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The Impact of Board Diversity on Risk Disclosure: Conceptual Paper

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Abstract

Risk disclosure is a significant concern for most stakeholders; therefore, board diversity may be crucial in improving the quality of risk disclosure. Prior research has investigated the influence of a singular or a restricted set of aspects of board diversity on risk disclosure. The present study establishes a theoretical framework that facilitates future empirical research aimed at creating a composite measure of board diversity to assess its influence on risk disclosure. Creating a composite measure yields a more precise representation than an individual measure, as boards are perceived as an interconnected system rather than as discrete components. The current study proposes to construct a composite measure of board diversity, consisting of gender, foreign directors, political directors, overlapping membership, and multiple directorships.

Keywords: Board Diversity, Risk Disclosure

Introduction

The rapid progression in the economy, technology, and global politics has complicated the business environment, increasing uncertainty and volatility concerning corporate performance (Benz-Saliasi, 2020). Furthermore, companies have increasingly encountered diverse risks stemming from both internal organisational factors and the external environment, surpassing conventional ones (Mazumder & Hossain, 2018). Accurately assessing risk information poses several challenges; thus, a clear definition of ‘risk’ is crucial (Linsley et al., 2006). Numerous scholars have characterised risk as an adverse occurrence; for instance, Dobler et al. (2011) described it as the occurrence of natural events. Other researchers contend that risk signifies uncertainty and is not confined to a singular dimension, such as the potential for financial loss (Dobler, 2008). Uncertainties that could influence a company’s future prospects are now regarded as encompassing both upside and downside risks. In this regard, Solomon et al. (2000) defined risk as the possibility of gains and losses. Similarly, Abdullah and Shukor (2017) defined risk as any harm, threat, opportunity, or prospect arising from changes in the business environment, whether these changes have already occurred or may affect the company. Other researchers divided risk more broadly, such as into variation, uncertainty, and opportunity (Abraham & Cox, 2007), or into good, bad, or uncertain (Abdallah & Hassan, 2013).

Interestingly, regulators and policymakers have affirmed that insufficient transparency and inadequate risk reporting were significant factors that contributed to financial crises (Amezaga-Alonso et al., 2020). Accordingly, stakeholders' demand for pertinent information regarding corporate activities to accurately evaluate their financial status has intensified. More specifically, both old and new users are paying more attention to risk information. They want more useful and relevant information about a business's activities and performance, especially information about social aspects and corporate risks (Madrigal et al., 2015). Furthermore, regulators and policymakers knew that transparent information and thorough financial reporting would help prevent future crises. These considerations meant that corporate regulations needed to be reevaluated to give companies more reasons to include all the necessary information in their financial reports (Wahid ElKelish & Kamal Hassan, 2014). In 1998, the Institute of Chartered Accountants in England and Wales (ICAEW) published a discussion paper recommending that companies incorporate risk information in their annual reports. This move signified the commencement of acknowledging the importance of corporate risk disclosure (Ellili & Nobanee, 2017).

Linsley and Shrives (2006) said that "risk disclosure" is the process of telling a reader about any opportunities or prospects, as well as any hazards, dangers, harms, threats, or exposures that have already affected the company or could affect it in the future. It also includes how those opportunities, prospects, risks, harms, threats, or exposures are managed. Miihkinen (2012) termed "risk disclosure" as the detailed information that corporations provide in annual reports concerning risks and their possible economic consequences for future performance. Hassan (2009) characterised "risk disclosure" as the incorporation of information in financial statements regarding managerial estimates, judgements, and dependence on market-based accounting policies such as impairment, derivative hedging, financial instruments, and fair value, in addition to the disclosure of concentrated operations, non-financial information about corporate strategies, recruitment policies, and various operational, economic, political, and financial risks.

Overall, risk disclosure provides numerous advantages for investors, analysts, and shareholders (Lajili, 2009), as a distinct component of a corporate disclosure package (Dobler et al., 2016). Comprehensive risk disclosure enables stakeholders to discern the types of risks a firm encounters, evaluate the precision of stock price predictions, and accurately assess market value (Beretta & Bozzolan, 2004; Khalil & Maghraby, 2017; Mousa & Elamir, 2013). It may benefit institutional investors by improving portfolio decisions through precise evaluation of risks and potential returns (Solomon et al., 2000). It mitigates the information asymmetry between corporate managers and investors, thereby enhancing investment efficiency and diminishing the agency problem (Li et al., 2019). In other words, the magnitude of a company's risk information is essential for investors to make informed decisions (Baroma, 2015). So, companies endeavour to meet investor demands by providing more information about the diverse risks they encounter (Abraham & Cox, 2007; Elzahar & Hussainey, 2012). Risk disclosure in financial reports has emerged as an essential component for promoting transparency and accountability in the marketplace, intended to alleviate the information asymmetry that negatively impacts stakeholders, particularly customers and investors (Neifar

& Jarboui, 2018). In short, it is essential for restoring investor confidence and improving transparency (Hassan, 2009).

