



INTERNATIONAL JOURNAL OF TRENDS IN EMERGING RESEARCH AND DEVELOPMENT

INTERNATIONAL JOURNAL OF TRENDS IN EMERGING RESEARCH AND DEVELOPMENT

Volume 3; Issue 5; 2025; Page No. 114-121

Received: 10-06-2025

Accepted: 21-07-2025

Published: 08-09-2025

ESG Compliance and Its Impact on Corporate Legal Frameworks

¹Kishor Ramchandra Gaikwad and ²Vipin Kumar Singh

¹Research Scholar, Sunrise University, Alwar, Rajasthan, India

²Professor, Sunrise University, Alwar, Rajasthan, India

DOI: <https://doi.org/10.5281/zenodo.17657730>

Corresponding Author: Kishor Ramchandra Gaikwad

Abstract

Considerations of ESG (environmental, social, and governance) have grown in importance as elements impacting investment choices and business actions in the context of contemporary finance and corporate governance. Directors in India are legally obligated to fulfill their responsibilities to different stakeholders, which establishes a solid basis for fair and efficient corporate governance. Additional study is needed to investigate new developments, obstacles, and possibilities in ESG integration as it keeps gaining steam. In order to promote sustainable growth in the face of global competition, the research offers strategic advice to corporate management based on the ESG approach. The hard-law ESG landscape is changing in a number of nations due to the proliferation of sustainability rules. The increasing expectations put on enterprises are leading to a regulatory landscape that is complex, demanding, and confusing in terms of ESG. Therefore, ESG is seen as a principle for long-term investment that helps determine a company's viability.

Keywords: Environmental, Social, Governance Corporate and Legal

Introduction

In light of recent events such as climate change, rising demands for ESG compliance, and heated debates regarding the role of business in governance, this project aims to examine and assess new strategies for strengthening ESG obligations in important jurisdictions and globally. The project's secondary objective is in order to analyze how ESG variables affect lawyers and the success of the legal sector reaction to this trend. So, many important and current topics at the crossroads of ESG, corporate governance, law, and the legal profession are at the heart of our initiative. The research examines the readiness and changing reaction of the legal sector to the ESG wave as well as the legalization (hardening) of ESG requirements of firms. Legislators and regulators are increasingly becoming involved in the ESG space, even though most ESG work is still being ordered by the private sector. Laws, regulations, and court decisions are having a greater impact on ESG discussions throughout the world.

As sustainability regulations proliferate, we are seeing a

turning point in the hard-law ESG landscape in several countries. The regulatory environment around ESG is evolving and becoming more complicated, difficult, and perplexing as a result of rising demands placed on organizations. Legal professionals are being sought after by businesses and other interested parties as they attempt to make sense of the disjointed web of governance, society, and the environment (ESG) frameworks, rules, and legislation. Research indicates that ESG has become a more important and distinct need for legal companies and corporate legal departments in the last ten years, and this trend is only going to accelerate. The acronym "This paradigm is known as ESG, which stands for "environmental," "social," and "governance." that businesses can use to help them plan for the future while also considering the needs and opportunities of their most important stakeholders, including workers, consumers, and investors.

In 2004, a group of financial corporations worked together for UN-commissioned research called "Who Cares Wins"

and that's where the term "ESG" first appeared.¹ In the twenty years after its inception, the ESG movement has grown from a small UN-sponsored CSR initiative into a worldwide phenomenon, overseeing assets worth over US\$30 trillion. Since its inception nineteen years ago, ESG has grown into an integral part of many companies' strategy and is now recognized as a leading light in the field of CSR. Assuming that "sustainability" as a cause goes beyond merely the environmental activist domain, ESG is just a by-product of ethical investment. According to following the PRI principles, responsible investing is "a strategy and practice to incorporate environmental, social, and governance (ESG) considerations in investment strategies and engaged management."

So, ESG is a common tool for investors to utilize when assessing a company's performance and future financial prospects. success. When evaluating investments and making investment choices, the three pillars of ESG should be considered first and foremost. In light of this, ESG is considered an investment concept for gauging the sustainability of businesses over the long run. A company's activities and outcomes are assessed using the ESG framework in connection to several sustainability metrics and ethical concerns. In addition, it gives a method for gauging the potential dangers and rewards in such locations for businesses. Some financial market participants engage in what is known as ESG investing, in which they employ ESG factors to assess businesses and formulate investment strategies.

