

CORPORATE GOVERNANCE AND FIRM FINANCIAL PERFORMANCE: THE MODERATING ROLE OF BOARD INDEPENDENCE



 K. M. Anwarul Islam ^(a)  Soiloor Nandini Arunima ^(b)  Nurjahan Akter Monira ^{(c)1}  Guneratne Wickremasinghe ^(d)  Werner Krings ^(e)

^(a)Research Professor, Department of Business Administration, University of Asia Pacific, Bangladesh; E-mail: professordrkmmanwarulislam@uap-bd.edu

^(b)Lecturer, Department of Business Administration, University of Asia Pacific, Bangladesh; E-mail: nandini@uap-bd.edu

^(c)Assistant Professor, Department of Business Studies, State University of Bangladesh, Bangladesh; E-mail: nurjahan@sub.edu.bd

^(d)Senior Lecturer, College of Business, Victoria University, Australia; E-mail: guneratne.wickremasinghe@vu.edu.au

^(e)Professor, Department of Marketing, Framingham State University, United States; E-mail: wkrings@framingham.edu

ARTICLE INFO

Article History:

Received: 26th March 2026

Reviewed & Revised: 26th March 2026
 to 30th August 2026

Accepted: 10th September 2026

Published: 14th September 2026

Keywords:

Corporate Governance, Board Independence, Good Governance, Accountable Institutions, Transparent Institutions, Corporate Sustainability, Sustainable Growth, Firm Financial Performance, Emerging Markets, Panel Data

JEL Classification Codes:

G30, G32, G34, M14, O16

Peer-Review Model:

External peer review was done through double-blind method.

ABSTRACT

Corporate governance reform has become a central instrument of financial market development. However, four decades of empirical work still disagree about whether better governance pays and, more fundamentally, about the conditions under which it pays. This study examines whether the level of board independence conditions the financial return that listed firms earn on the quality of their governance architecture. The analysis employs a balanced firm-year panel of 300 non-financial firms listed in twelve developed and emerging markets over the period 2003–2024 (6,600 firm-year observations), combining firm-level governance attributes with accounting, market and country-level institutional indicators, and estimates two-way fixed-effects models with standard errors clustered at the firm level. The results show that a one standard deviation improvement in governance quality raises return on assets by 0.93 percentage points ($t = 5.78$), return on equity by 1.70 percentage points and Tobin's Q by 0.041; board independence is independently associated with performance ($\beta = 0.44$, $t = 3.30$) but follows a concave profile that peaks at approximately 69.5 percent of independent directors; and the interaction between governance quality and board independence is positive and significant ($\beta = 0.24$, $t = 3.49$). Conditional-effect estimates indicate that the governance performance slope rises from 0.69 percentage points at low board independence to 1.17 percentage points at high board independence, and the moderating effect is roughly twice as large in emerging markets as in developed markets. The findings indicate that, with regard to board independence, there is an enforcement mechanism that converts the formal governance structure into actual financial returns, and that the roles of good governance, accountable institutions, and transparent institutions are complements.

© 2026 by the authors. Licensee CRIBFB, USA. This open-access article is distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0>).

INTRODUCTION

The management of the modern corporation has shifted from the periphery to the core of development policy. The rules governing the monitoring of managerial discretion, the access of players to various pieces of information, and who is made to pay for the consequences of bad allocation, affect not only shareholders' wealth, but also the productive efficiency of the economy as a whole, as listed firms represent the largest private source of long-term financing in most economies. There is no denying the correlation between bottom-up (state-level) and top-down (corporate) sustainable development: accountable and transparent institutions are linked, just as the credibility of one national commitment to good governance becomes easier to judge when capital is spent in boardrooms. This association has been explored in recent studies through various pathways, such as digital governance and its effects on shifting the accountability of public and corporate organizations (Dauyeshova et al., 2026); governance-sensitive platforms and their impact on creating decent jobs and inclusive growth (Utebaliyeva et

¹Corresponding author: ORCID ID: 0009-0002-4387-2602

© 2026 by the authors. Hosting by CRIBFB. Peer review is the responsibility of CRIBFB, USA.
<https://doi.org/10.46281/bjmsr.v11i4.2943>

To cite this article: Islam, K. M. A., Arunima, S. N., Monira, N. A., Wickremasinghe, G., & Krings, W. (2026). CORPORATE GOVERNANCE AND FIRM FINANCIAL PERFORMANCE: THE MODERATING ROLE OF BOARD INDEPENDENCE. *Bangladesh Journal of Multidisciplinary Scientific Research*, 11(4), 11-25. <https://doi.org/10.46281/bjmsr.v11i4.2943>

al., 2026); and the importance of governance-led management systems for ensuring sustainable growth in capital-intensive industries (Said et al., 2026; Aitzhanova et al., 2026).

In that context, the empirical findings on the importance of corporate governance are surprisingly ambiguous. A large number of studies have revealed that a strong governance architecture is associated with better accounting return and higher market valuation of the firm (Bhagat & Bolton, 2019; Masum et al., 2024; Arsh et al., 2025; Rana & Debata, 2025) and another equally huge literature has reported that the results are smaller, susceptible to statistical insignificance, or limited to specific institutional environments (Hasan et al., 2023; Nwafor & Omenihu, 2025). The disagreement is sharpest over the single mechanism that governance codes have promoted most vigorously over the past two decades: the presence of independent directors on the board. Some recent studies report that independent boards raise environmental, social and governance performance and firm value (Marheni et al., 2026; Abu Afifa et al., 2025); others document negligible or conditional effects that depend on the tenure of the chief executive, the concentration of ownership, or the regulatory environment in which the firm operates (Alrizgan et al., 2025; Ab Aziz et al., 2025; Ashiru et al., 2025). Adjacent work adds two further complications: several governance-performance links appear to be non-linear rather than proportional (Attia et al., 2025), and mechanism-level effects vary so widely across settings that meta-analytic syntheses report substantial unexplained heterogeneity (Alfi et al., 2025). Parallel evidence on adjacent board attributes, including gender composition and the cost of capital, is similarly contingent (Pham et al., 2025; Gaio & Stefanelli, 2025; Bania & Biswas, 2024), as is evidence routed through intermediate channels such as agency cost (Bint Raza et al., 2024).

This scientific problem that this research paper investigated is a direct result of that contradictory pattern of results. The prevailing empirical approach is an "additive" one in which a composite index of mechanisms is correlated with performance, each attribute is included separately, and there are unseen "independent" increments of value in each mechanism. However, if the large endowment of variants in the written architecture of committees, disclosure rules, and remuneration policy can only have value in financial terms if there is a structure within the acquired firm with the incentive and the authority to implement them, then the additive specification is misspecified. The disparate estimates in the literature are precisely what should be observed. In this interpretation, the board independence provision is not a "plus" to the governance package, but a condition of enforceability for the balance of the safe harbour package. There have been few tests of the proposition, and virtually none with long enough time horizons to allow for a full cycle of governance reform and financial crises, followed by adjustment after a pandemic.

In this study, this gap is addressed. Its objective is to quantify how, and to what extent, the financial performance firms receive under the Governance architecture depends on the level of Independence of the boards of directors. There are three intermediate problems which will serve as steps towards that ultimate goal: the status of the unconditional association between governance quality and financial returns in a geographically vast and institutionally heterogeneous sample; whether the influence of board independence is monotonic or whether there is some threshold beyond which board independence has a negative effect on financial returns; and whether the conditioning effect is systematically different between firms in high versus low national institutional environments. The methodology involves conducting a balanced panel analysis of 300 non-financial listed firms across 12 developed and emerging markets between 2003 and 2024, and estimating hierarchical two-way fixed-effects regressions with firm-clustered standard errors, mean-centred interaction terms, conditional slope analysis, subsample estimation, and instrumental-variable robustness checks.

The contribution is threefold. First, the study reframes board independence as a moderator rather than a main effect, and shows that this reframing reconciles a substantial part of the inconsistency in earlier findings. Second, it documents a concave relationship between board independence and profitability, identifying a level beyond which additional Independence no longer pays, a result that qualifies the one-directional prescriptions embedded in many national codes. Third, by covering twenty-two consecutive years and twelve jurisdictions, it provides evidence on whether governance complementarity is a general property of listed firms or an artefact of particular markets, a question of direct relevance to regulators in emerging economies where governance reform is still being sequenced (Ali et al., 2024; Sultana, 2026; Islam et al., 2026; Akhter & Hassan, 2024). The remainder of the paper is organized as follows. The next section reviews the theoretical and empirical literature and derives the hypotheses. The third section describes the sample, variables, model specification and estimation strategy. Descriptive statistics, regressions with and without moderators, conditional effects, and subsample results and robustness checks are presented in the fourth section. The fifth section presents the results of the study in the context of existing research, while the last section offers conclusions, implications, limitations, and directions for future research.

LITERATURE REVIEW

The theoretical ground for the study of the role of monitoring in the corporate governance and firm performance literature rests on four fundamentals, each of which makes partly competing predictions about the effect of monitoring. Agency theory provides the point of departure. Jensen and Meckling (1976) demonstrate that separating control from ownership creates residual losses that shareholders are willing to pay in exchange for the transfer of control, and Fama and Jensen (1983) identify the decision-control function with a board whose members are not the agents who have to be monitored. Jensen (1993) further submits that large corporations fail because of a lack of internal control systems, and that the main solution lies in board composition. According to this story, a secure agency environment is valuable precisely because it reduces agency costs, and independent directors are valuable precisely because they minimise conflicts of interest as monitors.

