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ORIGINAL ARTICLE

Short- and long-term impact of governance on firm performance in emerging and developed economies: a comparative analysis

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Abstract

This study examines the short- and long-term effects of internal and external governance on firm performance in both emerging and developed markets. The complex interplay between governance mechanisms and their impact on firms' financial outcomes requires further investigation, especially in the distinct and evolving economic contexts of these markets. Using the generalized method of moments, we assess the influence of internal and external corporate governance on firm performance while controlling for factors such as economic growth. Countries in the sample were selected based on their prominent roles within their respective economic blocs and unique economic and firm characteristics. We found that the internal governance mechanisms support firm performance in both emerging and developed markets in the short run. However, other factors play a more significant role in the long run. The results suggest that managers should strive to balance short-term gains with long-term sustainable growth view of company. For policymakers in emerging and developed markets, this study highlights the importance of designing governance frameworks that support firm performance across varying time horizons. This research offers a novel contribution by exploring the distinct short- and long-run interactions between governance machanisms and firm performance, comparing this dynamics across emerging and developed markets.

Keywords Corporate governance · External governance · Firm performance · Emerging economies · Developed economies

Introduction

Corporate governance has become a crucial factor in stabilizing businesses, improving firm performance, and stimulating economic growth in both emerging and developed markets. It addresses conflicts of interest between principals (shareholders) and agents (managers) (Eisenberg et al., 1998), aligning their interests as well as reducing cost of capital, increasing share prices, and improving economic performance (e.g., Khan et al., 2020; Zhu, 2014; Ararat et al., 2017; Chou et al., 2013; Samaha et al., 2015). Internal and external governance mechanisms also help minimize waste, risk, corruption, and mismanagement through enhanced monitoring and transparency (Krafft et al., 2014; Mishra & Mohanty 2014).

Many countries have made significant progress in establishing codes of corporate governance. For example, South Africa mandates companies listed on the JSE adhere to the King Codes of Governance, developed between 1994 and 2016. Similarly, the United Kingdom's Financial Reporting council introduced a new code of corporate governance in 2018 (FRC 2018), while India's current code is based on the recommendations of three key committees which are Kumar Mangalam Birla Committee, Narayana Murthy Committee, and Kotak Committee) (Arora & Sharma, 2016; Kaur & Vij, 2018; Mishra & Mohanty, 2014). In the USA, legal frameworks such as the Sarbanes–Oxley (Sox) Act of 2002 and the Securities Act of 1933 and 1934 provide the foundation for corporate governance. Many companies adopt their national codes and gain the anticipated benefits of good governance.

The impact of corporate governance on firm performance is crucial across economies, with ample research supporting its role in optimising firm performance (e.g., La Porta et al., 2000; Claessens et al., 2002; Abdoush, 2017;

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Khan et al., 2020; Mishra & Mohanty, 2014; Morekwa & Nyamongo, 2013; Nagalingam et al., 2022; Nasrallah & El Khoury, 2022; Tshipa & Mokoaleli-Mokoteli, 2015). For instance, studies including La Porta et al., (1998) show that legal and regulatory frameworks significantly influence corporate governance, with stronger investor protections and well-defined ownership rights enhancing firm performance by reducing information asymmetry and improving access to capital. Claessens et al., (2000) further emphasise that the external governance mechanisms like foreign ownership and institutional ownership positively impact the firm valuation and financial performance in emerging economies. However, a comprehensive understanding of how internal and external governance factors affect firm performance in different economic contexts remains important. Palepu & Khanna (1998) found that firms with more active institutional investors tend to perform better due to increased monitoring, while Johnson et al., (2000) observed that governance mechanisms effectiveness in emerging markets depends on regulatory enforcement and investor protection.

Studying governance across the diverse economies offers insights into how institutional, regulatory, and economic factors influence firm performance alongside governance measures. As markets become increasingly interconnected, understanding the complex balance between internal and external governance mechanisms remains essential for advancing research and policy development. This study aims to inform decision-making at the firm, regulatory, and policy levels, contributing to more resilient, transparent, and sustainable economic growth globally.

The overarching objective of this paper is to investigate the simultaneous effects of internal and external governance machanisms on firm performance in emerging and developed markets. While evidence supports corporate governance's positive impact on firm performance, gaps remain in understanding whether companies benefit from good governance mechanisms in the short- or long-run or if there are additional factors that impact firm performance overtime. The development of consistent corporate governance metrics across varied markets remains an ongoing research challenge as does indentifying causal relationships between corporate governance and firm performance through advanced econometric techniques to address endogeneity and selection biases.

The paper is structured as follows. Sect. "Underpinning theories" presents the theoretical review. Sect. "Empirical literature review and hypotheses development" discusses empirical literature. Sect. "Research methodology" outlines the research methodology. Sect. "Results and discussion" presents the findings and Sect. "Results and discussion" discusses and concludes the research.

Underpinning theories

Theoretical frameworks provide a foundation for understanding how corporate governance practices influence firms' operational efficiency and financial outcomes. This section delves into the key theoretical perspectives that illuminate the intricate connections between corporate governance and firm performance.

Agency theory

Agency theory (Jensen & Meckling 1976) is foundational in exploring the impact of corporate governance on firm performance and is advocated by various other scholars (e.g., Aguilera & Jackson 2003; Brennan & Solomon, 2008; Christopher 2010; Daily, Dalton, & Cannella, 2003). The theory characterizes corporations by a principal-agent relationship, where shareholders (principals) delegate decision-making authority to managers (agents) potentially leading to agency conflict. Effective governance mechanisms, such as independent boards and performance-linked executive compensation helps align agent behavior with shareholder interests. The current study extends the agency theory by examining how internal and external governance mechanisms reduce information asymmetry, monitor managerial actions and mitigate agency costs to enhance firm performance.

Institutional theory

Institutional theory suggests that governance practices are shaped by institutional norms, regulations, and societal expectations (Scott 1995; Peng (2019). Isomorphism pushes firms to adopt governance practices aligned with institutional pressures for legitimacy and social acceptance. Ararat et al., (2021) explore how regulatory institutions influence the evolution of corporate governance codes and highlights the interplay between formal regulations and institutional pressures in shaping governance norms and practices over time. Institutional pressures push firms to adopt practices that enhance their image and alignment with industry standards. In emerging markets, institutional voids and weaker regulatory environments may lead to governance gaps, impacting firm performance. Conversely, developed markets with well-established norms and regulations often exhibit stronger governance practices, which can contribute to higher firm performance and foster economic growth. The current study contributes to institutional theory by investigating how companies in emerging and developed markets comply with isomorphic governance codes of their



respective countries and how this compliance impacts firm performance.

