

## Power at the Top: Mapping CEO Power and Its Influence on ESG Performance – A Bibliometric Review

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### ABSTRACT

*As Environmental, Social, and Governance (ESG) performance becomes a key indicator of corporate sustainability, the role of CEO power in shaping ESG outcomes warrants systematic investigation. This study aims to explore the relationship between CEO power and ESG performance by conducting a bibliometric and content analysis of relevant literature. Data were retrieved from the Scopus database using predefined keywords, resulting in 329 peer-reviewed articles published between 2018 and 2025. Bibliometric analysis was conducted using the Bibliometrix package in R, identifying publication trends, dominant themes, key contributing countries, and methodological patterns. Results indicate a growing scholarly focus on CEO influence in ESG implementation, particularly in energy-intensive sectors, with “data envelopment analysis” and “carbon emissions” emerging as central themes. Content analysis reveals that CEO power measured through tenure, duality, ownership, and political ties—exerts both enabling and constraining effects on ESG strategies. While powerful CEOs can promote long-term sustainability initiatives, excessive concentration of authority may reduce transparency and stakeholder trust. The impact of CEO power varies across ESG pillars and is influenced by contextual factors such as regulatory environments and governance structures. The study identifies research gaps in multidimensional CEO power assessment, disaggregated ESG analysis, and cross-country comparisons. These findings contribute to the theoretical understanding of executive leadership’s role in sustainability and offer directions for future empirical exploration.*

**Keyword:** CEO Power, ESG Performance, Sustainability Strategy

### ABSTRAK

Karena kinerja Lingkungan, Sosial, dan Tata Kelola (ESG) menjadi indikator utama keberlanjutan perusahaan, peran kekuatan CEO dalam membentuk hasil ESG memerlukan penyelidikan sistematis. Penelitian ini bertujuan untuk mengeksplorasi hubungan antara kekuatan CEO dan kinerja ESG dengan melakukan analisis bibliometrik dan konten literatur yang relevan. Data diambil dari *database* Scopus menggunakan kata kunci yang telah ditentukan sebelumnya, menghasilkan 329 artikel *peer-review* yang diterbitkan antara 2018 dan 2025. Analisis bibliometrik dilakukan dengan menggunakan paket Bibliometrix di R, mengidentifikasi tren publikasi, tema dominan, negara penyumbang utama, dan pola metodologis. Hasil menunjukkan fokus ilmiah yang berkembang pada pengaruh CEO dalam implementasi ESG, terutama di sektor padat energi, dengan “analisis pembungkus data” dan “emisi karbon” muncul sebagai tema sentral. Analisis konten mengungkapkan bahwa kekuatan CEO yang diukur melalui masa jabatan, dualitas, kepemilikan, dan ikatan politik—memberikan efek yang memungkinkan dan membatasi strategi ESG. Meskipun CEO yang kuat dapat mempromosikan inisiatif keberlanjutan jangka panjang, konsentrasi otoritas yang

berlebihan dapat mengurangi transparansi dan kepercayaan pemangku kepentingan. Dampak kekuatan CEO bervariasi di seluruh pilar ESG dan dipengaruhi oleh faktor kontekstual seperti lingkungan peraturan dan struktur tata kelola. Studi ini mengidentifikasi kesenjangan penelitian dalam penilaian kekuatan CEO multidimensi, analisis ESG terpilah, dan perbandingan lintas negara. Temuan ini berkontribusi pada pemahaman teoretis tentang peran kepemimpinan eksekutif dalam keberlanjutan dan menawarkan arah untuk eksplorasi empiris di masa depan.

**Kata kunci:** Kekuatan CEO, Kinerja ESG, Strategi Keberlanjutan

## INTRODUCTION

In the evolving landscape of corporate governance, the integration of Environmental, Social, and Governance (ESG) principles has become increasingly central to organizational strategy. ESG performance is no longer treated as a peripheral concern, but as a critical determinant of long-term value creation, investor trust, and firm legitimacy (Gillan et al., 2021). The global momentum toward sustainability is reflected in the exponential growth of ESG-related Assets under Management (AuM), projected to rise from US\$18.4 trillion in 2021 to US\$33.9 trillion by 2026 (Cika Andy, 2022). Consequently, firms are under pressure to align their strategic decisions with ESG frameworks to remain competitive and socially accountable. In emerging markets like Indonesia, the relevance of ESG has expanded beyond regulatory compliance into a strategic domain. Initiatives such as the SRI-KEHATI Index by the Indonesia Stock Exchange (IDX) have not only incentivized companies to enhance ESG disclosure but also established ESG as a reputational asset. Despite this progress, ESG implementation remains inconsistent, with many companies exhibiting symbolic rather than substantive engagement with sustainability. This variation highlights the need to understand the underlying drivers of effective ESG performance.

Among the growing body of research, organizational characteristics such as firm size, age, and ownership structure have been widely explored in relation to ESG outcomes. However, less attention has been paid to the role of executive leadership particularly CEO power in shaping the direction and effectiveness of ESG strategies. CEO power refers to the degree of control and influences a chief executive holds over corporate decisions, board structures, and strategic orientations (Velte, 2020). A powerful CEO can act as a transformational agent who aligns ESG efforts with corporate vision or conversely, may downplay ESG if it conflicts with short-term profit motives (Li et al., 2018; Zhao et al., 2023).

