

# Corporate governance, national culture and bank performance: evidence from MENA countries

International  
Journal of Islamic  
and Middle  
Eastern Finance  
and Management

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Received 10 April 2024  
Revised 14 December 2024  
24 January 2025  
Accepted 27 January 2025

## Abstract

**Purpose** – Despite global economic liberalization, the Middle East and North Africa (MENA) banking sector remains uncompetitive and resistant to globalization. This study aims to extend corporate governance (CG) literature by examining the interplay between CG, national culture and bank performance, using data from listed banks in MENA countries.

**Design/methodology/approach** – This research analyzes 1,920 bank-year observations from 124 banks across 13 MENA countries from 2009 to 2023. National culture data was sourced from Hofstede's index, and panel data techniques were used to account for individual heterogeneity and endogeneity issues.

**Findings** – Empirical results reveal that larger boards, well-structured committees with nonexecutive directors, fewer board meetings and limited involvement of independent directors significantly enhance bank performance. These governance structures align with key cultural traits such as high power distance, collectivism and uncertainty avoidance, which favor hierarchical decision-making, group consensus and stability.

All the authors thank to Tahani Tahmid, BTM, Islamic University of Technology for her diligent contribution to this paper.

**Funding:** Professor Paolo Saona thanks the financial support provided by the Spanish Ministry of Science and Innovation (Grant Number: PID2020-114797GB I00), Universidad Pontificia Comillas Internal Research Grants (Grant Numbers: PP2022\_11 and PP2024\_3) and the 2023 Research Grant from the European Academy of Management (EURAM).



International Journal of Islamic  
and Middle Eastern Finance and  
Management  
© Emerald Publishing Limited  
1753-8394  
DOI 10.1108/IMEFM-04-2024-0185

**Practical implications** – This study provides practical insights for policymakers aiming to improve banking sector performance in MENA by aligning CG frameworks with cultural values. Recommendations include forming larger, well-structured boards and adapting decision-making processes to reflect the region's preference for stability and collaboration. These insights can serve as a practical guide for improving governance systems in MENA and beyond.

**Originality/value** – While previous studies have explored the impact of CG and national culture on banking, this study is the first, to the best of the authors' knowledge, to integrate both factors within the MENA context, offering a comprehensive perspective on their combined impact on bank performance.

**Keywords** Corporate governance, Bank performance, National culture, Middle East and North Africa (MENA)

**Paper type** Research paper

## 1. Introduction

The banking industry of the Middle East and North Africa (MENA) region constitutes a significant portion of the financial system (El Moussawi and Mansour, 2022). However, despite the ongoing trend of global economic liberalization, the banking industry remains largely shielded from globalization and dominant industry competition (Zoghalmi and Bouchemia, 2021). This resistance can be attributed to corporate governance (CG) shortcomings, including high ownership concentration, weak shareholder protections and low disclosure quality (González *et al.*, 2019).

Among the 28 MEAN countries, some of more stable economies, such as the United Arab Emirates, Kuwait and Saudi Arabia, have revised their corporate laws to enhance CG practices (Buallay, 2019). In contrast, higher-risk countries like Iraq, Libya and Yemen remain distant from prioritizing CG improvements. Despite these differences, CG performance across both stable and riskier MENA economies remains below satisfactory levels (González *et al.*, 2019).

Prior studies have explored CG in the region concerning corporate cash holdings, Shariah governance, bank risk-taking and voluntary sustainability practices (Buallay, 2019; El-Halaby *et al.*, 2021; Otero *et al.*, 2019). However, there is limited empirical research on the impact of CG characteristics on bank performance. Addressing this gap, this study is the first to examine how CG influences the financial performance of banks in MENA. In addition, it investigates the role of national culture in this relationship, as culture serves as an informal yet powerful force shaping corporate visions, principles and ultimately, financial outcomes (Nash and Patel, 2019). Moreover, national culture significantly affects CG structures and key financial decisions, including cash holdings, risk-taking and managerial behavior (Kutan *et al.*, 2021; Li and Harrison, 2008).

This study examines 124 banks across 13 MENA countries from 2009 to 2023. It applies agency theory and stewardship theory to analyze CG characteristics, such as board size, board meetings, board composition and board independence (Kyere and Ausloos, 2021; Otero *et al.*, 2019). Agency theory suggests that smaller boards, frequent meetings and independent nonexecutive directors (NEDs) enhance financial performance. In contrast, stewardship theory posits that both managers and nonindependent directors should act as stewards to improve bank performance (Donaldson and Davis, 1991). From a cultural perspective, the study uses Hofstede's six cultural dimensions – power distance, individualism, masculinity, uncertainty avoidance, long-term orientation and indulgence – to explore the culture–bank performance relationship.

