial development (FDEV)		ROA, ROE Tobin's Q	Quantitative, secondary data, panel data regression analysis, 2010 to 2021, n= 29
17	(Horobet et al., 2024)	ESG scores and their respective pillar scores (environmental, social, governance).	Financial market characteristics and macroeconomic conditions		ROE and systematic risk (beta coefficients).	quantitative methodology, utilizing panel data regression analysis, two-step GMM (Generalized Method of Moments), 2014–2023, n= 61
18	(Ben Ali & Chouaibi, 2024)	Executive Incentive Compensation	Bank size, Independence of the Board, Real GDP growth, Leverage, Banks types, Year Fixed effects, Country fixed effects	ESG score	Financial performance	Quantitative, secondary data, multiple regression model, 2015 and 2021 N=57
19	(Hojer & Mataigne, 2024)	CSR investments, measured through ESG scores	regulatory and institutional environment		financial performance (measured as return on average equity) and risk density	quantitative, dynamic panel data techniques, 2005 to 2022, N=110 banks
20	(Amosh & Khatib, 2022)	Websites visits	bank size, bank age and financial leverage	ESG performance	Financial performance 1. Return on assets 2. Return on equity 3. Market value 4. Net interest margin 5. Return on investment	Quantitative, descriptive statistics, multivariate analyses, secondary dtata 2014 to 2020, n= 64
21	(Zahid et al., 2023)	ESG practices (measured through an adapted index based on content analysis of annual reports)	leverage ratio, bank age, and bank size	The COVID-19 pandemic	Financial performance of banks, measured using Tobin's Q ratio	Quantitative approach, t- test, descriptive statistics (n=19) purposive sampling 2018 &2020
22	(Cantero-Saiz et al., 2025)	ESG score		country sustainability in the ESG	bank profitability, measured by Return on Average Assets (ROAA).	Quantitative, n=159 835 observations, Secondary data, a two-step system Generalized Method of Moments (GMM) approach
23	(Yuen et al., 2022)	ESG activities	lending specialization, banking intermediation, bank size, capitalization		bank profitability, measured through metrics like Return on Assets (ROA)	quantitative, secondary data, GMM method, n=487bank, 2006 to 2021.
24	(Jiang et al., 2025)	country-level climate change performance and bank-level environmental initiatives.	bank size, leverage ratio, GDP growth rate, interest rate, and inflation,		profitability of banks ROA, ROE	Quantitative, NARDL-PMG model, secondary data, 2006–2022, n=40bank 516 observa tions
25	(Athari et al., 2024)	sovereign environmental, social, and governance performance scores.			profitability of the banking sector, measured by Return on Assets	Quantitative, statistical software suitable for panel data analysis, 2000-2022,
26	(Ngamvilaikorn et al., 2024)	Corporate governance (CG), corporate social	loan provisioning		Bank credit risk and performance.	Quantitative, n=10, Secondary data, generalized