Various dimensions of CEO power such as tenure, duality of roles (CEO and board chair), equity ownership, and political ties may influence different aspects of ESG performance. For instance, CEOs with longer tenure may possess greater organizational control, enabling them to embed long-term ESG agendas. In contrast, CEOs with dual roles may concentrate decision-making power, which could either accelerate ESG implementation or suppress dissenting views within governance

structures. Similarly, political connections may facilitate stakeholder engagement or expose firms to reputational risks.

While the literature on ESG has expanded rapidly in recent years, research focusing on CEO power as a central variable remains fragmented. Many studies focus on narrow aspects such as the impact of ESG on firm performance without systematically examining how leadership power shapes ESG adoption, disclosure, and outcomes. Furthermore, few studies explicitly compare different dimensions of CEO power across the three pillars of ESG (environmental, social, and governance), limiting the scope for theoretical advancement. Given the growing complexity of stakeholder expectations and governance challenges, a systematic exploration of CEO power in the ESG context is both timely and necessary. This study addresses this gap by examining the scholarly landscape at the intersection of CEO power and ESG performance through a bibliometric and thematic literature review.

The primary objective of this study is to systematically examine the relationship between CEO power and ESG performance by synthesizing existing literature and identifying critical research patterns. Specifically, this research aims to investigate how CEO power influences a firm's ability to implement and sustain effective ESG strategies. In doing so, the study explores the key drivers and challenges highlighted in previous research that shape this relationship, offering a deeper understanding of the conditions under which CEO leadership enhances or impedes ESG outcomes. Furthermore, the study analyzes how various dimensions of CEO power—such as tenure, duality (holding the position of CEO and board chair simultaneously), equity ownership, and political ties relate to each of the three ESG pillars: environmental, social, and governance. Through this exploration, the research also seeks to uncover emerging themes, unresolved contradictions, and gaps in the current body of knowledge, ultimately proposing a forward-looking agenda for future studies in the field. By applying a bibliometric and qualitative content analysis approach, the study aspires to contribute a structured overview of the scholarly discourse while offering theoretical and practical insights on the role of CEO power in shaping corporate sustainability.

## **METHODOLOGY**

In the methodology phase of this research, we strategically integrated two complementary analytical approaches: bibliometric analysis and content analysis. This methodological fusion enabled a multidimensional investigation of the literature surrounding CEO power and ESG performance, combining the quantitative strengths of bibliometric mapping with the qualitative depth of thematic content analysis. Bibliometric analysis, as originally defined by Pritchard (1969), is a quantitative method used to assess bibliographic material based on citation structures, co-authorship networks, and publication patterns. Its objectivity stems from reliance on measurable, indexed data, which ensures replicability and reliability over purely interpretive expert judgment (Zemigala 2019).

To enhance the quantitative aspects offered by bibliometric analysis, we incorporated content analysis as a qualitative technique to capture deeper meanings, emerging patterns, and conceptual nuances within selected publications. Content analysis is particularly well-suited for identifying latent themes and contextual interpretations embedded in textual data (Krippendorff 2018). Through this hybrid design, the study ensures that both observable citation trends and thematic insights are examined in parallel, allowing for a more comprehensive and theory-driven synthesis of the existing knowledge on the relationship between CEO leadership and corporate ESG performance.

The analytical framework is structured around three primary dimensions: (1) citation analysis, to evaluate influential publications and trends; (2) co-authorship analysis, to identify collaboration patterns and intellectual structures; and (3) content analysis, to extract qualitative insights from core articles. The analysis was conducted using the Bibliometrix package in RStudio, with the support of its web-based interface, Biblioshiny, which also facilitated the generation of interpretive visualizations such as thematic maps, co-occurrence networks, and trend evolution diagrams.

The data for this study were exclusively retrieved from the Scopus database, ensuring a high standard of academic indexing and coverage. To ensure comprehensive literature retrieval, we employed a carefully constructed keyword string that captures both terminological variation and thematic relevance. The search string used was: ("CEO power" OR "CEO characteristics" OR "executive power" OR "executive leadership") AND ("ESG score" OR "ESG performance" OR "Environmental Social Governance" OR "sustainability reporting") (Khaw et al., 2024; Ozgen et al., 2024). This search strategy allowed for the inclusion of publications that address the multifaceted relationships between top-level executive influence and sustainability performance. The dataset was filtered for English-language articles and limited to peer-reviewed journal publications to maintain academic rigor.

## **RESULT AND DISCUSSION**

This section will explain the stages of the research using the Systematic Literature Review with reference to the PRISMA Flowchart. There are 4 stages of the review process that must be carried out, including: 1) identification; 2) screening; 3) eligibility; and 4) analysis.