Literature Review

Arman Maralov *et al.* (2024) ^[1] For the world's economies and societies to continue growing sustainably, Sustainability, ethics, and business responsibility practices must be integrated. Although the significance of ESG is becoming more acknowledged, there has been little research on the strategic management of ESG elements in Kazakhstan's telecom sector. To fill that void, this research used a cross-sectional approach and semi-structured interviews with 12 industry experts to analyze the ESG plans of Kazakh telecom from 2019 to 2021. The study assesses qualities pertaining to the environment, society, and government via the application of the National Rating Agency (NRA). When it comes to "Climate Change" and "Human Capital Management," Kazakh telecom really shines. However, when it comes to "Environmental Impact" and "Society," they really need to step it up.

Ruhaya Atan *et al.* (2016) ^[2] Comparing the emerging economy of Malaysia with the developed country of Denmark, which serves as a model for good practice, this paper aims to determine how much information about the company's environmental, social, and governance (ESG) practices must be disclosed in order to comply with different regulations, and how this information affects the company's bottom line. The 100 biggest firms listed on Nasdaq OMX Copenhagen and Bursa Malaysia are chosen separately. Using a modified ESG disclosure index that is based on previous research and recognized worldwide norms, we analyze the content of corporations' 2013 annual reports and standalone reports. The operation of the business is evaluated with a one-year lag in mind. There was a

significant disparity in the amount of ESG disclosure between nations, and some nations place a premium on different ESG factors. Despite the existence of statutory pressure in Denmark, the results did not support the claim that disclosure in Denmark is greater or more complete than in Malaysia, a nation that does not have any special ESG requirements.

Kocmanová *et al.* (2014) ^[3] The focus of this essay is on ESG (ecological, societal, and administrative) indicators of success. In order to measure a company's sustainable performance in its sustainability reports, researchers have been looking for environmental, social, and governance (ESG) indicators. For businesses in the processing sector, CZ-NACE environmental, social, and corporate governance indicators have been developed via empirical research using factor analysis. We used a multi-factor analysis to choose the indications one by one. Based on their effects on society, corporate governance, and the environment, the factors fell into one of three categories, according to factor analysis. The first set consists of investments, emissions, consumption of sources, and waste; the second set consists of society, human rights, labor practices, and decent work; and the third set consists of compliance, monitoring and reporting, structure, and effectiveness of corporate governance.

Dr. Amit Tuteja *et al.* (2024) ^[4] In order to achieve long-term sustainability and profitability, this article explores how ESG ideas are being integrated into contemporary business management. To address environmental concerns, enhance society, and set up robust governance mechanisms, businesses may look to ESG principles for guidance. Results from ESG strategy implementation on financial outcomes, risk management, and stakeholder engagement, in addition to addressing the challenges that firms have when attempting to implement these strategies. Global trends and regulatory pressures have increased the importance of ESG integration, as more and more proof is emerging showing businesses with robust ESG processes often beat their competitors. Businesses looking to improve their sustainability strategy will find practical advice in this article that sets out best practices for successful ESG integration via a study of research and consideration of case studies. The results suggest that in order to make sure their sustainability efforts are helping them reach their long-term goals, companies should combine their ESG targets with their general business plans.

Kemal CEK *et al.* (2020) ^[5] This this research is to examine the 500 companies that Standard & Poor's follows in order to determine how ESG (environmental, social, and governance) measures affected their bottom lines. Researchers have used structural equation modeling and linear regression to examine the relationship between ESG performance and economic success. For this investigation, we utilized data that was collected between 2010 and 2015. There was a strong correlation between the overall ESG approach and economic performance. Furthermore, the study's findings show that social and governance performance have a significant influence on economic success across all regression models. However, there was no discernible relationship between environmental performance and the outcome.

Research Methodology

The function of ESG compliance in company law may be better understood with an all-encompassing research strategy that combines qualitative and quantitative techniques. Develop and distribute surveys to corporate executives and legal professionals to collect quantitative and qualitative data on perceptions and practices related to ESG compliance.

For qualitative data from case studies and interviews, employ content analysis techniques to interpret and code the data, extracting themes and insights related to ESG compliance in corporate law.