Indeed, ensuring that disclosure, including risk disclosure, is credible and reliable in a way that serves stakeholders in making informed decisions requires a strong oversight body over management responsible for reporting these disclosures. Corporate governance is one of the most important oversight tools that has gained increasing attention worldwide (Al-Nohood et al., 2024a, 2024b; Al Sanasleh et al., 2025). Corporate governance mechanisms alleviate the agency problem and enhance the reliability and credibility of disclosures by mandating that management act in the best interest of external shareholders, thereby improving information pertaining to the company's risk profile (Kiflee & Khan, 2019). Corporate governance has been described by many authors; for example, Sharman and Copnell (2002), defined it as "the system and enhanced process by which entities are directed and controlled to performance and sustainable shareholder value, and it is concerned with the effectiveness of management structure, the sufficiency and reliability of corporate reporting and the effectiveness of risk management systems." Solomon and Solomon (2006) defined it as "the system of checks and balances, both internal and external to companies, which ensures that companies discharge their accountability to all stakeholders and act in a socially responsible way in all areas of their business activities."

Given the importance of corporate governance in enhancing the value of companies by controlling many important decisions, including risk disclosure, legislative and regulatory bodies have sought to enhance its tools, the most important of which is the board of directors. One of the most important decision-making subgroups in contemporary organisations is the board of directors (Ntim, 2015; Sarhan et al., 2019; Yamori et al., 2017). Corporate boards are responsible for making strategic decisions on mergers and acquisitions, as well as hiring, firing, compensating, and promoting executives (Ntim et al., 2019). Furthermore, Estélyi and Nisar (2016) contended that corporate boards can enhance contemporary organisations' connectivity with the external environment, thereby facilitating access to resources, including financing and business contracts. In short, the board of directors serves as the principal decision-making entity within a corporation, tasked with the approval of significant financial decisions and strategic operations (Ferreira, 2010). Boards of directors fulfil two primary functions: advising management by offering strategic and operational guidance and monitoring management by overseeing performance and mitigating agency costs (Larcker & Tayan, 2013). Accordingly, boards of directors are likely to play an important role in providing guidance on the importance of achieving quality risk disclosure and monitoring management's compliance with it.

More precisely, current corporate governance codes and reforms have primarily concentrated on the composition of the board of directors (e.g., size, independence, and diversity) as a significant mechanism to improve corporate governance standards (Ullah, Wang, et al., 2019). Board diversity is pursued primarily for two reasons: economic factors and social considerations. Globally, there has been a growing demand to diversify boards of directors (Terjesen et al., 2016), particularly in the wake of recent corporate scandals, such as Lehman Brothers, Glitnir, and Dynegy, which have resulted in heightened scrutiny of the decisions and composition of boards of directors. The corporation needs to create a more diverse boardroom in the contemporary business landscape, as it offers varied insights and perspectives (Haque & Ntim, 2020). Boardroom diversity refers to the variation among board members regarding education, nationality, gender, ethnicity, age, and experience (Khatib et al., 2023). Khatib et al. (2023) conclude that board diversity is a crucial factor for corporate success and performance, shareholder protection, and the boards' effectiveness. The term diversity encompasses various conceptions and implementations of group structures (Harrison & Klein, 2007).

Diversity in the corporate boardrooms of publicly traded companies globally has recently emerged as a significant concern (Harjoto et al., 2015). Numerous developed nations, including the United States and European Union member states, now mandate corporations to enhance their board diversity practices and disclose these practices (Harjoto et al., 2015). The SEC in the U.S. implemented new regulations requiring publicly traded companies to disclose the consideration of board diversity in the selection process for director nominees (Harjoto et al., 2015). Recently, global investors and regulators have advocated for a more diverse board composition. Companies are permitted to define diversity according to their criteria, with some emphasising functional attributes like tenure and expertise, while others prioritise superficial characteristics such as race, gender, and age (Harjoto et al., 2018).