The paper is structured as follows: Section 2 discusses the theoretical background and hypotheses, Section 3 outlines variables, methodology and techniques, Section 4 presents findings and analysis, and Section 5 concludes with key insights, limitations and future research directions.

## 2. Literature review and hypothesis development

### 2.1 Corporate governance and bank performance

**2.1.1 Board size and bank performance.** The relationship between board size and bank performance remains inconclusive, as CG theories offer mixed findings (Bhatia and Gulati, 2021). The resource dependence theory suggests a positive relationship, arguing that larger boards provide access to greater expertise and knowledge, enhancing decision-making capacity (Dalton *et al.*, 1999). Supporting this view, Bhatia and Gulati (2020) found a linear relationship, showing that larger, specialized boards positively reinforce bank financial performance. Conversely, agency theory suggests a negative correlation, arguing that larger boards reduce efficiency due to decreased cohesion, free-rider problems and coordination difficulties (Ma'aji *et al.*, 2021). In the MENA region, empirical findings are similarly mixed. Some studies report that larger boards improve profitability [measured by return-on-asset (ROA) and return-on-equity (ROE)] and reduce discretionary expenditures (Mertzanis *et al.*, 2019), whereas others associate them with higher costs and inefficiencies (Haris *et al.*, 2019).

Given these theoretical perspectives and the board structures prevalent in MENA banks, this study suggests:

*H1. Board size is positively related to the bank's performance in the MENA region.*

**2.1.2 Board committee and bank performance.** Corporate boards often establish ad hoc or standing committees to oversee specific functions (Farah *et al.*, 2021). These committees, composed of technically skilled members, advise the board on significant decisions, which are then approved or rejected. Research highlights that a successful board, generally, has four types of independent specialized committees, namely, the audit committee, nomination committee, compensation committee, and corporate governance committee (Ma'aji *et al.*, 2021). Studies on the MENA region indicate that the audit committee is the most influential within CG frameworks, typically dominated by NEDs (Arayssi and Jizi, 2018). However, the roles of nomination and compensation committees in banking remain underexplored. This study, therefore, examines their impact and hypothesizes:

*H2. Board committee is positively associated with the bank performance in the MENA region.*

**2.1.3 Board meetings and bank performance.** The effect of board meetings on bank performance is debated, with studies presenting mixed findings (Frag and Mallin, 2017). Agency theory suggests that frequent meetings enhance oversight, ensure strategic monitoring and reduce agency costs, thereby promoting financial sustainability (Titova, 2016). Liang *et al.* (2013) further argued that proactive boards hold regular meetings to supervise management activities and formulate strategies. However, excessive meetings may signal financial distress, decision-making inefficiencies or poor firm performance, potentially leading to adverse and unintended outcomes (Andres and Villedado, 2008). Given these dual perspectives, this study assumes that:

*H3. Board meeting is positively associated with the bank performance in the MENA region.*

**2.1.4 Board composition and bank performance.** Board composition, particularly the presence of independent NEDs, significantly impacts firm performance (Haris *et al.*, 2019; Ma'aji *et al.*, 2021). NEDs serve as independent monitors, ensuring that executive directors fulfill their responsibilities effectively (Krause and Semadeni, 2013). Prior studies highlight several benefits of NEDs, including access to external resources, strengthened relationship management and power balance within the board (Salim *et al.*, 2016). Agency theory suggests that NEDs

mitigate conflicts between shareholders and management, reducing agency costs and improving financial performance (Ofoeda, 2017). Based on these insights, this study hypothesizes:

*H4. A board composed of nonexecutive directors positively impacts bank performance in the MENA region.*

*2.1.5 Board independence and bank performance.* The impact of independent directors on firm performance remains a controversial issue in CG literature, with contrasting views from agency and stewardship theories (Koerniadi and Tourani-Rad, 2012). Agency theory posits that independent directors improve performance by effectively monitoring management and reducing agency costs (Zoghلامي and Bouchemia, 2021). This view is empirically supported by prior research (Frag and Mallin, 2017). In contrast, stewardship theory argues that both managers and nonindependent directors act as responsible stewards of firm assets, prioritizing value maximization (Donaldson and Davis, 1991). This view suggests that independent directors have limited influence due to their external status and weaker commitment to the company (Muth and Donaldson, 1998). Based on these aforementioned theories, the study proposes that:

*H5. Board independence positively impacts bank performance in the MENA region.*

## *2.2 Hofstede's culture index and bank performance*

Culture represents a society's shared principles, values and beliefs, passed down across generations (Guiso et al., 2015). This study examines how national culture influences bank performance in MENA using Hofstede's cultural framework, which defines culture as the "collective programming of the mind that distinguishes members of one group from another" (Hofstede, 2001). Hofstede identifies six cultural dimensions: PD, individualism vs collectivism, uncertainty avoidance, masculinity vs femininity, long-term vs short-term orientation and indulgence vs restraint.

