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# Governance and National Culture as Contingency Factors in Corporate Performance and Sustainability Outcomes: Evidence from the BRICS Economies

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**Abstract:** This study investigates the influence of national governance on firm performance in BRICS economies, with culture as a moderating variable. The analysis is based on a balanced panel of 1,238 publicly traded firms from nine countries over the 2014–2023 period and employs three-level hierarchical linear models estimated in Stata® to account for firm-, year-, and country-level heterogeneity. The results indicate that national governance does not produce a homogeneous or systematically positive effect on corporate performance, as the estimated coefficients differ in magnitude and direction across governance dimensions and performance indicators. Furthermore, the findings reveal that national culture significantly moderates the governance–performance nexus, either reinforcing or weakening governance effects according to each country's cultural configuration. These results are consistent with contingency theory, suggesting that governance effectiveness is not universal but shaped by the alignment between institutional quality and cultural context. From a sustainability perspective, the evidence indicates that governance quality and cultural attributes shape the institutional environment in which firms develop strategies, create value, and sustain long-term performance. In practice, the study suggests that governance models should be context-sensitive and adapted to each country's institutional and cultural specificities rather than being uniformly transferred across settings.

**Keywords:** Contingency theory, corporate performance, national culture, national governance, BRICS economies, multilevel modeling.

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## INTRODUCTION

Organizational performance depends on the operating environment and results from the alignment among structure, environment, and institutional characteristics (Chenhall, 2003; Fagundes, Soler, Lavarda, & Lavarda, 2011). This proposition lies at the core of contingency theory. From this perspective, no single organizational

structure is universally suitable across all firms (Fagundes et al., 2011) since multiple factors jointly shape organizational realities (Hamann, 2017).

Researchers often consider culture as a salient contingency factor (Sims, Gong, & Ruppel, 2012). It serves as a supporting mechanism for organizations, rooted in and shaped by the values of founders and employees, which extend beyond moral and ethical considerations (Da Costa, Araújo, & Ferreira, 2021). O'Reilly, Cao, and Sull (2024) emphasize that culture influences organizational performance, noting its effects on a wide range of organizational processes. The literature treats organizational culture as an internal contingency factor. In this study, we extend this line of inquiry to the macro level, noting that organizational values and structures are also embedded in the country's culture in which firms operate.

The environment in which a company operates shapes its evolution (Assunção, Luca, & Vasconcelos, 2017). Uncertain external environments heighten managers' challenges (Bueren & Fiorentin, 2014). As these challenges intensify, the business community, regulators, and authorities have increasingly recognized governance as a driver of corporate performance (Pillai & Al-Malkawi, 2018). Regional conditions shape firm performance by reflecting key features of the organizational environment, including levels of economic development, competitiveness, managerial practices, and innovation capacity (Meinhardt, Junge, & Weiss, 2018).

Although most studies support the link between governance and performance, some authors, such as Peris, Contani, Ferreira Savoia, and Reed Bergmann (2017) and Freitas, Silva, Oliveira, Cabral, and Santos (2018) argue that corporate governance is not systematically or consistently associated with performance variables. Most studies primarily focus on internal governance mechanisms (Farooq, Noor, & Ali, 2022) and organizational culture (O'Reilly et al., 2024). Drawing on these studies, Borges, Pereira, and Carvalho (2023) examine the influence of national governance on firm performance in countries across the Americas and find a positive relationship that is moderated by national culture. Duggal and Myeong (2024) also show that national culture serves as a moderator in various organizational relationships, highlighting its relevance to performance research.

In addition to financial and market performance, national characteristics can influence initiatives targeting sustainable development (Luo, Li, Nguyen, Jo, & Zhao, 2024). As governance reflects ethical principles and accountability, it underpins corporate social responsibility and sustainability initiatives. Mooneeapen, Abhayawansa, and Mamode Khan (2022) argue that a country's governance quality influences companies' disclosure of environmental, social, and governance (ESG) information. National culture, however, shapes how managers perceive sustainability and how they report it in ESG documents, resulting in cross-country variation in practices tied to cultural differences (Roy & Mukherjee, 2025).

However, research into the impact of the national environment on companies remains relatively scarce (Soschinski, Haussmann, Peyerl, & Klann, 2021). This gap underscores the need for studies examining how national factors shape firm performance. Consequently, analyzing emerging economies is particularly important given their growth and global influence (Borges et al., 2023; Farooq et al., 2022). BRICS nations combine rapid growth, fragile institutions, and weak governance (Sachan, Pradhan, & Mohindra, 2024), thus providing a suitable laboratory for this analysis. Thus, this study examines the influence of national governance on corporate performance, with culture as a moderating variable.

Although widely used in the literature, aggregate national-level indicators such as the Worldwide Governance Indicators (WGI) and Hofstede's dimensions have limitations. They condense complex institutional and cultural realities, neglect regional and sectoral nuances, and raise concerns about validity when researchers use them for cross-national comparisons involving causal inference (Taras, Kirkman, & Steel, 2010; Thomas, 2010). Despite these shortcomings, researchers continue to rely on them because they enable cross-national comparisons, and we therefore adopt these measures in this study (Daniel, Cieslewicz, & Pourjalali, 2012; Hassan, Basumatary, & Goyari, 2024).

This research contributes theoretically by examining national governance as a determinant of firm performance and national culture as a moderator of this relationship in emerging economies. This approach is largely underexplored in the literature. Furthermore, the study advances the debate by clarifying the limitations of these constructs and discussing their methodological implications. Because the environment in

which firms operate significantly affects their performance (Chenhall, 2003; Fagundes et al., 2011), our analysis demonstrates that governance weaknesses and national cultural nuances may constrain organizational performance. This insight offers a practical contribution by highlighting the need for business strategies aligned with the operating environment. From a social perspective, the findings suggest that stronger national governance can help foster business-friendly environments in emerging economies.

## Contingency Theory

Contingency theory emerged in the 1960s and continues to be a central perspective in organizational and administrative studies (Hamann, 2017). This perspective was initially developed by Woodward (1958); Burns and Stalker (1961), and Lawrence and Lorsch (1967). Its origin reflects an effort to understand how contingency factors influence organizations (Assunção et al., 2017). The contingency approach proposes that organizational effectiveness is achieved through alignment between the organization's structure and the demands of its external and internal environments (Pereira & Pereira, 2023).

Contingency theory posits that firms do not operate according to a single organizational model that is effective in all situations (Hentati, Jardak, & Boulila, 2026). Instead, the way firms are organized and managed varies according to factors such as technology, organizational structure, strategy, firm size, and national culture (Chenhall, 2003).