This part of the methodology focuses on examining how different legal frameworks govern ESG practices and the impact of these laws on corporate behavior and strategy. This analysis will help identify best practices and key challenges in ESG compliance across different legal environments.

Data Analysis

Decisions made by businesses are often impacted by ESG factors in a big way. Companies are becoming more transparent in their day-to-day dealings in response to pressure from shareholders, customers, and others. Doing so improves their reputation and protects them from legal trouble in the event that they break the regulations. Well, it's not easy. Inconsistent and frequently chaotic supervision is

the result of regulations that have been twisted from several sources. This book delves at the ethical and legal challenges that businesses have as they strive to meet ESG requirements in a constantly changing regulatory landscape. Companies are faced with a dilemma: on one hand, they have to navigate complex legal regulations; on the other, they must commit to ethical actions that align with people's expectations of care and responsibility. According to Settembre-Blundo *et al.* (2021)^[15], I investigate a number of ESG standards' impacts on identify typical mistakes, and provide solutions.

Companies' compliance with stringent reporting requirements is also examined, as is their ability to respond to stakeholder demands for more transparency and candor in their ESG initiatives. In addition to being useful for academics, this has practical implications for how businesses operate. In order to assist businesses, meet both legal requirements and public expectations, the research attempts to unravel the complex web of adherence to ESG principles (environmental, social, and governance). If we want to make a better cohesive set of ESG standards-which can make compliance easier and inspire more ethical vibes-policy makers and business leaders must have a firm grasp on these challenges. This section lays the groundwork for delving further into the ethical and legal difficulties that characterize the modern ESG environment.

Table 1: Global ESG Compliance Challenges 2025

Region	Primary ESG Standard	Adoption Rate (%)	Top Challenge	Companies Facing Data Issues (%)
North America	SASB	68	Regulatory Complexity	42
Europe	CSRD	85	Data Quality	53
Asia-Pacific	GRI	59	Reporting Inconsistency	61
Middle East	TCFD	47	Stakeholder Engagement	58
Latin America	GRI	52	Resource Constraints	67

Companies' day-to-day operations are disrupted by ESG regulations. Now more than ever, legislators and regulators throughout the world are certain that ESG must be woven into the fabric of compliance with the law. With so many new rules to navigate, it is more difficult than ever for businesses to remain on course. This inquiry aims to uncover the effects of new legislative rules on corporate operations. Responsibility for reporting, following regulations, and making plans for the future are the main points. Researchers may discover that it provides a more comprehensive analysis of the relationships between ESG and governance compliance regulations and corporate

actions are intertwined (Barbosa *et al.*, 2023)^[14]. When businesses understand the ways in which legal frameworks divide their operations, they are better able to deal with compliance concerns and provide the kind of transparent service that stakeholders in the modern day want. In addition, the results may encourage lawmakers to create regulations that support sustainable practices without overburdening businesses, prompting them to take action ahead of time. As a crucial glimpse into the practical implications of ESG compliance, this passage lays the groundwork for the interplay between legal regulations and company conduct (Menicucci & Paolucci, 2022)^[13].

Table 2: Global ESG Regulatory Frameworks and Corporate Impact

Framework	Region	Year Implemented	Key Requirements	Corporate Impact
EU Corporate Sustainability Reporting Directive (CSRD)	European Union	2023	Mandatory ESG reporting for large companies and listed SMEs	Increased transparency and standardized ESG disclosures
SEC Climate Disclosure Rules (Proposed)	United States	Pending	Disclosure of climate-related risks and greenhouse gas emissions	Enhanced climate risk management and reporting practices
UK Modern Slavery Act	United Kingdom	2015	Reporting on steps taken to address Modern slavery in supply chains	Improved supply chain due diligence and human rights practices
China ESG Disclosure Standards	China	2022	Voluntary ESG reporting guidelines for listed companies	Gradual adoption of ESG practices in Chinese
Australian Modern Slavery Act	Australia	2018	Mandatory reporting on modern slavery risks in operations and supply chains	Increased focus on ethical supply chain management

Much discussion has recently centered on the real-world intersection of corporate responsibility, sustainability, and governance. While businesses continue to face several complex obstacles in their pursuit of ESG principles, they now serve as a perfect example of how ethically sound these organizations really are. Experts in the field provide new perspectives on ESG compliance, noting that regulations are always evolving in response to external forces. For instance, stricter sustainability criteria are being pushed for by authorities. Research alternates between presenting idealized models and describing the difficult challenges that businesses really encounter. Successful businesses in ESG areas not only achieve their legal goals, but also get public praise, strengthen their brand, and create more resilient operations (Settembre-Blundo *et al.*, 2021) [15]. However, there is no universally accepted set of best practices since they vary greatly from one area to another (Christensen *et al.*, 2021) [12].