Harjoto et al. (2018) claimed that board diversity (heterogeneity) is a crucial yet largely overlooked element affecting a board's ability to perform its monitoring and advisory roles. Carter et al. (2007) contended that greater board diversity, from an agency theory standpoint, enhances management oversight due to its contribution to increased board independence. Consequently, companies typically disclose additional information to mitigate agency costs, diminish information asymmetry, and safeguard their reputation (Htay et al., 2012). Hillman et al. (2000) argued that the theory of resource dependency posits that board diversity enhances the resources contributed by board members, including skills, information, legitimacy, and access to essential stakeholders (e.g., suppliers, buyers, policymakers, and social groups). Diverse directors would offer distinct insights to management for enhanced decision-making (Ayuso & Argandoña, 2009).

In this regard, board diversity is expected to introduce varied expertise, ideas, talents, skills, work ethics, backgrounds, and experiences into boardrooms (Salloum et al., 2019; Ullah, Ahmad, et al., 2019) and may improve board independence and oversight (Baranchuk & Dybvig, 2009). Boardroom diversity can assist in connecting firms with the external environment and enabling access to external resources (Song et al., 2020). In addition, it enhances its efficiency by incorporating varied perspectives, knowledge, and experience, thereby improving its performance (Malagila et al., 2021). It enhances problem-solving capabilities, fosters networking opportunities, and elevates the firm's reputation (Fernández-Temprano & Tejerina-Gaite, 2020). Moreover, board diversity encompasses social equity and equal opportunities (Gyapong et al., 2016). Consequently, board diversity may contribute to the establishment of more inclusive and equitable business institutions that more accurately represent the constituencies of current stakeholders (Sarhan et al., 2019; Terjesen & Sealy, 2016).

Bravo (2018) indicated that diversity on boards, in terms of gender and ethnicity, positively affects risk-related information disclosure. They contended that the results highlight the importance of considering the diverse backgrounds of board members. Seventy non-financial companies from the S&P BSE 100 index were selected by Saggar et al. (2022) for the 2018–2019 fiscal year. They unveiled that gender diversity confirms the agency theory and resource dependency theory, as it positively affects corporate risk disclosure. Bufarwa et al. (2020) unveiled that corporate governance via board diversity has a significant influence on financial risk disclosure. Their sample comprised 50 non-financial firms across 10 industrial sectors listed on the London Stock Exchange from 2011 to 2015. Reguera-Alvarado and Bravo-Urquiza (2020) examined the relationship between board diversity (including gender and racial diversity) and companies' financial performance. They also examined how corporate strategies (like risk disclosure) might affect this relationship. They used a sample of manufacturing companies from the Standard and Poor's 500 for 2009 to do this. The findings indicated a positive correlation between them, which is explained by disclosing risk information. Seebeck and Vetter (2022) examined an external shock to firms' risk environments resulting from the United Kingdom's decision to exit the European Union (Brexit) and analysed the corresponding risk disclosures in the annual reports of publicly traded companies in the UK. Their results indicated that board diversity enhanced the disclosure of decision-relevant information by fostering improved group dynamics among boards. Raimo et al. (2022) use a sample of 95 integrated reporting adopters from 24 countries in 2018. They found that certain board characteristics, such as gender diversity, had a positive effect on the risk information that was shown through integrated reporting.

Additionally, Ararat et al. (2015) indicated that demographic diversity improves firm performance by alleviating the adverse impact of the wedge on board oversight. Vafaei et al. (2015) analysed the top 500 publicly traded companies in Australia from 2005 to 2011. They demonstrated that board diversity correlates positively with financial performance. Terjesen et al. (2016) analysed data from 3,876 publicly traded companies across 47 nations. They presented evidence that diversity improves the effectiveness of boards of directors. Specifically, they discovered that companies with a higher number of female directors exhibit superior performance as indicated by market (Tobin's Q) and accounting (return on assets) metrics. Sarhan et al. (2019) examined a balanced panel of 600 firm-year observations, comprising 100 distinct firms from five Middle Eastern nations (Egypt, Jordan, Oman, Saudi Arabia, and the United Arab Emirates) during the 2009–2014 timeframe. They indicated that board diversity, assessed through director gender and nationality, positively influences corporate financial performance. The correlation between board diversity and corporate performance is more pronounced in well-governed firms compared to those with poor governance. Ultimately, board diversity, assessed through director gender, ethnicity, and nationality, improves pay-for-performance sensitivity without affecting the actual executive compensation.