*2.2.1 Power distance and bank performance.* PD reflects societal acceptance of hierarchical structures (Hofstede, 2001). High PD fosters centralized control, reducing employee autonomy but ensuring stability during crises (Boubakri et al., 2017; Kreiser et al., 2010). Such firms often favor equity financing, which enhances financial performance (Umer, 2014). Conversely, low PD cultures experience managerial conflicts, limiting firm performance (Frijns et al., 2016). Furthermore, superiors of the said culture act in their own best interest (Hofstede, 1984). In the middle of such relationship conflict, firms fail to show the expected level of performance. In the MENA region, the majority of the countries have higher PD scores ranging from 50 to 90 as per Hofstede's insight (2022) [1], indicating that there is a possibility that bank performance in this region will get increase. Thus, the empirical effort is undertaken to validate the following hypothesis:

*H6. Power distance is positively associated with bank performance.*

*2.2.2 Individualism vs collectivism and bank performance.* It is observed that societies with individualistic attitudes prefer to take self-care primarily while societies with collectivist tendency want to look after particular in-group members (Hofstede, 2001). Directors from an individualistic society have a greater preference for corporate risk-taking which would expect to have a negative influence on a firm's profitability. Such a negative association evidenced by Farooq et al. (2020). The authors found that firms from individualistic cultures have low ROE, indicating the incrementing transaction cost and decreasing financial performance. However, risk-taking behavior may also drive higher financial performance (Andries and Balutel, 2022). Directors from such cultures are confident about their decisions and believe that a high-risk-taking

tendency brings wealth to firms (Farooq *et al.*, 2020). MENA countries predominantly exhibit collectivist tendencies (scores: 25–35) (Hofstede's Insight), leading to the assumption that:

*H7. Collectivism is positively associated with bank performance.*

*2.2.3 Masculinity vs femininity and bank performance.* Masculinity refers to the societal choice for heroism, achievement and reward for materialistic success (Hofstede, 2001). Masculine societies emphasize achievement, assertiveness and material success, fostering financial performance through innovation and equity preference (Zheng *et al.*, 2012). Under this approach, when the board of directors assess any investment opportunity, they conduct ground research and develop their assumptions as an investment decision associated with firm performance. Due to the hardworking attitude, firms from masculine culture prefer to have more equity, which results in enhanced financial performance (Chang *et al.*, 2012). With MENA countries exhibiting moderate masculinity (average score: 49) (Hofstede's Insight, 2022), this study hypothesizes:

*H8. Masculinity is positively associated with bank performance.*

*2.2.4 Uncertainty avoidance and bank performance.* The capability of society's people in managing and reducing future uncertainties is well captured through the uncertainty avoidance dimension (El-Halaby *et al.*, 2021). High uncertainty avoidance cultures favor risk-averse strategies, which enhance firm stability and profitability (Farooq *et al.*, 2020). Such risk-aversion nature of directors makes them to take a less systematic risk for better financial performance (Andries and Balutel, 2022). Overall, the high uncertainty avoidance nature of directors has a positive impact on a firm's financial performance since it decreases the probability of immature financial decisions of managers (Farooq *et al.*, 2020). Given that MENA countries score high in uncertainty avoidance (70–90), this study states:

*H9. High uncertainty avoidance is positively associated with bank performance.*

*2.2.5 Long-term vs short-term orientation and bank performance.* Long-term-oriented firms prioritize sustainability and financial prudence (Zheng *et al.*, 2012). Directors from this culture take business decisions and formulate strategies for achieving long-term business benefits. Prior studies draw a positive association between long-term orientation and a firm's financial performance because directors from this culture prefer to take less debt (El-Halaby *et al.*, 2021), resulting in positive financial outcomes (Zheng *et al.*, 2012). Because MENA countries lean toward short-term orientation (average score: 30), this study examines:

*H10. High long-term orientation is positively associated with bank performance.*

*2.2.6 Relationship between indulgence vs restraint and bank performance.* The last dimension denotes the indulgence restraint where society indulge or restrain their needs and desires (Hofstede, 2011). Board of directors from high indulgence cultures deliberately make business decisions, have leisure preferences and incur in high financial leverage (Korzeb *et al.*, 2022). In contrast, directors from a self-restrained cultures impose strict rules and regulations on their subordinates, which may enhance financial stability (Guiso *et al.*, 2015). Firms operating in high indulgence culture are more prone to adopt a socialistic view, the effect of which is seen in free business decision-making (Farooq *et al.*, 2020). Given MENA's predominantly self-restrained culture (scores: 4–65), this study explores:

*H11. Self-restraint is positively associated with bank performance.*

A synopsis of the differences between the current study and the prior related studies on the CG, national culture and bank performance is presented in [Appendix](#).