		responsibility (CSR), and sustainable development goals (SDGs) commitments.				method of moments (GMM) panel data regression models, 2015 to 2020
27	(Azmi et al., 2021)	ESG activities, which are further broken down into environmental, social, and governance components.	bank size, capital, efficiency, asset quality, and liquidity, country-specific factors, we include GDP growth and the level of financial development		Tobin'sQ, Return on assets (ROA), Cost of capital, Cost of equity, Cost of debt Cashflow.	Quantitative, System Generalized Method of Moments (GMM) and two-stage least squares (2SLS) for addressing endogeneity. N=251, 2011–2017
28	(Ersoy et al., 2022)	ESG scores and its subcomponents: Environmental Pillar Score (EPS), Social Pillar Score (SPS), and Governance Pillar Score (GPS)	Employees Beta Capital Adequacy Ratio, Return on Assets Ratio, Income Diversity, Non-Performing Loans Ratio, Risk-Weighted Assets Ratio, COVID-19		market value of banks, measured using natural logarithmic transformation	Quantitative, Secondary data, linear and non-linear regression models N=151, 2016-2020
29	(Liu & Xie, 2024)	Hua Zheng ESG Score	Non-Interest Income Ratio, Proportion of Independent Shareholders, The Share of the Top 10 Shareholders, Non-Performing Loan Provision Coverage Ratio, Growth Rate of Bank's Registered Province GDP, Consumer Price Index	Non-Performing Loan Ratio, Profitability (ROA)	bank liquidity risk Loan-to-Deposit Ratio (LTD)	Quantitative, N = 41, Secondary data, Regression analysis, n=41, 2009 to 2022
30	(Prasad & Mondal, 2025)	ESG performance scores	capital adequacy ratio (CAR), assets quality (AQ), size of bank (Siz), Age of the bank, leverage (Lev), Covid-19(Cov19)		ROA and Tobin's Q (TQ)	Quantitative, Secondary database, n=28, (2021 to 2023) Multiple regression models and robust generalized least squares (GLS) estimation
31	(Salem et al., 2024)	ESG activities undertaken by banks.			financial performance of banks.	Qualitative systematic review n=1856 (2015 to 2023)
32	(Debnath et al., 2024)	ESG performance, measured through an ESG score developed by CRISIL			Financial performance (FP), measured using both accounting-based (ROA, RONW) and market-based measures (Tobin's Q, LnMC)	Quantitative, Ordinary Least Squares (OLS) regression model, n=32, (2017–2018 to 2020–2021), Secondary data
33	(Gutiérrez-Ponce & Wibowo, 2023)	ESG performance	size and leverage		Financial performance, measured by Return on Assets (ROA), Return on Equity (ROE), and Tobin's Q (TQ)	quantitative methods, specifically panel data analysis, statistical correlations, and regression models, 2010–20, n= 5 banks
34	(Kim & Martowidjojo, 2023)	ESG score	bank dividend yield (DY), return on equity (ROE), bank future performance, asset growth (AG) and revenue growth (RG).		bank's market value (MV)	Quantitative, Secondary data, n=5, (2009 to 2019) multiple regression analyses
35	(Shakil et al., 2019)	environmental and social performance			financial performance metrics,	Quantitative, GMM estimation techniques,

		metrics derived from ESG data			specifically Return on Assets (ROA) and Return on Equity (ROE)	secondary data, n= 93 emerging market banks 2015 to 2018
36	(Tunio et al., 2021)	Corporate social responsibility (CSR) disclosures.		Employee productivity	Financial performance, measured through returns on assets (ROA), returns on equity (ROE), and nominal interest margin profit (NIMP	Quantitative, Secondary data, linear, non-linear, and quadratic model, n= 30 bank 2008 to 2019
37	(Edi et al., 2024)	financial performance	total assets and ROA		ESG scores	Quantitative, N= 47 ASEAN banks, Panel data regression, Common Effects Models or Pooled Least Squares (PLS), Fixed Effects Models (FE), and Random Effects Models (RE). 2018 and 2022
38	(Lamanda & Tamásné Vőneki, 2024)	Bank size, Leverage Profitability-financial performance Profitability-operational performance Board size, Capital adequacy, ESG disclosure index Framework disclosure index Environmental disclosure index, social disclosure index, Governance disclosure index			ESG disclosure, framework	content analysis research method, 390 articles between 1991 and 2015
39	(Anantadjaya et al., 2024)	sustainability practices (economic, environmental, and social) and CAMEL ratios (capital adequacy, asset quality, management, earnings, and liquidity)			performance indicators of banks, specifically share price, earnings per share, and price-earnings ratio	descriptive and causal-correlational, n=10, Secondary data
40	(Moufty et al., 2021)	different dimensions of sustainability (internal social and environmental).	firm size and industry		bank performance.	Quantitative & qualitative methodology using structural equation modeling (SEM) for data analysis, Content analysis, secondary data n= 456 banks. 2006–2012

Source: Author`s Interpretation

5 DISCUSSIONS

This section reviews prior research conducted using the TCCM model and highlights the key themes and sub-themes that emerged from the analysed literature (Paul & Rosado-Serrano, 2019). The key findings derived from the charting process were summarized, synthesized, and reported.

5.1 Theory development (T) In examining the relationship between ESG and financial performance in banking firms, it is crucial to understand the theoretical foundations that under pin these studies. Table1, most of studies uses stakeholder theory (Friedman, 1970). Stakeholder Theory posits that ESG activities should positively impact financial performance by

addressing the needs of various stakeholders, thereby enhancing the firm's reputation and operational efficiency. (Brogi & Lagasio, 2019; Cantero-Saiz et al., 2024).