Empirical literature review and hypotheses development

Corporate governance practices vary significantly across emerging and developed markets due to institutional regulatory differences. Klapper & Love (2004) found that while governance influences firm performance in both market types, their specific governance mechanisms may differ. Developed markets often emphasise board independence and executive compensation, while emerging markets focus on investor protection and ownership concentration. Regulatory challenges and institutional voids in emerging markets can create governance gaps, while developed markets benefit from established norms that drive firm performance and economic growth. Khanna & Palepu (1997) highlight how firms in emerging markets rely on informal institutions, such as family ties and social networks, to compensate for weak formal governance structures. Claessens et al., (2021) delve into the complex ownership structures in emerging markets, including state ownership and concentrated ownership by business groups. They concluded that ownership configurations can exacerbate agency conflicts and hinder firm performance. Aggarwal et al., (2009) found that mandated governance rules can indeed improve firm value, but their effectiveness largely depends on a country's legal and institutional environment. Karpoff et al., (2022) explore the role of shareholder activism in developed markets and posits that active shareholders hold management accountable, leading to improved governance practices and ultimately enhancing firm performance.

H_1 The internal corporate governance has a significantly positive short- and long-term impact on firm performance in both emerging and developed markets.

The interaction between internal and external governance mechanisms is dynamic and plays a pivotal role in dynamic, shaping firm performance in diverse markets context. Yermack (1995) shows how executive compensation aligns managerial actions with shareholder interests, enhancing firm performance. External governance, regulations, market forces, and investor activism, adds checks and balances that promote transparency, accountability, and investor confidence. In both emerging and developed markets contexts, strong corporate governance nurtures healthy business environments, fuels innovation, and drives sustainable economic progress. Coffee (2002) emphasizes how regulatory enforcement interacts with internal governance mechanisms in developed markets. The interaction between strong regulations and internal governance practices enhances transparency, accountability, and ultimately contributes to sustained firm performance. Gomez-Mejia et al., (2005) highlight that firms with robust internal governance structures, such as diverse and independent boards, tend to exhibit better financial performance and this effect is magnified when external governance mechanisms align with and reinforce internal governance practices.

H_2 The significant impact of internal corporate governance on firm performance depends on the quality of external governance in emerging and developed market countries.

Research methodology

Data and data sources

The first objective of this study was to develop a internal corporate governance compliance score (ICGCS) for companies lisXted on the New York Stock Exchange (NYSE), London Stock Exchange (LSE), Johannesburg Stock Exchange (JSE), and National Stock Exchange of India (NSE) and to subsequently analyse the relationship between this score and firm performance. Specifically, the study ICGCS by evaluating companies across five critical governance categories, which are company board leadership and purpose, shareholder rights, engagement of stakeholders, accountability and audit, and disclosure and transparency. These categories were drawn from each country's unique corporate governance codes, supplemented with exchange frameworks such as stock exchange rules and legislative requirements and enhanced with proxy statements data, which were sourced from companies' websites, Securities Exchange Commission filings for UK companies, and the US annual reports database (10-K). The external governance scores, representing country-level governance conditions, were derived from *World Bank* data while measures of firm performance were obtained from annual financial reports. The final sample consisted of 400 companies, with100 from each stock exchange in the selected countries. These countries were chosen to represent varying corporate governance landscapes. For instance, the US companies operate in a highly regulated environment governed by the Sarbanes–Oxley Act (2002), while governance in the UK, South Africa, and India relies less on legislation and more on voluntary codes. The diversity provided a robust basis for analyzing governance practices across different regulatory environments. Due to the time and resource intensity involved in collecting corporate governance data, a sample was used rather than the



entire population of firms on each exchange. However, the sample size remains sufficiently large to yield statistically meaningful insights. The study spans the years 2011 and 2020, a period marked by significant global advancements in corporate governance standards.

Research design

The research design unfolded in two stages. First, the ICGCS was constructed for each country sample, enabling the assessment of corporate governance quality and effectiveness. The second stage explores how this governance scores impacted firm performance in both emerging and developed economies. The ICGCS was developed by adapting the methodology used by the Black et al., (2017) which involved identifying key governance elements from each country's governance codes and categorizing them into five areas which are, the role and responsibilities of the governing body (corporate board), shareholder rights, stakeholder engagement, risk accountability and audit, as well as transparency and disclosure. In total, 100 governance items were evaluated, each scoring a maximum of 1, yielding a total possible score of 100. Table 1 details the governance items under each category, and Appendix 1 provides the derivation process for compliance scores incorporating each country's corporate governance codes and relevant other sources.

In the next stage, we evaluated corporate governance compliance for listed companies across the sample countries by assigning a score of 1 for each governance measure met and a score of 0 for non-compliance. Nondisclosure of relevant corporate governance also received a score of (0). This scoring approach aligns with prior research (e.g., Abdoush et al., 2017; Al-Malkawi et al., 2014; Klapper & Love, 2004; Ntim, 2009).

In the second stage, the study employed the generalized method of moments (GMM) to analyze the relationship between corporate governance and firm performance. GMM is particularly effective for this analysis as it addresses endogeneity concerns by using instrumental variables and a system of equations. This robust methodology allows for in-depth examination of how corporate governance practices influence various aspects of firm performance.

Model description

Dependant variables

Firm performance was measured by return on equity (ROE) and Tobin's Q as these are widely recognized indicators (see Aduda et al., 2013; Jensen & Murphy 1990; Lang et al., 1989; Tshipa & Mokoaleli-Mokoteli, 2015; Wolfe & Sauaia, 2005). The ROE is calculated as the ratio of earnings after taxes to shareholders' equity. Tobin's Q ratio is the market measure, calculated as the ratio of firms' markets value to its assets replacement cost (Chung & Pruitt, 1994; Wang, 2015). Tobin's Q is extensively used in corporate governance studies (Bebchuk et al., 2004; Gompers et al., 2003; Singh et al., 2018; Tshipa & Mokoaleli-Mokoteli, 2015; Wang, 2015) as it includes a risk-adjusted discount rate, reducing distortions from taxation and accounting inconsistencies common in non-market performance measures (Wernerfelt & Montgomery, 1988). According to Black et al., (2006), a Tobin's Q above 1 indicates higher growth potential and efficient asset utilization than one whose Tobin's Q is below one (Wollfe, 2002; Lang et al., 1989).

