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Development of the Role of Environmental, Social, and Governance (ESG) and Capital Structure with Firm Value: A Systematic Literature Review

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ABSTRACT

Through a systematic literature review (SLR), this study investigates how Environmental, Social, and Governance (ESG) and capital structure factors are affecting the value of non-financial enterprises. It examines 43 papers that were indexed in Scopus Q1 through Q3 and published between 2015 and 2024. The results show that whereas agency theory is frequently used in studies on capital structure and corporate value, stakeholder theory predominates in research on ESG and corporate value. The report also points out discrepancies in the research findings about the connections between business value, capital structure, and ESG. These discrepancies are explained by a number of variables, including changes in the time periods of the studies, the kinds of industry sectors examined, and the national contexts in which the research was carried out.

Keywords: ESG, Capital Structure, Firm Value, Systematic Literature Review

INTRODUCTION

With the economic changes driven by advancements in the Fourth Industrial Revolution, many companies are striving to achieve their strategic goals. These goals are not solely focused on generating financial profits but also on enhancing overall corporate value (Dorogaia, 2023). Corporate value can be understood as how investors perceive a company's performance, typically reflected in stock price movements. An increase in stock prices generally provides greater financial benefits to shareholders, directly contributing to their overall well-being (Susanti & Kusumawati, 2024).

However, the global economic landscape, marked by uncertainties such as financial crises, economic recessions, or geopolitical conflicts, often affects corporate value. The worldwide financial crisis in 2008 and the COVID-19 pandemic in 2020, for instance, demonstrated how susceptible company value is to outside disturbances. These events caused significant stock price fluctuations, ultimately influencing investment decisions by both shareholders and institutional investors. As a result, maximizing corporate value has become one of the primary priorities for companies.

Environmental, social, and governance (ESG) and capital structure are two important elements that are frequently linked to initiatives to optimize company value. ESG includes non-monetary elements that show how well a business is doing in terms of governance, social issues, and the environment (Zhou, 2024). According to Yang (2024), a company's worth can be increased by attaining exceptional ESG performance. Since the Indonesia Stock

Exchange (IDX) joined the Sustainable Stock Exchange (SSE) project in 2019, the significance of ESG has been further highlighted. In keeping with a global commitment to ESG transparency, the SSE wants to mandate that big businesses include ESG disclosures in their annual reports by 2030 (Rohendi et al., 2024). Even though ESG's advantages are well known, research by Postiglione et al. (2024) shows that there isn't always a favorable correlation between organizational value and ESG implementation.

Another factor influencing corporate value is capital structure, which refers to the mix of debt and equity used by a company to support its operational activities (Satrio et al., 2024). Capital structure typically includes equity components, such as common and preferred stocks, as well as debt components, such as loans, bonds, and other financial obligations. Achieving an optimal balance between these elements is crucial for maximizing corporate value, as it helps mitigate risks while leveraging the potential benefits of debt financing (Tirtamara & Artini, 2024). However, the literature indicates that the impact of capital structure on corporate value remains inconsistent.

Given the significance of these two elements, businesses must implement carefully thought-out capital structure and ESG management plans to guarantee long-term corporate value creation. With an emphasis on the connection between ESG, capital structure, and the value of non-financial organizations, this study attempts to investigate the evolution of ESG and capital structure in affecting corporate value. Postiglione et al. (2024) and Cai et al. (2024) conducted a thorough literature evaluation that emphasizes the paucity of empirical data demonstrating a consistently positive correlation between corporate value and ESG. Furthermore, a systematic literature review (SLR) on the connection between corporate value and ESG in the financial industry is presented by Brooks and Oikonomou (2018). In addition to ESG, this study takes capital structure and other elements that affect corporate value into account. The results of Amimakmur et al. (2024), which show inconsistent effects of various determinants on corporate value, serve as the basis for this study. Investigating the changing functions of capital structure and ESG in the context of non-financial firms throughout time is crucial. The two primary questions that this study aims to answer are:

RQ_1: How has the role of ESG and capital structure evolved in influencing the value of non-financial companies?

RQ_2: What are the factors causing the inconsistency in findings regarding the relationship between ESG, capital structure, and the value of non-financial companies?

