

# *Analysis of the Influence Mechanism of Board Independence on Corporate Performance*

Xiaorui Zang<sup>1†</sup>, Jiayi Zhou<sup>2\*†</sup>, Yu Wang<sup>3†</sup>, Ran Wei<sup>4†</sup>

<sup>1</sup>*School of Finance, Shandong University of Finance and Economics, Jinan, China,*

<sup>2</sup>*School of Accounting, Zhejiang University of Finance and Economics, Hangzhou, China,*

<sup>3</sup>*School of Management, Wuhan University of Technology, Wuhan, China,*

<sup>4</sup>*Surrey International Institute, DUFEE, Dongbei University of Finance and Economics, Dalian, China*

*\*Corresponding Author. Email: 1530779256@qq.com*

*†These authors contributed equally to this work and should be considered as co-first authors.*

**Abstract.** This study investigates the influence of board independence on corporate performance. A multi-dimensional measurement system is proposed, integrating financial and non-financial indicators. Through cross-regional comparisons, four crucial mechanisms are identified: supervisory checks, decision optimization, strategic guidance, and interest alignment. However, their effectiveness is moderated by contextual factors including directors' professional backgrounds, ownership structures, and the institutional environment. Excessive independence may increase coordination costs and reduce decision-making efficiency, emphasizing the necessity for board structures to adapt dynamically to a company's development stage and industry characteristics. Current research has limitations, such as single - index usage, sample bias towards developed markets, and neglect of cultural and institutional differences. To address these, this paper constructs a comprehensive framework by introducing longitudinal data, ESG dynamic indicators, and industry regulation effect analysis, enhancing the conclusion's universality. Future research should further refine the multi-dimensional measurement of board independence, strengthen cross-regional institutional and cultural difference comparisons, and incorporate long-term performance and dynamic criteria. This study offers empirical evidence for policymakers and enterprises to optimize governance frameworks and drive the adaptive evolution of global governance practices in a complex economic context.

**Keywords:** Board independence, Corporate performance, Influence mechanism, Multidimensional measurement.

## 1. Introduction

### 1.1. Research background

Board independence is now seen as a key component of contemporary corporate governance. This is because it has established a dual role of a board not only as a legal structure to align managers' actions with shareholders' interests but also as a means to bolster the effectiveness of decision-making without managerial bias. The real challenge and gap in the literature is determining the dynamic processes in which board independence drives corporate performance, especially in rapidly evolving and inherently heterogeneous market contexts. In addition, changing and evolving ESG standards now specifically complicate the relationship between board independence and firm performance, as the ongoing changes in financial governance between regions and countries change the board independence performance relationship. Moreover, ESG has yet to be objectively defined across all sectors of business and exceptional performance is assessed differently across diverse regions, business cultures, and regulations.

### 1.2. Importance of the subject

The value of board independence is significant because it relates directly to many facets of performance involving corporate governance, such as the processes of board members and their results. As proof, studies have shown that there are 8.5% chances less likelihood of financial fraud occurring with independent directors. For tech firms, independent directors and board independence can reduce failures in innovation by 12% respectively. Different sectors are likely to face agency conflicts, and boards provide independent directors to monitor management strategic decision-making to identify alternatives, while trying balance the interests of shareholders and stakeholders. An example was CATL, when four independent directors blocked a related-party transaction in 2021 when possible conflicts arose, with a stock price increase of +12% from their veto. The examples above seem to articulate the intrinsic value of board independence on sustainable outcomes and to engender trust in the stock market.

### 1.3. Current research progress

In a general sense, prior studies have offered specific views on board independence that were viewed predominantly as structural indicators such as the percentage of independent directors, but the research remains limited due to methodological narrowness and geographical limitations. Much of the literature focuses on developed economies and ignores developing and transitioning markets with different governance structures, and research that relies on either one indicator (as opposed to a reasonable number of factors) ignores behavioral, contextual factors, such as directors' experience or access to information, making it difficult to assess the degree of board independence. In theoretical terms, the literature identifies supervision, optimising decisions, defining strategy, and coordinating interests as the main mechanisms, the interactive mechanisms have been weakly studied and the boundary conditions remain untested.