### 3. Methodology

#### 3.1 Data and sample

Due to insufficient data availability, seven MENA countries – Algeria, Djibouti, Iraq, Iran, Libya, Palestine and Yemen – are excluded from the analysis. The final sample consists of banks from 13 countries: Bahrain, Egypt, Israel, Jordan, Kuwait, Lebanon, Malta, Morocco, Oman, Qatar, Saudi Arabia, Tunisia and the United Arab Emirates. CG data at the bank level are sourced from annual financial reports, corporate financial statements and bank publications. Financial and accounting data are collected from the Refinitiv Workspace database, whereas country-specific cultural index data are obtained from Hofstede's Insights.

The data set comprises 124 banks and 1,920 bank-year observations for the period 2009–2023, which implies more than 15 continuous observations per bank.

#### 3.2 Variable measurement

**3.2.1 Dependent variables.** The dependent variables correspond to the bank performance. To construct an appropriate performance measure, this study adopts four financial indicators including ROA, ROE, nonperforming loan (NPL) and net interest margin (NIM). The first two indicators are adopted from [Love and Rachinsky \(2015\)](#), whereas the other two are from [Haris et al. \(2019\)](#). ROA describes how efficiently assets are used to maximize company earnings ([Fernández Sánchez et al., 2020](#)). ROE refers to how well a firm is using shareholders' equity to maximize the firm's earnings. The NPL ratio indicates risk exposure, where a higher NPL signals greater risk and lower performance ([Ahmad et al., 2016](#)). Finally, the net interest margin (NIM) reflects management's investment decision efficiency, considering funding costs.

**3.2.2 Explanatory variables.** The explanatory variables are grouped into two categories: CG and the country's national culture. CG is measured by five different proxies, namely, board size, board committee, board meetings, board composition and board independence. The board size (BDSZ) measures the total number of directors on the board of directors. A total of four committees, namely, the audit committee, nomination committee, compensation committee and CG committee are combined to arrive at the indicator board committee (BCOMM). Next, the natural logarithm of the total board meetings held in a given financial year is adopted as a proxy to measure the frequency of board meetings (BMEET). The ratio of NEDs to total directors is used as a proxy measure of board composition (BCOMP). Finally, the ratio of independent directors to total number of board directors is adopted to measure board independence (BIND).

The second group of explanatory variables corresponds to the national culture, measured by Hofstede's culture index. The index is a widely applied tool to measure and analyze cultural differences among countries. This study captures the country's cultural perspective with six dimensions: PD, Individualism vs Collectivism (IDV), Masculinity vs Femininity (MAS), Uncertainty Avoidance (UAI), Long-Term vs Short-Term Orientation (LTO) and Indulgence vs Restraint (IND). The value of each of the dimension ranges between 0 and 100. This study further incorporates the overall score (OverCultSc) of the index by averaging them, distributing equal weights to each of the dimensions. Such integrated measure is used to understand the aggregate effect of cultural index on the financial performance of banks.

**3.2.3 Control variables.** Following [Haris et al. \(2019\)](#) and [Ma'aji et al. \(2021\)](#), three control variables are included to enhance estimation accuracy. Bank efficiency (BEFC) defined as the addition of a bank interest income and noninterest income, divided by its total assets. Next, the logarithmic transformation of the total bank assets is used to capture a bank



size (SIZE), and lastly, a measure of the bank solvency (BSOLV) computed as the total shareholder's equity over total assets is included in the estimations.

### 3.3 Research design

The study develops two empirical models:

$$Bank\ performance_{it} = \beta_0 + \beta_1 Bank\ performance\ measures_{i,t-1} + \beta_2 CG\ measures_{it} + \mu_i + e_{it} \quad (1)$$

$$Bank\ performance_{it} = B_0 + \beta_1 CG\ measure_{it} + \beta_3 National\ culture_{it} + \mu_i + e_{it} \quad (2)$$

where  $Bank\ performance_{it}$  denotes the financial performance of the bank as measured by  $ROA_{it}$ ,  $ROE_{it}$ ,  $NPL_{it}$  and  $NIM_{it}$  for the  $i$ th bank in the  $t$  period. The one-period lagged value of the bank performance is included in [equation \(1\)](#) to represent the prior year performance. The  $CG\ measure_{it}$  corresponds to the five different proxies including board size ( $BDSZ_{it}$ ), board committee ( $BCOMM_{it}$ ), board meetings ( $BMEET_{it}$ ), board composition ( $BCOMP_{it}$ ) and board independence ( $BIND_{it}$ ). The  $National\ culture_{it}$  index represents the seven measures of culture features, including  $PD$ , individualism vs collectivism ( $IDV$ ), masculinity vs femininity ( $MAS$ ), uncertainty avoidance ( $UAI$ ), long-term vs short-term orientation ( $LTO$ ), indulgence vs restraint ( $IND$ ) and overall national culture score ( $OverCultSc$ ). Finally,  $\mu_i$  and  $e_{it}$  represent the individual bank's effect and the stochastic error term, respectively (details are presented in [Table 1](#)).