The purpose of this study is to give a summary of how capital structure and ESG have affected business value during the last nine years, from 2015 to 2024. Since 193 UN member nations adopted the 2030 Agenda for Sustainable Development in 2015, which highlights the significance of social and environmental responsibility, especially in corporate activities, the year was chosen as the starting point. With an emphasis on research techniques, sample size, research topic, variables, and underlying theories, this study aims to gain a thorough understanding of the evolution of research on ESG and capital structure in connection to corporate value. In doing so, it is anticipated that this study will greatly advance future research in this area and offer a strong basis for comprehending the changing roles of capital structure and ESG in corporate value.

MATERIALS & METHODS

In conducting this Systematic Literature Review (SLR), the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were adhered to. Among the important processes in this technique are defining eligibility requirements, identifying information sources, choosing studies, the data gathering

process, choosing data items, and setting eligibility criteria, as explained.

The SLR was effectively applied with the following inclusion criteria (IC):

1. IC_1: All original and peer-reviewed literature written exclusively in English.
2. IC_2: Studies focused on the specified variables, namely ESG and capital structure, and their relationship to the value of non-financial companies.
3. IC_3: Studies using quantitative or mixed methods, combining qualitative and quantitative approaches effectively.

For IC1, the selection of English-language literature aims to ensure global accessibility, as this language is widely used in international literature. IC2, on the other hand, directly relates to the role of ESG and capital structure in enhancing the value of non-financial companies. For IC3, only studies using quantitative or mixed methods (qualitative and quantitative) were included, as these methods are more suitable for the use of analytical tools through calculations and scientific procedures (such as statistics). Thus, articles using only qualitative methods were excluded from this study.

Information Source

In this study, leading international databases were used to identify relevant articles. The databases accessed include Emerald, MDPI, Taylor & Francis, and EBSCOhost, all of which are recognized sources of reputable journals covering the fields of business and management. To maintain the quality and integrity of the results, this study only included articles that are reputable and indexed in Scopus with categories Q1 to Q3, which are considered high standards in academic research. These selection criteria provide a solid foundation for identifying valid and relevant trends in the related literature. Through this selection process, 43 articles discussing the relationship between ESG, capital structure, and corporate value within the period 2015-2024 were identified. Table 1 lists the number of articles in these journals, and Table 2 lists the articles indexed in Scopus with categories Q1 to Q3.

Table 1. Journal

Journal	Count	Percentage	Index
Sustainability	8	19%	Q1
Cogent Business & Management	6	14%	Q2
Investment Management and Financial Innovations	3	7%	Q3
International Journal of Productivity and Performance Management	2	5%	Q1
Sustainability Accounting, Management and Policy Journal	1	2%	Q1
Finance Research Letters	2	5%	Q1
Journal of Corporate Accounting & Finance	1	2%	Q2
Journal of Accounting in Emerging Economies	1	2%	Q1
Economies	1	2%	Q2
Quality Innovation Prosperity	1	2%	Q3
Technological Forecasting and Social Change	1	2%	Q1
International Review of Economics and Finance	1	2%	Q1
Economic Analysis and Policy	1	2%	Q1
Global Finance Journal	1	2%	Q1
Research in International Business and Finance	1	2%	Q1
International Review of Financial Analysis	1	2%	Q1
Environment, Development and Sustainability	1	2%	Q1
The Journal of Real Estate Finance and Economics	1	2%	Q1
Annals of Operations Research	1	2%	Q1
Journal of Risk and Financial Management	1	2%	Q2
International Journal of Financial Studies	1	2%	Q2
British Accounting Review	1	2%	Q1
WSEAS Transactions on Environment and Development	1	2%	Q3
Journal of Eastern European and Central Asian Research	1	2%	Q3
Revista de Gestão Social e Ambiental	1	2%	Q3

Borsa İstanbul Review	2	5%	Q1
Total	**43**	**100%**	**43**

This study is dominated by scholarly publications from Q1 journals, indicating that this topic is extensively discussed in high-reputation journals. The journal Sustainability stands out as the primary source of literature, with 8 publications (19%), highlighting the research focus on sustainability. This is further supported by the numerous publications in Cogent Business & Management, suggesting that the topic is primarily addressed in journals focused on sustainability, business, and management. Although Q2 and Q3 journals have fewer publications, their contribution to the research literature remains significant.