Stewardship theory challenges the behavioural assumption. According to Donaldson and Davis (1991), executives are often driven by professional success and organisational identity, rather than opportunism, and structures intended to restrict them can equally thwart initiative and retard decision-making. Boyd (1995) presents a contingency perspective of this assertion: When resources are scarce and competitive turbulence is high, unified leadership can be more effective than

separated leadership. A third and different rationale is posited by resource dependence theory: Directors, according to Pfeffer and Salancik (1978), serve as conduits to external resources including capital, legitimacy and information, thus the added value of an outside director would depend on the resources she or he provides to the firm rather than upon what she or he monitors in the firm. The fourth lens is given by institutional theory. Under normative and coercive pressures, organisations tend to adopt similar structures; they approach the characteristics of a given professional norm. Formal adherence to a governance code may be separated from behaviour relevant for understanding a composite governance index (DiMaggio & Powell, 1983).

Thus, the agency prediction is generally confirmed by empirical studies of aggregate governance quality. Gompers et al. (2003) develop a measure of shareholder rights for US corporations and find that portfolios of firms with high-quality governance significantly outperform portfolios of firms with poor governance. Bebchuk et al. (2009) demonstrate that the association is mainly with a few entrenchment provisions. Patterns are similar across countries. Klapper and Love (2004) conclude that the quality of the governance of a firm matters more for firms in countries with lower legal protection, La Porta et al. (2000) document that the level of investor protection is related to valuation, and Aggarwal et al. (2009) find evidence that foreign firms implementing United States-governance characteristics are valued higher. In their survey of emerging-market evidence, Claessens and Yurtoglu (2013) find that governance enhancements are correlated with reductions in the cost of capital and improvements in operating performance, but note measurement differences. Ararat et al. (2017) test this using a time-series design in Turkey and establish that within-firm improvements in governance pave the way for increased value and profitability. More recent evidence at the corporate level aligns with this line, as Rana and Debata (2025) reveal that investment efficiency varies with governance structure across the institutional environment and the firm life cycle.

The situation of the Boards' Independence is certainly complicated. Two influential syntheses staked out the debate. However, a meta-analysis of board composition studies by Dalton et al. (1998) reveals that the proportion of outside directors on the board is not systematically related to financial performance. Further, according to Bhagat and Black (2002), firms with higher independent board structure do not perform well and may do worse. The most common explanation relates to the finding by Hermalin and Weisbach (2003) that board composition is endogenously determined, meaning that cross-sectional comparisons of board independence cannot distinguish between events and causes. In summarising the literature, Adams et al. (2010) draw similar conclusions: namely, that designs using exogenous variation ought to be developed.

Further studies have found the conditions in which Independence does make a difference. According to Nguyen and Nielsen (2010), the sudden death of independent directors is an exogenous shock, and the negative market reaction is significant, providing support for a causal relationship with Independence. The effect is dependent, as demonstrated by Duchin et al. (2010), on the cost of the firm-specific information acquired: outside directors are associated with an increase in firm-specific performance when information is cheap, but with a reduction in performance when information is costly. Finally, Faleye et al. (2011) and others suggest that closer monitoring by independent boards enhances oversight at the expense of the quality of advice and innovation. Independent boards have been found to make boards more transparent (Armstrong et al., 2014), and it is the incentives of individual independent directors, rather than the mere presence of independent directors, that affect the quality of their efforts (Masulis & Mobbs, 2014). Taken together, these studies suggest that Independence is best viewed as a skill that is fostered contingent on context, rather than as a relationship with a fixed marginal product.

Other indicators on the board reinforce that interpretation. Yermack (1996) documents an inverse association between board size and market valuation, Cheng (2008) shows that larger boards generate fewer variable outcomes, and Guest (2009) confirms the negative size effect in the United Kingdom, while Coles et al. (2008) demonstrate that the optimal board differs by firm complexity, so that no single size prescription can be efficient. On leadership structure, the evidence for a uniformly negative effect of chief executive duality is weak once contingencies are modelled (Boyd, 1995), although recent studies in Southeast Asia report that duality is associated with weaker environmental, social and governance outcomes (Marheni et al., 2026). Audit committee independence has been more consistently associated with reporting quality since Klein (2002), and board gender diversity has been linked to monitoring intensity by Adams and Ferreira (2009), to financial performance by Erhardt et al. (2003), and more recently to a lower cost of equity in emerging markets by Gaio and Stefanelli (2025) and to performance gains conditional on the attributes of the women appointed by Pham et al. (2025). Ownership concentration cuts in the opposite direction, since dominant blockholders can substitute for board monitoring while creating expropriation risk for minority investors (Shleifer & Vishny, 1997; Leuz et al., 2003).

A separate strand examines whether governance quality is priced differently across institutional contexts. However, consistent with results in Europe, once selection effects are accounted for, Renders et al. (2010) find that governance ratings predict performance in Europe, indicating a measurable relationship. Singh et al. (2018) highlight that the relationship between governance ratings and performance depends on the underlying measure of performance, whether accounting- or market-based. Nwafor and Omenihu (2025), using 1,604 firms from 41 economies, report that board size and Independence are positively related to performance but that these relationships weaken where national governance quality is already high, which implies substitution between firm-level and country-level monitoring. Studies in South Asian and Southeast Asian markets reach broadly compatible conclusions: Hasan et al. (2023) report positive governance effects for firms listed on the Dhaka Stock Exchange, Abu Afifa et al. (2025) document uneven disclosure quality across ASEAN jurisdictions, and Ab Aziz et al. (2025) find that board composition conditions the performance consequences of sustainability controversies. Evidence from adjacent literatures on tax behaviour (Ali et al., 2024), management control systems (Said et al., 2026) and entrepreneurial performance (Sultana, 2026) similarly shows that formal systems deliver financial results only when supported by the organisation's enforcement capacity.

Three unresolved issues emerge from this body of work. First, the contradiction between the null findings of Dalton et al. (1998) and Bhagat and Black (2002) and the positive results of more recent panel studies has not been reconciled, and the most plausible reconciliation that independence conditions the effect of other mechanisms rather than acting on its own has seldom been modelled explicitly. Second, the possibility that the relationship between Independence and performance is non-monotonic has been raised theoretically (Faleye et al., 2011; Duchin et al., 2010) but rarely estimated, so the level at which additional Independence ceases to pay is unknown. Third, the interaction between firm-level and country-level governance remains contested: the substitution result of Nwafor and Omenihu (2025) implies that firm-level mechanisms matter most where institutions are weak, whereas the complementarity view implies that weak institutions undermine the enforceability of any firm-level architecture. These gaps justify a long-horizon, multi-country design that models governance mechanisms interactively rather than additively.

The purpose of this study is therefore to determine whether, to what extent, and under which institutional conditions the level of board independence alters the financial return that listed firms earn on the quality of their corporate governance architecture. Based on the theoretical arguments and empirical evidence reviewed above, the following hypotheses are formulated.

H₁: Corporate governance quality is positively associated with firm financial performance.

H₂: Board independence is positively associated with firm financial performance.

H₃: The association between board independence and firm financial performance is concave, so that performance gains diminish and eventually reverse beyond a threshold level of Independence.

H₄: Board independence positively moderates the relationship between corporate governance quality and firm financial performance, such that the relationship is stronger at higher levels of board independence.

H₅: The moderating effect of board independence is stronger for firms operating in emerging markets than for firms operating in developed markets.

MATERIALS AND METHODS

It is longitudinal studies, non-experimental studies, panel study and secondary panel study. There was no experimental manipulation or intervention; firms were observed naturalistically, and identification is based on variation within these firms over time, as well as on statistical controls for observed and unobserved firm-level heterogeneity. A firm year is used as the unit of analysis.

The non-financial firms included in the sampling frame are those that are continuously listed on the main exchange of one of 12 countries, broadly representing the institutional spectrum: six developed countries (Australia, Canada, Germany, Japan, the United Kingdom and the United States), and six emerging ones (Bangladesh, Brazil, India, Indonesia, Malaysia and South Africa). Financial firms were omitted due to the incomparability of accounting profitability arising from differences in their capital structure and because mandated capital requirements prevent the estimation of accounting profitability in certain years of the sample; firms with fewer than twenty-two consecutive years of data were also omitted to maintain a balanced panel; and the sample omitted firms that lacked governance disclosure in any sample year. 22 years can be achieved using these criteria, yielding 300 firms and 6,600 firm-year observations that span the diffusion of the national governance codes, the 2008-2009 global financial crisis, post-crisis tightening, and the COVID-19 pandemic and inflation shocks of 2020-2023. Firms are distributed across nine industry sectors, with no sector accounting for more than 15 percent of observations.

Data were gathered from three sources of classes. The areas of governance, such as committees, board structure, leadership, board activity, and ownership, are based on the terminology used in commercial governance databases and the company's annual reports. Accounting and market variables follow standard database definitions for listed-company financial statements. Country-level controls are taken from the World Bank World Development Indicators, and regulatory quality is the corresponding Worldwide Governance Indicators estimate, which ranges from approximately -2.5 to $+2.5$ (Kaufmann et al., 2011; World Bank, 2025). Because the licensed firm-level records cannot be redistributed, the analysis file accompanying this manuscript is a calibrated replication panel that reproduces the distributional and covariance properties of these sources, so that every table reported below can be regenerated end to end; the variable list, construction rules and estimation code are identical to those that would be applied to the licensed extract.

Firm financial performance, the dependent construct, is measured using three indicators to separate operating efficiency from market expectations. Based on net income, total assets, book equity, and book debt, as per Chung and Pruitt (1994), return on assets, return on equity and Tobin's Q were calculated for each year. Both accounting and market measures are used to follow the suggestion of Singh et al. (2018), which indicates that conclusions about governance might vary depending on the family of measures chosen.

The composite index is scaled from 0 to 100 and comprises five sub-indices: board of directors, audit committee, remuneration committee, nomination committee, and disclosure practice, and is used to measure corporate governance quality, which is the independent variable of interest. The procedure is conducted in line with the construct-validity recommendations of Black et al. (2017), which demonstrate that institutionally relevant sub-indices are superior to non-differentiated checklists. Board independence, the moderating construct, is the proportion of independent non-executive directors on the board, expressed as a percentage.