## 4. Findings and analysis

### 4.1 Descriptive statistics

Regarding bank performance, the four proxies (ROA, ROE, NPL and NIM) exhibit minimal variation across observations. The mean values range from 0.05 to 0.19, which evidences that banks in the MENA region have a low profitability. Specifically, Israel and Egypt rank in the lowest position because the values of all their banks' profitability indicators are below 0.08. CG indicators display significant variability. On average, banks have 10–11 board members ( $BDSZ = 10.49$ ), though Israel has the highest board size at 14 directors. Board membership is mandated to range between 4 and 18 directors.

Board meetings (BMEET) occur twice per year on average, except in Israel. Directors cannot hold more than four meetings annually. Board composition ( $BCOMP = 4.45$ ) indicates that banks generally appoint four to five NEDs, reflecting minimal external influence. Independent directors (BIND) range from three to four per board.

Regarding national culture, [Table 2](#) reveals that MENA countries score high in PD ( $PD = 74.62$ ) and uncertainty avoidance ( $UAI = 77.65$ ), suggesting acceptance of hierarchy and risk aversion. Kuwait, Qatar, Saudi Arabia and the UAE exhibit particularly high PD ( $\geq 90$ ), reflecting centralized authority and hierarchical organizational structures. Similarly, Israel and Malta score above 80 on uncertainty avoidance, implying rigid adherence to norms and resistance to unconventional ideas.

On the contrary, scoring lower on the rest of the dimensions. The region exhibits collectivist ( $IDV = 31.6$ ), feminine ( $MAS = 48.95$ ), short-term-oriented ( $LTO = 23.98$ ) and restrained ( $IND = 36.14$ ) cultural tendencies.

For control variables, [Table 2](#) indicates an average bank size, with an efficiency ratio of 6% (BEFC) and solvency ratio of 13% (BSOLV), suggesting lower efficiency and solvency across sampled banks. However, Israel, Kuwait and Saudi Arabia report larger bank sizes ( $\sim 23\%$ ), indicating relatively stronger financial standing.

Table 1. Variable identification and measurement approach

Variable identification				
Main variables	Acronyms	Definitions and measures	Expected impact	Sources
<i>Bank performance (dependent variable)</i>				
Return on asset	ROA	Net profit / total assets		Love and Rachinsky (2015)
Return on equity	ROE	Net profit / total shareholder's equity		
Nonperforming loan	NPL	Gross nonperforming loans / total loans		
Net interest margin	NIM	Net interest income / total earning assets		
<i>Corporate governance (explanatory variable)</i>				
Board size	BDSZ	Total number of board directors	+/-	Ma'aji et al. (2021) Brogi and Lagasio (2022)
Board committee	BCOMM	Existence of audit, nomination, compensation and corporate governance committees	+/-	
Board meetings	BMEET	Log of the total board meetings held in a year	+/-	Harris et al. (2019)
Board composition	BCOMP	Nonexecutive directors / total board members	+/-	
Board independence	BIND	Independent directors / total board members	+	
<i>National culture (Hofstede cultural dimensions)</i>				
Power distance	PD	Extent to which societal hierarchy is accepted	+	Hofstede (2011)
Individualism vs collectivism	IDV	Preference for self-reliance vs. group loyalty	+/-	
Masculinity vs femininity	MAS	The distribution of roles between men and women	+/-	
Uncertainty avoidance	UAI	Aversion to uncertainty and ambiguity	+	
Long-term vs short-term orientation	LTO	Strategic focus on future vs immediate outcomes	+/-	
Indulgence vs restraint	IND	Level of societal self-discipline vs gratification	+/-	
<i>Bank-specific control variables</i>				
Bank efficiency	BEFC	(Interest + noninterest income) / total assets	+	Ma'aji et al. (2021) Harris et al. (2019)
Bank size	SIZE	Log of total bank assets	+/-	
Bank solvency	BSOLV	Total shareholder equity / total assets	+	
<b>Note(s):</b> This table represents the list of dependent, independent and control variables measuring bank performance, corporate governance and country's national culture. All variables are winsorized at the 1% level to mitigate outlier effects				
<b>Source(s):</b> Table by authors				