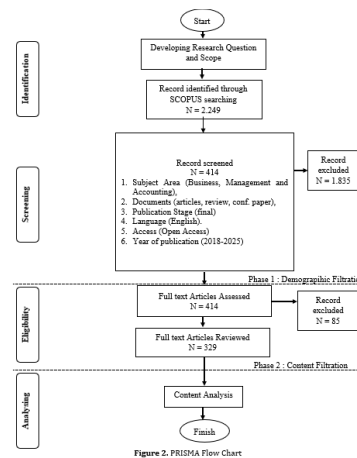


Figure 1. Research Framework

### Identification process

This research focuses on scholarly publications that explore the relationship between CEO power and ESG performance. The first step involved selecting a reliable and comprehensive database for conducting bibliometric analysis. For this review, we chose to use only the Scopus database due to its extensive coverage of peer-reviewed literature in the fields of business, management, and sustainability. Scopus also provides robust metadata, such as citation counts, author affiliations, and keyword co-occurrence, which are essential for bibliometric mapping and trend analysis.

In the second step, we constructed a set of search strings to retrieve relevant literature. The keywords were designed to capture two core concepts: CEO power and ESG performance. Several synonymous terms and variations were incorporated to ensure the search included diverse expressions used across the literature. Specifically, we combined CEO-related terms such as “CEO power”, “executive power”, “CEO characteristics”, and “executive leadership” with ESG-related terms such as “ESG performance”, “ESG score”, “Environmental Social Governance”, and “sustainability reporting”. The final search string used in Scopus was as follows: (“CEO power” OR “executive power” OR “CEO characteristics” OR “executive leadership”) AND (“ESG performance” OR “ESG score” OR “Environmental Social Governance” OR “sustainability reporting”).

This search query generated a total of 2,249 articles from Scopus, encompassing journal articles, reviews, and conference papers published between 2018 and 2025. All records were limited to publications written in English and indexed as peer-reviewed journal articles. These criteria ensured the inclusion of high-quality, relevant, and citable works within the scope of ESG and corporate governance studies.

### Screening Process

All records analyzed in this study were obtained through a comprehensive search using the Scopus database. The initial search resulted in 2,249 articles related to the topic of CEO power and ESG performance. The search string was carefully

constructed to capture publications containing keywords such as “CEO power”, “executive leadership”, “ESG performance”, “ESG score”, and “sustainability reporting”.

The first phase of screening, termed Demographic Filtration, involved the application of six predefined inclusion criteria to ensure relevance and quality. These criteria were: (1) Subject area limited to *Business, Management and Accounting*; (2) Document types including journal articles, review papers, and conference papers; (3) Final publication stage only; (4) English-language publications; (5) Open access availability; and (6) Year of publication between *2018 and 2025*. As a result of this screening process, 1,835 records were excluded, and 414 articles met all inclusion criteria and were assessed for full-text eligibility.

### **Eligibility Process**

Following the initial bibliometric screening, a manual validation phase was conducted to ensure that all selected articles were thematically aligned with the research objectives. This process involved two systematic filtering steps, focused on refining the relevance of the dataset through in-depth review. In the first step, each article was evaluated based on its title, abstract, and keywords. This step aimed to eliminate papers that, despite matching the search string, did not explicitly discuss the relationship between CEO power and ESG performance. From the initial 414 articles obtained after demographic filtration, 329 articles were found to be thematically appropriate and met the inclusion criteria for further analysis.

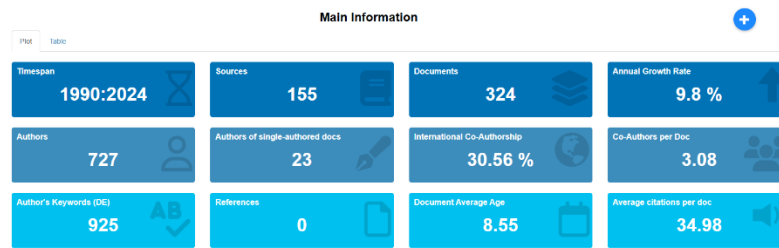
In the second step, a full-text review was conducted to confirm the relevance and academic quality of the remaining publications. Articles that were tangential, conceptually misaligned, or focused on unrelated governance or sustainability issues were excluded from the final synthesis. Only articles that offered substantial insights—either empirical or conceptual—into the dynamics of CEO power and ESG performance were retained.

As a result of this two-tiered filtration process, a final set of 329 primary studies was selected and used as the basis for bibliometric mapping and qualitative content analysis. These articles represent the most relevant and credible literature available on the topic, ensuring the rigor and reliability of this study’s findings.

### **Analyzing**

#### **Main Information**

The data employed can be elucidated by the findings presented in Figure 2.