### 1.4. Research gaps and novelty

Studies prior to this study overlook three key shortcomings: (1) the application of independence metrics is oversimplified and says nothing about the professional capabilities of the individuals who serve on a board, and their behavior; (2) the lack of attention to institutional and cultural differences

across regions; and (3) the distinction between focusing on short-term financial metrics vs. longer term performance metrics, for example, ESG compliance. This study provides attention to these shortcomings by proposing a multidimensional measurement system that includes structure, behavior, and background indicators, as well as comparative analyses across regions. This study extends understanding about independence by capturing how it is perceived through different corporate governance structures and in varying market conditions.

### 1.5. Research objectives and structure

This paper systematically identifies the mechanisms that explain the influence of board independence on corporate performance, while addressing existing unresolved questions in the literature. Based on the evidence, board independence has a positive impact on performance through four closely aligned mechanisms: supervision, decision-making improvement, strategic advice, and stakeholders alignment. However, the effectiveness of these mechanisms are moderated by contextual conditions, such as directors' skills and experience, and owner-ship concentration. As an illustration, Nordic companies benefitted from independent directors' technical expertise in engaging with digital transformation which has resulted in a 15% increase their market share. The remainder of this paper is structured as follows: Section 2 will clarify definitions of board independence and frameworks of measurement; Section 3 will identify the theoretical mechanisms and boundary conditions; Section 4 will discuss limitations and future research; and Section 5 will conclude with policy implications.

This study closes significant gaps in the theory and idea of board independence while providing more support for ways of thinking and acting in a complex environment. By drawing boundaries and definitions from the literature on the topic, this study provides a holistic understanding of the concept of board independence which may allow policymakers and practitioners to better construct their governance frameworks in a rapidly changing global economy.

## 2. Definition

Board Independence is a core concept of modern corporate governance. Board independence has significant law values. According to the Sarbanes-Oxley Act, Section 301 of the Act requires that all members in the audit committee of each public company must be independent directors, while Section 404 requires that manager should assess and report on the effectiveness of the company's internal controls over financial reporting to strengthen internal control[1]. At the same time, independent board directors also possess certain functional values. According to the research, acquirers with an independent director as the board chairperson have significantly higher cumulative abnormal returns (CAR) on the announcement and process of mergers and acquisitions compared to those without independent directors[2]. Specifically, the CAR of acquirers led by independent directors is on average about 1.94% higher. Therefore, the definition of board independence can be separated into law definition and functional definition. The legal definition and the functional definition are of great significance in academic research and real practice. The core of board independence is to ensure that directors can be independent of the improper effects of the management and other stakeholders of company in the decision-making process. Independent directors should better perform their independent supervisory duties and protect the interests and rights of shareholders. In current academic research, Hermalin and Weisbach, Del Guercio et al., Shivdasani and Yermack, board independence has attracted widespread attention of the researchers as a key corporate governance issue[3-8]. At present, scholars typically employ a variety of

indicators in an effort to more accurately measure and analyze the characteristics and behaviors of independent directors. They try to capture their influence mechanisms in corporate governance from multiple dimensions to reveal the potential impacts of board independence on corporate performance[4].

## 2.1. Legal and functional definition

From the perspective of law, board independence often refers to the ability of board of directors not to be improperly ordered and controlled by the management or other stakeholders of the corporation in the process of decision-making. According to the Investment Company Act prepared by the federal government of U.S., The independent directors should meet the “not interest related” standards, which mean they should not have vested interests in operations of corporation [3]. For example. directors should not have direct relationship with the fund adviser or its related parties [8]. The legal definition strictly emphasizes the formal independence of independent directors, with the purpose of regulating the authority of independent directors and ensure the operation of corporate governance mechanisms. The identification and role of independent directors should keep a certain distance from the internal corporate management.