This theory seeks to understand how organizations operate under different environmental conditions, which may present threats or opportunities (Bueren & Fiorentin, 2014). Researchers often apply this approach to internal management studies; however, it is also relevant at the national level, as external factors such as governance and culture shape firm performance by establishing the standards, values, and behaviors that inform organizational strategy (Borges et al., 2023). A firm's capacity to adapt to this environment ultimately affects its survival or failure (Ghofar & Islam, 2015).

Scholars such as Hofstede (1980), Woodward (1958), Lawrence and Lorsch (1967), Chenhall (2003), and Chandler (1962) emphasize that culture functions as a contingency factor that influences organizational structures and processes. Consistent with this view, researchers regard culture as a contingency factor that influences behavior and operational routines (Hofstede, 1980; Sims et al., 2012). In this study, we consider national culture as a moderating contingency factor and national governance quality indices as salient elements of the external environment. We argue that firms located in countries with higher governance quality and favorable cultural characteristics are more likely to achieve better performance (Borges et al., 2023).

## National Governance

Corporate governance may be understood as a set of interconnected forces, at the national and corporate levels, that shape interactions and relationships between management and stakeholders (Schiehll & Martins, 2016). Effective governance mitigates risk by ensuring that the company complies with regulations and maintains adequate controls (Peng, 2024). At the national level, governance is understood as the set of traditions and institutions through which a country's authority is exercised (Kaufmann, Kraay, & Mastruzzi, 2008). It encompasses processes for selecting, monitoring, and replacing governments, the state's capacity to formulate and implement effective policies, and the respect shown by both the state and its citizens for regulatory institutions. However, Filatotchev, Jackson, and Nakajima (2013) emphasize that governance cannot be conceptualized as a universal model that applies uniformly across countries.

Kaufmann et al. (2008) developed metrics that provide a broad, comparative view of governance quality across countries over time. These metrics, known as WGI, assess six core dimensions of governance. Some researchers question the use of these indicators because of potential distortions and comparability issues (Huque & Jongruck, 2018). The data are subject to quality limitations, uneven coverage, and a lack of standardization (Thomas, 2010). Data are collected through expert assessments and surveys, as well as questionnaires administered to government authorities, companies, and households, which can increase standard errors in the estimates (Bersch & Botero, 2014).

Despite these limitations, these metrics remain prevalent in academic research. Researchers widely use these indicators as proxies for institutional quality and as a basis for cross-country comparisons (Hassan et al., 2024). While legal origin offers a broad lens for distinguishing governance systems across countries, Kaufmann's indicators remain widely used in empirical studies (Schiehll & Martins, 2016). However, the authors point out that, in this case, researchers must employ multilevel models to provide a complete explanation of the effects of external governance mechanisms on corporate configurations. WGIs have been widely used as explanatory variables, establishing themselves as the main metric for measuring governance quality (Gallego-Álvarez, Rodríguez-Rosa, & Vicente-Galindo, 2021). Table 1 describes the dimensions of Kaufmann et al. (2008) metric.

**Table 1: Definitions of governance quality indicators**

| Indicator | Definition |
|---|---|
| Voice and Accountability (VA) | It measures your perception of how citizens can select their government and enjoy freedom of expression, association, and a free media. |
| Political Stability and Absence of Violence (PV) | It measures the perceived likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including political violence and terrorism. |
| Government Effectiveness (GE) | It quantifies your perception of public service quality, civil service performance, independence from political pressure, and the credibility of the government's policy-implementation commitments. |
| Regulatory Quality (RQ) | It assesses your perception of the government's capacity to formulate and implement sound policies and regulations that enable and promote private-sector development. |
| Rule of Law (RL) | It measures your perception of trust and compliance with societal rules, especially contract enforcement, property rights, police and court performance, and the likelihood of crime and violence. |
| Control of Corruption (CC) | It measures the perceived extent to which public power is exercised for private gain, including both small and large forms of corruption, as well as the "capture" of the state by elites and private interests. |

**Source:** Adapted from Kaufmann et al. (2008).

A country's institutional environment shapes firm performance because stable institutions and effective regulations create conditions conducive to business activity (Filatotchev et al., 2013). Sayılır, Doğan, and Soud (2018) use WGI indicators to analyze the influence of national governance on financial development, emphasizing that improving the RQ, effectively enforcing the RL, and consolidating the CC are institutional pillars that promote economic growth.

High-quality national governance reduces uncertainty and stimulates investment by enhancing confidence and protecting property rights (Azad, Akhter, Saona, Mosqueira, & Ahmad, 2025). Borges et al. (2023) examined countries in the Americas and found that higher national governance quality positively affects firm performance, with national culture exerting a positive moderating effect on this relationship. At the firm level, Pillai and Al-Malkawi (2018) found that governance mechanisms significantly affect performance. However, Peris et al. (2017) and Akbar, Poletti-Hughes, El-Faitouri, and Shah (2016) found no significant association between good corporate governance practices and operational performance.

The expansion and integration of global capital markets have increased the complexity of governance arrangements, which are not confined to developed countries (Qing, Wooi, & Zulkafli, 2020). Most studies on the effects of national governance focus on developed countries, where control systems and challenges differ from those in developing economies (Ghofar & Islam, 2015). The BRICS countries account for a significant portion of the world's population and contribute substantially to the global economy, yet they still face socioeconomic challenges (Tabash, Farooq, Gherghina, Varma, & Aljughaiman, 2025). Accordingly, it is necessary to investigate the effects of governance in these countries on firms to understand their institutional and organizational dynamics.

Drawing on contingency theory, which associates high performance with firms whose practices align with their environment (Chenhall, 2003; Pereira & Pereira, 2023), we examine the features of the institutional environment using national governance metrics and assess the implications for firm performance. This relationship assumes that environments with more effective national governance structures create institutional conditions conducive to corporate efficiency, reflecting the contingency logic that alignment between the external environment and organizational practices tends to promote better performance. Accordingly, we formulate the following hypothesis:

*H1: National governance quality indicators in BRICS member countries positively affect corporate performance.*

## National Culture

Scholars describe culture as a system of rules, norms, and beliefs transmitted over time that guides current behavior and shapes future expectations (North, 2005). This cultural framework influences individual behavior and firm performance, thereby making culture a critical variable for explaining business outcomes (De Mooij, 2017). Within nations, culture shapes the institutional environment, which in turn shapes governance practices (Daniel et al., 2012).

Hofstede (1980) investigated how people behave in relation to organizations by analyzing data on employee attitudes in forty countries. Based on the results, the author establishes four main dimensions of national culture. Table 2 presents these dimensions along with their definitions.