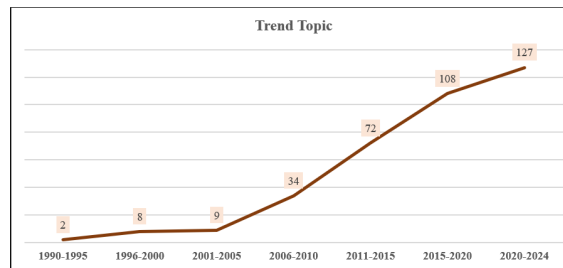


**Figure 2. Main Information Data**

The bibliometric analysis of the study titled "Power at the Top: Mapping CEO Power and Its Influence on ESG Performance – A Bibliometric Review" offers a comprehensive overview of scholarly contributions to the field from 1990 to 2024. Drawing from 155 academic sources, the dataset comprises 324 peer-reviewed documents, reflecting sustained scholarly attention to the intersection of CEO leadership and ESG performance. The annual growth rate of 9.8% indicates a steady increase in academic engagement with this subject area. With a total of 727 contributing authors and only 23 single-authored documents, the collaborative nature of this field is evident, further emphasized by an average of 3.08 co-authors per document. The international co-authorship rate of 30.56% points to a significant degree of global collaboration, reinforcing the transnational relevance of ESG discourse. The dataset includes 925 Author Keywords, revealing the thematic richness and conceptual diversity within this domain. Despite the document set containing no recorded references, the analysis maintains depth through comprehensive keyword and co-authorship evaluations. The average document age of 8.55 years suggests a blend of both foundational works and contemporary contributions, while the average of 34.98 citations per document highlights the scholarly impact and relevance of the literature. Altogether, this bibliometric profile illustrates a dynamic and progressively maturing research field, marked by international cooperation, thematic complexity, and growing influence in both academic and practical realms concerning corporate governance and sustainability.

### **Publication Trend**

Analyzing the trends in publications provides valuable insights into the progression and scholarly engagement within the domain of CEO power and ESG performance over time. As depicted in the chart, the annual production of related academic work shows notable fluctuations between 1990 and 2024.



**Figure 3. Trends of Publication**

The trend analysis of scholarly publications on CEO power and ESG performance reveals a consistent upward trajectory in academic interest over the past three decades. In the earliest period of 1990–1995, the topic saw minimal attention, with only 2 publications, indicating that research on this intersection was still in its infancy. A gradual rise followed in 1996–2000 with 8 documents, and a marginal increase to 9 documents occurred in 2001–2005, reflecting a slow but steady emergence of scholarly engagement. A more pronounced growth phase began in 2006–2010, with 34 publications, marking a shift toward broader recognition of the relevance of leadership and sustainability issues. This trend accelerated significantly in 2011–2015, which saw 72 publications, more than doubling the previous period. The upward momentum continued into 2016–2020, reaching 108 publications, indicating strong academic focus as ESG and corporate governance gained prominence in both research and practice.

The peak of scholarly output occurred in the most recent span, 2020–2024, with a total of 127 publications, making it the most productive period to date. This sustained growth underscores the increasing global urgency to understand how top-level executive power shapes organizational sustainability efforts. The data reflect a maturing field with deepening inquiry, growing complexity, and expanding international collaboration in addressing critical ESG challenges through the lens of executive leadership. The earliest publication in this dataset was conducted by Fischer K and Heumueller R in 1990, focusing on improving reactor safety and inspection cost-effectiveness through the implementation of advanced, automated ultrasonic inspection technologies, specifically the ALOK 3/DEA 5 system., laying the groundwork for subsequent research in this area. Meanwhile, the most recent article, published in 2024, is authored by Hosseinifard et al and discusses This article focuses on optimizing post-combustion carbon capture configurations using Aspen HYSYS to reduce energy consumption and costs, with diglycolamine (DGA) and hybrid system enhancements offering significant economic and environmental benefits, signaling ongoing scholarly interest and contemporary relevance of this research theme.

### **Trend Topics and Co-word analysis of high-frequency keywords**

The sub-chapter on Trend Topics and Co-word Analysis of High-Frequency Keywords reveals insightful patterns and dominant themes within the research landscape on CEO power and ESG performance. The analysis, presented in Table 2

and Table 3, highlights the most prevalent research topics and the most frequently occurring keywords across the examined literature.

**Table 1. Trend Topic**

Topic	Frequency
Data Envelopment Analysis	265
Carbon dioxide	79
Fossil Fuel Power Plants	77
Coal-fired Power Plant	70
Decision Making	61
Efficiency	59

Table 1 presents the frequency distribution of key research topics identified in the bibliometric analysis. Notably, the term “Data Envelopment Analysis” emerges as the most dominant topic, appearing in 265 studies, indicating its central role as a methodological approach in evaluating performance and efficiency—an aspect particularly relevant in ESG assessments. This is followed by “Carbon Dioxide” (79 studies), “Fossil Fuel Power Plants” (77 studies), and “Coal-fired Power Plant” (70 studies), all of which reflect a strong thematic focus on environmental impact and sustainability challenges. Other significant topics include “Decision Making” (61 studies) and “Efficiency” (59 studies), underscoring the scholarly emphasis on strategic leadership and operational performance in the context of ESG.