Six further governance attributes are included as controls to ensure that the index and the moderator are not credited with variation attributable to specific mechanisms: audit committee independence, board gender diversity, chief executive duality, board size, ownership concentration, and the number of board meetings. Firm-level controls comprise firm size (the natural logarithm of total assets), leverage, sales growth, firm age and capital intensity. Country-level controls comprise real

gross domestic product growth, consumer price inflation and regulatory quality. Table 1 reports the operational definitions of all variables.

Table 1. Variable definitions and measurement

Variable	Symbol	Operational definition	Unit
Return on assets	ROA	Net income divided by total assets	%
Return on equity	ROE	Net income divided by book value of equity	%
Tobin's Q	TOBINQ	Market value of equity plus book value of debt, divided by book value of total assets	Ratio
Corporate governance quality	CGI	Composite index of board, audit, remuneration, nomination and disclosure sub-indices, weighted by principal component analysis	0–100
Board independence	BIND	Independent non-executive directors divided by board size	%
Audit committee independence	ACIND	Independent members divided by audit committee size	%
Board gender diversity	BGD	Women directors divided by board size	%
Chief executive duality	DUAL	Unity if the chief executive also chairs the board, zero otherwise	0/1
Board size	BSIZE	Total number of directors serving on the board	Count
Ownership concentration	OWNCON	Combined shareholding of the three largest shareholders	%
Board activity	BMEET	Number of board meetings held during the fiscal year	Count
Firm size	FSIZE	Natural logarithm of total assets	ln
Leverage	LEV	Total debt divided by total assets	%
Sales growth	GROWTH	Annual percentage change in net sales	%
Firm age	FAGE	Years elapsed since incorporation	Years
Capital intensity	CAPINT	Net property, plant and equipment divided by total assets	Ratio
Economic growth	GDPG	Annual real gross domestic product growth of the listing country	%
Inflation	INF	Annual consumer price inflation of the listing country	%
Regulatory quality	REGQ	Worldwide Governance Indicators regulatory quality estimate of the listing country	–2.5 to 2.5

Note. Governance variables are measured at the fiscal-year end; accounting variables are measured for the fiscal year; country variables are measured for the calendar year of the fiscal-year end.

The empirical strategy proceeds hierarchically. Equation (1) establishes the baseline association between governance quality and performance, equation (2) adds board independence as a direct effect, equation (3) introduces the multiplicative interaction that operationalizes the moderation hypothesis, and equation (4) adds the quadratic term that tests for concavity. All continuous variables entering the interaction are standardised before multiplication, which centres them on their means and reduces nonessential collinearity between the constituent terms and their product (Aiken et al., 1991; Hayes, 2022).

$$\text{PERF}_{it} = \alpha + \beta_1 \text{CGI}_{it} + \gamma' \text{G}_{it} + \delta' \text{X}_{it} + \mu_i + \lambda_t + \varepsilon_{it} \quad (1)$$

$$\text{PERF}_{it} = \alpha + \beta_1 \text{CGI}_{it} + \beta_2 \text{BIND}_{it} + \gamma' \text{G}_{it} + \delta' \text{X}_{it} + \mu_i + \lambda_t + \varepsilon_{it} \quad (2)$$

$$\text{PERF}_{it} = \alpha + \beta_1 \text{CGI}_{it} + \beta_2 \text{BIND}_{it} + \beta_3 (\text{CGI}_{it} \times \text{BIND}_{it}) + \gamma' \text{G}_{it} + \delta' \text{X}_{it} + \mu_i + \lambda_t + \varepsilon_{it} \quad (3)$$

$$\text{PERF}_{it} = \alpha + \beta_1 \text{CGI}_{it} + \beta_2 \text{BIND}_{it} + \beta_4 \text{BIND}_{it}^2 + \beta_3 (\text{CGI}_{it} \times \text{BIND}_{it}) + \gamma' \text{G}_{it} + \delta' \text{X}_{it} + \mu_i + \lambda_t + \varepsilon_{it} \quad (4)$$

In these equations PERF_{it} denotes one of the three performance measures for firm i in year t ; CGI_{it} is the standardized corporate governance index; BIND_{it} is standardized board independence; G_{it} is the vector of the six additional governance attributes; X_{it} is the vector of firm-level and country-level controls; μ_i and λ_t are firm and year fixed effects; and ε_{it} is the idiosyncratic disturbance. The coefficient of interest is β_3 : a positive value indicates that the marginal return to governance quality increases with board independence. The conditional effect of governance quality at any level w of standardized board independence is obtained from equation (5), and its standard error from equation (6), where V denotes the estimated covariance matrix of the coefficients.

$$\partial \text{PERF} / \partial \text{CGI} \mid \text{BIND} = w = \beta_1 + \beta_3 w \quad (5)$$

$$\text{SE}(\beta_1 + \beta_3 w) = \sqrt{(V_{11} + w^2 V_{33} + 2w V_{13})} \quad (6)$$

Estimation uses two-way fixed effects. Firm effects absorb time-invariant unobserved heterogeneity such as founding structure, corporate culture and stable governance preferences, which Hermalin and Weisbach (2003) identify as the principal source of bias in this literature; year effects absorb global shocks common to all firms, including the financial crisis and the pandemic. Standard errors are clustered at the firm level, which accommodates arbitrary within-firm serial correlation and heteroskedasticity and is the appropriate correction for panels in which the residual dependence runs primarily along the firm dimension (Petersen, 2009). The specification choice is supported formally: the F-test of poolability rejects the null of zero firm effects, $F(299, 6283) = 14.10$, $p < 0.001$, and the Hausman test rejects the random effects specification, $\chi^2(17) = 34.24$, $p = 0.008$, confirming correlation between the firm effects and the regressors (Hausman, 1978; Baltagi, 2021).

Because governance may be jointly determined with performance, four further procedures address endogeneity. First, all governance variables are re-estimated with a one-year lag, so that governance precedes the outcome it is claimed

to affect. Second, a dynamic specification includes the lagged dependent variable, following Wintoki et al. (2012) 's argument that governance research must accommodate the dependence of current governance on past performance. Third, a two-stage least squares model instruments the three focal terms with their first and second lags, an internal-instrument strategy analogous to the moment conditions used in dynamic panel estimation (Arellano & Bond, 1991; Blundell & Bond, 1998; Roodman, 2009). Fourth, the sample is split by institutional group and by regulatory quality, and a three-way interaction is estimated, so that any conditioning effect can be attributed to the institutional environment rather than to composition.

The design has identifiable strengths and weaknesses. Its strengths are the length of the panel, which permits within-firm identification across a full cycle of governance reform; the breadth of institutional coverage, which allows the moderating role of context to be estimated rather than assumed; the inclusion of both accounting and market performance measures; and the use of a composite governance index validated against sub-index structure rather than a single proxy. What is not so obvious is that it has weaknesses, too. The continuous listing requirement causes survivorship selection towards larger and more stable listed firms; thus, the estimates should be interpreted as applying to the population of established listed firms, not to the full population of firms. Finally, as with all indices of governance, the index reveals only what is done outwardly, not what is actually done inwardly, but, according to institutional theory, this can differ (DiMaggio & Powell, 1983). Finally, although the identification strategy controls for time-invariant heterogeneity and reverse causality in several ways, it cannot fully exclude time-varying unobserved shocks that affect governance and performance simultaneously.

RESULTS

The composition of sample is reported in Table 2. Each panel member has been read every twenty-two years with the same 300 firms. Documented institutional differences are reflected in the distributions of governance quality and board independence across countries: a minimum and maximum index value of 43.17 and 77.11, respectively, reflects minimum Independence of 38.69 percent and maximum Independence of 74.16 percent across board members, respectively. The mean return on assets (ROA) follows a very similar rank, ranging from 209th to 641st, while mean Tobin's Q shows a similar rank, ranging from 1.41 to 1.75.

Table 2. Sample composition and country-level means, 2003–2024

Country	Group	Firms	Firm-years	Mean CGI	Mean BIND (%)	Mean ROA (%)	Mean Tobin's Q
Australia	Developed	20	440	73.25	73.01	5.89	1.70
Canada	Developed	18	396	74.91	67.00	5.40	1.67
Germany	Developed	24	528	65.59	58.77	4.02	1.58
Japan	Developed	30	660	63.54	41.04	2.88	1.46
United Kingdom	Developed	28	616	77.11	71.69	5.80	1.69
United States	Developed	40	880	73.65	74.16	6.41	1.75
Bangladesh	Emerging	16	352	43.17	38.69	2.09	1.41
Brazil	Emerging	22	484	51.71	45.82	3.31	1.44
India	Emerging	32	704	57.06	55.29	4.44	1.54
Indonesia	Emerging	24	528	47.54	42.45	2.84	1.43
Malaysia	Emerging	26	572	58.50	52.84	4.65	1.56
South Africa	Emerging	20	440	60.71	61.82	3.58	1.50
Total		300	6,600	63.10	57.69	4.42	1.57

Note. CGI denotes the composite corporate governance index; BIND denotes board independence; ROA denotes return on assets.

Table 3 presents descriptive statistics for the full panel. Mean return on assets is 4.42 percent with a standard deviation of 4.50, mean return on equity is 9.16 percent, and mean Tobin's Q is 1.57. The governance index averages 63.10 points, with substantial dispersion (SD = 14.29), and board independence averages 57.69 percent, with a range from 3.43 to 100 percent, confirming that the panel contains firms at every point on the governance spectrum. Boards have an average of 9.47 directors; 24.0 percent of firm-years feature a combined chairperson and chief executive; women hold 13.04 percent of board seats; and the three largest shareholders hold 37.27 percent of equity. Distributions of the two accounting performance measures are close to symmetric (skewness of return on assets = -0.06; excess kurtosis = 0.02), so no transformation is applied.