Study Selection

The research selection process was conducted in three distinct stages as follows:

1. Search: A search was conducted using specific keywords aligned with the research objectives, focusing on the variables of ESG and capital structure in relation to corporate value. This search included common synonymous terms found in related articles, such as: "(Firm Value OR Company Value OR Enterprise Value OR Environmental, Social, Governance OR ESG OR Capital Structure).
2. Review and Selection: Articles were reviewed and selected based on their titles, abstracts, and keywords, considering the eligibility criteria.
3. Screening: All articles that passed the initial selection were thoroughly examined by reading each one in full to ensure they fully met the eligibility criteria.

Data Collection Process

Various elements, including the type of article, author names, title, publication year, country of study, research subjects, theories used, research variables, research methods, indicators for each variable (i.e., ESG, capital structure, and corporate value), and the research findings related to the impact of these variables on corporate value, were covered by the data that was manually extracted using content analysis methods.

Data Items

The following categories were created from the data extracted from each article: author names, title, year of publication, country of study, research subjects, theories employed, research variables, research methods, indicators for each variable (such as corporate value, capital structure, and ESG), and research findings pertaining to how these variables affect corporate value. Figure 1 provides a thorough rundown of the methodical literature review procedure.

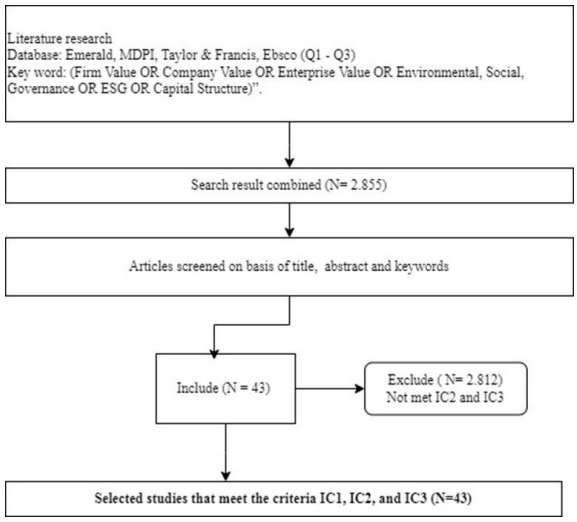

Figure 1. PRISMA Flow Diagram

A search using the terms "(Firm Value OR Company Value OR Enterprise Value OR Environmental, Social, Governance OR ESG OR Capital Structure)" yielded a total of 2,855 English-language articles published between 2015 and 2024. These articles were initially selected based on the IC2 and IC3 criteria, considering the title, abstract, and keywords, resulting in 43 articles chosen for further analysis. IC3 in this study includes studies that use only quantitative or mixed methods (qualitative and quantitative), as this approach is more suitable for the use of analytical tools through calculations and scientific procedures (such as statistics). Therefore, articles that exclusively used qualitative methods were excluded from this study. As a result, all 43 selected articles used quantitative methods. A quantitative approach was chosen to ensure consistency in data analysis and research findings, as this method allows for more objective data interpretation and produces standardized measurements. By excluding qualitative articles, this study aims to obtain more measurable results and enable statistical comparison of data.

To illustrate the distribution of publication years for the selected articles, the following graph is presented to show the trends in research publication over the years. This graph provides insights into the patterns of increasing or decreasing academic interest in the topics of ESG, capital structure, and corporate value from 2015 to 2024.

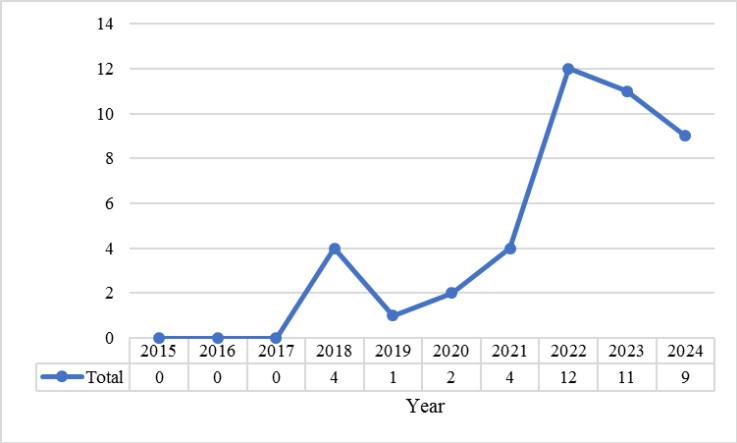

Figure 2. Distribution of Selected Studies Over 9 Years

Figure 2 shows the distribution of selected studies from 2015 to 2024. It is evident that research interest in ESG, capital structure, and corporate value experienced a significant increase in 2022, with a total of 12 publications. Although there was a decline in 2023 and 2024, the number of publications remained higher compared to previous years. The surge in 2022 is likely influenced by academic momentum or sustainability policies, reflecting growing attention to this topic in recent years.