Independent variables

Internal corporate governance compliance score (ICGCS) The internal corporate governance compliance score for each company is the sum of the scores assigned to each corporate governance item divided by one hundred. The ICGCS for each company shows the company's level of compliance with the country's standards of corporate governance. The final ICGCS for each company is the fraction value scored on the one hundred questions on governance and expressed as follows:

$$ICGCSi = \frac{\text{Firm Score for Governance Compliance}}{\text{Total Governance Compliance Score (100)}} \quad (1)$$

where $ICGCS_i$ is the governance compliance score of a company. The numerator (firm score for governance compliance

Table 1 Comparison of ICGCS scoring tool across sample countries

Internal Corporate Governance Categories	South Africa	India	UK	USA
Role of the corporate board and responsibilities	40	35	35	39
Shareholder rights	17	20	10	16
Stakeholder engagement	12	10	20	12
Risk, Accountability, and Audit	10	10	10	10
Transparency and disclosure	21	25	25	23
Total score internal governance score	100	100	100	100

Table 2 External governance scores for sample countries

Year	SA	INDIA	UK	USA
2011	0.61	0.43	0.87	0.85
2012	0.58	0.41	0.88	0.86
2013	0.60	0.42	0.88	0.86
2014	0.60	0.41	0.88	0.84
2015	0.59	0.46	0.88	0.84
2016	0.59	0.46	0.89	0.85
2017	0.57	0.46	0.88	0.82
2018	0.57	0.48	0.87	0.86
2019	0.59	0.48	0.87	0.86
2020	0.57	0.43	0.87	0.85

is the score a firm obtained for complying, whereas the denominator is the total score that a company can attain for compliance based on the scoring tool.

External governance score (XGS) The country-level governance score for each country was computed as the mean of the percentile ranks of the six elements as follows:

$$XGS = \frac{\Sigma_{pi}}{n} \tag{2}$$

where: XGS is the external or country-level governance score, p_i is the percentile rank of each governance indicator, and n is the number of governance indicators which is 6.

Table 2 presents the computed external governance scores for the four sample countries over the sample period and shows that emerging economies (South Africa and India) have low external governance score (XGS) governance compared to developed economies (USA and the UK).

Composite governance compliance score The composite governance compliance score (CGCS) is the product of the corporate governance compliance score (ICGCS) and the external governance compliance score (XGS) and this variable is meant to assess how the interaction of the two impacts on firm performance.

Control variables

The control variables in this study include firm size, firm age, inflation rate, foreign direct investment (FDI) and population growth. Firm size is measured as a log of total assets as defined by Black et al., (2006) and this is a widely accepted approach in similar research. Firm age also has impact on firm performance in corporate governance studies (e.g., Loderer & Waelchli, 2011; Pástor & Pietro, 2003; Pillai & Al-Malkawi, 2018) and is measured as the number of years since the firm's listing, with one additional year added to prevent zero values (Loderer & Waelchli, 2011; Pástor & Pietro, 2003).

Foreign direct investment (FDI) is included as a control variable due to its positive influence on firm performance. It enables access to capital, expertise and technology which enhances firms' competitiveness and product quality. Moreover, it promotes innovation and human capital development, benefiting both local firms and the economy overall (Hanson, 2001; Sengupta & Puri, 2020).

Population growth also serves as a control variable as it impacts firm performance by expanding markets size, diversifying consumer bases, and potentially increasing labour availability. In addition, it promotes economic growth by boosting consumption, expanding the labor force, creating new investment opportunities, driving urban infrastructure development, and innovation potential (Bucci, 2008; Dao, 2013).

Table 3 Univariate analysis of sample countries which are South Africa, India, the USA, and the UK

Variable	Mean	Median	Maximum	Minimum	Std Deviation
Panel A: South Africa N = 1000					
ICGCS	0.96	0.97	1	0.92	0.02
XGS	0.59	0.59	0.61	0.57	0.01
CGCS	0.57	0.57	0.61	0.52	0.01
Tobin's Q	1.18	0.77	12.16	−0.39	1.42
ROE (%)	24.62	19.26	297.28	−182.74	31.16
Firm age	32.57	24	124	1	0.01
Firm size (Total assets in $ Ms)	82	0.77	1,215	14	149
Growth in GDP	0.02	0.02	0.03	0.02	0.00
Inflation	0.05	0.05	0.06	0.04	0.01
FDI (USD billions)	3.80	4.63	8.23	1.52	1.70
Population growth rate	0.01	0.02	0.02	0.01	0.00
Panel B: India n = 1000					
ICGCS	0.72	0.73	0.87	0.42	0.06
XGS	0.44	0.46	0.48	0.41	0.03
zCGCS	0.32	0.32	0.42	0.17	0.04
Tobin's Q	2.04	0.54	21.23	−1.01	3.12
ROE	0.20	0.18	1.9	0.39	0.2
Firm age	24.58	19	119	1	19.47
Firm size (Total assets in $ Ms)	3,632	1,339	12,278	300	109
Growth in GDP	0.06	0.06	0.08	0.04	0.01
Inflation	0.06	0.05	0.10	0.03	0.03
FDI (USD billions)	38.89	42.12	50.61	23.99	1.23
Population growth rate	0.01	0.01	0.02	0.01	0.00
Panel C: United Kingdom n = 1000					
ICGCS	0.89	0.88	0.97	0.81	0.03
XGS	0.88	0.88	0.89	0.85	0.01
CGCS	0.78	0.78	0.84	0.15	0.03
Tobin's Q	1.14	0.75	11.86	0	1.44
ROE (%)	0.27	0.18	290.01	-66.15	0.33
Firm age	28.32	19	218	1	27.22
Firm size (Total assets in $ Ms)	347.12	1426.42	10,839.26	125.03	1,213.80
Growth in GDP	0.25	0.28	0.42	0.01	0.10
Inflation	0.02	0.03	0.05	–	0.01
FDI (USD trillions)	2.04	2.21	2.75	1.10	1.31
Population growth rate	0.01	0.01	0.01	0.01	0.00
Panel D: United States of America n = 1000					
ICGCS	0.95	0.95	1	0.86	0.02
XGS	0.86	0.85	0.89	0.82	0.02
CGCS	0.81	0.81	0.85	0.7	0.03
Tobin's Q	1.47	1.22	8.34	−0.59	1.29
ROE (%)	43.47	14.35	203.20	−237.19	137.24
Firm age	32	21	123	1	25.58
Firm size (Total assets in $ Ms)	1,389.17	97.98	2,687.38	143.23	27.15



Table 3 (continued)

Panel D: United States of America n = 1000					
Growth in GDP	0.02	0.02	0.03	0.01	0.00
Inflation	0.02	0.02	0.03	0.00	0.01
FDI (USD trillions)	2.51	2.46	2.71	2.40	0.11
Population growth rate	0.01	0.01	0.01	0.00	0.00

Inflation was included in the model for its impact on firm performance through increased production costs, economic uncertainty, and shifts in consumer behavior due to reduced purchasing power (Boyd et al., 2001; Wollie, 2018). Furthermore, inflation influences economic growth by discouraging investment, reducing consumer spending, distorting pricing, and potentially leading to higher, which can increase borrowing costs (Koulakiotis et al., 2011; Mishkin, 2008; Rutayisire, 2015). While moderate inflation can stimulate growth through relative price adjustments, excessive or unpredictable inflation may disrupt business planning, hinder investments, and erode purchasing power, necessitating prudent monetary and fiscal policies to maintain economic stability.