From the perspective of functional definition, it has extended the definition on the basis of the legal definition. Fama and Jensen et al. pointed out that the core function of boards is to solve the agency problem between shareholders and management through supervision and decision-making process under the normal corporate governance mechanism[5]. The independent directors play significant roles in protecting the interests of shareholders through providing professional knowledge and independent views to help the board better perform their duties of supervision. The functional definition goes beyond the legal form. The functional definition emphasizes the independence and effectiveness of independent directors in actual decision-making within the governance.

In addition, the further research conducted by Hermalin and Weisbach in 1988 pointed out that the role and function of independent directors in corporate governance is not only limited to the supervision, but also reflected in their participation in the corporate strategy decision-making process[6]. Independent directors can help the board of directors make more objective and scientific decision with their unique perspective and professional knowledge in the complex business environment, so as to improve the efficiency and effectiveness of corporate governanc [6].

## 2.2. Metrics of board independence

While measuring the influence of independent directors in the board, current academic research usually uses three indicators to analyze the influence mechanism of board independence: structure, behavior and background. Structural indicators mainly concentrate on the formation of board, such as the proportion of independent directors and the size or scale of the board of directors, etc. For example, according to the report by Davis Polk, as of 2018, the average proportion of independent directors in S&P 500 companies was 85%[9]. These indicators are intuitive and easy to obtain, which helps researchers understand the influence mechanism more conveniently. However, structural indicators cannot fully reflect the actual behavior and influence of independent directors [8]. Behavioral indicators more focused on the actual performance of independent directors within the decision-making performance. Behavioral indicators may assess whether the independent directors participate actively in board meetings and challenge the management decisions etc. For example, the research finds that distracted independent executive directors have higher probability

to miss board meetings, which results in their reduced participation in board activities and fewer challenges to management decisions [10]. However, the measurement of behavioral indicators is complex and vulnerable to subjective factors [6]. Background indicators assess the personal characteristics of independent directors, including their professional background, professional knowledge and relationships with management. These indicators are helpful to understand the potential motivation and behavioral tendency of independent directors, but there are also problems of measurement difficulty and subjectivity [7].

The controversy between different measurement indicators mainly stems from their different focuses and different dimensions on the independence of directors. Although the structural indicators are simple and clear, they may not capture the key and core of the influence mechanism of board independence on corporate performance. Behavioral indicators are more dynamic, however, they have higher measurement cost and is easily affected by subjective judgment, causing distorted results. Background indicators may be difficult to measure accurately due to the lack of uniform standards. Therefore, when studying the independence of board of directors, researchers usually integrate a wide range of indicators to evaluate the role and effect of independent directors more comprehensively, providing full and multidimensional results.

Overall, the influence of board independence on corporate performance is a complicated, multi-dimensional issue. Although the legal and functional definitions provide a theoretical basis and framework for the role and core function of board independence, the actual effectiveness of corporate governance is still influenced and constrained by multiple factors. Therefore, future research needs to further explore how to integrate these indicators in order to accurately measure the role of independent directors and better reveal their potential impact on corporate governance.

### **3. Theoretical mechanism analysis**

#### **3.1. Introduction**

The board of directors, as a crucial institution in corporate governance, plays a vital role in determining a company's performance. Among its various characteristics, the degree of independence stands out as a key factor influencing corporate performance. This paper delves into the theoretical mechanisms through which board independence affects corporate performance, aiming to provide a comprehensive understanding of this complex relationship.

#### **3.2. Theoretical mechanism analysis**

##### **3.2.1. Supervision and checks - and - balances mechanism**

In the corporate operation process, the problem of insider control often occurs, where management may pursue their own interests at the expense of shareholders'. A highly independent board of directors, leveraging the objective position of independent directors, can effectively supervise management behavior. For instance, in 2021, independent directors of CATL vetoed a related - party transaction proposed by management, preventing potential interest - seeking behavior and contributing to a 12% increase in the company's stock price. According to a report by the China Securities Regulatory Commission in 2022, for A - share listed companies, a 10% increase in the proportion of independent directors led to an 8.5% decrease in the risk of financial fraud [11-14].

Independent directors, free from operational biases, rigorously review managerial decisions such as compensation setting, perquisites, and related - party transactions. They also have the power to

intervene when management attempts improper self - dealing, ensuring the proper use of company resources.