Besides, Bernile et al. (2018) suggested that increased board diversity results in reduced volatility and enhanced performance. The reduced risk levels are primarily attributable to diverse boards implementing more persistent and less hazardous financial policies. Further, in alignment with the notion that diversity enhances the efficacy of real risk-taking, organisations characterised by a higher degree of board diversity consistently allocate greater resources to research and development (R&D) and exhibit more effective innovation processes. Keys et al. (2002) conducted a comparison between firms designated by Fortune as part of the "diversity elite" and those that were not included in this ranking. They pointed out that proponents of diversity contribute greater value to shareholders compared to those who do not advocate for it. Carter et al. (2003) found significant positive relationships between board diversity (the fraction of minorities or women on the board) and firm value. Ntim (2015) demonstrated that board diversity is positively associated with market valuation. They contended that their results align with the predictions of agency and resource dependence theories.

Moreover, Harjoto et al. (2018) utilised a sample of 15,125 firm-years from 1,898 firms spanning the years 1998 to 2014. Research indicates that task-oriented diversity attributes, including tenure and expertise, correlate negatively with suboptimal investment, implying that boards characterised by firm-specific experience and functional expertise are more proficient at supervising corporate investment activities than homogeneous ones. They advocated for increased task-oriented diversity in corporate boardrooms. Ashraf et al. (2025) examined data from non-financial firms listed in Europe from 2013 to 2022 to explore the relationship between board diversity and environmental innovation. They demonstrated a positive and significant correlation between them.

Harjoto et al. (2015) employed seven distinct metrics of board diversity across 1,489 U.S. companies from 1999 to 2011. They indicated that board diversity is positively correlated with corporate social responsibility (CSR) performance. Board diversity correlates with an increased number of domains where CSR excels and a reduced number of domains where CSR is problematic. Their findings corroborate stakeholder theory and align with the perspective that board diversity improves firms' capacity to meet the needs of their wider stakeholder groups. 4023 indicated strongly that the characteristics of board diversity significantly influence the extent of CSR discourse. All variables of board diversity, specifically independent directors, foreign board members, and female directors, were identified as having a positive and significant influence on the extent of CSR disclosure in Jordan. This result implies that companies with a greater proportion of board diversity are more inclined to exhibit a higher level of CSR disclosure. Beji et al. (2021) presented compelling evidence that board diversity and global board diversity are positively correlated with corporate social performance. More specifically, they demonstrated that larger boards correlate positively with all aspects of CSR performance. Gender diversity on boards is positively correlated with human rights and corporate governance aspects. Age diversity exhibited a positive correlation with corporate governance, human resources, human rights, and environmental initiatives. The involvement of foreign directors correlated positively with environmental performance and community engagement. Postgraduate directors exhibited a positive and significant correlation with the overall CSR score. Directors with multiple directorships exhibit heightened concern for human resources, environmental performance, and business ethics. Their results are more pronounced in non-family enterprises. Indeed, family boards exhibit less diversity compared to non-family boards, particularly in terms of the number of independent, foreign, and highly educated directors.

In contrast, Al-Yahyaee et al. (2017) found that the presence of female directors of financial institutions undermines the positive link between corporate governance and market risk disclosures for the period between 2007 and 2011. The findings indicate that the cultural and conservative characteristics of Gulf Cooperation Council (GCC) societies endure within the GCC business milieu. Khan and Subhan (2019) argued that while numerous organisations aspire to achieve diverse board structures, the impact of board diversity on firm performance remains ambiguous. Bernile et al. (2018) contended that an alternative perspective indicates that board diversity results in increased rather than decreased firm risk and outcome volatility. Diversity can exacerbate conflicts and obstruct the board's decision-making process, complicating consensus-building and resulting in more erratic outcomes. Diversity on boards can yield a broader range of options, introduce additional conflicts, and prolong the decision-making process (Harjoto et al., 2015). Consequently, board diversity may pose additional challenges in achieving consensus, thereby impairing the effective oversight of management performance. Darmadi (2011) used a sample of 169 listed firms. They discovered that both accounting and market performance exhibit significant negative correlations with board diversity (gender). Jhunjhunwala and Mishra (2012) investigated the impact of board diversity on corporate performance by analysing various diversity parameters, including gender, educational background, nationality, age, tenure, and directors' experience. No substantial correlation exists between board heterogeneity and financial performance in Indian companies. One potential explanation for this phenomenon is that diversity in teams frequently results in conflicts, which can have a detrimental impact on performance if not effectively managed.