The Legal and Ethical Challenges in ESG Compliance

Companies nowadays combine new environmental regulations with long-standing ethical standards, making ESG compliance a roller coaster ride. The reputation and financial stability of businesses are jeopardized by ever-changing regulations, irate demands from stakeholders, and whirlwind corporate strategies. Sloppy ESG reporting, confusing legislation, and conflicting stakeholder emotions are the Achilles' heels of many organizations, according to the research. The disconnect between companies' lofty aspirations and what really happens occurs when they fail to convert their understanding of the need of transparency into

tangible ESG victories. Previous research has shown a distinct divide in ESG initiatives, with larger companies implementing more stringent compliance measures and smaller businesses falling behind due to resource constraints (Settembre-Blundo *et al.*, 2021) [15].

A strong governance framework, along with committed leadership and practical engagement from stakeholders, significantly impacts the ease with which ESG objectives are achieved (Christensen *et al.*, 2021) [12]. Integral to ESG is the need to understand the moral and legal complications that arise from combining the two, particularly in light of the fact that new regulations are always changing the playing field (George *et al.*, 2021) [11]. For those working in the field who are attempting to improve stakeholder relations, operations, and ESG performance, which encompasses environmental, social, and governance aspects, these findings include invaluable (Barbosa *et al.*, 2023) [14]. While laying the groundwork to address the day-to-day obstacles that influence firm behavior in the green landscape, this study adds to the increasing ESG discourse. Firming up business processes and moving closer to real, sustainable growth are both helped by striking that balance (Ayling & Chapman, 2021) [10]. It is clear that we need to continue investigating the true nature of ESG since it is possible that the study's results might shake up both regulations and corporate strategies in our dynamic environment (Mondal *et al.*, 2023) [9]. In sum, these concepts provide a rough outline for ESG considerations and actions, encouraging us to examine the intersection of legal considerations and ethical considerations more closely (Menicucci & Paolucci, 2022) [13].