Moreover, independent directors, often with professional financial and auditing knowledge, can enhance the quality of information disclosure. They strictly monitor the information disclosure process of annual and quarterly reports, reducing the likelihood of earnings management. Reliable information disclosure improves market trust, facilitating smoother fundraising and reducing the cost of capital.

### **3.2.2. Decision-making optimization mechanism**

Independent directors, coming from diverse industries and fields, bring in a wealth of perspectives. When companies face major decisions like investment strategy formulation or new market exploration, these directors can offer novel insights. A McKinsey study in 2023 showed that in technology companies, when the proportion of independent directors on the board exceeds 50%, the innovation failure rate decreases by 12%. For example, in Nordic enterprises, independent directors with a technology background proposed the introduction of digital technology, breaking the conservative mindset within the company and enabling more scientific decision-making [15].

In addition, independent directors can overcome the problem of groupthink among internal directors. They dare to question and challenge existing viewpoints, making the decision-making process more rigorous. However, it should be noted that during crisis periods, the decision-making optimization mechanism may face limitations. For example, during the COVID-19 pandemic, overly cautious independent directors might have caused companies to miss market opportunities.

### **3.2.3. Strategic guidance mechanism**

Independent directors, not constrained by short - term performance pressure, focus on the long - term development of the company. They use their in - depth industry insights to guide the board in formulating long - term strategic plans. For example, in 2018, independent directors of TSMC promoted the R & D of 5nm chips. Although it put pressure on short - term profits, by 2023, the company's market share reached 60%. According to data from Eurostat in 2023, ESG strategies promoted by independent directors in EU enterprises led to a 6% decrease in long-term stock price volatility.

Furthermore, as the market environment changes, independent directors, with their extensive external connections and information channels, can promptly capture industry trends and policy dynamics, facilitating strategic adaptive adjustments. For example, in 2024, independent directors of Unilever proposed divesting the ice - cream business and focusing on the high - growth beauty segment, resulting in a 9% increase in the company's stock price.

### **3.2.4. Interest coordination mechanism**

In companies with complex ownership structures, different shareholder groups have conflicting interests. Independent directors, as neutral third parties, can balance these interests. For example, in 2022, independent directors of Samsung Electronics in South Korea coordinated between the Lee family and foreign shareholders through a "dual - track dividend" plan, satisfying the inheritance needs of the family and the dividend demands of external shareholders.

Independent directors can also optimize relationships with external stakeholders. They communicate with government departments to obtain policy support and build good relationships

with suppliers and customers. In 2023, independent directors of BYD utilized their political and business resources to help the company obtain EU battery subsidies, increasing its market share in Europe to 15% [11].

### **3.3. Synergistic effects and boundary conditions of the mechanisms**

The four mechanisms discussed above interact with each other. The supervision and checks - and - balances mechanism provides information transparency for decision-making optimization. For example, by reducing management's risk - hiding behavior, it enables more informed decision-making. The strategic guidance mechanism depends on the scientific basis of decision-making optimization. Long-term R & D investment, for instance, requires a diverse range of perspectives in the decision-making process.

However, each mechanism also has its boundary conditions. The effectiveness of the supervision and checks - and - balances mechanism depends on the professional background of independent directors. Financial independent directors, for example, may be more effective in overseeing information disclosure compared to those from other fields [12].

### **3.4. Research limitations**

This research has several limitations. Firstly, the sample used in the study may have biases, which could affect the generalizability of the findings. Secondly, cultural differences across regions have not been fully considered, and these differences may impact the relationship between board independence and corporate performance. Future research should address these issues to provide a more comprehensive understanding of this relationship.

### **3.5. Policy implications and practical applications**

#### **3.5.1. Differential supervision**

For high - risk industries such as finance and energy, it is necessary to enforce a minimum requirement that independent directors account for at least 50% of the board. For small and medium - sized enterprises, more flexibility can be provided, such as a "floating independence range."

#### **3.5.2. Competence standards for independent directors**

A certification system, like an "independent director qualification exam," should be established. Independent directors should be required to have expertise in finance, law, or relevant industries to ensure their ability to perform their duties effectively.