Several theories offer various perspectives on the role of business and their governance. Agency theory suggest that firms primarily exist to maximize shareholder wealth, implying that diverting resources away from shareholders diminishes value (Ben Ali & Chouaibi, 2024). In contrast, legitimacy theory posits a strong positive link between executive incentives tied to Sustainable Development Goals (SDGs) and financial performance. Meanwhile, risk management theory, as noted by Liu & Xie (2024), argues that banks with strong corporate governance (high G-dimension ratings) are better at mitigating risks, particularly liquidity risk. On the other hand, stewardship theory views managers as responsible stewards who balance stakeholder interests, asserting that their involvement in ESG initiatives enhances both stakeholder satisfaction and firm performance (Alghafes et al., 2024). These studies showcase the complex interplay between ESG & financial performance. They suggest that relationship is not only outcome of theoretical outplay but also due to trade-off, public relation & investment.

5.2 Context Most of the studies have been published in the areas of Banking Sector, some were published in insurance, banking sector & companies. The articles considered in the literature review's geographic context are shown in (Table 3). It demonstrates that most of the published research was carried out in Europe 6, Gulf cooperation council (GCC) region 4, U.S. 3, India 3, Indonesia 3, Middle east and north Africa (MENA) region 2, China 2, United Kingdom 1, Islamic countries (OIC) 1, Southeast and east Asia 1, Pakistan 1, Thailand 1, 11 studies were carried out from multi-country *(Table. 3)*.

Table. 3. **Geographical focus of the literature**

Number of papers	Geographical context	References
7	Europe	(Bătae et al., 2021; Hojer & Mataigne, 2024; Horobet et al., 2024; Jiang et al., 2025; La Torre et al., 2021; Lamanda & Tamásné Vőneki, 2024)
5	Gulf cooperation council (GCC) region	(Alghafes et al., 2024; Amosh & Khatib, 2022; Athari et al., 2024; Michael et al., 2023)
3	U.S.	(Brogi & Lagasio, 2019; Ersoy et al., 2022; Lamanda & Tamásné Vőneki, 2024)
3	India	(Debnath et al., 2024; Prasad & Mondal, 2025; Rastogi et al., 2024)
3	Indonesia	(Anantadjaya et al., 2024; Gutiérrez-Ponce & Wibowo, 2023; Kim & Martowidjojo, 2023)
2	Middle east and north Africa (MENA) region	(Ben Ali & Chouaibi, 2024; Buallay et al., 2020)
2	China	(Liu & Xie, 2024; Tunio et al., 2021)
1	United Kingdom	(Giannopoulos et al., 2024)
1	Islamic countries (OIC)	(Islam et al., 2025)
1	Southeast and east Asia ((China, South Korea, Japan, Thailand, Malaysia, Singapore, Indonesia, the Philippines, and Vietnam)	(Pham et al., 2024)
1	Pakistan	(Zahid et al., 2023)
1	Thailand	(Ngamvilaikorn et al., 2024)
11	Global	(Azmi et al., 2021; Cantero-Saiz et al., 2024, 2025; Daszyńska-żygadło et al., 2021; Dragomir et al., 2022; Edi et al., 2024; Krisciukaityte et al., 2023; Ngamvilaikorn et al., 2024; Nizam et al., 2019; Salem et al., 2024; Yuen et al., 2022)

Source: Author`s Interpretation

5.3 Characteristics (C)

Drawing from our examination of the available literature, we outline the field's attributes, encompassing the key variables

5.3.1 ***Dependent variable*** Return on Assets (ROA) and Return on Equity (ROE) are omnipresent in the papers dealing with bank performance(Amosh & Khatib, 2022; Buallay et al., 2020; Gutiérrez-Ponce & Wibowo, 2023; Shakil et al., 2019; Tunio et al., 2021). Although client loans—a traditional bank's primary business—are listed in the asset category of financial statements, ROA is the operational performance indicator for the banking industry. ROE is an indicator of financial performance. ROA shows how well a bank uses its resources and how well it can

make money off of the money it has collected. From the standpoint of shareholders, ROE is an essential indicator that evaluates a bank's performance in relation to its capital (equity) investment. Tobin's Q is used to study market performance(Alghafes et al., 2024; Azmi et al., 2021; Buallay et al., 2020; Debnath et al., 2024; Gutiérrez-Ponce & Wibowo, 2023; Prasad & Mondal, 2025; Zahid et al., 2023). It is believed that Tobin's Q is suitable for market-based performance because it represents a comprehensive evaluation of the potential for future growth from the perspective of investors to businesses. (Debnath et al., 2024).