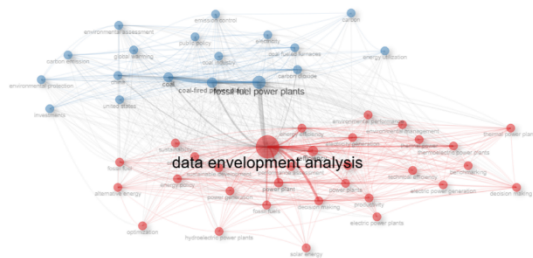
Meanwhile, Table 2 further amplifies these findings by listing the most frequently occurring words within the analyzed literature. As in the topical analysis, “Data Envelopment Analysis” stands out with 265 occurrences, reinforcing its methodological dominance. Environmental keywords remain highly prominent, with “Carbon Dioxide” (79), “Fossil Fuel Power Plants” (77), and “Coal-fired Power Plant” (70) highlighting recurring concerns related to emissions and energy production. Terms such as “Efficiency” (59), “Energy Efficiency” (54), “Coal” (53), and “Power Plant” (48) further illustrate a strong thematic inclination toward energy performance and sustainability metrics. Additionally, the frequent mention of “China” (50) suggests a substantial body of literature focusing on the ESG implications of industrial practices and governance in that specific regional context.

**Table 2. Most Frequent Words**

Words	Occurrences
Data Envelopment Analysis	265
Carbon Dioxide	79
Fossil Fuel Power Plants	77
Coal-fired Power Plant	70
Decision Making	61
Efficiency	59
Energy Efficiency	54

Coal	53
China	50
Power Plant	48

Collectively, this trend and keyword analysis provides a detailed snapshot of the current bibliometric landscape. It identifies not only dominant methodological tools and thematic concerns but also suggests potential directions for future exploration—such as more integrated assessments of CEO influence in carbon-intensive industries or comparative ESG performance studies across nations. These findings serve as a valuable reference point for researchers aiming to address existing gaps and shape the future trajectory of studies at the intersection of leadership, energy, and sustainability. Furthermore, the co-occurrence network mapping of keywords is obtained, as shown in Figure 5.



**Figure 4. The Co – Occurrence Network Mapping**

The Co-occurrence Network Mapping provides a visual and analytical overview of how frequently used terms in the literature on CEO power and ESG-related performance are interlinked, revealing the conceptual structure and intellectual organization of the field. The network is organized into two main clusters, each representing distinct thematic concentrations within the research domain. Cluster 1 is clearly the most dominant, centering around the keyword “data envelopment analysis”, which emerges as the primary node with the highest betweenness centrality (250.426), closeness (0.021), and PageRank (0.109). These metrics indicate that this term functions as the most critical hub in the network—serving as a bridge between other topics and acting as a methodological cornerstone in studies evaluating ESG and operational efficiency. Other significant terms within this cluster include “efficiency”, “decision making”, “energy efficiency”, “power plant”, and “performance assessment”, all of which underscore the strong emphasis on energy performance evaluation, optimization, and managerial decision-making in the literature. The presence of terms like “sustainable development”, “environmental management”, and “sustainability” further highlights the integration of environmental dimensions in performance studies—particularly within fossil-fuel-intensive sectors.

Cluster 2 is centered around environmental and policy-related concerns, with key nodes including “fossil fuel power plants” (betweenness: 43.553), “coal-fired power plant” (19.444), “carbon dioxide” (14.446), and “coal” (16.109). These terms show strong interconnectedness and moderate centrality and PageRank values, suggesting a tightly knit subfield that focuses on the environmental impact of energy production, carbon emissions, and regulatory frameworks. Keywords such as “china”, “united states”, and “public policy” also appear within this cluster, indicating a geopolitical dimension to the research, where national contexts play a role in shaping discourse on carbon emissions, fossil fuel dependency, and ESG accountability. The co-word analysis demonstrates that “data envelopment analysis” serves not only as a frequent methodological tool but also as the conceptual bridge across various topics in ESG performance evaluation. Meanwhile, environmental impact and emissions control form another strong thematic pillar within the research. The relatively high betweenness and PageRank of terms like “fossil fuel power plants” and “coal-fired power plant” suggest their pivotal role in linking operational performance with environmental consequences, particularly in the energy sector.

This interconnected network of terms provides a structured understanding of how scholars approach the intersection of executive leadership, energy efficiency, and sustainability. It reveals both the methodological dominance of efficiency measurement tools and the emerging environmental concerns tied to fossil energy production—guiding future research toward deeper integration of corporate governance, sustainability metrics, and policy-driven outcomes.

### **Countries Production Analysis**

The Countries Production Analysis sheds light on the global distribution of scholarly output in the domain of CEO power and ESG performance. This analysis identifies the nations contributing most significantly to the development of this research area, highlighting regional leadership in academic engagement. Table 4 presents a detailed overview of the number of articles published by the top contributing countries, while Figure 5 visually illustrates these contributions for clearer comparative insight.

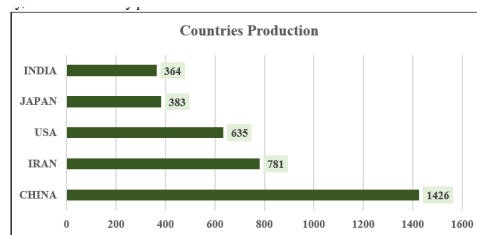
**Table 3. Countries Production**

Country	Articles
China	1426
Iran	781
United States	635
Japan	383
India	364

As shown in Table 3, China emerges as the dominant contributor with a total of 1,426 publications, reflecting its strong academic investment and growing influence in ESG-related research, particularly in the context of energy and

environmental governance. Iran follows with 781 articles, indicating an active scholarly community focusing on sustainability and performance assessment methodologies. The United States holds the third position with 635 publications, underscoring its long-standing presence and continued engagement in global ESG discourse. Japan and India contribute 383 and 364 articles, respectively, signifying their substantial roles in advancing research on energy systems, governance, and sustainability practices within their regional and industrial contexts.