Model specification

The model testing the relationship between internal and external governance mechanisms and firm performance across emerging and developed economies is specified as follows:

$$\mathrm{FIRMPERF}_i = \alpha_1 \mathrm{ICGCS}_i + \alpha_2\left(\mathrm{CGCS}_i\right) + \alpha_3\left(\mathrm{Control}_j\right) + e_j \quad (3)$$

where: $\mathrm{FIRMPERF_i}$ is the financial performance measure; ICGCS is the company's corporate governance score, CGCS is the interactive variable between internal and external governance. *Control* variables include firm age, firm size, growth in GDP, inflation, and population growth and e_j represent constant variables used.

Results and discussion

Univariate analysis

Table 3 presents the univariate analysis of selected emerging (South Africa and India) and developed (the UK and the USA) economies. Panel A shows that South African companies had the highest mean internal corporate governance compliance score of 96%, followed closely by the USA at 95%, the UK at 89%, and India at 72%. The South Africa's high compliance is likely due to King IV which mandates adherence to governance codes for all JSE companies. Similarly, the USA's strong compliance may be influenced by governance regulations in the Securities Exchange Act of 1934, the Sarbanes–Oxley Act of 2002, and the NYSE and OECD governance principles.

For external or country-level governance, the UK leads with 88% compliance score, followed by the USA at 85%, South Africa at 59%, and India at 44%. In terms of the composite governance compliance score (CGCS), the USA holds the highest mean mean at 81%, with the UK at 78%, South Africa at 57%, and India at 32%. These results suggest that while companies in all sample countries generally uphold strong internal governance, this strength is partially offset by weaker external governance, especially in emerging markets.

The firm performance as measured by ROE and Tobin's Q shows that India has the highest Tobin's Q of 2.09 indicating the strong market valuation, followed by the USA at 1.47, SA at 1.18, and the UK at 1.14. In terms of ROE, USA firms lead with the average of 43.47%, followed by the UK at 27%, South Africa at 24.6%, and India at 20%reflecting higer profitability among USA firms. Stock turnover ratios are also highest in the USA at 2.03, followed by the UK (1.71), SA (1.67), and India (1.6) suggesting greater liquidity in USA stock. SA firms have the highest avaerage firm age at 32.57years, with USA firms at 32.00 years, the UK at 28.32 years, and India at 24.58 years. Indian companies report the highest mean total assets at $3632 million, followed by the USA ($1389 million), UK ($347.12 million) and South Africa ($81.05 million).

At the macroeconomic level, India leads with 6% GDP growth rate, while GDP for the USA, the UK, and South Africa average rate of 2%. Inflation rates are highest in India (6%) and South Africa (5%), compared to 2% in both the USA and the UK. FDI inflows are led by the USA ($3.237 trillion), followed by the UK ($ 2.036 trillion), with significantly lower FDI in India ($38.89 billion) and SA($ 3.8 billion). All countries in the sample exhibit 1% population growth rate as shown in Table 3.

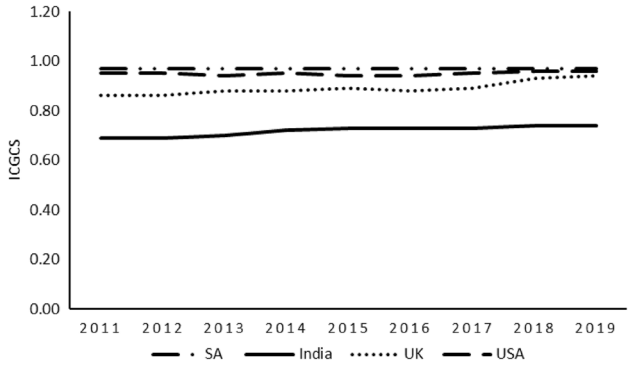


Fig. 1 The trend of the ICGCS in the sample countries

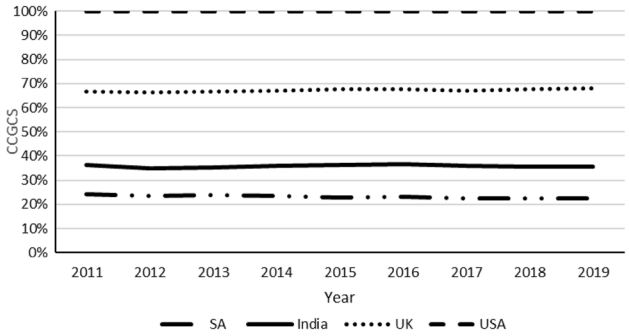


Fig. 2 Trend of the CGCS in sample countries

Compliance with internal corporate governance compliance score (ICGCS) across sample countries

Figure 1 presents a comparison the internal corporate governance compliance scores (ICGCS) across the sample countries throughout the the research period. South Africa consistently achieved the highest compliance levels, closely folloed by the USA. Both countries reached similar compliance levels between 2017 and 2019. The UK's compliance level was slightly lower than that of SA and the USA but showed visible improvement, with potential to converge with these countries after 2019. India had the lowest compliance level throughout the study period, with the slightest improvement in 2014 but remained largely unchanged afterwards, indicating little likelihood of catching up with the other three countries. Notably, compliance levels for most companies improved around 2014 likely due to the influence of corporate governance standards promoted by the OECD and the International Corporate Governance Network (ICGN).

The trend of composite governance compliance score (CGCS)

Figure 2 compares the composite governance compliance score (CGCS) across sample countries. The USA maintained the highest CGCS, followed by the UK, whose score ranged from 75% to 83%, showing an upward trend, possibly spurred by new corporate governance codes introduced in 2016. South Africa's CGCS ranged between 55% and 59%, while India had the lowest CGCS, ranging from 29% to 33%. Although South African companies had the highest ICGCS, their composite score was reduced by weaker country-level governance.

Overall, the trends indicate that developed countries (USA and UK) achieved the highest governance standards, as anticipated, due to their stronger external governance frameworks compared to the emerging markets of South Africa and India.

The impact of the internal corporate governance compliance score on firm performance

Table 4 presents the results of the relationship between internal corporate governance compliance scores and firm performance as measured by ROE and Tobin's Q for South Africa. The analysis controls for firm size, firm age, FDI, inflation, GDP growth, and population growth rate.

Table 4, Model III (full model) in Panels 1 and 2 shows a positive and significant short run relationship between the internal corporate governance compliance score (ICGCS) and firm performance as measured by both ROE and Tobin's Q. In addition, inflation has a significantly negative effect on both ROE (Coefficient = −3.4423) and Tobin's Q (Coefficient = −0.9924), indicating that high inflation raises costs of goods and services, reducing firm profitability (Boyd et al., 2001 and Perry, 1992). Firm age negatively impacts ROE and Tobin's Q, with a significant effect on ROE. GDP growth shows a positive and significant influence on ROE, suggesting that a strong economy support firm investment as well as product and service delivery, aligning with findings of Acemoglu & Robinson (2010). While GDP growth significantly enhances ROE, firm size has notable positive impact on Tobin's Q.