5.3.2 ***Independent variable*** Various researchers have employed ESG (Environmental, Social, and Governance) scores as a key metric to assess corporate sustainability and ethical performance. The ESG score is typically divided into three core dimensions: Environmental (E), which evaluates a company's ecological impact, including carbon footprint and resource efficiency; Social (S), which examines labor practices, community engagement, and human rights; and Governance (G), which focuses on corporate ethics, board structure, and shareholder rights. For instance, Bătae et al. (2021) expanded this framework by incorporating ten specific sub-dimensions, such as resource efficiency, emission reduction, workforce welfare, and corporate social responsibility (CSR) strategy, providing a more granular analysis of sustainability practices. Similarly, Brogi and Lagasio (2019) and Horobet et al. (2024) utilized ESG scores to explore their influence on financial stability and firm performance, demonstrating the growing relevance of ESG metrics in academic and corporate research.

In addition to ESG scores, some studies have adopted alternative frameworks to measure sustainability and financial health. Anantadjaya et al. (2024), for example, integrated the triple-bottom-line approach economic, environmental, and social sustainability alongside CAMEL ratios, a banking performance metric assessing Capital adequacy, Asset quality, Management efficiency, Earnings stability, and Liquidity. This dual approach allows for a comprehensive evaluation of both sustainability practices and financial robustness. Meanwhile, researchers like Liu and Xie (2024) and Michael et al. (2023) have further refined ESG methodologies by incorporating sector-specific variables, highlighting the adaptability of ESG frameworks across industries. Collectively, these studies underscore the multidimensional nature of sustainability assessment, with ESG scores and complementary indicators serving as vital tools for understanding corporate responsibility and long-term viability.

5.3.3 ***Control Variable*** To control the effect of independent factors, control variables are used in the literature. Azmi et al. (2021), Giannopoulos et al. (2024), Gutiérrez-Ponce & Wibowo (2023), Moufty et al. (2021), and Dragomir et al. (2022) use bank-specific variables such as bank size & age, leverage, profitability, capital efficiency, and asset quality in order to isolate the influence of ESG (environmental, social, and governance) components on financial performance. Azmi et al. (2021) and Islam et al. (2025) take into account World Development Indicators and Regulatory Quality, such as GDP growth and the level of financial development, whereas Jiang et al. (2025) consider growth rate, interest rate, and inflation. Buallay et al. (2020) and Pham et al. (2024) use macroeconomic variables such as GDP and FDI. La Torre et al. (2021) use market reaction to increase the robustness of their models.

5.4 Methodology

To investigate the connections between ESG (environmental, social, and governance) aspects and financial performance, some research relied on quantitative methods such as regression analysis, econometric techniques, Altman Z-score, F-test, Breusch - Pagan Lagrange Multiplier test, and Hausman test with a focus on panel data regression analysis. Several research studies, including Giannopoulos et al. (2024), Dragomir et al. (2022), and Islam et al. (2025), utilize fixed-effects or free-effects models to account for unobserved variation across enterprises and time. Azmi et al. (2021), Michael et al. (2023), Cantero-Saiz et al. (2025), and Horobet et al. (2024) employ dynamic panel models (like GMM - Generalized Method of Moments) to address endogeneity. Various studies use subsample analyses or alternative variable specifications to perform robustness checks, such as Bătae et al. (2021) and

Brogi & Lagasio (2019). Moufty et al. (2021) use structural equation modeling (SEM). To explore mediating effects, studies were done such as Ben Ali & Chouaibi 2024 and Tunio et al., 2021. Cross-sectional analysis is also present in works such as La Torre et al. (2021). Various test such as F-test, Breusch- Pagan Lagrange Multiplier test, Hausman test were applied (Pham et al., 2024).Some research relied on qualitative methods such as literature reviews and content analysis, which were some of the techniques used. Literature review is a widely used technique (Gonzalez-Ruiz et al., 2024; Krisciukaityte et al., 2023; Salem et al., 2024). Content analysis was frequently employed by addressing the framework and various aspects of ESG (Lamanda & Tamásné Vőneki, 2024).