This study does not limit the countries and sectors of the companies studied. Based on the distribution of countries analyzed, Indonesia has the highest number of studies among other countries, followed by China, with various other countries contributing to the total studies. The research also includes countries such as the United States, Vietnam, India, Korea, and others in Asia and the Middle East.

The distribution of company sectors in studies related to ESG, capital structure, and corporate value is as follows: of the 43 studies, the majority focus on companies listed on stock exchanges, followed by non-financial public companies and manufacturing companies. Other sectors such as energy, aviation, pharmaceuticals, and real estate have smaller percentages. The "Other" category includes additional sectors, reflecting the diverse industry coverage in this research, which enriches

the understanding of ESG and capital structure application and impact across various sectors.

DISCUSSION

The Development of the Role of ESG and Capital Structure on Firm Value

This section aims to answer RQ1, which concerns the development of the role of ESG and capital structure on the value of non-financial firms. In order to address this question, the study identifies various theories used, the analysis techniques applied, as well as the types of variables tested and their measurements in the 43 studies reviewed. The review of the research on ESG and capital structure in relation to firm value reveals several theories. The following provides a breakdown of these theories:

Table 2. Theory

Theory	Count
Stakeholder	10
Agency	2
Resource-Based View	1
Sustainability	1
Agency and Signaling	2
Agency, Pecking Order, Trade-Off, Signaling	1
Agency, Trade-Off, Pecking Order	1
Legitimacy, Stakeholder, Agency	1
Resource-Based View (RBV), Stakeholder	1
Signaling and Resource-Based View	1
Socioemotional Wealth, Stewardship, Agency	1
Stakeholder and Legitimacy	2
Stakeholder and Agency	2
Stakeholder and Signaling	2
Stakeholder and Slack Resources	1
Stakeholder, Trade-Off, Resource-Based View (RBV), Slack Resources	1
Sustainability Theory and Stakeholder	1
Sustainability Theory and Agency	1
Investment Opportunity Set (IOS) Theory	1
Agency, Signaling, Stakeholder	1
Stakeholder, Slack Resources Theory, Resource-Based View	1
Trade-Off and Pecking Order	2
Trade-Off and Signaling	1
Trade-Off, Pecking Order, Signaling, Market Timing Theory	1
Not specified	4
Total	**43**

The table above presents the various theories used in studies related to ESG, capital structure, and firm value from the 43 articles reviewed. The Stakeholder theory dominates with 10 articles, followed by the combination of Agency and Signaling theories, each applied in 2 articles. Additionally, several articles utilize more than one theory to analyze the relationship between ESG, capital structure, and firm value.

The Stakeholder theory is the most commonly used to explore the impact of ESG on firm value. This indicates that many ESG studies focus on how companies meet the needs and expectations of stakeholders regarding sustainability practices. Moreover, Agency theory is frequently used to examine how sustainability can reduce conflicts between owners and management. The Resource-Based View (RBV) emphasizes how internal resources, such as sustainability reputation, can serve as a competitive advantage for firms. Signaling theory is also employed to understand how companies use ESG reporting as a signal of quality to investors. Other theories, such as Legitimacy and Slack Resources Theory,

while less frequently used, are still relevant in explaining the role of ESG. For example, Legitimacy theory is used to investigate how companies use sustainability to gain social legitimacy. Sustainability Theory, Socioemotional Wealth, and Stewardship provide additional theoretical perspectives, illustrating how and why companies engage in sustainability activities.

Agency theory is also widely used, highlighting its relevance in examining the relationship between capital structure and firm value. Trade-off and Pecking Order theories frequently appear, offering perspectives on how firms make capital structure decisions to minimize costs and optimize benefits. Signaling theory, in the context of capital structure, emphasizes how financial decisions serve as signals to investors regarding a firm's financial health. Furthermore, Investment Opportunity Set (IOS) theory and Market Timing theory, each applied in one study, offer additional insights on how firms select capital structure based on investment opportunities and market conditions.