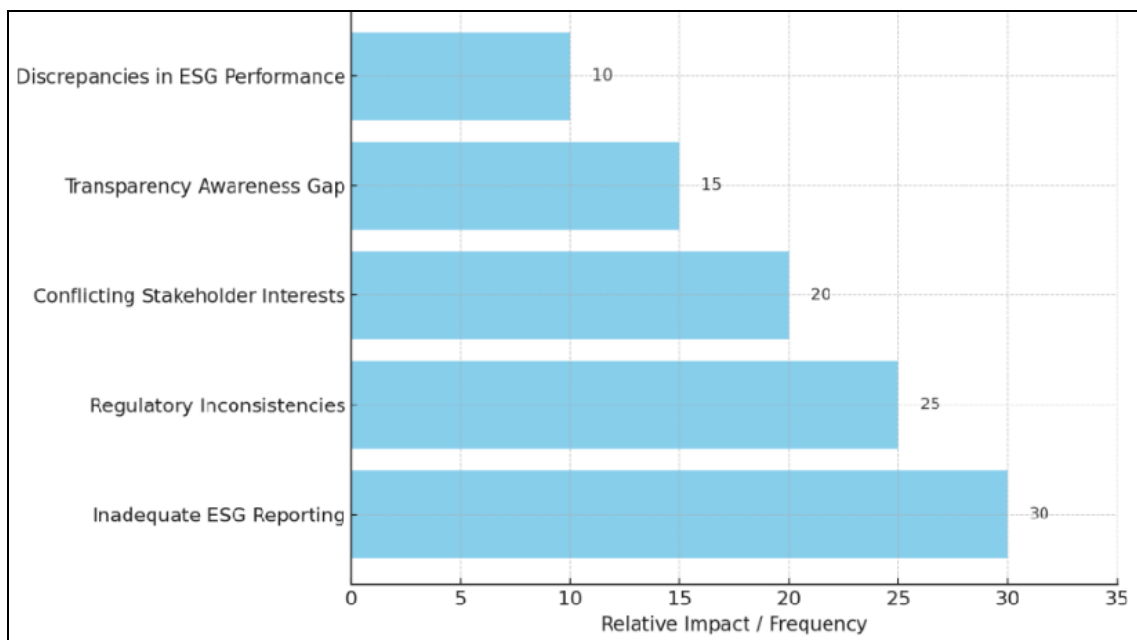


Fig 1: Key challenges in ESG compliance

The main obstacles that companies have while trying to comply with ESG regulations are shown in this bar chart. Following "Regulatory Inconsistencies" and "Conflicting Stakeholder Interests" as the most major obstacles are shown by the data. The numbers show how often or how much of an effect each difficulty has, so you can easily compare them.

Presentation of Data

With a multi-pronged strategy, this presentation untangles the knotty issue of business sustainability by exploring the ethical and legal hurdles to ESG compliance. To extract nuanced insights that combine subjective experiences with objective facts, the research combined in-depth interviews with subject-matter experts with quantitative assessments of

ESG performance. Companies have significant challenges, such as unclear regulations and difficulties in managing its primary interest groups, and they are having problems determining the true effect of their ESG initiatives.

Research like this adds to what is previously known, but it also calls for specialized solutions to address the unique challenges that arise when implementing ESG (Tao *et al.*, 2022) [8]. Ayling Chapman (2021) [10] notes that in order to smooth out ESG configurations and create an environment where moral and legal principles might take root, it is crucial to collaborate with a diversity of participants. They are all team members with the chops required for good ESG bets, and when organizations encounter these unusual twists, frequent training and learning sets become clear (Mondal *et al.*, 2023) [9]. The foundation for developing strategic decisions and rule recommendations that might increase

ESG victories globally is this diverse set of data (Menicucci & Paolucci, 2022) [13].

In order to make sure that business practices mesh effectively with society's evolving aspirations, this new perspective on ESG data proposes adjustments for corporate runways (Oginga, 2024) [16]. In sum, this comprehensive and disorganized data display is a giant move forward in overcoming the ethical and legal obstacles that shape the ESG area. With this information in hand, organizations may implement green musts into their everyday operations, clearing the path for a more calculated strategy to business. Ultimately, these findings have the potential to initiate a shift in how companies' approach ESG regulations, creating an environment where ethical and legal hurdles may be mitigated.