The current study builds a theoretical framework to empirically examine the effectiveness of diverse boards in future management performance monitoring with respect to stakeholder management. Specifically, the current study focuses on investigating the relationship between board diversity and risk disclosure. Management performance with respect to risk disclosure is the result of its decisions to satisfy the needs of different groups of stakeholders. Previous studies that have documented the relationship between board diversity and risk disclosure have focused on limited characteristics of boards. Therefore, this study expands the dimensions of board diversity that are likely to have a significant impact on risk disclosure. Since decision-making dynamics vary depending on the backgrounds of individuals serving on boards, diversity increases the board's ability to recognise the needs and interests of different groups of stakeholders, which is reflected in the quality of risk disclosures. As with other studies, e.g., Midavaine et al. (2016), this one suggests looking at two aspects of board diversity: (1) diversity of boards, which is measured by the structure of the board, such as its size, duality structure, and independence; and (2) diversity in boards of directors, which is measured by the demographics of the directors, such as their gender, age, expertise, foreign directors, political directors, overlapping membership, and multiple directorships.

Literature Review and Hypotheses Development

Board Diversity Score and Risk Disclosure

Recent corporate scandals and financial crises have led to the failure of companies due to miscalculated risks (Cabedo & Tirado, 2004; Fung, 2014). The company's ability to evade or alleviate the adverse effects of insolvency and bankruptcy is significantly contingent upon the early identification of their indicators (Giacosa et al., 2016). Consequently, it is essential to furnish dependable and prompt risk information to evaluate financial conditions and guarantee that the disclosed information accurately reflects the firm's true status. The quality of risk disclosure provides initial insights into the risks faced by enterprises, aiding in the identification of the specific types of risks encountered by the firm (Mousa & Elamir, 2013). This facilitates supervision and enhances confidence among investors and depositors (Aryani & Hussainey, 2017). The quality of risk disclosure is significant in bankruptcy prediction, as it mitigates the information asymmetry that results in stakeholder losses. Thus, it is deemed essential in mitigating the probability of a firm's failure (Elzahar & Hussainey, 2012).

Furthermore, the level of risk disclosure positively enhances a company's market value (Al-Maghzom et al., 2016). Gatimbu et al. (2017) also indicated that a significant relationship exists between risk disclosure and financial performance. Risk disclosure has emerged as a significant concern for companies due to the heightened demand for this information from stakeholders, particularly investors. Investors are more likely to invest in companies that disclose risks because risk disclosure is an indicator of management's ability to address those risks, which enhances financial performance and access to capital, reduces operating expenses, enhances the company's reputation and increases customer loyalty. Most countries have taken significant steps to enhance corporate risk disclosure, including enacting legislation and regulations that require companies to disclose risks in their annual reports to ensure the quality and reliability of the annual report as a means of attracting foreign investment.

Risk disclosure appears to be shaped by the preferences, incentives, and principles of the individuals engaged in the formulation and decision-making processes. Considering corporate governance mechanisms, specifically directors' profiles, such as foreign representation, age, and gender, can significantly enhance the comprehension of board dynamics and their impact on various aspects of firms, including risk disclosure. The literature on workgroup diversity has identified both beneficial and detrimental impacts of diversity on group performance (Daniel et al., 2005; Jackson et al., 2003; Van Knippenberg & Schippers, 2007). Diversity on boards enriches the knowledge base, fosters creativity, and stimulates innovation, thus providing the firm with a distinct competitive advantage (Gul et al., 2013; Vafaei et al., 2015). Board diversity brings a broad spectrum of knowledge and skills that cultivate varied perspectives, leading to more thorough board decisions. For instance, Westphal and Milton (2000) assert that minority directors significantly enhance board decision-making by offering distinct perspectives that may contest the prevailing views of majority directors. Enhanced board diversity may augment firms' capacity to discern the needs and interests of various stakeholder groups, identify optimal strategies for aligning divergent interests, and effectively manage potential stakeholder conflicts (Harjoto et al., 2015). Since the quality of risk disclosure enhances the ability of companies to deal with the risks they may face, which enhances the ability of stakeholders, especially shareholders, to make informed decisions, companies with a diverse board of directors are likely to have a broader knowledge base and perspectives for making decisions about the importance of risk disclosure and proposing solutions to address them, indicating a positive relationship between diversity in boards of directors and the quality of risk disclosure.