Overall, this indicates that in ESG research, the most commonly used theory is Stakeholder, while in capital structure research, the frequently used theories are Agency, Trade-off, and Signaling. These two theoretical approaches provide complementary insights into how ESG and capital structure can influence firm value.

Table 3 summarizes the categories of analytical techniques applied in the 43 studies on ESG, capital structure, and firm value

Table 3. Technique Category

Technique Category	Count
Miscellaneous Techniques	2
Regression Techniques	7
Moment-Based Estimation Techniques	3
Panel Data Analysis Techniques	22
Structural Equation Modeling (SEM)	9
Total	**43**

Panel Data Analysis Techniques is the most frequently used approach, applied in 22 studies, and includes methods such as Fixed Effects, Random Effects, Pooled OLS, and GLS, which are suitable for analyzing repeated data over a specific time period. Structural Equation Modeling (SEM) is employed in 9 studies, using techniques like PLS-SEM, GSCA, Cross-Lagged Panel Path Analysis, and Path Analysis to examine the structural relationships between variables.

Meanwhile, Regression Techniques appear in 7 studies, utilizing methods such as Multiple Linear Regression, Quantile Regression, and MRA to analyze variable relationships. Moment-Based Estimation Techniques are used in 3 studies, applying GMM and PMG to address endogeneity issues in dynamic models. Miscellaneous Techniques are found in 2 studies, using Spearman Correlation and Conditional Process Analysis as alternative approaches. Overall, Panel Data Analysis Techniques are the most widely applied, followed by SEM and regression, which collectively provide in-depth insights into the impact of ESG and capital structure on firm value.

Environmental, social, and governance (ESG), capital structure, and firm value are the factors that have been defined in this Systematic Literature Review (SLR). The purpose of this study is to examine how capital structure and ESG factors impact business value and to examine how their application and assessment have evolved over time in different studies.

Table 4. Development of Dependent Variable Names

Names	Dependent
Firm Value	37
Enterprise Value	2
Corporate Value	2
Firms Valution	1
Value of Family Firms	1
Total	**43**

Table 5. Firm Value Measurement

Measurement	Articles	Percentage
Stock Price Ratio	2	5%
Torbin Q	22	51%
Market to Book Rasio	4	9%
Tobin's Q , Return on Assets , Market-to-Book rasio	1	2%
Market-to-Book rasio dan Tobin's Q	1	2%
Tobin's Q, Price Earning Ratio (PER)	1	2%
Tobin's Q, Price Earning Ratio (PER), Price to Book Value (PBV), Earning per Share (EPS)	1	2%
Return on Assets (ROA), Return on Equity (ROE), Tobin's Q	1	2%
Price Earning Ratio, Price to Book Value, Closing Price	1	2%
Price to Book Value	2	5%
Price Earning Ratio dan Market to Book Rasio	1	2%
Enterprise value	1	2%
Enterprise Value, Tobin's Q	2	5%
Not specified	3	7%
Total	**43**	**100%**

The analysis results indicate that the variable most commonly associated with firm value is measured using Tobin's Q, which appears in more than half of the articles. This highlights the dominance of this metric as the primary approach for assessing firm value. Additionally, although other measurement variations such as Market-to-Book Ratio and Price-Earnings Ratio are used, they are relatively less common, reflecting a less consistent preference. Some articles also employ a combination of indicators, reflecting an effort to capture a more comprehensive dimension of firm value. Overall, these results suggest a clear preference for Tobin's Q in measuring firm value.