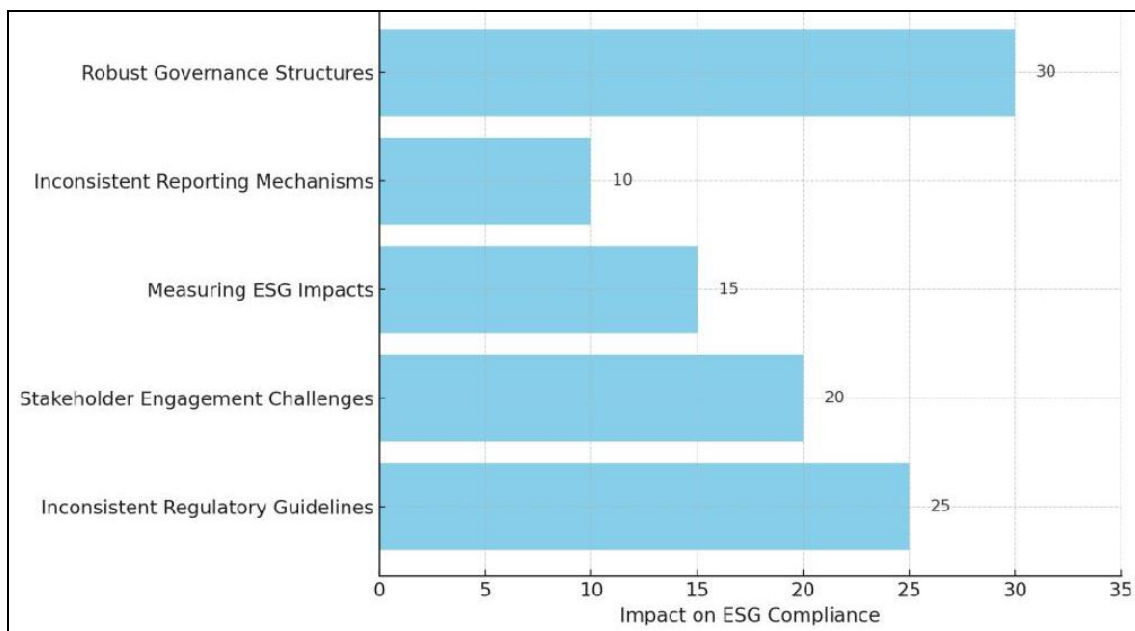


Fig 2: Factors influencing ESG compliance

The elements impacting ESG compliance are shown in the bar chart. The report ranks "Robust Governance Structures" as the most important component, while "Stakeholder Engagement Challenges" and "Inconsistent Regulatory Guidelines" as two prominent obstacles. By graphically comparing the effects of each component on ESG compliance, we can see the many impacts and obstacles in this field.

Description of Key Findings

In the realms of law and ethics, ESG compliance proves to be somewhat perplexing. According to studies, a lot of companies have a hard time putting their ESG reports in order, so the data they provide could seem all over the place. At times, the rules seem disjointed, making it difficult for businesses to balance competing demands from various

authorities. Concerns about incompetent management and the potential for weak monitoring have prevented several companies from making the long-term development they had hoped for.

Thus, the research provides academics and industry insiders with useful information by clarifying the current state of ESG compliance (Oginga, 2024) [16]. As pressure mounts on businesses to actively promote transparency and ethical responsibility, it is essential that they delve deeply into these problems. Businesses should be able to live up to societal expectations and play a larger part in achieving global sustainability objectives because of these programs. The core point of any conversation on long-term practices in today's corporate world is being further pushed by the ongoing need to resolve the legal and ethical complexities associated with ESG compliance.

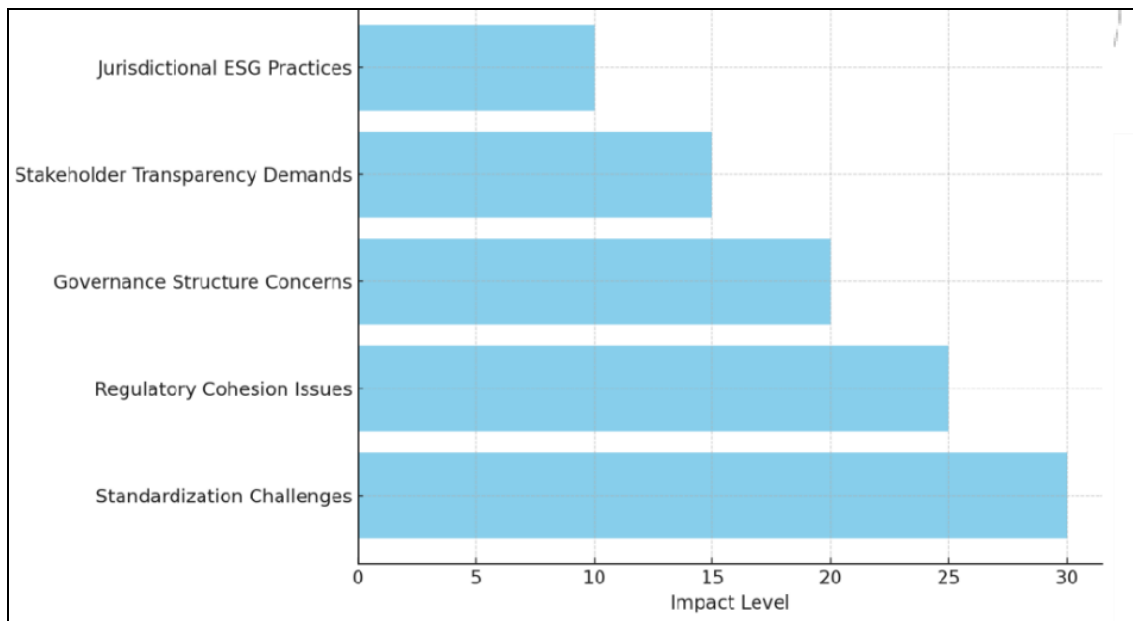


Fig 3: Key challenges in ESG compliance

In this bar chart, we can see the main obstacles to ESG compliance. According to it, "Standardization Challenges" are the biggest problem, followed by "Regulatory Cohesion Issues" and "Governance Structure Concerns." "Jurisdictional ESG Practices" and "Stakeholder Transparency Demands" add more complexity. The figure does a good job of showing how each component affects ESG compliance in relation to the others.