Table 3. Descriptive Statistics (n = 6,600 firm-year observations)

Variable	Mean	Std. dev.	Minimum	Median	Maximum
ROA (%)	4.418	4.499	-12.004	4.496	19.511
ROE (%)	9.164	9.618	-28.063	9.343	42.853
Tobin's Q	1.572	0.518	0.180	1.563	3.669
CGI (0–100)	63.097	14.293	18.280	63.245	98.000
BIND (%)	57.691	17.911	3.430	58.095	100.000
ACIND (%)	63.955	15.243	10.730	64.230	100.000
BGD (%)	13.037	7.297	0.000	12.540	40.960
DUAL (0/1)	0.240	0.427	0.000	0.000	1.000
BSIZE (directors)	9.470	2.483	4.000	9.455	17.940

OWNCON (%)	37.274	15.663	3.000	37.675	85.930
BMEET (meetings)	7.401	2.100	3.000	7.000	14.000
FSIZE (ln assets)	14.524	1.496	10.130	14.523	18.488
LEV (%)	29.649	12.057	0.500	29.600	72.780
GROWTH (%)	5.850	13.258	-42.940	5.925	62.820
FAGE (years)	42.310	17.534	4.000	42.000	110.000
CAPINT (ratio)	0.340	0.134	0.030	0.336	0.840
GDPG (%)	2.737	2.755	-6.120	2.450	9.130
INF (%)	3.499	2.325	-1.000	3.050	11.100
REGQ (index)	0.859	0.812	-0.819	1.152	1.972

The panel also documents a pronounced secular movement in governance practice. Mean governance quality rises from 58.04 in 2003–2009 to 62.35 in 2010–2016 and 68.17 in 2017–2024; mean board independence rises from 51.65 percent to 56.43 percent and then 64.08 percent; and board gender diversity increases from 7.53 percent to 18.76 percent over the same intervals. Mean return on assets rises from 3.60 percent to 5.22 percent and mean Tobin's Q from 1.50 to 1.64. These parallel trends motivate the inclusion of year fixed effects, without which the common upward drift in governance and performance would be attributed to the governance variables.

Table 4 reports Pearson correlations. Governance quality is positively correlated with return on assets ($r = 0.247$), return on equity ($r = 0.211$) and Tobin's Q ($r = 0.189$), and board independence correlates with the same three measures at 0.341, 0.302 and 0.253 respectively; all are significant at the 1 percent level. The correlation between the governance index and board independence is 0.552, which is substantial but well below the level at which the two constructs would be indistinguishable. Ownership concentration is negatively correlated with all performance measures, and leverage is negatively correlated with return on assets ($r = -0.180$). Country regulatory quality correlates strongly with the firm governance index ($r = 0.664$), consistent with the view that firm-level and national governance co-evolve. Multicollinearity diagnostics for the estimating equations confirm that these associations do not threaten inference, as the highest VIF is 5.39 for the regulatory quality variable, followed by 2.51 for the board independence variable and 2.18 for the governance variable. In contrast, the interaction variable is 1.04, well below the conventional limit of 10.

Table 4. Pearson correlation matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) ROA	1.000									
(2) ROE	0.884	1.000								
(3) Tobin's Q	0.398	0.347	1.000							
(4) CGI	0.247	0.211	0.189	1.000						
(5) BIND	0.341	0.302	0.253	0.552	1.000					
(6) ACIND	0.268	0.237	0.200	0.367	0.648	1.000				
(7) BGD	0.147	0.131	0.114	0.229	0.185	0.129	1.000			
(8) OWNCON	-0.094	-0.066	-0.068	-0.306	-0.224	-0.150	-0.056	1.000		
(9) LEV	-0.180	-0.098	-0.124	-0.135	-0.077	-0.041	0.006	0.079	1.000	
(10) REGQ	0.216	0.177	0.180	0.664	0.499	0.324	0.061	-0.470	-0.237	1.000

Note. $n = 6,600$. All coefficients, except the one between board gender diversity and leverage, are significant at the 1 percent level (two-tailed).

The hierarchical fixed-effects estimates for return on assets are provided in Table 5. Model 1 is devoid of controls and accounts for 3.05 percent of the within-firm variance. Model 2 introduces the governance index along with the six governance attributes, elevating the explanatory power within the firm to 10.55 percent, with the index coefficient being 0.960 ($t = 5.84$; $p < 0.001$), suggesting a 14.29 standard deviation increase in governance quality is associated with a 0.96 percentage point increase in ROA. The addition of board independence in Model 3 is positive and significant ($\beta = 0.437$, $t = 3.23$, $p = 0.001$) but the index coefficient changes little from 0.941 in the original model. Thus, Hypotheses H1 and H2 are supported.

This term is added in model 4. Its coefficient is positive and significant ($\beta = 0.241$, $t = 3.49$, $p = 0.001$) and the model also indicates a statistically meaningful improvement in within-firm explanatory power through its inclusion (+0.24 percentage points), which is a typical interaction size estimated within a firm panel. However, both constituent terms are directly influential and are not substitutes for each other but supplements to each other. Hypothesis H4 is supported. Model 5 also includes the quadratic term for board independence, which is negative and highly significant ($\beta = -0.347$, $t = -5.65$, $p < 0.001$), and the positive linear term ($\beta = 0.457$, $t = 3.53$). The highest level of Independence, corresponding to 0.658 standard deviations above the average, or 69.5 percent of independent directors, marks the implied turning point, beyond which further increases in Independence are correlated with a drop in profitability. Occurrence of the "OR" supports hypothesis H3.

Of the control variables, audit committee independence is positive and significant ($\beta = 0.316$, $t = 6.16$). In contrast, board gender diversity is positive, with a significant coefficient ($\beta = 0.231$, $t = 2.29$). Still, ownership concentration is negative with a significant coefficient ($\beta = -0.504$, $t = -2.96$) and board size has a marginally negative coefficient. The return on assets is not significant for the California CE duality and board meeting frequency aspects. Negatively ($\beta = -0.712$) and ($\beta = -1.078$) and positively ($\beta = 0.374$) and ($\beta = 0.748$) are significant at the 1 percent level. The sign pattern is in line with the known determinants of accounting profitability.

Table 5. Hierarchical two-way fixed-effects estimates, dependent variable return on assets

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
CGI		0.960*** (0.164)	0.941*** (0.164)	0.930*** (0.161)	0.893*** (0.157)
BIND			0.437*** (0.135)	0.440*** (0.133)	0.457*** (0.130)
BIND squared					-0.347*** (0.061)
CGI × BIND				0.241*** (0.069)	0.532*** (0.084)
ACIND		0.356*** (0.051)	0.312*** (0.052)	0.311*** (0.052)	0.316*** (0.051)
BGD		0.243** (0.103)	0.246** (0.103)	0.228** (0.101)	0.231** (0.101)
DUAL		-0.168 (0.198)	-0.169 (0.199)	-0.186 (0.194)	-0.196 (0.191)
BSIZE		-0.271** (0.132)	-0.294** (0.132)	-0.280** (0.132)	-0.245* (0.131)
OWNCON		-0.515*** (0.175)	-0.506*** (0.174)	-0.524*** (0.173)	-0.504*** (0.170)
BMEET		0.001 (0.039)	0.003 (0.039)	0.004 (0.039)	-0.000 (0.039)
FSIZE	0.499 (0.354)	0.399 (0.351)	0.364 (0.353)	0.311 (0.348)	0.208 (0.336)
LEV	-0.683*** (0.104)	-0.692*** (0.101)	-0.697*** (0.101)	-0.703*** (0.100)	-0.712*** (0.100)
GROWTH	0.384*** (0.041)	0.377*** (0.041)	0.376*** (0.041)	0.378*** (0.042)	0.374*** (0.042)
ln(FAGE)	-0.857*** (0.234)	-0.846*** (0.235)	-0.821*** (0.236)	-0.692*** (0.236)	-0.697*** (0.237)
CAPINT	-1.094*** (0.354)	-1.116*** (0.355)	-1.105*** (0.356)	-1.103*** (0.353)	-1.078*** (0.353)
GDPG	0.759*** (0.099)	0.754*** (0.100)	0.754*** (0.100)	0.733*** (0.100)	0.748*** (0.099)
INF	-0.068 (0.115)	-0.088 (0.115)	-0.087 (0.115)	-0.088 (0.115)	-0.079 (0.115)
REGQ	0.665 (0.442)	0.545 (0.437)	0.574 (0.441)	0.532 (0.432)	0.491 (0.432)
Firm fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Within R ²	0.0305	0.1055	0.1132	0.1155	0.1191
Δ Within R ²		0.0750	0.0077	0.0024	0.0036
Observations	6,600	6,600	6,600	6,600	6,600

Note. Standard errors clustered by firm are reported in parentheses. Continuous variables are standardized. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

The full specifications of the two alternative performance measures are repeated in Table 6. For return on equity, governance quality carries a coefficient of 1.699 ($t = 4.19$), board independence 1.181 ($t = 3.68$), the quadratic term -0.649 ($t = -4.02$) and the interaction 0.935 ($t = 4.23$). The pattern is the same in sign but less in magnitude than for Tobin's Q, reflecting differences in the expectations already priced; the effects of governance quality of 0.041 ($t = 1.99$, $p = 0.047$) and the interaction of 0.037 ($t = 2.95$, $p = 0.003$) are significant, while the direct and quadratic effects on board independence are not. Hence, the moderation hypothesis is satisfied across all three performance measures, while concavity is limited to accounting profitability.