**Table 2: Dimensions of National Culture**

| Dimensions | Definition |
|---|---|
| Power distance (PDI) | It assesses the degree to which your culture accepts and expects inequality in the distribution of power in institutions and organizations, as endorsed by both leaders and followers. |
| Individualism (IDV) | It measures how much your culture values individual autonomy and self-reliance. |
| Masculinity (MAS) | It gauges the extent to which assertiveness and materialism (masculine values) are preferred over care and quality of life (feminine values), thereby reflecting the distribution of gender roles across cultures. |
| Uncertainty Avoidance (UAI) | It measures your society's intolerance of uncertainty and ambiguity, showing how well your culture prepares you to handle unstructured situations. |

**Source:** Adapted from Hofstede (1980).

Critics question Hofstede (1980) on grounds of validity and scope (Taras et al., 2010). Its main limitations are the simplification of culture, an empirical base restricted to a single multinational company, a lack of updating in the face of cultural change, and disregard for a country's internal diversity (Kirkman, Lowe, & Gibson, 2006). Nevertheless, researchers continue to use the model extensively, reflecting its persistence in the literature (Lee, Lin, & Lin, 2017).

Hofstede (1991) states that a country's culture is reflected in firms' values, norms, and organizational structures. Accordingly, prior studies infer that societal cultural norms influence organizational structure (Li & Harrison, 2008). O'Reilly et al. (2024) argue that national culture, through norms, customs, or alignment with company strategy, may enhance performance. Li and Harrison (2008) report that national culture influences corporate governance and shapes organizational structures, supporting its inclusion in transnational research.

Cultural dimensions such as IDV and UAI have a substantial influence on governance effectiveness across regions (Griffin, Guedhami, Kwok, Li, & Shao, 2017). AbuSen and Saad (2023) suggest that culture positively moderates the implementation of sound governance practices, thereby contributing to enhanced firm performance. Shin, Moon, and Kang (2023) find that, in IDV or MAS cultures, the link between environmental, social, and governance performance and financial performance is more pronounced.

These dimensions guide behaviors, perceptions of authority, and attitudes toward risk, thus intensifying the effects of national governance on corporate performance. In high PDI contexts, stakeholders tend to accept hierarchical structures, which can favor centralized governance (Hofstede, 1980). Societies with a strong masculine orientation prioritize success and competitiveness (Hofstede, 1980). IDV encourages individual accountability and transparency (Soschinski et al., 2021), thereby potentially amplifying the positive impact of governance quality on performance. Finally, high UAI, which reflects the need to avoid ambiguity and formalize procedures, can reinforce control and compliance mechanisms (Shin et al., 2023).

Evidence on national culture moderation is mixed, and cultural differences between countries may shape the relationships examined. Soschinski et al. (2021) analysed the effect of national culture on the relationship between corporate governance and earnings management. They found that IDV reduced governance effectiveness, while MAS and UAI showed positive effects, though not statistically robust.

Contingency theory suggests that national culture moderates the relationship between national governance quality and organizational performance, so the strength of this link varies across countries' cultural profiles (Borges et al., 2023). Therefore, this study employs Hofstede's four cultural dimensions to examine culture as an external contingency that moderates this relationship. In view of this, the moderation hypothesis guiding this investigation is as follows.

*H2: The culture of countries positively moderates the relationship between national governance quality indicators and company performance.*

## Theoretical Research Model

The theoretical model spans multiple levels of analysis. National governance, as an environmental factor, refers to the institutional and regulatory conditions that shape the external environment in which organizations operate. In turn, national culture, as a cultural contingency factor, expresses social values and norms that influence how companies respond to these conditions. This integration across levels is both theoretical and intentional, as it rests on contingency theory, which holds that organizational performance stems from the fit between structure and environment (Chenhall, 2003; Lawrence & Lorsch, 1967).

Although both variables are at the country level, their effects manifest at the organizational level because firms adjust their strategies to the external and cultural contexts in which they operate (Chenhall, 2003). Methodologically, we use three-level Hierarchical Linear Models (HLM) to operationalize this cross-level relationship and to maintain analytical consistency between macro- and micro-level variables. Figure 1 presents the theoretical model of the research.

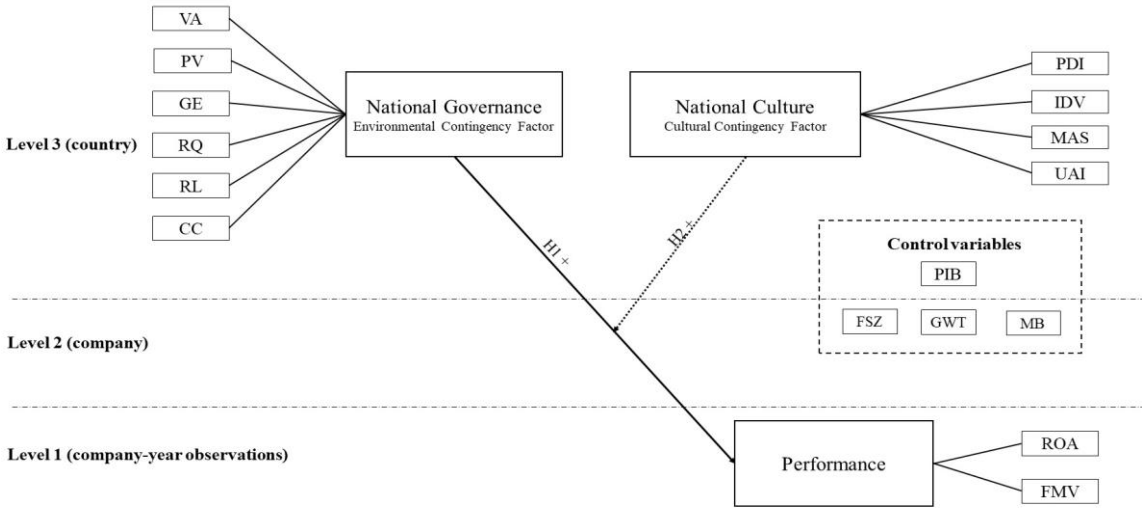


**Figure 1: Theoretical Research Model**

### Governance, Culture, and Sustainability

By influencing firm performance, governance and national culture are indirectly connected to discussions about corporate sustainability. Empirical evidence suggests that consolidated socioeconomic, cultural, legal, and corporate systems are associated with greater corporate disclosure and accountability (García-Sánchez, Cuadrado-Ballesteros, & Frias-Aceituno, 2016). Governance, as the foundation for management and decision-making, positively and significantly affects the disclosure of sustainability reports.