Carter et al. (2003) suggested that diversity holds significance for various reasons. Initially, corporate diversity enhances comprehension of the marketplace. Demographic projections suggest that the marketplace is becoming increasingly diverse; thus, aligning a company's diversity with that of its potential customers and suppliers enhances market penetration capabilities. Secondly, diversity enhances creativity and innovation. This perspective posits that "attitudes, cognitive functioning, and beliefs are not randomly distributed within the population but tend to vary systematically with demographic variables such as age, race, and gender" (Robinson & Dechant, 1997). Thirdly, diversity bolsters the efficacy of problem-solving. Although heterogeneity may initially generate increased conflict in decision-making, the diverse perspectives that arise compel decision-makers to assess a broader range of alternatives and meticulously examine the implications of these options. Fourthly, diversity significantly augments the efficacy of corporate leadership. It is posited that homogeneity among senior management within a corporation leads to a limited perspective, whereas a diverse group of top executives fosters a more expansive viewpoint. The presence of diversity at the highest levels of leadership fosters a deeper comprehension of environmental complexities and facilitates more discerning decision-making. Finally, diversity fosters the development of more effective international relationships.

Numerous theories have highlighted the significant role of board members in achieving high-quality risk disclosures. A company's disclosure of risks may signal to stakeholders that the company is complying with disclosure requirements. This conclusion is consistent with signalling theory. This process is likely to enhance the company's market value due to its transparency. In addition, from the perspective of agency theory (Meckling & Jensen, 1976), a primary function of boards is to oversee managers; directors must ensure the interests of stakeholders are represented in the management decision-making process. Agency theory justifies the board's essential role in overseeing management for the benefit of shareholders (Khatib et al., 2023). The characteristics of directors and the composition of the board are intricately linked to the quality of governance within the company and the efficacy of corporate governance practices (Midavaine et al., 2016). Corporate disclosure, including risk disclosure, is determined by board directors to enhance management practices and engage in more transparent initiatives.

In other words, agency theory says that the board's job in an agency setting is to solve agency problems between managers and shareholders by setting pay rates and firing managers who don't create value for shareholders (Carter et al., 2003). Risk disclosure is likely to enhance shareholder value. Boards will not be able to confront managers unless they are diverse, as diversity enhances their independence and activism. Accordingly, board diversity is likely to enhance risk disclosure from the agency perspective. Moreover, resource dependence theory elucidates the board's role in supplying essential resources to the organisation, such as legitimacy, guidance, and counsel (Hillman & Dalziel, 2003; Khatib et al., 2023). Pfeffer and Salancik (1978) contend that organisational performance is contingent upon the environment and its capacity to address the requirements of resource providers. Diversity augments the board's internal and external resources, including new skills and competencies that enable the company to more effectively comprehend and address stakeholders' expectations (Midavaine et al., 2016). In short, the board needs diversity to effectively exercise its oversight and advisory functions, as this diversity is likely to enhance independence, expertise, capabilities, and activity.
This study proposes the following hypothesis based on the previous discussion:
H1: There is a positive relationship between board diversity score and risk disclosure.

Conclusion
This study aims to enhance research on the quality of risk disclosure by motivating additional scholars to investigate the impact of board diversity, a critical element of corporate governance, on this aspect. This study advocates for additional empirical research to ascertain the impact of board diversity on the quality of risk disclosure by developing a composite

measure of diversity, in contrast to the predominant focus on a singular dimension, which has produced incongruous findings in previous studies.

This study provides meaningful theoretical and contextual contributions by adopting a score-based approach to measuring board diversity, moving beyond traditional binary or categorical classifications. Theoretically, this refined measurement offers a more nuanced understanding of how diverse board attributes—such as gender, age, education, experience, and tenure—collectively influence corporate risk disclosure. By integrating perspectives from agency theory, resource dependence theory, and stakeholder theory, the study highlights how a more quantitatively calibrated measure of board diversity enhances board effectiveness in promoting transparency. Contextually, this approach is particularly relevant in an era where stakeholders and regulators demand more granular insights into board composition and its implications for disclosure quality. The study’s focus on a composite diversity score allows for better cross-sectional comparability and deeper theoretical interpretation, especially in settings where diversity policies are evolving. As such, the research contributes to a more comprehensive understanding of the governance-disclosure nexus and lays the groundwork for future empirical studies that adopt more sophisticated diversity metrics.

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The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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