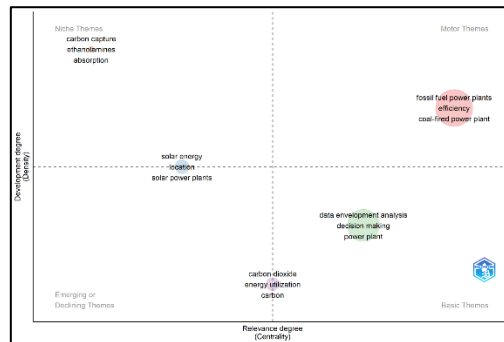
The distribution of publications across these leading countries reveals the international scope and diversity of the research landscape. These variations may reflect differing levels of research funding, policy focus on ESG-related issues, availability of academic infrastructure, and national energy or industrial priorities. Notably, the high output from countries like China and Iran suggests an increasing emphasis on operational efficiency and environmental accountability in regions with significant energy production and consumption profiles. The accompanying Figure 6 provides a visual representation of this data, clearly displaying the disparities in publication output and highlighting the prominence of each country in driving scholarly discourse. This geographic analysis enriches the understanding of how global academic communities contribute to the evolution of research at the intersection of leadership, energy efficiency, and sustainability performance.



**Figure 4. Countries Production**

### **Thematic maps analysis**

The Thematic Map Analysis, as illustrated in Figure 7, provides a structured visualization of the conceptual landscape and thematic organization within the research domain of CEO power, ESG performance, and energy sustainability. By leveraging two key bibliometric indicators—Callon Centrality (which indicates a theme's degree of interaction with other themes) and Callon Density (which reflects the internal development of a theme) the map categorizes research clusters into four quadrants: Motor Themes, Niche Themes, Basic Themes, and Emerging or Declining Themes.



**Figure 6. Thematic Maps**

In the Motor Themes quadrant characterized by high centrality and high density—the cluster “fossil fuel power plants” (Callon Centrality: 25.983; Density: 50.679; Frequency: 1394) stands out prominently. This theme not only reflects a well-developed internal structure but also plays a critical bridging role within the broader research network. Its strong interconnection with other clusters indicates its central position in linking ESG issues with industrial operations and environmental policy, making it a driving force in the current scholarly conversation.

In the Niche Themes quadrant—high density but low centrality—the theme “carbon capture” (Centrality: 3.191; Density: 56.941) dominates. Although not broadly connected across the research network, this cluster is internally coherent and specialized, reflecting a deep and concentrated area of study. The high density suggests a mature, self-contained subfield likely to continue developing independently within specific research communities focused on environmental technologies and climate mitigation. Positioned in the Emerging or Declining Themes quadrant—low centrality and low density—is the theme “carbon dioxide” (Centrality: 7.03; Density: 27.285). While it appears frequently in the literature (Frequency: 157), its relatively weaker connectivity and thematic development may suggest that this theme is either in the early stages of scholarly exploration or possibly losing prominence as attention shifts to more integrated or advanced environmental topics, such as carbon capture or net-zero strategies. In the Basic Themes quadrant—high centrality but low density—the theme “data envelopment analysis” (Centrality: 17.795; Density: 41.714; Frequency: 883) emerges as foundational. Its strong centrality underscores its methodological relevance across various clusters, particularly in performance measurement and efficiency analysis within ESG frameworks. However, the moderate density suggests that while widely utilized, this theme may benefit from deeper theoretical development or integration with more specific sustainability indicators. Lastly, “solar energy” (Centrality: 4.054; Density: 43.84) occupies a transitional position between the Niche and Motor quadrants. Its relatively high density implies a strong internal research structure, while its modest centrality suggests that its broader connectivity within the ESG and leadership discourse is still developing. As solar technologies gain traction in sustainability

research and corporate strategy, this theme may transition toward becoming a Motor Theme in the near future.

Overall, the thematic map offers a comprehensive depiction of the conceptual dynamics within the field. It not only reveals the prominence and maturity of specific themes but also highlights underexplored or emerging areas. This categorization provides valuable guidance for scholars aiming to identify influential topics, bridge interdisciplinary gaps, or focus on niche innovations in the ongoing evolution of ESG and executive leadership research.

## **The Findings**

### **The Influence of CEO Power on ESG Strategy Implementation**

CEO power plays a decisive role in the formulation, adoption, and sustainability of corporate ESG (Environmental, Social, and Governance) strategies. The concentration of decision-making authority in a CEO—measured through tenure, duality, ownership, or political ties—can significantly influence how ESG principles are embedded into corporate structures. A powerful CEO often possesses the autonomy and strategic control to champion sustainability agendas, allocate resources, and manage stakeholder pressures. However, this power can be a double-edged sword. For example, (Pan et al., 2024) in *Energy Economics* found that firms with concentrated leadership showed better alignment between top-level decision-making and environmental performance metrics, indicating that CEO authority can enhance environmental governance when coupled with performance incentives. Similarly, Du et al (2021) highlighted that CEO influence plays a critical role in navigating regulatory constraints and integrating ESG targets into operational models, particularly in heavily polluting industries like fossil-based energy production.