In the long run, GDP growth is the sole variable with positive and significant relationship with ROE (coefficient = 0.7901), supporting Musah et al., (2019). Firm size as measured by a log of total assets, also shows a positive and significant long-run relationship with Tobin's Q. These results suggest that in the long run, governance scores (ICGCS and CGCS) do not directly impact firm performance, rather, economic conditions and firm characteristics take precedence.

Figure 3 illustrates the long-run effect of GDP growth on ROE and is characterized by peaks and troughs that reflect typical of economic cycles across in different economies.

Table 4 The relationship between firm performance and corporate governance in South Africa

Variables	Model I Short-term	Model II Short-term	Model III Short-term	Model IV Long-term
Panel 1: Dependent variable: Return on Equity n = 800				
ROE (-1)	0.8807	0.1135	0.6027	
ICGCS	0.5614	0.7332[a]	0.3026[a]	
CGCS	−0.4623[a]	−0.9103[b]	−0.3912	
FIRM AGE	−0.4546[a]		−1.2093[b]	
FIRM SIZE (TOTAL ASSETS IN $ Ms)	−0.0256		−0.0240	
GROWTH IN GDP		1.3940	2.0436[c]	2.6228[a]
INFLATION		1.2528	−3.4423[b]	
FDI		0.8573	0.0886	
G_POPULATION		−1.3923	−2.0456	
J Statistic	0.2402	0.2213	0.1842	0.1803
Panel 2: Dependent variable: Tobin's Q n = 800				
TOBIN'S Q (-1)	0.4412	0.2856	0.1833	
ICGCS	1.9615[a]	4.8620	0.7002[b]	
CGCS	−0.4623[a]	−0.9103[b]	−0.3912	
FIRM AGE	−1.3059		−0.5574	
FIRM SIZE (TOTAL ASSETS IN $ Ms)	0.8506[b]		0.4637[b]	0.7901[b]
GROWTH IN GDP		−1.5975	−1.7012	2.6228[a]
INFLATION		1.2528	−0.9924[a]	
FDI		−0.6113[b]	0.1010	
G_POPULATION		1.1354	−2.7963	
J Statistic	0.2502	0.2135	0.2316	0.2011

Model I presents the short-term relationship between firm performance and internal governance compliance scores when controlling for firm characteristics. Model II controls for economic characteristics and population growth. Model III includes all the variables while model IV presents the long-term relationship

Significance levels—a = 1%, b = 5%, and c = 10%

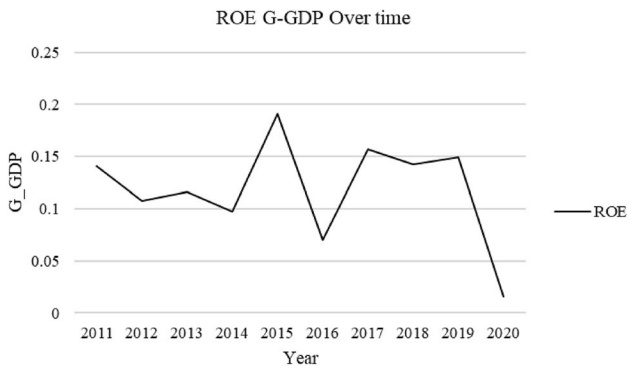


Fig. 3 The long-run effect of Growth in GDP on ROE in South Africa

The highest GDP growth peak coincided with an ROE coefficient of 0.18 in 2015, followed by a sharp decline in 2020. This cyclical relationship between GDP growth and ROE supports Korent et al., (2014) and Lee & Lee (2012).

Figure 4 below depicts the long-term impact of firm size on Tobin's Q, showing that this impact accelerated significantly in 2013, levelled off at Tobin's Q coefficient of 0.17, and then declined sharply in 2020.

Table 5 presents the relationship between internal corporate governance compliance score (ICGCS) and firm performance in India. The full model (Model III) shows that in the short run, there is a positive and significant relationship between the ICGCS and both measures of firm performance (ROE and Tobin's Q). However, it also shows a negative relationship between both measures of performance and the composite variable of internal and external governance - composite corporate governance compliance score (CGCS), which combines internal and external governance factors. This finding indicates that the internal corporate governance practices in Indian companies effectively

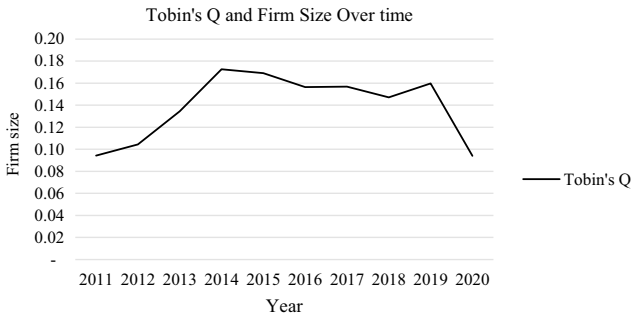


Fig. 4 The long-run relationship between Firm size and Tobin's Q in South Africa

mitigate agency problems between managers and shareholders, thereby enhancing firm performance and maximizing the shareholder wealth. Nonetheless, the consistently weak external governance, as captured by CGCS remains a significant concern as highlighted by Carp (2012).

Firm age and firm size both have a diminishing effect on Tobin's Q both in the short and long term, with smaller coefficients in the long run than than in the short run. Figure 5 illustrates the long-run relationship between Tobin's Q, firm size, and firm age. The impact of firm age on Tobin's Q peaked at a coefficient of 0.8 in 2015 but declined to nearly zero by 2020. Firm size also reached its highest coefficient was in 2015 and 2016, before dropping to approximately 0.6 in 2018. Population growth shows a positive correlation with ROE, while control variables such as firm size and firm age are negatively associated with Tobin's Q in the short run.