At the national level, solid governance indicators provide an institutional foundation for corporate sustainability. Regulatory environments and governance models vary significantly across countries, and Buchetti, Arduino, and Perdichizzi (2025) demonstrate that such institutional differences influence the quantity and quality of ESG disclosures. The way in which firms integrate sustainability practices also reflects underlying cultural characteristics. Shin et al. (2023) argue that individualistic and masculine societies tend to reinforce corporate ESG performance, whereas PDI and UAI do not systematically influence disclosure quality.

When cultural traits align with sustainability-oriented norms, they shape stakeholder expectations and encourage firms to adopt transparent, sustainable behaviors to secure social legitimacy (García-Sánchez et al., 2016). Accordingly, corporate sustainable behavior is best understood when managers consider national cultural values (Roy & Mukherjee, 2025). Sustainability is included here because of its conceptual linkage with the variables under analysis; it provides theoretical grounding rather than the focus of the empirical investigation.

## METHODOLOGY

The sample includes firms operating in the BRICS countries, which collectively represent the world's largest emerging economies. The study covers the 2014–2023 period to reflect contemporary institutional and economic conditions. The year 2024 was excluded due to unavailable data on national governance quality. In total, the survey encompasses 1,238 publicly traded companies from nine countries within the expanded BRICS: Brazil (81), China (604), Egypt (22), India (325), Indonesia (74), Russia (15), Saudi Arabia (48), South Africa (50), and the United Arab Emirates (19). Since the panel is balanced, each firm provides observations for every year in the sample, resulting in 12,380 firm-year observations.

Although Ethiopia and Iran also belong to the group, they were not included because the Refinitiv® database lacks data on publicly traded firms in those locations. Table 3 presents the variables, showing their acronyms, definitions, theoretical foundations, and data sources. We also include control variables that may influence firm performance, ensuring the results accurately reflect the effects of the core explanatory variables.

**Table 3: Definition of Variables**

| Acronym | Variables | Description | Basis | Data Source |
|---|---|---|---|---|
| **Dependent Variables** | | | | |
| ROA | Return on assets | It measures net income as a percentage of average total assets. | Borges et al. (2023) | Refinitiv Eikon® |
| FMV | Market value | Natural logarithm of market capitalization | Borges et al. (2023) | Refinitiv Eikon® |
| **Independent variables** | | | | |
| VA | Voice and Accountability | These indicators, established by Kaufmann, range from -2.5 to 2.5. | Kaufmann et al. (2008) | World Bank |
| PV | Political Stability and Absence of Violence | | Kaufmann et al. (2008) | World Bank |
| GE | Government Effectiveness | | Kaufmann et al. (2008) | World Bank |
| RQ | Regulatory Quality | | Kaufmann et al. (2008) | World Bank |

| Acronym | Variables | Description | Basis | Data Source |
|---|---|---|---|---|
| RL | Rule of Law | | Kaufmann et al. (2008) | World Bank |
| CC | Control of Corruption | | Kaufmann et al. (2008) | World Bank |
| **Moderating Variables** | | | | |
| PDI | Power Distance | Hofstede (1980) proposed this score, which ranges from 0 to 100. | Hofstede (1980) | Hofstede Insights |
| IDV | Individualism | | Hofstede (1980) | Hofstede Insights |
| MAS | Masculinity | | Hofstede (1980) | Hofstede Insights |
| UAI | Uncertainty Avoidance | | Hofstede (1980) | Hofstede Insights |
| **Control Variables** | | | | |
| FSZ | Company size | Natural logarithm of total assets | Soschinski et al. (2021) | Refinitiv Eikon® |
| GWT | Sales growth | It equals the ratio of current-year sales to prior-year sales minus one. | Borges et al. (2023) | Refinitiv Eikon® |
| MB | Market-to-book ratio | The market-to-book ratio is the ratio of the market value of shares to the book value of net equity. | Borges et al. (2023) | Refinitiv Eikon® |
| GDP | GDP per capita | Average output of goods and services per capita | Hassan et al. (2024) | World Bank |

This descriptive study adopts a quantitative approach. AbuSen and Saad (2023) point out limited research on governance and performance in emerging markets. Therefore, we focus on the BRICS economies and build on the model proposed by Borges et al. (2023). However, instead of employing simple regression as those authors did, we have adapted the model to a three-level hierarchical structure that captures the nested data and allows consistent estimation of effects at the company, year, and country levels. The econometric specification is as follows:

$$Performanceit = \alpha + \beta nGovernancect + \beta Controlsitc + u0i + u0c + \varepsilon ict \quad (1)$$

In the equation, $Performanceit$ represents the ROA and FMV variables; $Governancect$ captures governance variables at the national level, including VA, PV, GE, RQ, RL, and CC. $Controlsitc$ represents the control variables, including FSZ, GWT, MB, and GDP per capita. In this model, *i* denotes the company, *t* denotes the year, and *c* denotes the country. The term $u0i$ captures the random effect for each firm, reflecting unobserved time-invariant heterogeneity, whereas $u0c$ captures the random effect for each country. The term$\varepsilon ict$ represents the idiosyncratic error at the firm–year level.

To examine the moderating effect of culture.

$$Performanceit = \alpha + \beta n\, Governancect + \delta\, Culturec + \theta(Governancect \times Culturec) + \gamma Controlsitc + u0i + u0c + \varepsilon ict \quad (2)$$

$Culturec$ denotes the cultural dimensions PDI, UAI, IDV, and MAS. We estimated the coefficients α, β, δ, $\theta$, and γ to assess the impact of governance and cultural variables, their interaction, and control variables on firm performance. The idiosyncratic error term $\varepsilon it$ captures the variation not explained by the model, whereas *uoi* and *uoc* represent the random effects associated with the company and the country, respectively.

Before estimating the models, we center the independent and moderating variables on their means to reduce potential multicollinearity and facilitate the interpretation of the main coefficients. We then construct interaction terms between governance and culture using these centered variables, which enhances the robustness of subsequent analyses (Wooldridge, 2010).

We assessed the continuous variables for consistency, distribution, and extreme values. We transformed per capita GDP into a natural logarithm to reduce skewness and enable proportional comparisons across countries. To handle outliers, we applied winsorization at the 1st and 99th percentiles, adjusting values below the 1st percentile and above the 99th percentile to these limits. This procedure reduces the influence of atypical observations without eliminating valid data.

Although the data are organized in a panel format, their structure nests company–year observations within companies and companies within countries, which compromises estimation by fixed or random effects. Hofstede (1980) cultural variables are invariant over time and constant within each country, so conventional

models cannot effectively explore them. National governance indicators, however, vary over time but take the same value for all firms within a country in each period, so they lack within-firm variability.