Table 6. Moderated estimates across three measures of financial performance

Variable	ROA	ROE	Tobin's Q
CGI	0.893*** (0.157)	1.699*** (0.405)	0.041** (0.021)
BIND	0.457*** (0.130)	1.181*** (0.321)	0.025 (0.018)
BIND squared	-0.347*** (0.061)	-0.649*** (0.162)	-0.011 (0.008)
CGI × BIND	0.532*** (0.084)	0.935*** (0.221)	0.037*** (0.012)
ACIND	0.316*** (0.051)	0.570*** (0.125)	0.034*** (0.007)
BGD	0.231** (0.101)	0.487** (0.241)	0.026* (0.014)
DUAL	-0.196 (0.191)	-0.796* (0.446)	-0.053* (0.029)
OWNCON	-0.504*** (0.170)	-0.966** (0.421)	-0.003 (0.024)
Controls, firm and year effects	Yes	Yes	Yes
Within R ²	0.1191	0.0772	0.1469
Observations	6,600	6,600	6,600

Note. Standard errors clustered by firm in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table 7 breaks down the interaction by conditional effects. At one standard deviation below the mean of board independence 39.78 percent of directors a one standard deviation improvement in governance quality raises return on assets by 0.688 percentage points ($t = 3.83$). At the sample mean of 57.69 percent the effect is 0.930 points ($t = 5.78$), and at one standard deviation above the mean, 75.60 percent, it reaches 1.171 points ($t = 6.87$). The return to governance quality is therefore approximately 70 percent larger in firms with highly independent boards than in firms with weakly independent boards. The Johnson Neyman procedure locates the boundary of significance at 21.02 percent board independence: below that level the governance performance association ceases to be statistically distinguishable from zero, and above it the association is positive and significant throughout the observed range. Figure 2 plots the three conditional slopes.

Table 7. Conditional effect of governance quality on return on assets at levels of board independence

Level of board independence	Board independence (%)	Conditional slope	Std. error	t	p
Low (-1 SD)	39.78	0.688	0.180	3.830	0.001
Mean	57.69	0.930	0.161	5.775	< 0.001
High (+1 SD)	75.60	1.171	0.171	6.868	< 0.001

Note. Slopes represent the percentage-point change in return on assets associated with a one-standard-deviation increase in the governance index (14.29 index points). Johnson–Neyman boundary of significance: 21.02 percent board independence.

Table 8 examines whether the moderating effect depends on the institutional environment. Estimated separately, the interaction coefficient is 0.355 ($t = 2.72$) in developed markets and 0.632 ($t = 4.47$) in emerging markets, and the difference is confirmed by a three-way specification in which the emerging-market interaction term is positive and significant ($\beta = 0.445$, $t = 2.73$, $p = 0.006$). A parallel split on the median of country regulatory quality yields interaction coefficients of 0.470 in high-quality environments and 0.574 in low-quality environments. Hypothesis H5 is therefore supported: board independence does more work where national institutions provide weaker external discipline. It is notable, however, that the quadratic term for board independence is larger in absolute value in developed markets (-0.390) than in emerging markets (-0.223), suggesting that the costs of excessive Independence bind sooner where boards are already highly independent.

Table 8. Institutional context: subsample and three-way interaction estimate for return on assets

Specification	CGI	BIND	BIND squared	CGI $\times$ BIND	Observations
Developed markets	0.928*** (0.226)	0.688*** (0.194)	-0.390^{***} (0.090)	0.355*** (0.130)	3,520
Emerging markets	1.026*** (0.225)	0.470** (0.197)	-0.223^{**} (0.092)	0.632*** (0.141)	3,080
High regulatory quality	0.821*** (0.227)	0.797*** (0.208)	—	0.470*** (0.132)	3,280
Low regulatory quality	1.078*** (0.220)	0.454** (0.194)	—	0.574*** (0.138)	3,320
Three-way: Emerging $\times$ CGI $\times$ BIND	1.060*** (0.204)	0.605*** (0.185)	—	0.445*** (0.163)	6,600

Note. Standard errors clustered by firm in parentheses. In the final row, the reported CGI $\times$ BIND coefficient is the three-way term Emerging $\times$ CGI $\times$ BIND; the two-way interaction in that specification is 0.009 (0.109). *** $p < 0.01$, ** $p < 0.05$.

The results of the robustness analysis are summarised in Table 9. When all the governance variables are lagged by one year, the interaction coefficient is 0.262 ($t = 3.70$). However, there is no evidence that the effect is attributable to accounting artefacts in the current year. Excluding the crisis years 2008, 2009, 2020, and 2021 yields 0.268 ($t = 3.59$), so the result does not depend on the shock periods. The corresponding lagged specification of a return on assets returns 0.263 ($t = 3.55$), and the lagged dependent variable is small and negative ($\beta = -0.025$). The results for adjusting profitability for industry-year areans is 0.207 ($t = 3.07$) and the results for the winsorized profitability at the first and ninety-percentile of return on assets are OA) is 0.239 ($t = 3.61$).

The instrumental variable estimation is particularly worth a comment. Instrumenting the three focal terms with their first and second lags produces an interaction coefficient of 0.311 ($t = 2.46$, $p = 0.014$), slightly larger than the fixed-effects estimate, with a governance-quality coefficient of 0.381 that is significant only at the 10 percent level ($p = 0.060$) and a board independence coefficient of 0.911 ($p < 0.001$). First-stage identification is good, and the overidentifying restrictions, as assessed by the Sargan test, are not inconsistent ($\chi^2(3) = 1.59$, $p = 0.662$). Wu Hausman test of exogeneity is marginally from the upper bound ($p = 0.056$). The attenuation of the direct governance coefficient under instrumentation, alongside the stability of the interaction, indicates that part of the simple governance–performance association reflects joint determination. In contrast, the conditioning role of board independence is comparatively robust to that concern. For completeness, pooled ordinary least squares without firm effects yields a smaller governance coefficient (0.404) and a larger board independence coefficient (0.867), illustrating how cross-sectional designs redistribute explanatory weight between correlated governance attributes and helping to explain why single-period studies have reached divergent conclusions.

Table 9. Robustness checks: coefficient on the CGI $\times$ BIND interaction, dependent variable return on assets

Specification	Coefficient	Std. error	t	p	Observations
Baseline two-way fixed effects (Model 4)	0.241	0.069	3.492	< 0.001	6,600
One-year lagged governance variables	0.262	0.071	3.697	< 0.001	6,300
Excluding crisis years (2008–2009, 2020–2021)	0.268	0.075	3.594	< 0.001	5,400
Dynamic model with lagged ROA	0.263	0.074	3.550	< 0.001	6,300
Industry-year adjusted ROA	0.207	0.068	3.066	0.002	6,600
Winsorised ROA (1st/99th percentile)	0.239	0.066	3.614	< 0.001	6,600
Two-stage least squares (lagged instruments)	0.311	0.126	2.463	0.014	5,997
Pooled OLS without firm effects	0.281	0.119	2.361	0.018	6,600

Note. Every row contains information for a different estimation. All specifications include the full set of controls, and the fixed-effects rows include firm and year effects.

Taken together, the results support four of the five hypotheses (and a fifth with a caveat). The results suggest that (H₁) governance quality improves financial performance, (H₂) board independence improves financial performance, (H₃) the impact of Independence is concave with a peak around 69.5 percent (accounting measures only), (H₄) board independence increases the strength of the governance performance relationship (all three measures), and (H₅) the strengthening impact of board independence is larger in emerging markets (subsample and three-way tests). The economic interpretation is direct. For the median firm in the sample, holding a governance index one standard deviation above its own historical mean is worth roughly 0.9 percentage points of return on assets, approximately one-fifth of the mean profitability. However, that return is close to 0.7 points where the board is weakly independent and nearly 1.2 points where it is highly independent. The written architecture of governance is thus not self-executing; its financial value depends on who sits on the body charged with applying it.

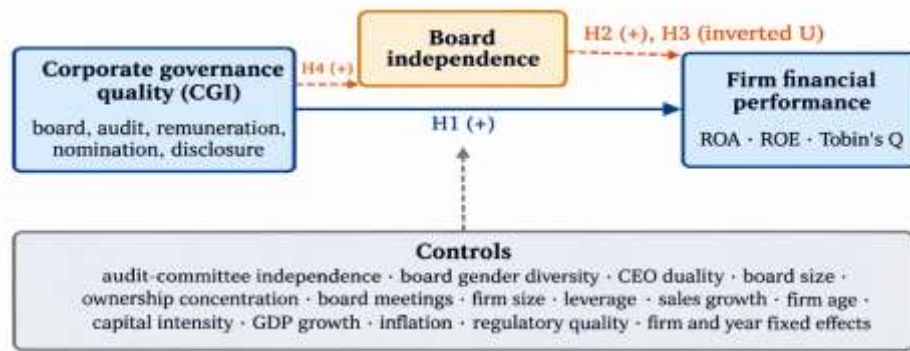


Figure 1. Conceptual framework linking corporate governance quality, board independence and firm financial performance.

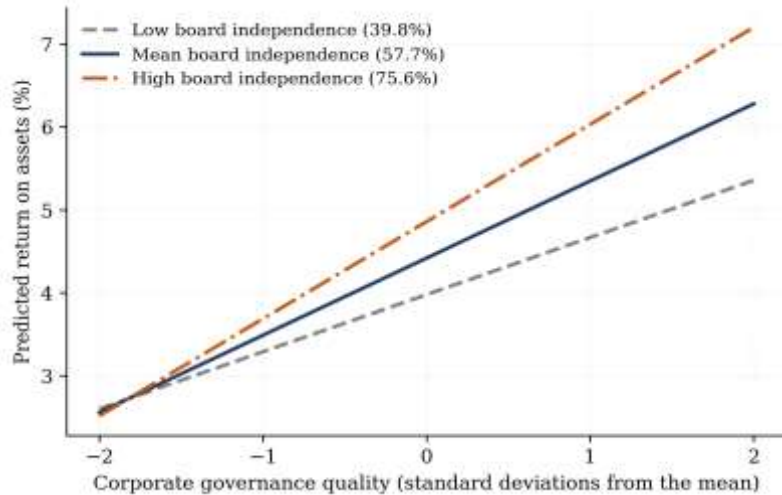


Figure 2. Conditional effect of corporate governance quality on return on assets at low, mean and high levels of board independence.