In the environmental dimension, CEO power determines the firm's strategic orientation toward sustainability. CEOs with long tenures or political ties may have the confidence and connections to make bold environmental commitments, such as decarbonization or clean energy transitions. According to Sengupta & Mukherjee (2022), research on electricity production emphasized that the leadership's control over technological investment decisions directly impacted the firm's ability to minimize environmental damages while maintaining productivity. Moreover, Gouveia et al (2023) demonstrated that strong executive leadership was associated with improved eco-efficiency in energy-intensive sectors, particularly when executives were motivated by long-term firm performance and reputational capital. These findings confirm that CEO power, when exercised responsibly, can become a catalyst for environmental innovation and operational sustainability.

Regarding social and governance aspects, CEO power exerts equally potent but more complex effects. On one hand, CEOs with equity ownership or dual roles may prioritize long-term social investments such as employee welfare, diversity initiatives, and stakeholder engagement. For instance, Memari et al (2023) found that sustainability assessment in renewable energy systems was significantly influenced

by executive-level decision-making, especially when supported by robust data infrastructures. On the other hand, excessive concentration of power, particularly through CEO duality, may undermine board independence and governance transparency—issues raised implicitly in Pouralizadeh (2021), who analyzed leadership involvement in strategic sustainability transitions. Hence, while CEO power can align firm-level governance with ESG objectives, unchecked authority can also inhibit internal accountability. This underscores the importance of contextual factors—such as institutional checks, board structure, and regulatory frameworks—that shape whether CEO power becomes an enabler or a barrier to ESG excellence.

### **The Impact of CEO Power Dimensions on ESG Pillars**

CEO power dimensions such as tenure, duality, ownership, and political ties have emerged as influential determinants of ESG strategy formulation and implementation. Long CEO tenure is commonly associated with enhanced strategic continuity, allowing for the institutionalization of sustainable practices. According to Agyapong et al (2023), prolonged executive leadership within the Chinese heavy industry sector contributed positively to environmental performance due to deeper understanding of operational impacts and more cohesive planning cycles (Agyapong et al., 2023). The stability granted by long tenure can facilitate long-term investments in ESG programs, though it can also hinder adaptability if the leader resists transformative ESG reforms.

CEO duality—a structure where the CEO also serves as the board chair—creates a power concentration that influences corporate governance practices. While it can streamline ESG decision-making, it may also compromise board independence. Bulak (2024) observed that dual-role executives in firms operating in emerging markets displayed faster implementation of governance frameworks aligned with ESG ratings, albeit often at the expense of stakeholder inclusivity (Bulak, 2024). This suggests that duality can be beneficial in urgent or high-pressure ESG transitions, but should be accompanied by external monitoring to preserve governance integrity and accountability.

CEO ownership—especially when CEOs hold a significant share of the firm—shapes ESG priorities by aligning managerial incentives with long-term firm value. In a comparative study by Habibi et al (2024), it was found that firms with high CEO equity concentration were more likely to disclose environmental metrics and adopt sustainability certifications as part of reputation-building strategies (Habibi et al., 2024). This ownership alignment can foster environmental stewardship and stronger social engagement, especially when market-based incentives reward transparency. However, excessive ownership concentration can also lead to self-serving decisions if ESG outcomes conflict with short-term profit motives.

Lastly, CEO political ties act as a double-edged sword in shaping ESG outcomes. Political connections can facilitate ESG resource access, especially in regulated industries, yet may also result in symbolic compliance rather than substantive change. Hsu et al (2024) demonstrated that politically connected CEOs

were more likely to participate in sustainability reporting and green investment when aligned with state policy goals (Hsu et al., 2024). However, the same study warned of “window-dressing” behaviors, where ESG disclosures were used more for political signaling than stakeholder engagement. Thus, while political ties can empower ESG momentum, they must be evaluated in the context of transparency and stakeholder scrutiny.

### **Emerging Themes and Patterns in Literature**

Recent literature reveals a growing emphasis on the interdisciplinary convergence between corporate leadership and sustainability, particularly in how CEO power intersects with ESG strategies. A notable theme is the evolution from compliance-driven ESG to a strategic value-creation approach, where CEO influence is not just a governance variable, but a key driver of innovation, legitimacy, and stakeholder alignment. For example, Khural et al (2024) observed that firms with proactive CEOs in China’s construction sector began integrating ESG as a strategic component of competitiveness rather than as a risk mitigation tool (Khural et al., 2024). This shift underscores a deeper pattern where executive leadership is no longer evaluated solely on financial metrics, but also on how sustainability is embedded in organizational culture and long-term growth plans.