Analyses that span multiple levels require techniques that account for non-independence among observations (Mathieu & Taylor, 2007). Given these constraints, we chose a three-level hierarchical linear model (HLM) in which company-year observations (level 1) are nested within companies (level 2), and companies are nested within countries (level 3). This approach preserves between-company differences, captures country effects, and accounts for dependence among observations.

We analyzed the data in Stata® 17.0, which supports the proposed models. Classic tests for heteroscedasticity and autocorrelation, such as the Breusch-Pagan, White, and Wooldridge tests, are necessary in panel regression models but are not compatible with HLM. These tests assume independent residuals and constant variance at a single level, whereas HLM already accounts for varying variances across levels and the non-independence of observations.

We estimated alternative panel models to verify endogeneity and test the robustness of the estimates. We conducted complementary endogeneity tests, including the Hausman test to contrast fixed and random effects, and 2SLS estimates with lagged variables as instruments, then subjected these estimates to the Wu–Hausman and Sargan tests to assess variable exogeneity and instrument validity.

## ANALYSIS AND DISCUSSION OF RESULTS

### Descriptive Analysis

This section presents descriptive statistics, showing the means of the variables stratified by country in Table 4.

**Table 4: Mean of variables broken down by country**

| | BRA | CHN | EGY | IND | IDN | KSA | RSA | RUS | UAE | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Performance Variables | | | | | | | | | | |
| ROA | 0.044 | 0.054 | 0.051 | 0.075 | 0.059 | 0.059 | 0.0608 | 0.056 | 0.039 | 0.059 |
| FMV | 9.148 | 9.554 | 8.746 | 9.194 | 9.126 | 9.538 | 9.478 | 9.488 | 9.597 | 9.389 |
| National governance variables | | | | | | | | | | |
| VA | 0.365 | -1.584 | -1.342 | 0.266 | 0.146 | -1.661 | 0.676 | -1.126 | -1.118 | -0.762 |
| PV | -0.404 | -0.431 | -1.242 | -0.822 | 0.493 | -0.515 | -0.371 | -0.817 | 0.659 | -0.539 |
| GE | -0.384 | 0.522 | -0.477 | 0.183 | 0.150 | 0.327 | -0.285 | 0.025 | 1.413 | 0.309 |
| RQ | -0.170 | -0.302 | -0.722 | -0.225 | 0.085 | 0.138 | 0.019 | -0.628 | 1.009 | -0.211 |
| RL | -0.237 | -0.201 | -0.389 | -0.015 | -0.305 | 0.201 | -0.041 | -0.896 | 0.783 | -0.135 |
| CC | -0.471 | -0.183 | -0.638 | -0.332 | -0.449 | 0.263 | -0.117 | -0.927 | 1.111 | -0.234 |
| Cultural variables | | | | | | | | | | |
| PDI | 69.0 | 80.00 | 80.00 | 77 | 78.00 | 72.00 | 49.00 | 93.00 | 74.00 | 76.88 |
| UAI | 76.00 | 30.00 | 55.00 | 40.00 | 48.00 | 64.00 | 49.00 | 95.00 | 66.00 | 40.58 |
| IDV | 36.00 | 43.00 | 13.00 | 24.00 | 5.00 | 48.00 | 23.00 | 46.00 | 36.00 | 34.06 |
| MAS | 49.00 | 66.00 | 55.00 | 56.00 | 46.00 | 43.00 | 63.00 | 36.00 | 52.00 | 59.28 |
| Control variables | | | | | | | | | | |
| FSZ | 9.567 | 9.561 | 9.258 | 9.103 | 9.269 | 9.634 | 9.642 | 10.052 | 10.059 | 9.438 |
| GWT | 0.037 | 0.132 | 0.021 | 0.078 | 0.052 | 0.060 | 0.058 | -0.054 | 0.076 | 0.096 |
| MB | 2.221 | 5.821 | 1.875 | 4.667 | 74.131 | 2.730 | 2.638 | 1.390 | 1.444 | 8.926 |
| GDP | 3.965 | 4.005 | 3.507 | 3.292 | 3.596 | 4.451 | 3.803 | 4.063 | 4.649 | 3.802 |

**Note:** BRA represents Brazil; CHN represents China; EGY represents Egypt; IND represents India; IDN represents Indonesia; KSA represents Saudi Arabia; RSA represents South Africa; RUS represents Russia; UAE represents the United Arab Emirates.

On average, companies display positive profitability and market value. Regarding national governance quality indicators, the means are negative overall, except for the GE variable, which has a positive mean of 0.31.

Since the World Bank indicators range from -2.5 to 2.5 (Mardnly, Mouselli, & Abdulraouf, 2018), the results indicate that, on average, companies operate in institutionally fragile environments, as reflected in predominantly negative indices. The United Arab Emirates, for instance, stands out by exhibiting positive scores across all dimensions. This finding contrasts with the favorable governance effects documented by Borges et al. (2023), indicating that a subset of firms in our sample still operates in fragile governance contexts.

Cultural variables also differ. India scores low on IND, reflecting collectivist values, whereas China exhibits a high tolerance for uncertainty and ambiguity. The PDI index further reveals a more pronounced hierarchical structure in Russia than in South Africa, pointing to cultural patterns that may shape managerial practices and corporate governance.

## Governance and Performance

To test the research hypotheses, we used a three-level hierarchical linear model (HLM) suited to nested data. As Table 5 shows, the models indicate that national governance influences corporate profitability.

**Table 5: Effect of National Governance on Company Performance**

| ROA | Null Model | Full-01 | Full-02 | Full-03 | Full-04 | Full-05 | Full-06 |
|---|---|---|---|---|---|---|---|
| National governance variables | | | | | | | |
| Intercept | 0.057 | 0.299 | 0.312 | 0.289 | 0.298 | 0.299 | 0.204 |
| VA | | -0.001 | | | | | |
| PV | | | 0.005* | | | | |
| GE | | | | -0.002 | | | |
| RQ | | | | | -0.001 | | |
| RL | | | | | | 0.001 | |
| CC | | | | | | | -0.022*** |
| Control variables | | | | | | | |
| FSZ | | -0.022 | -0.022 | -0.022 | -0.0221 | -0.022 | -0.022 |
| GWT | | 0.032 | 0.031 | 0.032 | 0.0317 | 0.032 | 0.032 |
| MB | | -4.33e-07 | -4.37e-07 | -4.23e-07 | -4.32e-07 | -4.33e-07 | -4.26e-07 |
| GDP *per capita* | | -0.009 | -0.012 | -0.006 | -0.0088 | -0.009 | 0.013 |
| **ICC (%)** | 47.23% | 43.91% | 43.95% | 43.97 | 43.91% | 43.90% | 44.94 |
| **Log likelihood** | 18,239.39 | 18,555.86 | 18,557.22 | 18,556.06 | 18,555.86 | 18,555.86 | 18,565.54 |
| **Mean VIF** | | 1.52 | 1.44 | 1.15 | 1.06 | 1.04 | 1.23 |
| **AIC** | -36,470.77 | –37,093.71 | -37,096.43 | -37,094.12 | -37,093.72 | -37,093.71 | -37,113.09 |
| **BIC** | -36,441.07 | -37,026.90 | -37,029.62 | -37,027.30 | -37,026.90 | -37,026.90 | -37,046 |
| **LR test vs. OLS** | 5,127.2*** | 4,448.2 | 4,452.1 | 4,448.4 | 4,444.5 | 4,441.0*** | 4,465.8*** |