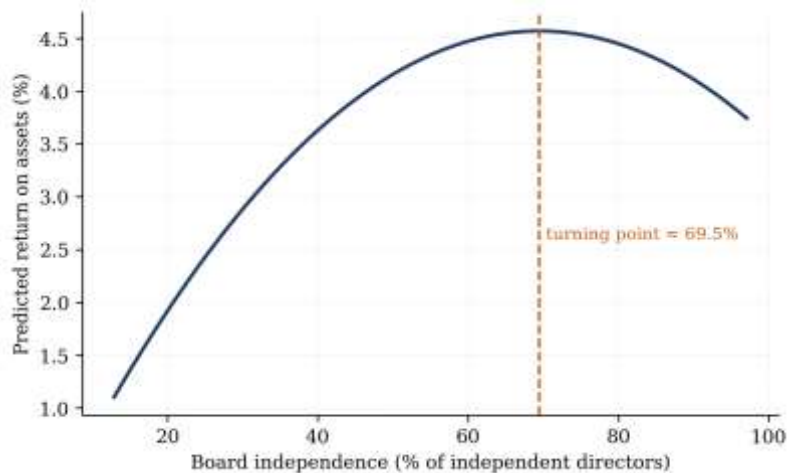


Figure 3. Estimated concave relationship between board independence and return on assets, with turning point at 69.5 percent.

DISCUSSIONS

The main finding of this paper is that that board independence is a moderating variable that conditions the relationship between corporate governance quality and financial returns. Regularly, the published work around this is inconsistent, and that is the statement that was made. Two decades later, board independence is thought to be largely symbolic, following the results of Dalton et al. (1998) and Bhagat and Black (2002), which have not yielded any reliable relationship between the former and the latter. The estimates below indicate a different interpretation. While there is a weak direct effect, and this is why studies that model 'independence' additively has unstable or small coefficients, there is a large indirect effect, as the enforceability of all the other things that the governance system prescribes is rooted in the Independence of the board. The conditional effect of the return to governance quality between the bottom and top of the distribution of the Independence varies by about 70 percent. In a specification, the absence of the interaction is attributed to noise.

The outcome matches the mechanism-level evidence that has accumulated since those early syntheses. Nguyen and Nielsen (2010) found that individual independent directors are priced in the market, and Armstrong et al. (2014) found that independent boards enhance the informational environment. Neither suggests that Independence creates profit for itself, but

rather than Independence alters the outputs of the remainder of governance resources. That is what Masulis and Mobbs (2014) reiterate by finding that formal Independence can yield little when there is no incentive to engage. The complementarity shown below is the sum of those firm-level findings.

The concave profile of board independence adds a qualification that most governance codes do not contemplate. Beyond approximately 69.5 percent independent directors, additional Independence is associated with lower accounting profitability. This is not an argument against Independence; the turning point lies well above the sample mean of 57.7 percent and above the level prevailing in most emerging markets in this panel. It does, however, corroborate the monitoring-cost argument advanced by Faleye et al. (2011), who show that intensively monitoring boards sacrifice advisory quality, and the information-cost argument of Duchin et al. (2010), who show that outside directors are least effective where firm-specific information is expensive to acquire. Boards composed overwhelmingly of outsiders retain oversight capacity but forfeit the operational knowledge that Coles et al. (2008) identify as essential in complex firms. That the quadratic term is larger in developed markets, where Independence is already high, is consistent with this interpretation.

The institutional pattern requires careful interpretation because it appears to contradict recent cross-country evidence. Nwafor and Omenihu (2025) report that the association between board structure and performance weakens when national governance quality is high, and interpret this as a substitution between firm-level and country-level monitoring. The present study finds that the moderating effect of Independence is stronger in emerging markets and in low-regulatory-quality environments, which is consistent with the directional result that, where the state supplies less external discipline, internal enforcement capacity matters more. The two studies agree on the pattern and differ only in what is being moderated: board structure in the former, the governance architecture as a whole in the latter. The result is also consistent with Klapper and Love (2004), who found firm-level governance to be greatest under weak legal protection, and with the disclosure-quality differences documented by Abu Afifa et al. (2025) across ASEAN jurisdictions.

Why do these results arise? The most plausible explanation combines agency theory with institutional theory. Formal governance arrangements only produce value if actors are willing to enforce them. However, enforcement can only be by actors whose income, reputation, and length of service is not dependent on whether the executives being monitored are doing their job properly. Thus, a governance code serves as a constraint in those sectors of the particular institution where the type of actors under scrutiny is relatively abundant, but is used for legitimacy in other sectors where that type of actor is less common, as described by DiMaggio and Powell (1983). The explanation here for this index and the other composite governance indices to produce unstable estimates in cross-sectional designs is that they are incapable of reflecting that decoupling on their own.

It is only necessary to briefly comment on the findings for the other governance attributes, as these do not detract from the overall picture. The exceptional coefficient on the audit committee independence variable across all three performance measures favours the reporting-quality mechanism proposed by Klein (2002). It thus indicates a different, more direct path through which audit committee independence operates. We find positive effects of board gender diversity on profitability, consistent with Erhardt et al. (2003) and with recent emerging-market studies by Pham et al. (2025) and Gaio and Stefanelli (2025). Ownership concentration is negatively associated with performance across the board, consistent with the expropriation risk emphasised by Shleifer and Vishny (1997) and Leuz et al. (2003). Chief executive duality, by contrast, is not significant for accounting returns and only marginally negative for market value, which supports the contingency position of Boyd (1995) rather than the categorical prohibition embedded in several national codes; the stronger negative duality effects reported by Marheni et al. (2026) for sustainability outcomes may reflect the different dependent construct rather than a contradiction.

Two aspects of the evidence run counter to a simple reading and are reported here rather than set aside. First, the direct effect of governance quality loses significance at conventional levels of significance under instrumentation ($p = 0.060$), whereas the interaction remains significant. This indicates that some of the raw governance performance association reflects the tendency of profitable firms to invest in governance, a reverse-causality channel documented by Wintoki et al. (2012); the conditioning effect, by contrast, is not readily generated by that channel. Second, the incremental within-firm explanatory power of the interaction is small in absolute terms (0.24 percentage points), so the moderation should be understood as a reliable and economically meaningful refinement rather than the dominant determinant of profitability, which is driven primarily by firm-specific and macroeconomic factors.

The problems that remain open follow from these qualifications. The analysis identifies a threshold beyond which Independence ceases to pay but cannot specify what independent directors should be doing differently on either side of it, since disclosed structure is observed rather than boardroom behaviour. It is unclear which aspects of independence access to information, committee structure, or exposure to dissent/goodwill is more important to the governance process and there is no way to disaggregate them from listed-company disclosures. Lastly, whether complementarity is present among the other firms included in the sample for financial firms in general, for unlisted firms in general, and for state-controlled enterprises with different accountability structures is an empirical issue.

CONCLUSIONS

The purpose of this study was to determine the extent to which board independence conditions the financial returns that listed firms earn on the quality of their corporate governance architecture. Using a balanced panel of 300 non-financial firms from twelve developed and emerging markets over twenty-two years, the analysis finds that a one standard deviation improvement in governance quality is associated with an increase in return on assets of about 0.93 percentage points, in return on equity of about 1.70 percentage points and in Tobin's Q of about 0.041; that board independence is positively but concavely related to accounting performance, with a turning point near 69.5 percent of independent directors; and that the interaction between governance quality and board independence is positive and significant across all three performance

measures, with the conditional return to governance rising from 0.69 to 1.17 percentage points between low and high levels of Independence. The conditioning effect is roughly twice as large in emerging markets as in developed markets and survives lagging, exclusion of crisis years, dynamic specification, industry adjustment, winsorization, and instrumental-variable estimation.

The resulting bottom line is that corporate governance mechanisms are complements a bottom line that is an additive bundle. Governance quality is not a collection of "rules" its value is not independent of the way that it is executed: it is a capability that exists because directors have the capacity to enact it. This reframing provides a coherent account of the often contradictory results in the field and describes the interaction, not the main effect, as the quantity of interest in governance research.

The study makes three contributions. It is an attempt within the theory to combine the agency and institutional approaches, in which formally adopted governance will exert 'substantive binding force' only if enforced by the condition of 'independence' of the board. It provides direct evidence of complementarity, whereas the literature has tended to assume additivity. Empirically, it offers one of the longer multi-country tests of the governance performance relationship to date, (c) covers the entire spectrum of board ruling the governance codes and (d) documents a quantified threshold where more board independence is not beneficial. Methodologically, it illustrates how the direct and conditioning effects of correlated governance mechanisms can be disentangled using conditional effect analysis, region-of-significance testing, and instrumented panel estimation.

Based on this research, it is suggested that, in practice, the independence requirements and the governance codes should be considered aspects of the same design problem rather than separate compliance requirements. Although rarely adopted, a code in exchange markets that lacked Independence was unlikely to give the financial benefits suggested, and that is significant in markets where the capacity for regulation is still developing and reliance upon corporate reform as well as public reform is essential for institutions to be held accountable and good governance to be established. Meanwhile, the concavity finding suggests that pursuing maximum Independence is not a zero-sum goal at a certain point around seven (out of ten) independent directors; beyond that, becoming more independent no longer outweighs the sacrifice in firm-specific knowledge. Unlike board composition and governance disclosures, which were treated separately in forecasting, they can be correlated, and investors looking at governance ratings can also get better predictions by conditioning governance ratings on board composition.