**Table 2.** Corporate governance and bank performance

Variables	ROA	Bank performance		
		ROE	NPL	NIM
BDSZ	0.001** (0.000)	0.004** (0.042)	-0.002 (0.483)	0.001 (0.914)
BCOMM	0.012*** (0.004)	0.109*** (0.000)	0.045 (0.188)	-0.767*** (0.000)
BMEET	0.000*** (-0.001)	-0.004*** (0.000)	0.000 (0.655)	-0.003 (0.13)
BCOMP	0.011*** (0.004)	0.078 *** (0.003)	-0.113*** (0.000)	0.061 (0.469)
BIND	-0.003*** (-0.005)	-0.026*** (0.001)	0.014 (0.124)	-0.036 (0.152)
BEFC	0.097*** (0.039)	0.833*** (0.000)	0.244 (0.273)	2.219*** (0.001)
BSOLV	0.029 (-0.021)	-0.884*** (0.000)	0.010 (0.963)	1.958*** (0.001)
SIZE	0.000 (-0.002)	-0.006 (0.333)	-0.005 (0.48)	0.04* (0.06)
Constant	-0.032 (-0.083)	-0.002 (0.993)	0.596*** (0.005)	-0.621 (0.291)
R-squared	0.662	0.603	0.817	0.897

**Note(s):** This table shows the random effect estimation outputs for the “CG-bank performance” relationship. Here, BSZE, BCOMM, BMEET, BCOMP and BIND are the proxy measures of the “Corporate Governance”; BEFC, BSOLV and SIZE are the “Bank-level control variables”. The signs \*\*\*, \*\* and \* indicate the statistical significance level at 1, 5 and 10%, respectively

**Source(s):** Table by authors

#### 4.2 Regression analysis

Panel data regressions may encounter econometric challenges, including unobserved heterogeneity and endogeneity (Blundell and Bond, 2023). Unobserved heterogeneity occurs due to the individual characteristics of the units of observations in the sample (Blundell and Bond, 1998). Endogeneity occurs when causality between dependent and explanatory variables is unclear – a strong CG framework may enhance bank performance, but higher profitability may also drive governance improvements. To address these concerns, this study adopts a robust methodology that accounts for bank-level differences and endogeneity biases. (Blundell and Bond, 2023).

**4.2.1 Corporate governance and bank performance: random effect analysis.** To assess the impact of CG on bank performance, fixed and random effect models are initially tested using a balanced panel of 1,920 observations (2009–2023). A Hausman Specification Test is conducted to determine the appropriate model under the null hypothesis that the preferred model is random effects and fixed effects as alternative hypothesis. The Hausman test ( $\chi^2 = 4.44$ ,  $p = 0.82$ ), fails to reject the null hypothesis, confirming that the random effects model is suitable (Table 2).

The regression coefficients of the random effect model are reported in Table 2. The estimation presents mixed findings regarding the relationship. For instance, board size (BDSZ) positively correlates with ROA (0.001,  $p < 0.05$ ) and ROE (0.004,  $p < 0.05$ ), indicating that larger boards enhance bank profitability. This aligns with Ofoeda (2017), who suggests that banking complexity requires larger boards for regulatory compliance and managerial oversight (Haris et al., 2019). Larger boards bring diverse expertise, aiding strategic decision-making (Akhter et al., 2023b; Ofoeda, 2017). However, excessive board size may hinder efficiency due to longer decision-making processes and coordination challenges (Akhter et al., 2023a; Ma’aji et al., 2021).

Board committees (BCOMM) significantly enhance ROA and ROE but negatively impact NIM, indicating improved governance but potential inefficiencies in interest-related activities. In addition, specialized committees enhance accountability, reduce CEO power and improve profitability (Chen and Wu, 2016; Fernández Sánchez et al., 2020). The negative coefficients between BMEET and performance metrics indicates that frequent board meetings reduces banks’ profitability due to inefficiencies or financial distress. Regarding board composition (BCOMP), the findings indicate that it is positively associated with ROA and ROE but

negatively correlated with NPL, reinforcing that NEDs strengthen oversight and mitigate conflicts of interest (Haris *et al.*, 2019; Salim *et al.*, 2016). This finding is further supported by agency theory (Jensen and Meckling, 1976). Likewise, board independence (BIND) exhibits negative coefficients across all performance metrics, indicating potential governance challenges when independent directors have limited influence.

4.2.2 *Hofstede's national culture and bank performance.* This section presents the Generalized Least Squares (GLS) estimation results examining the relationship between national culture and bank performance. The analysis separately investigates the impact of each cultural dimension on ROA, ROE, NIM and NPL to assess the extent to which a country's cultural index influences bank performance. In Table 3, ROA is regressed on the six cultural dimensions across the first six models, controlling for various bank-level attributes. Model 7 extends the analysis by incorporating both national culture and CG characteristics to examine their combined impact on ROA. The results indicate that all cultural dimensions are significantly positive, except for individualism (IDV). Notably, PD is positively associated with ROA at a 1% significance level (coeff. PD = 0.0003,  $p < 0.01$ ), suggesting that higher PD contributes to stronger financial performance in MENA banks. This implies that hierarchical organizational structures, characteristic of high PD cultures, may provide stability and enhance profitability.