**Note:** *** and * signal statistical significance at the 1% and 10% levels, respectively. ICC (%) represents the intraclass correlation, indicating the proportion of variance explained at the country level. Log likelihood is the log-likelihood of the model. AIC (Akaike Information Criterion) and BIC (Bayesian Information Criterion) assess model fit and parsimony. LR test vs. OLS denotes the likelihood-ratio test that compares the multilevel model with Ordinary Least Squares (OLS) regression.

Among the national governance variables, PV shows a positive, statistically significant coefficient, whereas RL shows a positive coefficient that is not statistically significant. In contrast, VA, GE, RQ, and CC exhibit negative coefficients; only the effect of CC is statistically significant. These results indicate heterogeneity in the signs of the coefficients and fail to provide consistent statistical evidence of an impact on company profitability. Turning to the control variables, FSZ exhibits negative, significant coefficients across all models, indicating that larger companies do not necessarily achieve greater profitability. GWT shows positive and significant coefficients, indicating that revenue growth is associated with better operating performance. MB shows negative coefficients that are not statistically significant, whereas GDP per capita shows a negative, significant relationship in most models, except in the model that includes the GE variable.

In the null model, the ICC for the company level within each country is 47.23%. This result indicates that almost half of the ROA variance stems from differences between companies, supporting the appropriateness of hierarchical modeling. In the fully specified models, the ICC varies little, ranging from 43.90% to 44.94%, suggesting that adding national governance predictors did not substantially change the proportion of variance attributable to the firm level. The increase in log-likelihood and the decrease in AIC indicate improved fit, whereas the stability of BIC reinforces parsimony. The LR test was significant in all estimates, confirming that multilevel modeling is superior to simple linear regression. Finally, multicollinearity diagnostics show a low average Variance Inflation Factor (VIF) across all models, with no evidence of severe collinearity. In addition to the lack of statistical significance, the coefficients are small, with values close to zero. This indicates that, even when present, the effects of national governance on profitability are small.

Subsequently, we conducted additional tests for **H1** to investigate the relationship between countries' governance indicators and companies' market value, as shown in Table 6.

**Table 6: Effect of National Governance on Company Value**

| FMV | Null Model | Full-01 | Full-02 | Full-03 | Full-04 | Full-05 | Full-06 |
|---|---|---|---|---|---|---|---|
| National governance indicators | | | | | | | |
| Intercept | 9,318 | 3,964 | 3,881 | 4,464 | 3,973*** | 2,816*** | 3,569*** |
| VA | | -0.383*** | | | | | |
| PV | | | 0.075 | | | | |
| GE | | | | 0.121*** | | | |
| RQ | | | | | 0.173 | | |
| RL | | | | | | -0.161*** | |
| CC | | | | | | | -0.025 |
| Control variables | | | | | | | |
| FSZ | | 0.598 | 0.597 | 0.592 | 0.594 | 0.603 | 0.596 |
| GWT | | 0.128 | 0.131 | 0.130 | 0.125 | 0.135 | 0.134 |
| MB | | 9e-06** | 9e-06** | 9e-06** | 9e-06** | 9e-06** | 9e-06** |
| GDP *per capita* | | -0.153*** | -0.059 | -0.212 | -0.083 | 0.183 | 0.011 |
| **ICC (%)** | 87.64% | 88.05% | 81.01% | 81.04% | 81.03% | 82.01% | 81.25 |
| **Log likelihood** | -1,724.68 | 736.56 | 520.72 | 538.64 | 563.16 | USD 529.49 | 505.67 |
| **Mean VIF** | | 1.52 | 1.44 | 1.15 | 1.06 | 1.04 | 1.23 |
| **AIC** | 3,457.37 | -1,455.12 | -1,023.43 | -1,059.28 | -1,108.33 | -1,040.99 | -993.33 |
| **BIC** | 3,487.07 | -1,388.31 | -956.62 | -992.47 | -1,041.51 | -974.18 | -926.52 |
| **LR test vs. OLS** | 20,169*** | 15,243 | 15,189 | 14,650 | 15,269 | 15,204 | 15,060*** |

**Note:** *** and ** indicate statistical significance at the 1%, 5% levels.

When examining the relationship with FMV, all explanatory variables are statistically significant. The results show that institutional soundness, as measured by PV, GE and RQ, represents a key driver of firm valuation because it establishes conditions that support the growth and sustainability of FMV. In contrast, VA and RL show negative coefficients, indicating that citizen participation and respect for legal norms are associated with lower FMV in this context. CC also has a negative coefficient, but it is not statistically significant.

The control variables exhibit consistent results. FSZ, GWT, and MB present positive, statistically significant coefficients in all models, indicating that aspects of company structure, operational dynamism, and market valuation influence FMV. GDP per capita, on the other hand, shows heterogeneous behavior across the models, suggesting that high levels of national income do not uniformly translate into higher market valuation of companies.

Among the model-fit statistics, the ICC ranges from 87.64% in the null model to 81.01% and 88.05% in the full models, indicating that differences between firms within each country explain a substantial share of FMV variance. The increase in log-likelihood and the reductions in AIC and BIC confirm the improved fit, and the LR test, significant at the 1% level, reinforces the superiority of multilevel modeling over OLS. The average VIF was low, indicating no severe collinearity.

Although most governance dimensions are statistically significant, the estimated magnitudes remain small. The coefficients range from approximately −0.38 to +0.17, which, although they point to a consistent positive or negative direction, are numerically low relative to the average FMV level. Thus, even when statistically significant, the effects of national governance do not produce substantive changes in company valuations.

Overall, the evidence does not support H1. National governance does not systematically influence ROA, as the coefficients range from positive to negative without consistent statistical significance. For FMV, rejecting the hypothesis does not mean that governance and firm performance are unrelated; rather, it indicates that, in the countries studied, multiple institutional dimensions interact to produce ambiguous effects on corporate valuation. Thus, the proposition that better national governance indices would lead to higher corporate performance (Borges et al., 2023) is not supported in the BRICS countries, suggesting heterogeneous effects on corporate performance.