Table 6 presents the relationship between corporate governance and firm performance for firms listed on the London Stock Exchange. The full model (model III) shows that in the short run, internal corporate governance compliance score (ICGCS) positively and significantly influences both ROE and Tobin's Q while (CGCS) negatively impacts the firm performance, with the coefficient higher for Tobin's Q. This finding suggests that although UK's external

Table 5 The relationship between firm performance and corporate governance in India

Variables	Model I Short-term	Model II Short-term	Model III Short-term	Model IV Long-term
Panel 1: Dependent variable: Return on Equity n = 800				
ROE (-1)	0.0213	0.0103		
ICGCS	3.3611[a]	1.5015	0.9211[b]	
CGCS	−4.3014[a]	−0.1112	−0.9314[b]	
FIRM AGE	0.9117		−1.1723	
FIRM SIZE (TOTAL ASSETS IN $ Ms)	0.8325		0.0525	
GROWTH IN GDP		−1.0712	−1.0117	
INFLATION		3.3104[b]	−0.7652	
FDI		−0.3004	0.1343	
G_POPULATION		3.4703	2.3407[b]	
J Statistic	0.2321	0.2410	0.2024	
Panel 2: Dependent variable: Tobin's Q n = 800				
TOBIN'S Q (-1)	−0.4314	−0.2327	−0.2942	
ICGCS	2.8824	3.5323[b]	1.1714[b]	
CGCS	−2.6309	−0.1112	−0.9314[b]	−0.5732[a]
FIRM AGE	0.8922		−1.1711[a]	−0.2523[b]
FIRM SIZE (TOTAL ASSETS IN $ Ms)	−1.092		−0.8042[a]	
GROWTH IN GDP		0.8424	1.8823	
INFLATION		1.4114	−0.6130	
FDI		0.0422	0.2025	
G_POPULATION		3.2812	0.3123	
J Statistic	0.2102	0.16190	0.1804	0.2301

Significance levels—$a = 1\%$, $b = 5\%$, and $c = 10\%$

Model I presents the short-term relationship between firm performance and internal governance compliance scores when controlling for firm characteristics. Model II controls for economic characteristics and population growth. Model III includes all the variables while model IV presents the long-term relationship

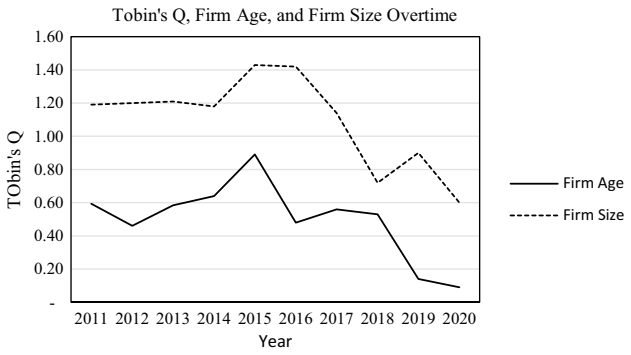


Fig. 5 The long-run effect of firm age and firm size on Tobin's Q in India

governance framework is more robust than those in emerging markets, its influence on firm performance remains problematic, similar to trends observed in emerging economies. In addition, inflation negatively affects both measures of performance measures in the short run.

As shown in Fig. 6, firm size has a positive impact on ROE over the long run, suggesting that while internal and external governance mechanisms significantly influence firm performance in the short-run, other factors become more critical in long-term. Specifically, GDP growth emerges as the only variable affecting ROE in the long run in the UK.

Table 7 provides insights into the relationship between corporate governance and firm performance for firms listed on the New York Stock Exchange. Table 7 indicates that in the USA, both ICGCS and CGCS positively influence ROE in the short run, with only ICGCS showing positive effect on Tobin's Q. Other factors such as firm size and firm age, significantly and positively also impact ROE in the short run but do not affect Tobin's Q. Over the long run, firm size is the only variable with positive and significant influence on both ROE and Tobin's Q, supporting Babalola (2013);

Table 6 The relationship between firm performance and corporate governance in the UK

Variables	Model I Short-term	Model II Short-term	Model III Short-term	Model IV Long-term
Panel 1: Dependent variable: Return on Equity n = 800				
ROE (−1)	0.8807	0.1135	0.6027	
ICGCS	0.5614	0.7332[a]	0.3026[a]	
CGCS	−0.4623[a]	-0.9103[b]	−0.3912	
FIRM AGE	−0.4546[a]		−1.2093[b]	
FIRM SIZE (TOTAL ASSETS IN $ Ms)	−0.0256		0.0240	
GROWTH IN GDP		1.3940	2.0436[c]	2.6228[a]
INFLATION		1.2528	−3.4423[b]	
FDI		0.8573	0.0886	
G_POPULATION		−1.3923	−2.0456	
J Statistic	0.2402	0.2213	0.1842	
Panel 2: Dependent variable: Tobin's Q n = 800				
TOBIN'S Q (− 1)	0.4412	0.2820	0.1833	
ICGCS	1.9615[a]	4.8620	0.7002[b]	
CGCS	−0.7695	−0.1075	−0.9903[c]	
FIRM AGE	−1.3059		−0.5574	
FIRM SIZE (TOTAL ASSETS IN $ Ms)	0.8506[b]		0.4637[b]	0.7901[b]
GROWTH IN GDP		−1.5975	−1.7012	
INFLATION		−0.6113[b]	−0.9924[a]	
FDI		0.1752	0.1010	
G_POPULATION		1.1354	−2.7963	
J Statistic	0.2502	0.2135	0.2316	

Significance levels—$a = 1\%$, $b = 5\%$, and $c = 10\%$

Model I present the short-term relationship between firm performance and internal governance compliance scores when controlling for firm characteristics. Model II controls for economic characteristics and population growth. Model III includes all the variables while model IV presents the long-term relationship

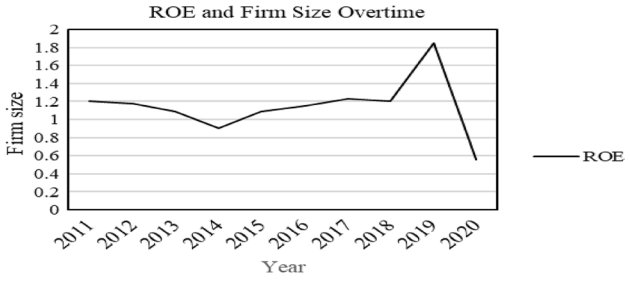


Fig. 6 The long-run effect of Growth in GDP on ROE in the UK

Foyeke et al., (2015); Ghasemi & Raza (2017); Lee & Lee (2012); Niresh & Velnampy (2014).

Figure 7 illustrates the long run trend of ROE and firm size, showing an upward trajectory until 2019, after which gradual decline is observed.

In summary, the analysis across sample countries reveal that the ICGCS consistently has a significantly positive impact on firm performance, while the addition of external governance often negatively affects the firm performance, except in the USA where the country level governance shows a positive and significant impact. This negative impact of external governance confirms the findings of Abdoush et al., (2017); Arora & Bodhanwala (2018); Asgari (2015); Martynova & Renneboog (2010); Raithatha & Haldar (2021) and Sarkar et al., 2012, among others. Overall, these findings suggest that internal governance improvements benefit firm performance primarily in the short run, whereas other factors, particularly economic indicators and firm characteristics, significantly affect long-term performance.