5.4.1 Data source

Data retrieve from CMIE (Centre for Monitoring Indian Economy) prowess database(Rastogi et al., 2024). SEMRUSH platform for website visit (Amosh & Khatib, 2022). Market value of equity is retrieved from SETSMART database(Ngamvilaikorn et al., 2024). journal articles from Scopus and Web of Science databases(Salem et al., 2024).

***Table 4*: Secondary data analysis**

Data type	Source	Reference
Financial data	Bankfocus,	(Cantero-Saiz et al., 2024, 2025)
	annual reports, websites, CSR reports and stock exchange filings	(Amosh & Khatib, 2022; Daszyńska-żygadło et al., 2021; Debnath et al., 2024; Kim & Martowidjojo, 2023; Lamanda & Tamásné Vőneki, 2024; Michael et al., 2023; Prasad & Mondal, 2025; Tunio et al., 2021; Zahid et al., 2023)
	OSIRIS database	(Brogi & Lagasio, 2019)
	FitchConnect	(Lamanda & Tamásné Vőneki, 2024)
	Refinitiv (formerly Thomson Reuters Datastream)	(Ben Ali & Chouaibi, 2024; Daszyńska-żygadło et al., 2021; Dragomir et al., 2022; Gutiérrez-Ponce & Wibowo, 2023; Hojer & Mataigne, 2024; Horobet et al., 2024; Jiang et al., 2025; La Torre et al., 2021; Michael et al., 2023; Prasad & Mondal, 2025; Yuen et al., 2022)
	Refinitiv (Asset4)	(Kim & Martowidjojo, 2023; Shakil et al., 2019)
Macroeconomics variable	International Monetary Fund	(Buallay et al., 2020; Cantero-Saiz et al., 2024; Horobet et al., 2024)
	World Development Indicators and the Regulatory Quality	(Azmi et al., 2021; Islam et al., 2025)
Country specific variable	World Bank	(Dragomir et al., 2022; Horobet et al., 2024; Jiang et al., 2025; Nizam et al., 2019; Pham et al., 2024; Yuen et al., 2022)

Source: Author`s Interpretation

6 CONCLUSIONS AND FUTURE RESEARCH DIRECTIONS

6.1 Conclusion

By providing a comprehensive assessment of the relationship between ESG and banks' financial performance, this TCCM aimed to close significant knowledge gaps in the corpus of previous research. The merging of theoretical frameworks, Context, characteristics and methodology give some important conclusions. The earlier literature mostly looked into the exploring positive/ negative relationship between ESG and financial performance of bank. In this study we find that shareholder theory and panel data regression method is vastly used, the study also discovered that a numerous publications recommended investigating the control variables in the ESG–FP association and very few studies were done or published on Indian banks context. There is shortage of research on how the sustainable banking contributes to the development of the sustainable economy and banking practices in India.

6.2 Suggestion for future research

The findings underscore many future research opportunities in ESG practices within the banking sector, revealing diverse and abundant avenues for exploration. Key areas warranting further investigation include the potential inadequacy of the ESG score to fully capture the specific CSR initiatives of banks and the need for a larger sample size to enhance the robustness of the findings, smaller sample size will restrict the ability to generalize findings across different legislative frameworks globally. There is a need to develop new theories that can link ESG to financial performance in modern banking, where technology has been advanced and sustainability is demanded. Establishing frameworks for assessing the long-term viability of ESG initiatives and outlining best practices for their implementation. There are still issues, which emphasizes the necessity of creating uniform ESG reporting

guidelines. When it comes to incorporating ESG factors into risk management, these frameworks are essential procedures and coordinating financial performance targets with ESG aims. ESG integration within the banking industry may explore if ESG has a potential not only to improve bank's profitability but also to improve its risk characteristics, regulatory environment. Investigate association between ESG (Environmental, Social, and Governance) performance and profitability across different economic periods, including financial crises and Pandemic. The topics outlined in this study provide a foundation for further research in ESG reporting support financial performance. Additionally, this study serves as a guide for enterprises and policymakers to focus on underrepresented areas in sustainability.

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