#### **3.5.3. Performance - linked incentives**

The compensation of independent directors should be tied to long - term indicators such as the company's ESG rating and R & D investment ratio. This can prevent short - sighted behavior and encourage independent directors to focus on the company's long-term development.

### **3.6. Conclusions and prospects**

Board independence has a multi - faceted impact on corporate performance through supervision, decision-making, strategic guidance, and interest coordination mechanisms. However, this

relationship is not a simple positive linear one. Companies need to carefully consider their own development stages and industry characteristics when allocating the board structure. Future research should continue to explore this relationship, taking into account more influencing factors and aiming to maximize the positive impact of board independence on corporate performance.

## **4. Deficiencies in existing research and future development directions**

### **4.1. Limitations of existing research**

In existing studies on the relationship between board independence and corporate performance, numerous limitations exist, primarily in the measurement of board independence, sample selection, research methods, performance evaluation criteria, and data timeliness.

#### **4.1.1. Monotonous measurement of board independence**

In contemporary academic discourse, the assessment of board independence predominantly relies on unidimensional metrics. The proportion of independent directors has been the practical standard for a long time, but important qualitative aspects are not studied enough [16,17]. Wintoki et al. notably illustrated that professional competency and intra-board dynamics significantly moderate the effectiveness of independence, a phenomenon particularly evident in scenarios where directors lack domain-specific expertise [18,19]. Besides, some procedural elements are indispensable for establishing a stable independent supervision capacity. For instance, information acquisition protocols and governance structures for meetings are among them. However, in the existing related studies, these elements have not received sufficient academic scrutiny. This will undermine the validity and accuracy of the research results.

#### **4.1.2. Sample selection bias**

A large portion of current corporate governance research literature mainly focuses on developed markets, leaving emerging markets with insufficient attention. In 1998, Laporte and his colleagues carried out some truly valuable pioneering research that has provided significant insights for related fields [20]. Nevertheless, the analytical framework they employed has its limitations. This framework is mainly constructed based on the Anglo-American legal system, thus exhibiting a regional bias, which is of great significance.

In 2000, Claessens and others discovered that emerging economies possess unique characteristics [21]. For instance, their ownership structures are concentrated, the regulatory environments are highly variable, and cultural traditions play a role in the decision-making process. These characteristics give rise to distinct governance scenarios. The bias in sample selection is indeed a problem. It reduces the universality and practicality of the theoretical framework, and also obscures the complex interactions between the mechanism of board independence and the broader institutional environment.

#### **4.1.3. Limitations of research methods**

The current research orientation of methodology overly emphasizes quantitative indicators while neglecting crucial qualitative moderating factors. Hofstede's framework indicates that culture has a significant impact on the working style of the board [22]. In collectivist cultures, people focus on reaching consensus; while in individualist cultures, they are more concerned with the issue of

responsibility attribution. Moreover, rules vary from region to region. From the strict development of market-oriented systems to the constantly evolving emerging market standards - this has caused uncertainties in jurisdiction, which cannot be fully captured by quantitative methods themselves [23,24]. Relying solely on one research method may miss important details that affect the relationship between independence and performance.

#### **4.1.4. Diversity of performance evaluation criteria**

Research on how to evaluate enterprise performance shows big differences when it comes to choosing indicators and methods. Empirical studies usually use financial performance indicators. For example, they use return on assets (ROA), return on equity (ROE), and earnings per share (EPS). But Lev and Zarowin warned, these numbers might not show the long - term value of a company or its non - financial performance [25]. Market - based indicators like Tobin's Q ratio or stock returns are used a lot too. However, as Baker and Wurgler pointed out that they are too sensitive to market changes[26]. So, they can't really show the real operational performance. On the other hand, non - financial indicators such as innovation output, corporate social responsibility (CSR) performance, and employee engagement aren't talked about much in academic discussions. Orlitzky et al. did some important research in 2003[27]. They studied the link between CSR and financial performance. This shows how important these non - financial indicators are when analyzing the effect of board independence. This underscores the need for a more nuanced approach in performance measurement, which should integrate both financial and non-financial indicators.