Table 7 The relationship between firm performance and corporate governance in the USA

Variables	Model I Short-term	Model II Short-term	Model III Short-term	Model IV Long-term
Panel 1: Dependent variable: Return on Equity n = 800				
ROE (−1)	0.1212[a]	0.2523[a]	0.1824[a]	
ICGCS	1.1906[b]	1.1121[c]	0.7826[a]	
CGCS	2.6604	1.2841	0.9314[b]	
FIRM AGE	0.2819		0.2837	
FIRM SIZE (TOTAL ASSETS IN $ Ms)	0.5612		0.6334[b]	0.7604[b]
GROWTH IN GDP		0.4206	0.1101	
INFLATION		4.3125	3.1025	
FDI		0.2719	0.0124	
G_POPULATION		0.9728	-2.3724	
J Statistic	0.1921	0.1552	0.2032	0.1890
Panel 2: Dependent variable: Tobin's Q n = 800				
TOBIN'S Q (−1)	0.5228	0.8426	0.4714	
ICGCS	0.6913[b]	0.7112[c]	1.0303[a]	
CGCS	0.9227	0.3803	0.9242	
FIRM AGE	0.6504		−0.4804	
FIRM SIZE (TOTAL ASSETS IN $ Ms)	0.6923		0.8125	
GROWTH IN GDP		0.2813	0.8707	
INFLATION		−0.9116	−0.8204	
FDI		0.7823	−0.6726	
G_POPULATION		0.9226	0.7321	
J Statistic	0.1904	0.2141	0.1618	

Significance levels—a = 1%, b = 5%, and c = 10%

Model I present the short-term relationship between firm performance and internal governance compliance scores when controlling for firm characteristics. Model II controls for economic characteristics and population growth. Model III includes all the variables while model IV presents the long-term relationship

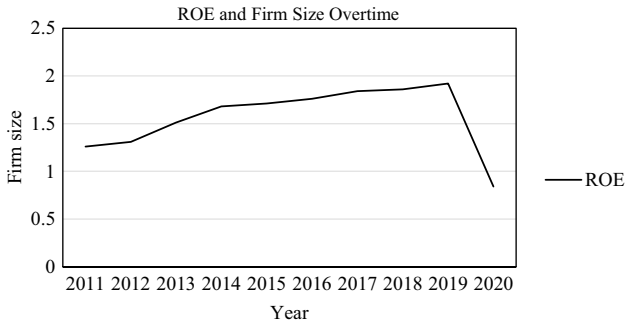


Fig. 7 The long-run effect of total assets (firm size) on ROE in the USA

Comparing the effect of governance in emerging and developed economies

In this analysis, India and South Africa are grouped as emerging market economies, while the USA and UK represent developed economies. Table 8, Panel 1 results show that in both groups, the ICGCS has a positive impact on ROE in the short run. However, the effect is more pronounced in developed economies, with ROE coefficient of 1.7936, compared to a coefficient of 1.4312 in emerging economies. The composite corporate governance compliance score (CGCS) also reveals contrasting effects. In emerging markets, the CGCS significantly reduces firm performance (coefficient = − 0.9865), while in developed economies, it enhances performance (coefficient = 0.4714). The positive effect aligns with (Bülow, 2015), who suggests that improved institutional quality fosters economic opportunities and boosts firm performance.

The findings in Table 8 imply that weak external governance regimes in emerging economies erode shareholder value and diminish the gains from strong internal governance. In addition to internal governance, factors like FDI and GDP growth show a significantly positive relationship with ROE and Tobin's Q, respectively, in emerging economies. In contrast, in developed markets, GDP growth and firm size are positively significant. Notably, GDP has a greater effect

Table 8 The relationship between firm performance and corporate governance in emerging and developed economies

Variables	Emerging economies n = 1600		Developed markets n = 1560	
	Short-run model	Long-run model	Short-run model	Long-run model
Panel 1: Dependent variable: Return on Equity n = 800				
ROE (-1)	0.6223[a]	0.4612	0.2541[a]	
ICGCS	1.4312[a]	1.9202	1.7936[b]	
CGCS	−0.9865[b]	−1.2111	0.4714[c]	
FIRM AGE	−0.4632	−0.9223	0.2707	
FIRM SIZE (TOTAL ASSETS IN $ Ms)	−0.3843[b]	−0.8209	0.8633[a]	
GROWTH IN GDP	1.7624[b]	0.9831[a]	1.1447[a]	0.8507[c]
INFLATION	0.9202	0.4347	1.1324	
FDI	1.0336[c]	1.5662	−0.3421	
G_POPULATION	−2.5325	0.4924	−1.7609	
J Statistic	0.2112	0.1905	0.1326	0.1542
Panel 2: Dependent variable: Tobin's Q n = 800				
Tobin's (-1)	0.4925		0.5243	
ICGCS	1.0604[b]	0.5916	1.9723[a]	
CGCS	−1.3906[b]	−1.0909	0.7734[a]	
FIRM AGE	0.1628		−0.6707	
FIRM SIZE (TOTAL ASSETS IN $ Ms)	−0.2303		0.9041[b]	
GROWTH IN GDP	0.4801[b]	−0.1661	0.8213	
INFLATION	0.1706		1.0286	
FDI	−0.3245		0.3346	
G_POPULATION	0.2719		0.6128	
	0.0239	0.3246	0.6142	
J Statistic	0.1414	0.2001	0.2114	0.2103

Significance levels—a = 1%, b = 5%, and c = 10%

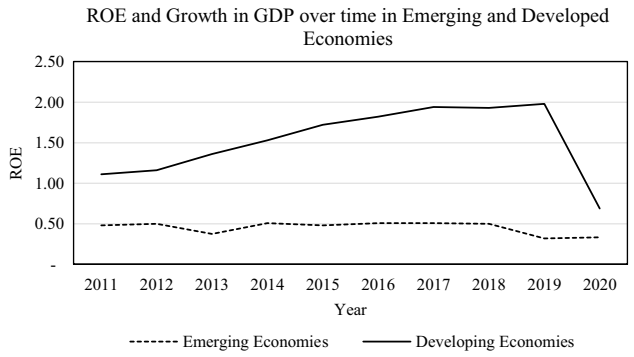


Fig. 8 The long-run effect of Growth on GDP on ROE 2011–2020

in emerging markets (coefficient = 1.7624) than in developed markets (coefficient = 1.0336). FDI also demonstrates a significant short-run positive relationship with ROE in emerging markets, a pattern not observed in developed economies. GDP growth is the only variable that exhibits a long-run relationship with performance in both emerging and developed economies.

Figure 8 illustrates the long-run relationship between ROE and GDP growth across both emerging and developed economies. The long-term coefficient for GDP growth's effect of ROE is consistently higher in developed markets than in emerging markets throughout the sample period. In developed economies, the trend follows an upward trajectory, peaking in 2019 (coefficient = 1.98) before a sharp decline. In contrast, emerging economies show coefficients largely below 1.00 over the same period, likely due to lower institutional quality. As Bülow (2015) suggests, higher quality institutions support economic growth through enhanced firm productivity and increased demand. Strong institutions, in particular can boost economic performance by positively impacting firm level productivity and efficiency.