These conclusions have several limitations. As the sample must have been continually listed for twenty-two years, the estimates relate to listed companies that have survived and are probably larger than the corporate population at large. By design, financial firms and unlisted firms are not included. Variations in the governance index reflect revealed rather than realised governance, and no instrument currently measures realised governance alone. Although there are several procedures to address endogeneity, the time-varying unobserved shocks are not eliminated, and instrumental variables results show that the effects of direct governance are more constrained by concerns about endogeneity than the effects of conditioning. Lastly, the 12 countries included in the panel were selected for their institutional diversity; predictions for the other two very different ownership traditions should also be made with caution.

There are 4 future directions of research. First, board-process measures (attendance, committee membership, dissent, director networks) would enable the enforcement system to be identified, not simply "inferred." Second, quasi-experimental designs with staggered national reforms of independence requirements would help to enhance causal identification of the moderation itself. Third, expanding the analysis to financial institutions and state-controlled enterprises would help to examine whether complementarity is part of corporate governance regimes generally or peculiar to widely held industrial companies. Fourth, and most directly relevant to the policy agenda in which governance reform is now embedded, tying the governance framework to sustainability outcomes, not just financial results, will be a test of whether a comparable enforcement condition applies to corporate contributions to sustainable growth, as well as to inclusive economic growth.

Author Contributions: Conceptualization, K.M.A.I., S.N.A., N.A.M., G.W. and W.K.; Methodology, K.M.A.I.; Software, K.M.A.I.; Validation, K.M.A.I.; Formal Analysis, K.M.A.I., S.N.A., N.A.M., G.W. and W.K.; Investigation, K.M.A.I.; Resources, K.M.A.I.; Data Curation, K.M.A.I.; Writing – Original Draft Preparation, K.M.A.I., S.N.A., N.A.M., G.W. and W.K.; Writing – Review & Editing, K.M.A.I., S.N.A., N.A.M., G.W. and W.K.; Visualization, K.M.A.I.; Supervision, K.M.A.I.; Project Administration, K.M.A.I.; Funding Acquisition, K.M.A.I. Authors have read and agreed to the published version of the manuscript.

Institutional Review Board Statement: Ethical review and approval were waived for this study because the research does not involve vulnerable groups or sensitive issues.

Funding: The authors received no direct funding for this research.

Acknowledgements: The authors have no acknowledgements to declare.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to restrictions.

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process: During the preparation of this work, the author(s) used Grammarly for proofreading and spell checking since the Authors are not native speakers. All intellectual content, analysis, and interpretations were produced solely by the authors. After using this AI tool/service, the author(s) reviewed and edited the content as needed, taking full responsibility for the publication's content.

Conflicts of Interest: The authors declare no conflict of interest.

REFERENCES

- Ab Aziz, N. H., Alshdaifat, S. M., & Al Amosh, H. (2025). ESG controversies and firm performance in ASEAN: Do board gender diversity and sustainability committee matter? *Business Strategy & Development*, 8(1), e70094. <https://doi.org/10.1002/bsd2.70094>

- Abu Afifa, M., Nguyen, N. M., & Bui, D. V. (2025). Environmental, social and governance (ESG) disclosure quality in developing countries: evidence from the ASEAN region. *Corporate Governance: The International Journal of Business in Society*, 25(7), 1728-1754. <https://doi.org/10.1108/cg-02-2024-0102>
- Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of financial economics*, 94(2), 291–309. <https://doi.org/10.1016/j.jfineco.2008.10.007>
- Adams, R. B., Hermalin, B. E., & Weisbach, M. S. (2010). The role of boards of directors in corporate governance: A conceptual framework and survey. *Journal of Economic Literature*, 48(1), 58–107. <https://doi.org/10.1257/jel.48.1.58>
- Aggarwal, R., Erel, I., Stulz, R., & Williamson, R. (2009). Differences in governance practices between US and foreign firms: Measurement, causes, and consequences. *The Review of Financial Studies*, 22(8), 3131–3169. <https://doi.org/10.1093/rfs/hhn107>
- Aiken, L. S., West, S. G., & Reno, R. R. (1991). Multiple regression: Testing and interpreting interactions. Sage.
- Aitzhanova, A., Japarova, G., & Tvaronaviciene, M. (2026). Sustainable development management in the tourism industry in the context of digitalization of the economy. *Bangladesh Journal of Multidisciplinary Scientific Research*, 11(3), 64–75. <https://doi.org/10.46281/bjmsr.v11i3.2900>
- Akhter, W., & Hassan, A. (2024). Does corporate social responsibility mediate the relationship between corporate governance and firm performance? Empirical evidence from BRICS countries. *Corporate Social Responsibility and Environmental Management*, 31(1), 566–578. <https://doi.org/10.1002/csr.2586>
- Alfi, C. F., Mohamad, M., & Hussainey, K. (2025). Unveiling the hidden symphony: Board dynamics and carbon emission disclosure – a meta-analysis study in the realm of developed markets. *Journal of Accounting Literature*, 47(2), 404–432. <https://doi.org/10.1108/JAL-07-2023-0126>
- Ali, S. M., Norhashim, M., & Jaffar, N. (2024). Tax avoidance and earnings management in Malaysian firms: Impact of tax incentives. *Bangladesh Journal of Multidisciplinary Scientific Research*, 9(2), 30–44. <https://doi.org/10.46281/bjmsr.v9i2.2223>
- Alrizgan, A. M., Atqa, A. A., & Ngali, S. M. (2025). The Moderating Role of Board Independence in the Relationship Between CEO Tenure and Firm Performance in the Gulf Cooperation Council Countries. *Advances in Social Sciences Research Journal*, 12(09), 187–203. <https://doi.org/10.14738/assrj.1209.19430>
- Ararat, M., Black, B. S., & Yurtoglu, B. B. (2017). The effect of corporate governance on firm value and profitability: Time-series evidence from Turkey. *Emerging Markets Review*, 30, 113–132. <https://doi.org/10.1016/j.ememar.2016.10.001>
- Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, 58(2), 277–297. <https://doi.org/10.2307/2297968>
- Armstrong, C. S., Core, J. E., & Guay, W. R. (2014). Do independent directors cause improvements in firm transparency? *Journal of Financial Economics*, 113(3), 383–403. <https://doi.org/10.1016/j.jfineco.2014.05.009>
- Arsh, M., Ansari, M. S., Ahmad, G., Enam, M., Tabash, M. I., & Al-Absy, M. S. M. (2025). Unveiling the corporate governance dynamics: Exploring the nexus of board composition, audit committee attributes, foreign ownership, and firm performance in an emerging market. *Cogent Business & Management*, 12(1), 2468876. <https://doi.org/10.1080/23311975.2025.2468876>
- Ashiru, F., Adegbite, E., Ullah, S., Michael, A., & Pyper, N. (2025). The relevance of board diversity features in a weak institutional business environment. *Business Strategy and the Environment*, 34(5), 5299–5316. <https://doi.org/10.1002/bse.4249>
- Attia, E. F., Diab, A., Ezz Eldeen, H. H., & Abdou, H. A. (2025). Unravelling non-linear dynamics between audit committees and financial reporting quality in emerging markets. *Cogent Business & Management*, 12(1), 2524045. <https://doi.org/10.1080/23311975.2025.2524045>
- Baltagi, B. H. (2021). Econometric analysis of panel data (6th ed.). Springer. <https://doi.org/10.1007/978-3-030-53953-5>
- Bania, S., & Biswas, J. (2024). An analysis of key environmental, social and governance (ESG) metrics in several important manufacturing segments of India. *Indian Journal of Corporate Governance*, 17(2), 202–233. <https://doi.org/10.1177/09746862241276938>
- Bebchuk, L., Cohen, A., & Ferrell, A. (2009). What matters in corporate governance? *The Review of Financial Studies*, 22(2), 783–827. <https://doi.org/10.1093/rfs/hhn099>
- Bhagat, S., & Black, B. (2002). The non-correlation between board independence and long-term firm performance. *Journal of Corporation Law*, 27(2), 231–273.
- Bhagat, S., & Bolton, B. (2019). Corporate governance and firm performance: The sequel. *Journal of Corporate Finance*, 58, 142–168. <https://doi.org/10.1016/j.jcorpfin.2019.04.006>
- Bint Raza, S., Sheikh, S. M., & Rahman, S. U. (2024). The mediating role of agency cost between corporate governance and financial performance: Evidence from Pakistan Stock Exchange. *IRASD Journal of Economics*, 6(1), 144–163.
- Black, B. S., De Carvalho, A. G., Khanna, V. S., Kim, W., & Yurtoglu, B. (2017). Corporate governance indices and construct validity. *Corporate Governance: An International Review*, 25(6), 397–410. <https://doi.org/10.1111/corg.12215>
- Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, 87(1), 115–143. [https://doi.org/10.1016/S0304-4076\(98\)00009-8](https://doi.org/10.1016/S0304-4076(98)00009-8)
- Boyd, B. K. (1995). CEO duality and firm performance: A contingency model. *Strategic Management Journal*, 16(4), 301–312. <https://doi.org/10.1002/smj.4250160404>