This study should encourage further investigation into the dynamic landscape of ESG compliance in the future, particularly in regards to trying out new reporting strategies to fill in the gaps that exist (Ayling & Chapman, 2021) ^[10]. A more resilient and environmentally conscious business landscape, capable of adapting to the evolving needs of society and the planet, may emerge as a result of such initiatives.

Table 3: ESG Compliance Challenges

Challenge	Legal Aspect	Ethical Aspect	Impact
Regulatory Complexity	Navigating multiple jurisdictions	Balancing stakeholder interests	High compliance costs
Data Accuracy	Ensuring truthful disclosures	Transparency in reporting	Potential reputational damage
Greenwashing	Avoiding misleading claims	Maintaining corporate integrity	Loss of investor trust
Supply Chain Oversight	Monitoring third-party compliance	Ensuring ethical sourcing	Operational disruptions
Privacy Concerns	Protecting sensitive data	Respecting individual rights	Legal liabilities

Combination of Legal Requirements and Moral Considerations

A. Interpretation of Findings

Companies are driven by a combination of legal requirements and moral considerations, according to our research. Companies claim to be ESG conscious, but they don't really do much about it. While many businesses acknowledge the need of sustainability, actual compliance is often hindered by regulatory complications and complex ethical dilemmas.

B. Implications for Corporate Governance and Compliance Strategies

Enterprises place a premium on ESG indicators. They take a fresh look at their compliance routines and revamp their internal settings. Based on our research, companies with solid governance structures have a much better track record of sustainability, which is crucial for ESG initiatives. Consistent with previous research demonstrating the impact

of committed leadership coupled with clear plans, the data establishes a tidy correlation between stringent board scrutiny and meeting ESG criteria. Sticky difficulties are a problem for smaller businesses. Supporting previous research showing that a lack of capital and knowledge may derail strong ESG practices in younger organizations, they often run into problems due to a lack of knowledge and resources.

The most effective way to create adaptable frameworks that can respond to the dynamic nature of ESG is for companies, regulators, and even academics to collaborate together (Mondal *et al.*, 2023) ^[9]. To sum up, our research demonstrates that true sustainable development may be achieved when corporations adhere to ethical management practices (Menicucci & Paolucci, 2022) ^[13]. Arvidsson and Dumay (2021) ^[17] argue that businesses should stop acting like passive recipients of checklists and instead take the initiative to become leaders in responsible, smart practices.

Table 4: ESG Compliance Challenges and Corporate Strategies

Challenge	Impact	Corporate Strategy	Implementation Rate (%)
Regulatory Complexity	High	Develop comprehensive compliance frameworks	78
Data Collection and Reporting	Medium	Invest in ESG data management systems	65
Stakeholder Expectations	High	Enhance stakeholder engagement and communication	82
Legal Liability	High	Strengthen due diligence and risk assessment processes	71
Anti-ESG Sentiment	Medium	Balance ESG initiatives with financial performance	59

Problems with ESG compliance arise for companies. Organizations face complex legal and ethical dilemmas on a daily basis, as this research reveals. It becomes a jumbled mess when a plethora of cumbersome regulations, corporate oversight, and stakeholder demands get married. In the future, researchers should focus on the peculiar challenges and surprising successes of ESG in many

industries, particularly in developing nations where regulations are still vague (George *et al.*, 2021) [11]. According to Barbosa *et al.* (2023) [14], experimenting with different reporting methods might potentially provide new insights into increasing openness and ensuring companies are held responsible.

Table 5: Key ESG Compliance Challenges in 2025

Challenge	Description	Impact Score	Percentage of Companies Affected
Regulatory Complexity	Navigating diverse and evolving ESG regulations across jurisdictions	8.5	92%
Data Quality and Reliability	Ensuring accurate and consistent ESG data collection and reporting	7.9	87%
Greenwashing Allegations	Avoiding accusations of misleading ESG claims or disclosures	7.2	63%
Supply Chain Transparency	Monitoring and reporting on ESG practices throughout the supply chain	6.8	76%
Stakeholder Expectations	Meeting diverse ESG demands from investors, customers, and employees	6.5	89