Table 6. Development of Independent Variable Names

Names	Independent	Mediation	Moderating
ESG Performance	9		
ESG Disclosure	8	1	
ESG Initiatives	2		
ESG Engagement	1		
ESG Listing dan ESG Ranking	1		
ESG Risk	1		
ESG Score	1	1	
ESG Criteria	1		
ESG Certification	1		
ESG	2		
ESG Reporting	1		
ESG Controversies	1		
ESG Investments	1		
Capital Structure	10		1
Total	**40**	**2**	**1**

Table 7. Variable Measurement

Variable	Measurement	Articles	Percentage
Environmental, Social, and Governance	ESG Disclosure Ratio	1	2%
	Score ESG	20	47%
	Sino-Securities ESG Rating	1	2%
	Sustainalytics ESG Risk Rating	1	2%
	Dummy Variable for ESG Certification.	1	2%
	ESG Controversy Score	1	2%
	ESG Strength, ESG Concerns, ESG Score	1	2%

	ESG Score , ESG Rating	1	2%
	Not Spesific	5	12%
Capital Structure	Short-Term Debt to Total Assets Ratio (STDTA), Long-Term Debt to Total Assets Rasio (LTDTA) , Debt-to-Equity Ratio (DER)	1	2%
	Debt to Asset Ratio (DAR), Debt to Equity Ratio (DER), Long-term Debt to Asset Ratio (LTDTA), Long-term Debt to Equity Ratio (LDER)	2	5%
	Debt to Asset Ratio (DAR), Long-term Debt to Asset Ratio (LTDTA), STDTA (Short-Term Debt to Total Assets Ratio)	1	2%
	Debt to Asset Ratio (DAR)	3	7%
	Debt to Equity Ratio (DER)	2	5%
	Debt to Equity Ratio (DER), Debt to Total Assets Ratio (DAR), dan Long Term Debt to Equity Rasio (LDER)	1	2%
	Long-Term Debt to Equity Ratio (LDER)	1	2%
	Total	**43**	**100%**

The analysis results indicate that the measurement of the Environmental, Social, and Governance (ESG) variable is predominantly dominated by the use of ESG scores as the main indicator, reflecting a clear preference for this method in the research. A small number of articles rely on other methods or are not specific in their measurements, indicating some variation, but with low intensity. On the other hand, the measurement of capital structure shows a more diverse use of indicators, with certain ratios such as Debt to Asset Ratio and Debt to Equity Ratio being relatively popular choices. This suggests different preference patterns for each variable, with ESG being more concentrated on one main indicator, while capital structure is more fragmented in its measurement.

The Causes of Inconsistency in Findings Related to the Relationship Between ESG, Capital Structure, And Firm Value

The purpose of this section is to respond to RQ2, which asks what causes the inconsistent results of research looking at the connection between ESG, capital structure, and company value in non-financial firms. Although several studies have attempted to explore the impact of ESG and capital structure on firm value, the results are often inconsistent. Several factors contribute to this inconsistency, including differences in the definition and measurement of ESG and capital structure variables. Furthermore, these inconsistencies can also be influenced by other factors, such as variations in the research period, the type of industry sector analyzed, and the country context in which the study is conducted. Therefore, in this section, I will further analyze these factors to better understand the causes of the inconsistencies in the research findings, with the goal of providing more accurate and comprehensive insights for future studies.

Table 8. ESG Development with Firm Values

Names Variable	**Measurement**	**Result**				**Author**
		ESG	**E**	**S**	**G**	
ESG Performance	ESG Disclosure Ratio, Score ESG		+	+	x	(Kong et al., 2023),(Espinosa-Méndez et al., 2023), (Yu & Xiao, 2022)
	Sino-Securities ESG Rating, Score ESG	+				(Duan et al., 2023), (S. Wu et al., 2022) (Yoon et al., 2018), (Tang et al., 2024)
	Score ESG		x	+	+	(Aydoğmuş et al., 2022)
	ESG Strength, ESG Concerns, ESG	+,-,-				(Fatemi et al., 2018)

	Score					
ESG Disclosure	ESG Score	+				(Eng et al., 2022), (Siwei & Chalermkiat, 2023), (Feng & Wu, 2023), (Fuadah et al., 2022), (Li et al., 2018)
			+	x	+	(Hardiningsih et al., 2024)
		x				(Rohendi et al., 2024)
	not spesific		+	+	-	(Zhang et al., 2020)
			x	x	+	(Abdi et al., 2022)
ESG Initiatives	ESG Score		+	+	x	(Tahmid et al., 2022)
		+				(Chen et al., 2024)
ESG	ESG Score	+				(Seok et al., 2024), (Rahat & Nguyen, 2024)
ESG Score	ESG Score	-				(Behl et al., 2022)
		+				(Aladwey & Alsudays, 2023)
ESG Engagement	ESG Score		x	+	x	(Al-Issa et al., 2022)
ESG Listing dan ESG Ranking	not spesific	+				(Aboud & Diab, 2018)
ESG Risk	Sustainalytics ESG Risk Rating	-				(Eriandani & Winarno, 2024)
ESG Criteria	ESG Score		x	x	+	(Yildiz et al., 2024)
ESG Certification	Dummy Variable for ESG Certification	+				(Wong et al., 2021)
ESG Reporting	ESG Score	-				(Mishra et al., 2024)
ESG Controversies	ESG Controversy Score	-				(Z. Wu et al., 2023)
ESG Investments	ESG Score	+				(Bagh et al., 2024)