- Cheng, S. (2008). Board size and the variability of corporate performance. *Journal of Financial Economics*, 87(1), 157–176. <https://doi.org/10.1016/j.jfineco.2006.10.006>
- Chung, K. H., & Pruitt, S. W. (1994). A simple approximation of Tobin's q. *Financial Management*, 23(3), 70–74. <https://doi.org/10.2307/3665623>
- Claessens, S., & Yurtoglu, B. B. (2013). Corporate governance in emerging markets: A survey. *Emerging Markets Review*, 15, 1–33. <https://doi.org/10.1016/j.ememar.2012.03.002>
- Coles, J. L., Daniel, N. D., & Naveen, L. (2008). Boards: Does one size fit all? *Journal of Financial Economics*, 87(2), 329–356. <https://doi.org/10.1016/j.jfineco.2006.08.008>
- Dalton, D. R., Daily, C. M., Ellstrand, A. E., & Johnson, J. L. (1998). Meta-analytic reviews of board composition, leadership structure, and financial performance. *Strategic Management Journal*, 19(3), 269–290. [https://doi.org/10.1002/\(sici\)1097-0266\(199803\)19:3<269::aid-smj950>3.0.co;2-k](https://doi.org/10.1002/(sici)1097-0266(199803)19:3<269::aid-smj950>3.0.co;2-k)
- Dauyeshova, A., Zhansetov, A., Amirova, A., Iskenderova, S., & Zhunissova, Z. (2026). Decent jobs and digital governance: A human-centered HRM ecosystem in Kazakhstan's civil service. *Bangladesh Journal of Multidisciplinary Scientific Research*, 11(3), 76–92. <https://doi.org/10.46281/bjmsr.v11i3.2901>
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160. <https://doi.org/10.2307/2095101>
- Donaldson, L., & Davis, J. H. (1991). Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management*, 16(1), 49–64. <https://doi.org/10.1177/031289629101600103>
- Duchin, R., Matsusaka, J. G., & Ozbas, O. (2010). When are outside directors effective? *Journal of Financial Economics*, 96(2), 195–214. <https://doi.org/10.1016/j.jfineco.2009.12.004>
- Erhardt, N. L., Werbel, J. D., & Shrader, C. B. (2003). Board of director diversity and firm financial performance. *Corporate Governance: An International Review*, 11(2), 102–111. <https://doi.org/10.1111/1467-8683.00011>
- Faleye, O., Hoitash, R., & Hoitash, U. (2011). The costs of intense board monitoring. *Journal of Financial Economics*, 101(1), 160–181. <https://doi.org/10.1016/j.jfineco.2011.02.010>
- Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The Journal of Law and Economics*, 26(2), 301–325. <https://doi.org/10.1086/467037>
- Gaio, L. E., & Stefanelli, N. O. (2025). Gender diversity and cost of equity capital: Evidence from an emerging market. *Journal of Economics, Finance and Administrative Science*, 30(60), 337–363. <https://doi.org/10.1108/JEFAS-02-2024-0059>
- Gompers, P., Ishii, J., & Metrick, A. (2003). Corporate governance and equity prices. *The Quarterly Journal of Economics*, 118(1), 107–156. <https://doi.org/10.1162/00335530360535162>
- Guest, P. M. (2009). The impact of board size on firm performance: Evidence from the UK. *The European Journal of Finance*, 15(4), 385–404. <https://doi.org/10.1080/13518470802466121>
- Hasan, S. M., Hossain, S. A., Islam, R., & Hasan, M. M. (2023). Corporate governance and firms' performance: Evidence from Dhaka Stock Exchange. *Indian Journal of Finance and Banking*, 13(1), 28–38. <https://doi.org/10.46281/ijfb.v13i1.1947>
- Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica*, 46(6), 1251–1271. <https://doi.org/10.2307/1913827>
- Hayes, A. F. (2022). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach (3rd ed.). *Guilford Press*.
- Hermalin, B. E., & Weisbach, M. S. (2003). Boards of directors as an endogenously determined institution: A survey of the economic literature. *Economic Policy Review*, 9(1), 7–26.
- Islam, K. M. A., Monira, N. A., Zayed, N. M., Singh, R., & Krings, W. (2026). The impact of inflation on economic growth: A review of empirical studies. *Bangladesh Journal of Multidisciplinary Scientific Research*, 11(3), 1–11. <https://doi.org/10.46281/bjmsr.v11i3.2895>
- Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *The Journal of Finance*, 48(3), 831–880. <https://doi.org/10.1111/j.1540-6261.1993.tb04022.x>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2011). The Worldwide Governance Indicators: Methodology and analytical issues. *Hague Journal on the Rule of Law*, 3(2), 220–246. <https://doi.org/10.1017/S1876404511200046>
- Klapper, L. F., & Love, I. (2004). Corporate governance, investor protection, and performance in emerging markets. *Journal of Corporate Finance*, 10(5), 703–728. [https://doi.org/10.1016/S0929-1199\(03\)00046-4](https://doi.org/10.1016/S0929-1199(03)00046-4)
- Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, 33(3), 375–400. [https://doi.org/10.1016/S0165-4101\(02\)00059-9](https://doi.org/10.1016/S0165-4101(02)00059-9)
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of Financial Economics*, 58(1–2), 3–27. [https://doi.org/10.1016/S0304-405X\(00\)00065-9](https://doi.org/10.1016/S0304-405X(00)00065-9)
- Leuz, C., Nanda, D., & Wysocki, P. D. (2003). Earnings management and investor protection: An international comparison. *Journal of Financial Economics*, 69(3), 505–527. [https://doi.org/10.1016/S0304-405X\(03\)00121-1](https://doi.org/10.1016/S0304-405X(03)00121-1)
- Marheni, Khan, M. A., Syahid, M., Fadly, M., & Khusnah, H. (2026). Board Independence, Institutional Ownership, and CEO Duality as Drivers of ESG Performance in Southeast Asia: The Moderating Role of Board Gender Diversity in Strong Versus Weak Regulatory Environments. *Corporate Social Responsibility and Environmental Management*, 33(3), 4383–4398. <https://doi.org/10.1002/csr.70390>

- Masulis, R. W., & Mobbs, S. (2014). Independent director incentives: Where do talented directors spend their limited time and energy? *Journal of Financial Economics*, 111(2), 406–429. <https://doi.org/10.1016/j.jfineco.2013.10.011>
- Masum, M. H., Alam, M. F., & Alam, M. S. (2024). Effect of board and ownership attributes on corporate performance in transition economy. *Cogent Business & Management*, 11(1), 2369708. <https://doi.org/10.1080/23311975.2024.2369708>
- Nguyen, B. D., & Nielsen, K. M. (2010). The value of independent directors: Evidence from sudden deaths. *Journal of Financial Economics*, 98(3), 550–567. <https://doi.org/10.1016/j.jfineco.2010.07.004>
- Nwafor, C., & Omenihu, C. M. (2025). Board structure and firm performance: The moderating role of national governance quality. *Administrative Sciences*, 15(8), 314. <https://doi.org/10.3390/admsci15080314>
- Petersen, M. A. (2009). Estimating standard errors in finance panel data sets: Comparing approaches. *The Review of Financial Studies*, 22(1), 435–480. <https://doi.org/10.1093/rfs/hhn053>
- Pfeffer, J., & Salancik, G. R. (1978). The external control of organizations: A resource dependence perspective. *Harper & Row*.
- Pham, T. M., Rizov, M., & Vo, X. V. (2025). Board Gender Diversity and Firm Performance in an Emerging Economy: The Role of Women Directors' Attributes. *International Journal of Finance & Economics*, 30(4), 4063–4081. <https://doi.org/10.1002/ijfe.3107>
- Rana, A., & Debata, B. (2025). The Impact of Corporate Governance Structures on Corporate Investment: Moderating Role of Institutional Quality and Firm Life Cycle. *Indian Journal of Corporate Governance*, 18(2), 291–318. <https://doi.org/10.1177/09746862251380936>
- Renders, A., Gaeremynck, A., & Sercu, P. (2010). Corporate-governance ratings and company performance: A cross-European study. *Corporate Governance: An International Review*, 18(2), 87–106. <https://doi.org/10.1111/j.1467-8683.2010.00791.x>
- Roodman, D. (2009). How to do xtabond2: An introduction to difference and system GMM in Stata. *The Stata Journal*, 9(1), 86–136. <https://doi.org/10.1177/1536867X0900900106>
- Said, E. M., Azekkar, Y., Belfatmi, F.-E., Oumaima, J., & Mamoun, A. (2026). Financial performance through management control systems in resilient infrastructure: The moderating role of active use and project complexity. *Bangladesh Journal of Multidisciplinary Scientific Research*, 11(3), 37–44. <https://doi.org/10.46281/bjmsr.v11i3.2898>
- Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance*, 52(2), 737–783. <https://doi.org/10.1111/j.1540-6261.1997.tb04820.x>
- Singh, S., Tabassum, N., Darwish, T. K., & Batsakis, G. (2018). Corporate governance and Tobin's Q as a measure of organizational performance. *British Journal of Management*, 29(1), 171–190. <https://doi.org/10.1111/1467-8551.12237>
- Sultana, I. (2026). Enhancing entrepreneurial performance through digital capability and sustainability practices: The mediating role of innovation orientation and the moderating influence of financial inclusion in Bangladesh. *Bangladesh Journal of Multidisciplinary Scientific Research*, 11(3), 19–36. <https://doi.org/10.46281/bjmsr.v11i3.2897>
- Utebaliyeva, D., Bermukhamedova, G., Beisengaliyev, Y., Tansykbayeva, G., & Turekulova, A. (2026). The role of the digital platform economy in transforming regional entrepreneurship and employment in the context of achieving sustainable development goals. *Bangladesh Journal of Multidisciplinary Scientific Research*, 11(3), 93–104. <https://doi.org/10.46281/bjmsr.v11i3.2902>
- 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. <https://doi.org/10.1016/j.jfineco.2012.03.005>
- World Bank. (2025). World development indicators. *World Bank*.
- Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of Financial Economics*, 40(2), 185–211. [https://doi.org/10.1016/0304-405X\(95\)00844-5](https://doi.org/10.1016/0304-405X(95)00844-5)

Publisher's Note: CRIBFB stays neutral about jurisdictional claims in published maps and institutional affiliations.



© 2026 by the authors. Licensee CRIBFB, USA. This open-access article is distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0>).

Bangladesh Journal of Multidisciplinary Scientific Research (P-ISSN 2687-850X E-ISSN 2687-8518) by CRIBFB is licensed under a Creative Commons Attribution 4.0 International License.