#### **4.1.5. Imbalance between short - term and long - term performance**

Within academic research, an obvious trend can be observed. There is an overemphasis on short-term financial metrics such as the annual return on assets or the return on net assets. However, there is often a neglect in considering long-term performance, for example, the growth trends spanning five to ten years. Hillman and Darziel conducted empirical research and discovered that the independence of the board of directors has a more profound impact on a company's long-term strategic planning and sustainable development capabilities[28]. The current research that overlooks long-term performance is likely to result in an incomplete comprehension of the role of board independence. This is due to the fact that its influence predominantly stems from strategic planning rather than short-term financial fluctuations.

#### **4.1.6. Ignoring the dynamism of performance evaluation criteria**

In the realm of enterprise performance evaluation, a notable transformation is underway. Specifically, Environmental, Social and Governance (ESG) criteria are assuming increasing significance, thereby augmenting the importance of non-financial performance indicators in strategic planning. However, as Eccles and Serafeim have argued, much of the extant research fails to adapt to these shifts[29]. All too often, studies treat performance evaluation frameworks as static constructs. Such an approach not only risks rapid obsolescence but also limits research comprehensiveness, as it overlooks the evolving ways in which organizations create value. Moreover, neglecting the dynamic nature of evaluation standards weakens the practical relevance of research findings, hindering their application to contemporary business challenges.

## 4.2. Future research directions

In future research, when exploring the relationship between board independence and corporate performance, it is necessary to focus on several key areas in order to enhance the depth and accuracy of understanding on this topic.

**Measuring the improvement of board independence:** Besides the commonly used indicator of the proportion of independent directors, subsequent research should also cover multiple other indicators, such as the alignment of the professional background of independent directors with the company's business, their voting behavior in key decisions, and the extent to which the internal information communication mechanism of the board supports their information acquisition. These multi-dimensional indicators can offer a more accurate evaluation of board independence, which is fundamental for exploring its relationship with corporate performance.

**Strengthening cross-regional comparative research:** Increasing the intensity of cross-regional studies is crucial. By comparing different regions, researchers can uncover how cultural, legal, and economic differences impact the relationship between board independence and corporate performance. This can help in generalizing research findings across various contexts.

**Deeply considering institutional factors:** It is necessary to conduct in-depth analysis of how corporate institutions, such as ownership structures and corporate governance models, affect board independence and corporate performance. For instance, in companies with high ownership concentration, large-shareholder influence may undermine board independence. Different governance models, like the Anglo-American and German-Japanese ones, also have different implications for this relationship.

**Adopting multidimensional performance measurement methods:** Future research should use a more comprehensive set of performance measurement indicators, covering financial, market, and non-financial aspects. Incorporating non-financial indicators like CSR and innovation performance can provide a more complete view of a company's performance when evaluating the impact of board independence.

**Enhancing long-term performance analysis:** There is a need to strengthen research on long-term performance. Analyzing long-term performance can reveal the role of board independence in a company's sustainable development and its influence on long-term strategic decision-making.

**Paying attention to dynamic performance standards:** With the development of ESG and sustainable-development concepts, performance evaluation criteria are changing. Future research should take these dynamic changes into account to ensure that research results are relevant and applicable in the evolving business environment.

By focusing on these areas in future research, scholars can overcome the limitations of existing studies, gain a more in-depth understanding of the relationship between board independence and corporate performance, and provide more practical and valuable guidance for companies and policymakers in optimizing corporate governance.

## 5. Conclusion

This study systematically examines the influence mechanisms of board independence on corporate performance and addresses important gaps in the literature while providing nuanced understanding of the contextual processes that moderate this relationship. By examining structural, behavioral, and expressing dimensions of board independence, and considering a multi-dimensional and dynamic form of performance, this study makes an important contribution to the theoretical and empirical understanding of corporate governance processes. Key findings are summarized as follows:

First, board independence has its effects on corporate performance through four interlinked mechanisms: supervisory checks-and-balances, decision-making optimization, direction providing, and interest coordination. The supervisory mechanism, with private-sector data that included an 8.5% reduction in financial fraud risk in A-share companies shows the role independent directors play in reducing insider ownership and enhancing the transparency of information. For decision making, the independent directors provided value by eliminating group think in the executive team, removing a 12% failure rate in innovation for technology companies with majority independent boards (aller en inertie). For direction, TSMC's 5nm chip R&D project shows how independent directors, freed from the pressure of short-termism, emphasize long-term value creation versus short term expectation. The interest coordination mechanism and Samsung's dual tracking of their dividend plan (2022) provide an example of how independent directors work to mediate and deconflict stakeholders interests and navigate potential returns.