The results of studies on the connection between ESG performance and firm value are not always constant, depending on the time periods, regions, and industry sectors examined. Geographical factors have varying impacts due to differences in ESG regulations and policies across countries. For instance, a study by Kong et al. (2023) in Central and Southern Africa from 2009 to 2022 showed positive effects for environmental and social aspects, while governance had no impact, possibly due to different regulatory focuses. Meanwhile, Fatemi et al. (2018) found mixed results in the United States from 2006 to 2011, reflecting a lack of standardized ESG practices at that time. A more recent study by Espinosa-Méndez et al. (2023) across 38 countries from 2015 to 2021 generally showed positive impacts on environmental and social aspects, as companies increasingly recognized the importance of ESG. Additionally, the industry sector plays a role in determining outcomes. For example, Kong et al. (2023) found that pharmaceutical companies in Africa were more focused on the positive impact on environmental and social aspects. On the other hand, Aydoğmuş et al. (2022), analyzing global public companies from 2013 to 2021, found positive effects on social and governance aspects, but no significant impact on the environment.

Research on ESG disclosure and its relationship with firm value shows similar variability, influenced by geographical location, time period, and industry type. Differences in ESG regulations between countries lead to varied impacts. For example, Eng et al. (2022) in the United States from 2014 to 2018 found a positive impact on non-financial companies, while Zhang et al. (2020) in China from 2012 to 2018 showed a negative effect on governance aspects. Time period also plays a role, as earlier studies like Li et al. (2018) in the UK (2004-2013) reflect inconsistent ESG standards, whereas more recent research like Hardiningsih et al. (2024) in Singapore (2018-2021) reports a positive

impact due to increasing awareness of ESG. Industry type also influences the results. For example, Zhang et al. (2020) found positive impacts for non-financial companies in China on environmental and social aspects, but negative on governance. In contrast, Abdi et al. (2022), analyzing the global airline industry (2009-2019), found that only governance had a positive impact, while environmental and social aspects showed no significant influence. These variations highlight the need for better ESG measurement standards or more specific approaches for each industry to understand its impact on firm value more accurately.

Research on ESG initiatives in Europe and Japan also shows similar variations. In Europe, Tahmid et al. (2022) found positive impacts on environmental and social aspects but not on governance, from a study of companies in 22 countries (2008-2020). Meanwhile, Chen et al. (2024) in Japan (2016-2021) found overall positive impacts without distinguishing between dimensions, possibly because ESG regulations in Europe are more stringent and established compared to Japan. The research period also affects the results, with longer studies in Europe reflecting more focused ESG standards on environmental and social issues, while shorter studies in Japan show overall positive impacts, likely driven by new commitments to ESG in Japanese companies. The diversity of sectors in European research also allows for varied ESG responses, whereas research in Japan focused solely on public companies, which showed more uniform ESG implementation.

Similarly, research in India and Saudi Arabia yields diverse results. Behl et al. (2022) in India's energy sector (2016-2019) showed a negative impact on firm value, likely due to more complex ESG challenges in the sector, such as strict environmental regulations. In Saudi Arabia, a study by Aladwey & Alsudays (2023) (2021-2022) found a positive impact on companies focusing on gender diversity on boards, reflecting governance reforms and increasing diversity in the country. These inconsistencies suggest that the impact of ESG on firm value is highly influenced by the country context, time period, and industry type, so ESG assessments must consider these factors for a more accurate understanding.