Contingency theory posits that stronger institutional environments enhance organizational performance (Chenhall, 2003), yet our results do not provide empirical support for this expectation. PV, GE, and RQ are associated with higher firm valuation, whereas VA, RL, and CC are associated with lower valuation. This disparity with the literature can be attributed to contextual differences, including variations in the economic, political, and institutional environments of the countries analyzed. The findings suggest that performance does not result from a single governance arrangement, but from the fit between institutional mechanisms and the context in which companies operate (Chenhall, 2003).

Our findings diverge from those of Sayılır et al. (2018) and Borges et al. (2023), which report a positive influence of institutional traditions and the structures through which a country's authority is exercised on performance. At the firm level, these results also contrast with those of AbuSen and Saad (2023) and Farooq et al. (2022), who report direct positive effects of good governance on firm performance. However, our findings are consistent with those of Peris et al. (2017) and Freitas et al. (2018), which highlight the heterogeneity of governance effects across emerging economies. According to Qing et al. (2020), only strong national governance enables the environment to positively impact firm performance.

These mixed effects likely stem from the complexity of the relationship and from the methodological limitations of the indicators. As Huque and Jongruck (2018) point out, WGIs use criteria based on Western values, which can distort evaluations of countries with different political and cultural structures, such as BRICS nations. This finding also reinforces Filatotchev et al. (2013) argument that effective governance practices in certain countries may prove inadequate in others because of institutional differences, including legal and regulatory aspects. In addition, perception-based data can introduce biases that affect the reliability of results (Thomas, 2010). These findings partly reflect the limitations of governance indices rather than the absence of a positive relationship between national governance and firm performance.

**Moderating Effect of Culture**

To analyze the moderating effect of culture, we estimated multilevel models that included main effects of governance variables and cultural dimensions, as well as interaction terms. Following the classic approach of Baron and Kenny (1986), we simultaneously estimated main effects and interactions to ensure correct interpretation. For clarity, the tables present only the interaction coefficients, because they are the primary focus of our investigation.

We tested multicollinearity with the VIF. We found high values for some cultural dimensions: 10.96 for PDI, 18.44 for UAI, 8.65 for IDV, and 10.98 for MAS. Because the VIF values for PDI and MAS exceed the critical threshold of 10, severe collinearity is present (Wooldridge, 2010). Nevertheless, we retained all predictors and

their interactions in the model to preserve the theoretical specification. Table 7 reports the interaction coefficients between governance and culture for each model.

**Table 7: Moderating effect of culture on the relationship between national governance and performance**

| **Panel A: Moderating effect of culture on the relationship between country governance and profitability** | | | | | |
|---|---|---|---|---|---|
| **ROA** | **Null Model** | **Full - PDI** | **Full – UAI** | **Full - IDV** | **Full - MAS** |
| National governance variables | | | | | |
| Intercept | 0.0568 | 0.2821 | 0.2359 | 0.1827 | 0.267 |
| VA | | 0.0003 | -0.0005** | -0.0011 | 0.0008*** |
| PV | | 0.0017 | -0.0007 | -0.0003 | 0.0003 |
| GE | | -0.0030*** | 0.0001 | -0.0001 | 0.0007 |
| RQ | | 0.0019 | -0.0003 | 0.0018*** | 0.0007 |
| RL | | -0.0005 | 0.0010* | -0.0006 | -0.0011 |
| CC | | -0.0012 | -0.0002 | -0.0019 | -0.0005 |
| Control variables | | | | | |
| FSZ | | -060214 | -0.0217 | -0.2146 | -0.0217 |
| GWT | | 0.0319 | 0.0319 | 0.0312 | 0.0315 |
| MB | | -4.00e-07 | -3.99e-07 | -2.20e-07 | -3.49e-07 |
| GDP *per capita* | | -0.0052 | 0.0073 | 0.0184 | -0.0010 |
| **ICC (%)** | 47.23% | 43.79% | 43.77% | 43.94 | 43.81 |
| **Log likelihood** | 18,239.39 | 18,586.03 | 18,578.26 | 18,589.33 | 18,577.34 |
| **AIC** | -36,470.77 | -37,130.05 | -37,114.51 | -37,136.65 | -37,112.68 |
| **BIC** | -36,441.07 | -36,974.15 | -36,958.61 | -36,980.75 | -36,956.78 |
| **LR test vs. OLS** | 5,127.18 | 4,421.9 | 4,421.8 | 4,420.4 | 4,416.0*** |
| Panel B: Moderating effect of culture on the relationship between country governance and firm value | | | | | |
| FMV | Null Model | Full - PDI | Full – UAI | Full - IDV | Full - MAS |
| National governance variables | | | | | |
| Intercept | 9.3178 | 4.5762 | 4.3179 | 2.1253 | 3.2915*** |
| VA | | -0.0107 | 0.0175 | -0.0299 | -0.0379*** |
| PV | | 0.0107 | -0.0008 | -0.0093*** | -0.0081*** |
| GE | | -0.0182 | -0.0005 | 0.0040 | 0.0084 |
| RQ | | -0.0057 | 0.0051 | 0.0256 | 0.0139 |
| RL | | -0.0016 | -0.0164*** | -0.0215 | -0.0116*** |
| CC | | 0.0093 | 0.0175 | 0.0049 | -0.0084*** |
| Control variables | | | | | |
| FSZ | | 0.6031 | 0.6037*** | 0.6147*** | 0.6134*** |
| GWT | | 0.1244 | 0.1231 | 0.1152 | 0.1209 |
| MB | | 8.65e-06** | 8.92e-06** | 0.0001 | 0.0001*** |
| GDP *per capita* | | -0.2706*** | -0.1842 | 0.2788 | 0.0580 |
| **ICC (%)** | 87.64% | 85.19% | 87.79% | 88.92% | 89.54 |
| **Log likelihood** | -1,724.68 | 805.38 | 874.41 | 991.34 | 888.40 |
| **AIC** | 3,457.37 | -1,568.76 | -1,706.82 | -1,940.67 | -1,734.81 |
| **BIC** | 3,487.07 | -1,412.86 | -1,550.92 | -1,784.77 | -1,578.91 |
| **LR test vs. OLS** | 20,169.14*** | 14,816.5 | 15,003.5 | 14,927.5 | 14,967.0*** |

**Note:** ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Our results indicate that culture moderates the link between national governance and performance, although the pattern varies across dimensions. Panel A indicates that few interaction terms are significant, and the coefficients remain close to zero. In Panel B, however, the patterns are more consistent: VA and CC are significant across all cultural dimensions but with opposite signs, whereas the other models produce less consistent results. Regarding model fit, the hierarchical specifications remain robust. The contrast between

the two models is notable: profitability exhibits moderate explanatory power at the national level (ICC near 44%), whereas market value is strongly conditioned by the institutional and cultural environment (ICC near 90%). The LR test was significant in all models, reinforcing the adequacy of the multilevel model over OLS.