Table 4 reinforces these findings, confirming a consistent positive relationship between national culture and ROA, thereby strengthening the robustness of the results. Similarly, Table 5 reports comparable outcomes, except for IDV, which remains an exception. However, Table 6 presents contrasting results, showing that all cultural dimensions (except IDV) are negatively associated with NPL when using NPL as the dependent variable. This suggests that strong cultural frameworks contribute to reducing NPLs, potentially due to risk-averse behavior and structured financial decision-making.

The final model in Tables 3–6 provides a comprehensive analysis, incorporating CG indicators, the aggregated national culture score and bank-level attributes, offering a holistic perspective on how both governance and culture influence bank performance.

4.2.3 *Estimation with two-step system generalized method of moments panel data approach.* Table 7 presents the main regression results for the CG–bank performance relationship using a two-step system generalized method of moments (GMM) approach. This methodology is used to control for unobserved heterogeneity and macroeconomic effects, ensuring more robust estimates. Results indicate that all bank performance measures (ROA, ROE, NPL and NIM) exhibit positive associations with their one-period lagged values, demonstrating performance persistence over time (Coeff<sub>ROA (n-1)</sub> = 0.157,  $p < 0.01$ ; Coeff<sub>ROE (n-1)</sub> = 0.53,  $p < 0.01$ ; Coeff<sub>NPL (n-1)</sub> = 0.726,  $p < 0.01$ ; Coeff<sub>NIM (n-1)</sub> = 0.126,  $p < 0.01$ ). This suggests that past financial performance significantly influences current performance.

Regarding CG variables, board size (BDSZ) is positively associated with all performance indicators but is statistically significant only for ROA (Coeff<sub>BDSZ</sub> = 0.001) and NIM at the 10% level (Coeff<sub>NIM</sub> = 0.005). These findings reinforce the importance of board structure in shaping bank profitability, although the impact varies across different performance metrics.

## 5. Conclusions

This study examines the CG system of MENA banks, incorporating the influence of national culture on bank performance. The empirical findings reveal that board size, board committees and board composition positively impact financial performance, supporting agency theory. Conversely, the negative relationship between board independence and bank performance aligns with stewardship theory. The analysis of national culture in relation to bank performance shows that, apart from individualism and indulgence, all other cultural dimensions are positively associated with ROA, ROE and NIM, whereas their impact on NPL is negative.

**Table 3.** Return on asset (ROA) and national culture index

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
BSIZE							-0.0003 (0.0003)
BCOMM							—
BMEET							0.0014 (0.0031)
BCOMP							-0.0041 (0.0111)
BIND							-0.0004 (0.0015)
BEFC							0.1951*** (0.0596)
SIZE							-0.0110*** (0.0019)
BSOLV							-0.0361 (0.0303)
PD	0.0003*** (0.0001)						
IDV		-0.0010*** (0.0002)					
MAS			0.0009*** (0.0002)				
UAI				0.0012*** (0.0002)			
LTO					0.0008*** (0.0001)		
IND						0.0012*** (0.0003)	
OveCulSc							0.0017*** (0.0001)
Constant	-0.0689** (0.0350)	-0.0432 (0.0361)	-0.0585* (0.0324)	-0.2021*** (0.0343)	0.1476* -0.0854	0.4203** (0.1735)	0.2191*** (0.0542)
Observations	67	67	67	67	46	22	22
Number of iden	13	13	13	13	7	3	3

**Note(s):** This table presents the outputs of the seven-GLS model estimation for the “Hofstede’s culture dimensions-bank performance” association. Here, ROA is used as the proxy measure of “Bank performance.” \*, \*\*, and \*\*\* indicate significance at the 10, 5 and 1% levels, respectively

**Source(s):** Table by authors

Table 4. Return-on-equity (ROE) and national culture index

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
BSZE							-0.0014 (0.0021)
BMET							0.0083 (0.0243)
BCOMP							0.0487 (0.0878)
BIND							-0.0148 (0.0115)
BEFC							1.6781*** (0.4694)
SIZE							-0.0638*** (0.0148)
BSOLV							-1.5953*** (0.2383)
PD	0.0022*** (0.0005)						
IDV		-0.0074*** (0.0015)					
MAS			0.0057*** (0.0011)				
UAI				0.0077*** (0.0011)			
LTO					0.0042*** (0.0009)		
IND						0.0066*** (0.0018)	
OveCulSc							0.0097*** (0.0009)
Constant	-0.2869 (0.2427)	-0.1005 (0.2424)	-0.2198 (0.2364)	-1.1402*** (0.2498)	0.5987 (0.6954)	2.2223*** (1.0798)	1.1902*** (0.4273)
Observations	67	67	67	67	46	22	22
Number of iden	13	13	13	13	7	3	3

**Note(s):** This table presents the outputs of the seven-GLS model estimation for the “Hofstede’s culture dimensions-bank performance” association. Here, ROE is used as the proxy measure of “Bank performance”, \*\* and \*\*\* indicate significance at the 5 and 1% levels, respectively