Table 12. Capital Structure Development with Firm Value

Names Variable	Measurement	Result	Author
Capital Structure	• Short-Term Debt to Total Assets Rasio (STDTA), Long-Term Debt to Total Assets Rasio (LTDTA) , Debt-to-Equity Rasio (DER) • DAR, LTDTA, STDTA • DER • Debt to Equity Rasio (DER), Debt to Total Assets Rasio (DAR), dan Long Term Debt to Equity Rasio (LDER) • DAR	+	(Rahayu et al., 2020), (Bui et al., 2023), (Alghifari et al., 2022), (Liong et al., 2023), (T. D. Dang & Do, 2021)
	• Not spesific • LDER • DAR	-	(Sudiyatno et al., 2023), (Doorasamy, 2021), (H. N. Dang et al., 2019)
	• Debt to Asset Ratio (DAR), Debt to Equity Ratio (DER), Long-term Debt to Asset Ratio (LTDTA), Long-term Debt to Equity Ratio (LDER) • DAR	x	(Widnyana et al., 2021), (Ferriswara et al., 2022), (Almomani et al., 2022)

Research on the impact of capital structure shows diverse results, depending on the country, period, sector, and the measurement of variables used. A study by Rahayu et al. (2020) in the manufacturing sector in Indonesia from 2008 to 2015 found that capital structure had a positive impact on profitability. This was likely due to the post-global financial crisis recovery in 2008-2009, where manufacturing companies leveraged debt financing to stimulate growth and improve profitability. Conversely, Sudiyatno et al. (2023) in their research on the manufacturing sector in Indonesia from 2019 to 2021 found that capital structure had a negative impact, likely due to the COVID-19 pandemic, which put pressure on companies with high debt ratios due to economic uncertainty and declining revenues. These differing results highlight that the research period significantly influences the Additionally, the results vary across countries. A study by Bui et al. (2023) in Vietnam from 2012 to 2022 showed a positive impact of capital structure on firm performance, as companies in Vietnam often rely on debt as their primary source of financing due to limited access to equity. On the other hand, a study by Doorasamy (2021) in East Africa (Kenya, Tanzania, and Uganda) from 2009 to 2018 showed a negative impact, likely due to high interest rates on debt, making debt financing inefficient. This indicates that the financial system, interest rates, and regulations in each country greatly influence the relationship between capital structure and firm performance.

In addition to country and period, industry sectors also have a significant impact on research outcomes. Capital structure had no discernible impact on companies in the Jakarta Islamic Index (JII) from 2015 to 2021, according to a study by (Ferriswara et al., 2022). This is probably because Islamic principles restrict the use of interest-bearing debt, which encourages businesses to rely more on internal finance. In contrast, a study by Alghifari et al. (2022) on the diversified industrial sector in Indonesia from 2016 to 2020 showed a positive impact, as companies in this sector often use debt financing to expand production capacity and support growth. This highlights that capital needs and regulations within an industry sector can affect the relationship between capital structure and firm performance.

The way the variables are measured also affects the outcomes. Since the variables were measured using different indicators, such as the Debt to Asset Ratio (DAR), Debt to Equity Ratio (DER), and Long-term Debt to Asset Ratio (LDAR), and the relationships between these indicators and other variables, like corporate governance, were unclear, a study conducted in 2015 by (Widnyana et al., 2021) on non-financial companies in Indonesia found no impact from capital structure. In contrast, Bui et al. (2023), using only the debt-to-asset ratio, found a clearer relationship, with capital structure having a positive effect on performance. This shows that different variable measurements can affect research results, especially when additional variables like corporate governance or profitability are included. Thus, the discrepancy in these research findings implies that the nation background, research era, sector, and the variables measured all have a significant impact on the relationship between capital structure and firm performance.

CONCLUSION

Based on the systematic literature review, research tends to focus more on developing countries such as Indonesia and India compared to developed countries like the United States, the United Kingdom, Japan, and Singapore. The majority of studies are also centered on publicly listed companies on stock exchanges, while sectors such as pharmaceuticals, real estate, energy, and aviation have received less attention. The relationship between ESG and firm value is commonly explained by the stakeholder hypothesis, which holds that effective ESG implementation improves competitive advantage, corporate reputation, and

stakeholder satisfaction. On the other hand, agency theory is frequently used to comprehend how capital structure affects business value through decisions about debt and equity and how conflicts of interest are managed. The inconsistent research findings imply that the nation environment, research era, industry, and the variables measured all have an impact on the relationship between ESG, capital structure, and firm value.

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