Second, the effectiveness of these mechanisms is dependent on contextual moderators, such as the professional background of directors, ownership structures and institutional contexts. For example, the Nordic firms successfully obtained an average 15% growth in market share via public digital transformation, suggest that there is an alignment between backgrounds of independent directors and industry requirements. However, the research highlights that an excess of board independence also produces diminishing returns, exhibiting instances where overly sagacious directors hampered effective decision making during the crisis period associated with the COVID-19 pandemic. This nonlinear relationship suggests that there is a need to achieve an optimal level of board independence, which is dependent on a firm's development stage, industry characteristics and nature of governance.

Third, this study overcomes previous research's methodological limitations by placing sustainable-focused governance contributions into a multi-dimensional measurement framework - integrating structural (e.g., the percent of independent directors), behavioral (e.g., voting behaviour), and contextual (e.g., ESG congruence) metrics. The longitudinal data approach and cross-regional comparisons further reduce the potential biases emerging from single geographic market samples the use of static performance measurements. for example, ESG criteria considerations are in tune with evolving performance measures, providing more dynamic view of governance outcomes in sustainability-driven markets.

Despite these contributions, this research has limitations. There were biases toward developed markets, and, aside from a brief mention, the study did not take into account the differences in culture that make generalizations from the findings difficult. Future work should take into account cross-regional research; particularly with emerging economies that feature different governance environments, as well as mixed-methods research to account for qualitative factors like culture and institutional factors. Future work should also take into account even longer performance measures (that are ESG compliant, innovation cycles) and more dynamic measures (changing governance models) to improve established abstract theoretical frameworks that are being created.

There are multiple practical implications for policy makers and corporate practitioners. Regulators should create differential governance standards (e.g. higher independence ratios for firms in high-risk sectors such as finance, while exploring strategies to certify the competency of directors. At the same time, firms should aim to tie their incentives to more long-term measures of performance (e.g. R&D intensity, ESG ratings) to limit myopic behavior and reinforce the board's strategic responsibilities.

In conclusion, the current research advances both theoretical and empirical gaps in corporate governance literature and builds a comprehensive framework for improving and minimizing board

independence in the global economy's rapidly changing environment. From the study's awareness of the multivalued complexity of its mechanisms and boundary conditions to measuring these definitions of board independence, there are valuable and practical references that institutionalize board independence into actionable pathways to improve governance efficacy and provide sustained corporate resilience. Future research should build off of these contributions to the literature and opportunities for enhancing knowledge to keep pace with a changing market environment and stakeholder expectations.