Another emergent pattern is the heterogeneity of CEO power effects across contexts and industries. Studies increasingly highlight that the relationship between CEO authority and ESG outcomes is moderated by external institutional pressures (e.g., regulatory intensity, investor activism) and internal firm characteristics (e.g., board structure, firm size). According to Antara et al (2024), ESG disclosure effectiveness varied significantly depending on whether CEO power was exercised within transparent governance frameworks, suggesting that power itself is not deterministic—its impact depends on the institutional and cultural setting (Antara et al., 2024). As such, a recurring theme is the need for contextualized analysis—rather than assuming a universally positive or negative role of CEO power, scholars are increasingly dissecting “when” and “how” CEO influence supports or undermines ESG objectives.

### **Contradictions and Inconsistencies in Prior Research**

Despite the growing volume of literature linking CEO power to ESG performance, findings across studies remain highly inconsistent and context-dependent. Some scholars argue that strong CEO influence—especially in the form of long tenure or concentrated ownership—enables firms to adopt coherent, long-term ESG strategies by reducing internal conflict and enhancing strategic alignment. However, others contend that the same concentration of power often leads to weakened accountability, governance failures, or even ESG “greenwashing”, particularly when there is insufficient board oversight. This divergence suggests that CEO power may not have a linear effect; instead, its impact varies according to internal governance mechanisms and external pressure from regulators, media, or stakeholders.

Further inconsistency arises in the evaluation of CEO duality and political ties. While some studies emphasize the efficiency and decisiveness that come with power centralization, others highlight the risks of unchecked authority, such as opportunistic behavior or misalignment with stakeholder interests. Moreover, ESG outcomes themselves are multidimensional—improvement in one pillar (e.g., environmental practices) may coincide with stagnation or decline in others (e.g., social or governance performance), complicating the interpretation of CEO influence. These contradictions indicate the need for more nuanced, multi-theoretical frameworks and comparative, cross-country studies that consider variations in legal systems, institutional environments, and cultural norms that mediate the CEO power–ESG nexus.

### **Research Gaps and Future Research Directions**

While the existing literature has made significant strides in exploring the relationship between CEO power and ESG performance, several important research gaps remain unaddressed. First, many studies adopt a one-dimensional perspective on CEO power—focusing primarily on tenure or duality—while overlooking the interplay between multiple power dimensions (e.g., combining political ties and ownership, or tenure and duality). This reductionist approach may limit the understanding of how compound CEO power structures shape ESG decisions in complex organizational settings. Moreover, there is limited empirical exploration of how CEO power influences each ESG pillar differently; most studies consider ESG as a composite index, rather than disaggregating the unique mechanisms through which CEO leadership affects environmental, social, and governance outcomes individually.

Second, contextual factors are often underexplored, particularly in cross-national studies. Much of the current literature is concentrated in emerging markets or single-country studies, raising concerns about generalizability across diverse legal, institutional, and cultural environments. Future research should adopt comparative international frameworks to understand how the CEO power–ESG relationship varies in stakeholder-oriented versus shareholder-oriented economies. Furthermore, existing methodologies remain dominated by quantitative regression-based analyses, leaving room for qualitative, longitudinal, or mixed-methods approaches that can uncover causal mechanisms, strategic intentions, and leadership mindsets behind ESG initiatives. Scholars are also encouraged to explore under-researched sectors (e.g., small and medium enterprises, technology startups) and examine how ESG priorities shift under different CEO leadership transitions, particularly in times of crisis or regulatory change.

### **CONCLUSION**

This study highlights the multifaceted influence of CEO power on the implementation and effectiveness of ESG strategies, revealing that dimensions such as tenure, duality, ownership, and political ties can either catalyze or constrain sustainability outcomes. While strong CEO leadership often enables strategic

alignment, long-term vision, and decisive ESG adoption—particularly in high-impact sectors like energy—excessive concentration of power may undermine accountability and promote symbolic compliance rather than substantive change. The effects of CEO power vary significantly across ESG pillars and are deeply influenced by contextual factors such as regulatory environments, governance structures, and stakeholder pressures. Recent literature reflects an evolving understanding of CEO influence, shifting from compliance-driven ESG to a strategic leadership lens that views sustainability as a driver of innovation and legitimacy. However, inconsistencies in empirical findings, especially concerning CEO duality and political connections, highlight the need for more nuanced, multi-theoretical approaches. Future research should explore the interaction of multiple CEO power dimensions, disaggregate ESG components, and adopt cross-national and longitudinal designs to better understand how CEO power operates under diverse institutional and cultural settings.

### LIMITATIONS

Despite offering comprehensive insights into the role of CEO power in ESG strategy implementation, this study faces several limitations. First, while the analysis explores multiple dimensions of CEO power, it remains largely descriptive and does not empirically assess how these dimensions interact or evolve over time. Second, the aggregated treatment of ESG performance may obscure important differences in how CEO power influences each ESG pillar—environmental, social, and governance—individually. Third, most of the reviewed studies are context-specific, focusing on single countries or sectors, thereby limiting the generalizability of findings across diverse institutional environments. Fourth, the dominance of quantitative approaches in existing literature may overlook deeper behavioral, psychological, and cultural dynamics of executive leadership that qualitative or mixed-method studies could better uncover. Lastly, the bibliometric method, while useful in mapping scholarly trends, is constrained by its dependence on existing indexed literature and cannot fully capture emerging or practice-based insights that may be shaping ESG implementation in real time.

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