Additional analysis

This additional analysis examined the interaction between internal and external governance mechanisms and their individual and combined impact on the short- or long-term firm performance of the companies listed in sample countries. This analysis is crucial, as the nuanced relationship between governance mechanisms and firms' financial outcomes merits further exploration, particularly across the distinct economic contexts of emerging and developed economies. Table 9 affirms that ICGCS and CGCS have a significantly positive effect on firm performance in the short run. External governance alone is found to have a positive and significant impact on firm performance in emerging market economies but not in developed ones. This finding may suggest that weak external governance in emerging economies elevates country risk which in turn, raises potential returns. As expected, factors influencing firm performance vary across markets highlighting that these determinants are influenced by the unique characteristics of each market. For instance, in South Africa, both growth in GDP and firm size affect performance in the short and long term. GDP growth is also a significant in the UK. In India, firm size reduces performance in both the short and long run while in the USA, firm size is a long-term driver of firm performance.

Conclusion

The current study examined the relationship between internal and external governance scores and firm performance, as measured by ROE and Tobin's Q. This dynamic area of research is critical in understanding how firm-level and country-level governance practices impact firm performance in emerging and developed markets with differing economic, institutional, and legal landscapes. While existing literature confirms a positive relationship between governance and firm performance, it often fall short of assessing whether this relationship holds in both the short and long-run or if other factors influence firm performance overtime. This study also extends agency and institutional theories by exploring how governance mechanisms address agency problem and enhance institutional effectiveness and transparency.

The findings confirm that internal corporate governance mechanisms as outlined in various corporate governance codes, significantly and positively impact firm performance in both emerging and developed economies, albeit in the short run only. This finding supports prior studies (e.g., Abdoush, 2017; Khan et al., 2020; Mishra & Mohanty, 2014; Nagalingam et al., 2022; Nasrallah & El Khoury, 2022; Tshipa & Mokoaleli-Mokoteli, 2015), which suggest that corporate governance structures help address conflicts of interest between shareholders and managers, potentially lowering the cost of capital, raising share prices, and positively influencing economic performance (e.g., Khan et al., 2020; Zhu, 2014; Ararat et al., 2016). Consequently hypothesis 1 which proposed the short-run relationship between internal corporate governance and firm performance is supported by the findings.

In contrast, the composite measure of internal and external corporate governance significantly reduces firm performance in emerging markets but enhances it in developed economies. This could indicate that weak regulatory and institutional frameworks in emerging markets hinder business performance, a conclusion that echoes Johnson (2022), who argue that governance mechanisms exhibit consistent effects across markets, but may vary due to each country's unique institutional, regulatory, and economic factors. This finding highlights the importance of



Table 9 The short-run and long-run relationship between governance and firm performance

Variables	ROE -Short-term	ROE-Long term	Tobin's Q-short-term	Tobin's Q-Long-term
Panel 1: South Africa = 720 n = 100				
ROE (−1)/TOBIN'S Q (− 1)	0.4269		0.4257	
ICGCS	0.6013[a]		0.7192[b]	
CGCS	−0.4312		−0.8146[c]	
XGS	0.5250[b]		0.3042	
FIRM AGE	−0.2172[b]		−0.5574	
FIRM SIZE (TOTAL ASSETS IN $ Ms)	0.2045		0.4017[b]	0.5816[b]
GROWTH IN GDP	1.8433[c]	1.8528[a]	−1.8210	
INFLATION	−2.4223[b]		−0.9924[a]	
FDI	0.1436		0.2014	
G_POPULATION	−2.1456		−0.4521	
J Statistic	0.2103	0.2010	0.2316	0.1764
Panel 2: India = 760 n = 800				
ROE (− 1)/TOBIN'S Q (− 1)	0.4052[a]		−0.8036	
ICGCS	1.0246[b]		1.2461[b]	
CGCS	−0.8241[b]		−1.1124[c]	
XGS	0.5631[a]		0.6631	
FIRM AGE	0.4289		−1.2130[a]	-0.5022[a]
FIRM SIZE (TOTAL ASSETS IN $ Ms)	0.1425		−0.8042[a]	
GROWTH IN GDP	−0.2547		0.9824	
INFLATION	0.4259		0.6002	
FDI	0.4256		0.1831	
G_POPULATION	1.7124[b]		0.5264	
J Statistic	0.3621	0.1803	0.2043	0.1942
Panel 3: UK n = 720				
ROE (−1)/TOBIN'S Q (− 1)	0.1126		0.4831	
ICGCS	0.3437[c]		3.0203[b]	
CGCS	3.9485[b]		2.8212[b]	
XGS	0.5631		0.6631	
FIRM AGE	−0.0807		0.2928	
FIRM SIZE (TOTAL ASSETS IN $ Ms)	0.2603[b]		0.3303[b]	
GROWTH IN GDP	0.9403[a]	1.0804[a]	−0.3714	
INFLATION	−0.0102		−0.0125	
FDI	−0.3703		0.2342	
G_POPULATION	0.2624		−0.6908	
J Statistic	0.2003	0.2103	0.1504	
Pane 3: UK n = 800				
ROE (−1)/TOBIN'S Q (−1)	0.2041[a]		0.4921	
ICGCS	0.6596[a]		1.4013[a]	
CGCS	0.8134[b]		0.9146	
XGS	0.4358		0.2493	
FIRM AGE	−0.2042		−0.5126	

Table 9 (continued)

Pane 3: UK n = 800			
FIRM SIZE (TOTAL ASSETS IN $ Ms)	0.6720[b]	0.7193[a]	0.7261[b]
GROWTH IN GDP	0.1832	0.6172	
INFLATION	2.4160	0.3482	
FDI	0.2413	0.7193	
G_POPULATION	−2.0214	0.5191	
J Statistic	0.1802	0.1960	0.2184

Significance levels—$a = 1\%$, $b = 5\%$, and $c = 10\%$

contextual factors and suggests that policymakers in emerging markets should prioritize improving their institutional, legal, and economic environments to support firm performance, thus supporting Hypothesis 2.

The study further reveals that firm characteristics (e.g., firm size and age) and economic growth exert long-term impacts on firm performance. This finding suggests that the unique landscape and characteristics of each country play a role in shaping long-term firm outcomes underscoring the importance for managers and policymakers to consider both firm-specific and macroeconomic factors as crucial determinants of firm performance.

In conclusion, internal governance positively and significantly impacts firm performance in both in emerging and developed markets, though only in the short run. Long-term performance is instead shaped by other factors such as firm characteristics and country-specific factors. The effect of external governance on firm performance also varies depending on each country's institutional and economic landscape.

While the study offers valuable insights, it is limited by its focus on a small selection of countries representing emerging and developed markets, limiting generalizability. In addition, the study only includes the top 100 listed companies per country, which may introduce sampling bias. Future research could expand on this work by investigating the role of internal and external governance mechanisms across different industries and by examining how technological advancements impact governance and firm performance across countries in emerging and developed markets.

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Declarations

Conflict of interest No potential conflict of interest to report.

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