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## References

- [1] Sarbanes-Oxley Act. (2002). Sarbanes-Oxley Act of 2002. Public Law 107-204, 116 Stat 745. Washington, DC: Government Printing Office.
- [2] Edward R. Lawrence, Thanh D. Nguyen, Arun Upadhyay. (2024). "Independence of board leadership of acquirers and the success of mergers and acquisitions." *Journal of Corporate Finance*, 86, 102581.
- [3] United States Congress. (1940). Investment Company Act of 1940. Pub. L. 76-768, 54 Stat. 789 (1940); 15 U.S.C. §§ 80a-1-80a-64.
- [4] Ryans, H., Wiggins, R., 2003. Who is in whose pocket? Director compensation, Board independence, and Barriers to Effective Monitoring. *Journal of Financial Economics* 73, 497-524.
- [5] Fama, E., Jensen, M., 1983. Agency problems and residual claims. *Journal of Law and Economics* 26, 327-349.
- [6] Hermalin, B., Weisbach, M., 1988. The determinants of board composition. *Rand Journal of Economics* 19, 589-606.
- [7] Shivdasani, A., Yermack, D., 1999. CEO involvement in the selection of new board members: an empirical analysis. *Journal of Finance* 55, 1829-1853.
- [8] Del Guercio, D., Dann, L. Y., Partch, M. M., 2003. Governance and boards of directors in closed-end investment companies. *Journal of Financial Economics* 69, 111-152.
- [9] Davis Polk. (2018). Benchmarking Against the Spencer Stuart S&P 500 Board Practices Report [R]. New York: Davis Polk.
- [10] Stein, L.C.D., Zhao, H., 2019. Independent executive directors: How distraction affects their advisory and monitoring roles. *Journal of Corporate Finance* 56, 199-223.
- [11] Islam, R., Ali, M., & French, E. (2023). Director independence and its influence on corporate social responsibility decisions and performance. *Social Responsibility Journal*, 19(10), 1917-1934.
- [12] Dendi Ramdani, A. V. W. (2010). The impact of board independence and ceo duality on firm performance: a quantile regression analysis for indonesia, malaysia, south korea and thailand. *British Journal of Management*, 21(3), 607-627.
- [13] Liu, Y., Mileticov, M. K., Wei, Z. B., & Yang, T. (2015). Board independence and firm performance in China. *Journal of Corporate Finance*, 30, 223-244.
- [14] Klein, A. (2002). Audit Committee, Board of Director Characteristics, and Earnings Management. *Journal of Accounting and Economics*, 33(3), 375-400.
- [15] Baysinger, B. D., & Butler, H. N. (1985). Corporate Governance and the Board of Directors: Performance Effects of Changes in Board Composition. *Journal of Law, Economics, & Organization*, 1(1), 101 - 124.
- [16] Short, H., Keasey, K., Wright, M., & Hull, A. (1999). Corporate governance: from accountability to enterprise. *Accounting and Business Research*, 29 (4), 337 - 352.
- [17] Byrd, J. W., & Hickman, K. A. (1992). Do Outside Directors Monitor Managers? Evidence from Tender Offer Bids. *Journal of Financial Economics*, 32, 195-222.
- [18] Wintoki, M. B., Linck, J. S., & Netter, J. M. (2012). Endogeneity and the Dynamics of Internal Corporate Governance. *Journal of Financial Economics*, 105(3), 581-606.
- [19] Adams, R. B., & Ferreira, D. (2007). A theory of friendly boards. *The Journal of Finance*, 62(1), 217-250.
- [20] La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and finance. *Journal of Political Economy*, 106 (6), 1113-1155.

- [21] Claessens, S., Djankov, S., & Lang, L. H. P. (2000). The separation of ownership and control in East Asian corporations. *Journal of Financial Economics*, 58(1 - 2), 81-112.
- [22] Hofstede, G. (1980). *Culture's Consequences: International Differences in Work - Related Values*. Sage Publications.
- [23] Coffee, J. C., Jr. (2001). The rise of dispersed ownership: The roles of law and the state in the separation of ownership and control. *The Yale Law Journal*, 111(1), 1-82.
- [24] Zahra, S. A., & Pearce, J. A. (1989). Boards of directors and corporate financial performance: A review and integrative model. *Journal of Management*, 15(2), 291 - 334.
- [25] Lev, B., & Zarowin, P. (1999). The boundaries of financial reporting and how to extend them. *Journal of Accounting Research*, 37(2), 353 - 385.
- [26] Baker, M., & Wurgler, J. (2002). Market timing and capital structure. *The Journal of Finance*, 57(1), 1 - 32.
- [27] Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta - analysis. *Organization Studies*, 24(3), 403 - 441.
- [28] Hillman, A. J., & Dalziel, T. (2003). Boards of directors and firm performance: Integrating agency and resource dependence perspectives. *Academy of Management Review*, 28(3), 383 - 396.
- [29] Eccles, R. G., & Serafeim, G. (2013). The performance frontier: Innovating for a sustainable strategy. *Harvard Business Review*, 91(5), 50-60.