Conclusion

A complex and ever-changing collection of concerns, ESG elements are altering the face of contemporary finance and corporate governance. Additional study is needed to investigate new developments, obstacles, and possibilities in ESG integration, especially in developing economies like India's, where the movement is picking up speed. The increasing expectations put on enterprises are leading to a regulatory landscape that is complex, demanding, and confusing in terms of ESG. Businesses and other stakeholders are actively seeking out legal experts to help them navigate the complex regulatory landscape including ESG frameworks, laws, and regulations. To better understand the role of ESG compliance in corporate law, a comprehensive research plan integrating qualitative and quantitative methodologies is needed. Based on the ESG methodology, the study provides strategic guidance to business management in order to encourage sustainable development in the face of global competition. The expansion of sustainability regulations is altering the hard-law ESG landscape in some countries.

References

1. Maralov A, Kurmanov N, Kirichok O, Amerkhanova A, Moldakenova Y, Shayakhmetova S, *et al.* Environmental, social, and governance (ESG) practice and company performance: Evidence from telecommunication sector. *Journal of Infrastructure, Policy and Development.* 2024;8:7519. doi:10.24294/jipd.v8i8.7519.
2. Atan R, *et al.* Environmental, social and governance (ESG) disclosure and its effect on firm's performance: A comparative study. *International Journal of Economics and Management.* 2016;10(S2):355–375.
3. Kocmanová A, Simberova I. Determination of environmental, social and corporate governance indicators: Framework in the measurement of

- sustainable performance. *Journal of Business Economics and Management.* 2014;15:1–15. doi:10.3846/16111699.2013.791637.
4. Tuteja D. Sustainability strategies in contemporary business management: Integrating environmental, social, and governance (ESG) principles. *Educational Administration: Theory and Practice.* 2024;30:7562–7568. doi:10.53555/kuey.v30i5.4211.
5. Cek K, *et al.* Does environmental, social and governance performance influence economic performance? *Journal of Business Economics and Management.* 2020;21(4):1165–1184.
6. Chandrika D. Corporate social responsibility: A step towards good governance. 2019;16(6):387–391.
7. Sirisha L, Sukumar S, Iyer A, Nakitende M. Environmental, social, and governance (ESG) investing: Evolution, significance, challenges, and impacts. 2024. doi:10.4018/979-8-3693-2117-1.ch002.
8. Tao C, Nogueira RG, Zhu Y, Sun J, Han H, Yuan G, *et al.* Trial of endovascular treatment of acute basilar-artery occlusion. *New England Journal of Medicine.* 2022;387(15):1361-1372.
9. Mondal S, Singh S, Gupta H. Green entrepreneurship and digitalization enabling the circular economy through sustainable waste management-An exploratory study of emerging economy. *Journal of Cleaner Production.* 2023;422:138433.
10. Ayling J, Chapman A. Putting AI ethics to work: are the tools fit for purpose?. *AI and Ethics.* 2022;2(3):405-429.
11. George G, Merrill RK, Schillebeeckx SJ. Digital sustainability and entrepreneurship: How digital innovations are helping tackle climate change and sustainable development. *Entrepreneurship theory and practice.* 2021;45(5):999-1027.
12. Christensen HB, Hail L, Leuz C. Mandatory CSR and sustainability reporting: Economic analysis and

- literature review. Review of accounting studies. 2021;26(3):1176-1248.
13. Menicucci E, Paolucci G. Board diversity and ESG performance: evidence from the Italian banking sector. Sustainability. 2022;14(20):13447.
 14. Barbosa HA. Flash drought and its characteristics in northeastern South America during 2004–2022 using satellite-based products. Atmosphere. 2023;14(11):1629.
 15. Settembre-Blundo D, González-Sánchez R, Medina-Salgado S, García-Muiña FE. Flexibility and resilience in corporate decision making: a new sustainability-based risk management system in uncertain times. Global Journal of Flexible Systems Management. 2021;22(Suppl 2):107-32.
 16. Oginga FO, Mpofana T. Understanding the role of early life stress and schizophrenia on anxiety and depressive like outcomes: An experimental study. Behavioural Brain Research. 2024;470:115053.
 17. Dumay X, Burn K, editors. The status of the teaching profession: Interactions between historical and new forms of segmentation. Taylor & Francis; c2022.

Creative Commons (CC) License

This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY 4.0) license. This license permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.