Culture does not always amplify governance and may also weaken it; therefore, H2 cannot be confirmed. When the moderation of cultural dimensions from Panel A is considered, some relationships become statistically significant, although the model's explanatory power remains low. Governance variables exhibit mixed patterns, with alternating signs and sporadic significance, so they do not indicate a uniform trend of cultural moderation on profitability.

The VA dimension had a positive effect on ROA in contexts of higher PDI and more masculine values, but a negative effect in societies marked by UAI and IDV. This pattern suggests that, in hierarchical environments, formal accountability mechanisms function as instruments of legitimacy and order, whereas, in contexts averse to uncertainty, the same indicator can generate instability and additional costs, reducing operational efficiency.

In Panel B, heterogeneity becomes more evident, as all analyzed variables exhibit sign reversals across cultural dimensions. The effect of VA is strengthened in countries with higher UAI but is attenuated in contexts defined by PDI, IDV, and MAS. Furthermore, variables such as RQ and GE also show sign reversals across cultural dimensions, indicating that national governance quality can confer both legitimacy and trust, as well as regulatory pressure and compliance costs.

These results reveal that cultural moderation operates in a more nuanced manner than the literature suggests. This conclusion diverges from the prevailing international literature, which often presents culture as a positive moderator (AbuSen & Saad, 2023; Borges et al., 2023) but is consistent with the work of Griffin et al. (2017) and Soschinski et al. (2021), which indicates that national culture may or may not influence governance effectiveness, depending on the cultural dimension. In line with contingency theory (Chenhall, 2003), the results indicate that no universal governance arrangement guarantees superior performance; instead, firms and policymakers should align governance mechanisms with each country's cultural patterns.

The disparity in results indicates that, in fragile institutional contexts, certain cultural dimensions can act as barriers rather than catalysts for performance. This interpretation aligns with North (2005), who argues that fragile political and legal institutions increase uncertainty and transaction costs, and with Taras et al. (2010), who show that cultural impacts vary with context. Our findings reveal that culture does not uniformly support governance; instead, it functions as a contingent factor whose effects depend on the institutional arrangement and country-specific characteristics, reflecting the interplay of multiple factors, such as infrastructure, fiscal policy, and legal certainty. These findings extend contingency theory by showing that the alignment between environment and structure occurs not only at the organizational level but also at the institutional level, incorporating national culture as a critical element of contextual adaptation.

Although Hofstede's indicators remain a common reference in the literature, researchers should interpret these findings with caution. As Taras et al. (2010) discuss, the model has important methodological limitations, including its reliance on specific corporate data and its tendency to treat countries as homogeneous cultural units. In addition, some dimensions exhibit conceptual overlap and low reliability, which may partially account for collinearity in some estimates (Kirkman et al., 2006).

## Implications for Sustainability

These findings speak to firms' financial sustainability by clarifying which national characteristics are associated with performance. The positive effect of PV suggests that government stability and lower levels of political violence support sound business decisions, which in turn foster financial sustainability and better disclosure practices.

Culture exerts diverse yet significant effects. Culture shapes the strength of the link between national governance and performance, and, depending on the cultural dimension, may also reinforce the economic and financial sustainability of firms. Even without examining ESG indicators, the results illustrate how institutional and cultural characteristics shape the environment for adopting ESG-related business practices. These results indicate that governance quality and national cultural values inform organizational decisions and strategic responses, thereby influencing corporate sustainability.

## CONCLUSION

This study investigates how national governance affects the performance of BRICS firms, treating culture as a moderating variable. We examined 1,238 firms from nine countries, using data from 2014 to 2023. The findings led to the rejection of H1. National governance indicators, in isolation, do not affect emerging-firm performance uniformly; they yield heterogeneous effects across dimensions. We also do not confirm H2. National culture exerts a significant but uneven influence: in some dimensions, it strengthened the link between national governance and performance, whereas in others, it attenuated it.

These findings highlight that the literature does not present a consensus on the impact of governance quality on performance. In other words, governance practices that are effective in certain countries may prove inadequate in others due to institutional differences. In line with contingency theory, the findings reinforce the idea that no universal governance model exists, as its impact on firm performance varies across countries' institutional and cultural contexts. Ultimately, this paradigm emphasizes the importance of multilevel approaches in accounting and finance literature that can capture effects at both the organizational and national levels.

These results need to be considered alongside several analytical limitations. National culture and governance are measured using Hofstede and WGI indicators, which are widely used in the literature but have methodological limitations. Moreover, the aggregate analysis of the BRICS countries may hide important institutional and sectoral differences, making it harder to explain why some cultural dimensions strengthen governance while others dampen its effects on firm performance.

From a theoretical perspective, this study extends contingency theory by showing that governance and national culture operate as macro-level contingency factors. The findings indicate that contingency adjustments arise not only within organizations but also from the interaction between institutional arrangements and cultural contexts across countries. The findings indicate that policymakers and managers cannot directly transfer governance models across national settings. Governance-related initiatives should be adapted to each country's institutional and cultural characteristics, supporting business strategies aligned with sustainable development in emerging economies.

In accounting and sustainability, the study highlights that governance and accountability policies must recognize each country's institutional and cultural particularities to foster sustainable business practices. Socially, the study emphasizes that stronger national governance is a key condition for stable business environments that support development and sustainability. Such strengthening, in addition to promoting transparency and trust, also helps reduce inequalities and consolidates a culture of integrity and responsibility.

This research has some caveats and limitations. We could not obtain company-level data for Ethiopia and Iran because the database lacked information on those countries. A second limitation stems from our reliance on aggregate national indicators, which may obscure regional heterogeneity. Although HLM accounts for the nested structure of the data, the absence of subnational measures remains a structural limitation and points to the need for future analyses that incorporate regional indicators.

For future research, we suggest including ESG performance indicators to examine how environmental, social, and governance practices relate to the national characteristics investigated here. Expanding the model to include variables related to economic infrastructure, legal certainty, and fiscal policy can also contribute to a more comprehensive understanding of the relationship under study. Additionally, future studies should validate instruments that measure national culture and national governance at the local level to ensure they align with regional and sector-specific nuances, and conduct stratified sectoral analyses to determine whether cultural moderation and the effects of governance vary across contexts with different regulatory levels.

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