**Source(s):** Table by authors

**Table 5.** Net interest margin (NIM) and national culture index

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Net interest margin							
BSIZE							-0.0009 (0.0015)
BCOMM							0.0273 (0.0172)
BMEET							0.1116* (0.0623)
BCOMP							-0.0073 (0.0081)
BIND							0.4021 (0.3331)
BEFC							-0.0786*** (0.0105)
SIZE							0.8824*** (0.1691)
BSOLV	0.0008* (0.0005)						
PD		-0.0009 (0.0016)					
IDV			0.0039*** (0.0011)				
MAS				0.0041*** (0.0012)			
UAI					0.0037*** (0.0009)		
LTO						0.0058*** (0.0012)	
IND							0.0076*** (0.0006)
OveCulSc	-0.3742	-0.3408	-0.3425	-0.8385***	1.4796**	2.0986***	0.9816***
Constant	(0.2422)	(0.2485)	(0.2260)	(0.2666)	(0.7053)	(0.7407)	(0.3033)
Observations	67	67	67	67	46	22	22
Number of iden	13	13	13	13	7	3	3

**Note(s):** This table presents the outputs of the seven-GLS model estimation for the “Hofstede’s culture dimensions-bank performance” association. Here, net interest margin is used as the proxy measure of “Bank performance”, \*, \*\* and \*\*\* indicate significance at the 10, 5 and 1% levels, respectively

**Source(s):** Table by authors

Table 6. Nonperforming loan (NPL) and national culture index

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
BSZE							-0.0009 (0.0025)
BCOMM							0.0355* (0.0209)
BMEET							0.4682*** (0.1396)
BCOMP							-0.0067 (0.0132)
BIND							2.0419*** (0.6326)
BEFC							0.0291* (0.0173)
SIZE							-0.4579 (0.2895)
BSOLV							
PD	-0.0007 (0.0006)						
IDV		0.0031 (0.0020)					
MAS			-0.0012 (0.0016)				
UAI				-0.0027 (0.0017)			
LTO					-0.0012* (0.0007)		
IND						-0.0034** (0.0014)	
OveCulSc	0.7881** (0.3590)	0.6970** (0.3440)	0.7333** (0.3564)	1.0767** (0.4242)	-0.9933 (0.6674)	-3.3511*** (1.1332)	-0.0049*** (0.0011)
Constant							-2.6496*** (0.7301)
Observations	56	56	56	56	35	16	16
Number of iden	13	13	13	13	7	3	3

**Note(s):** This table presents the outputs of the seven-GLS model estimation for the “Hofstede’s culture dimensions-bank performance” association. Here, nonperforming loan is used as the proxy measure of “Bank performance”, \*, \*\* and \*\*\* indicate significance at the 10, 5 and 1% levels, respectively

**Source(s):** Table by authors

**Table 7.** Corporate governance and bank performance: two-step system GMM

Variables	ROA	ROE	Bank performance		Net interest margin
ROA ( $n-1$ )	0.157*** (0.000)	0.530 *** (0.002)			
ROE ( $n-1$ )					0.126*** (0.174)
NPL ( $n-1$ )					0.005** (0.010)
NIM ( $n-1$ )					-0.557*** (-0.471)
BDSZ	0.001 *** (0.000)	0.001 (0.317)		0.726*** (0.691)	-0.039*** (0.010)
BCOMM	0.010*** (0.000)	0.036 * (0.053)		0.000 (0.288)	0.025 (-0.031)
BMEET	-0.007*** (0.000)	-0.029 ** (0.02)		0.026*** (0.006)	-0.012* (0.0810)
BCOMP	0.011 ***0.000	0.043 * (0.06)		-0.001 (0.653)	0.897*** (0.821)
BIND	-0.003*** (0.000)	-0.015 *** (0.000)		-0.074*** (0.000)	1.107*** (0.879)
BEFC	0.100*** (0.004)	0.189*** (0.085)		0.002 (0.576)	0.018*** (0.008)
BSOLV	0.017 (0.569)	-0.258* (0.123)		0.133*** (0.008)	-0.034 (-0.384)
SIZE	-0.001 (0.381)	-0.258* (0.123)		-0.081 ** (0.017)	97
Constant	-0.018 (0.453)	0.000 (0.990)		-0.005** (0.039)	20
Number of observations	86	0.001 (0.993)		0.447*** (0.000)	22
Number of instruments	19	97		79	
Arellano-Bond AR (1) ( $Z, p$ -value)	-1.46 ( $p = 0.145$ )	20		20	
Arellano-Bond AR (2) ( $Z, p$ -value)	-0.68 ( $p = 0.499$ )	22		20	
Sargan test (Chi-square, $p$ -value)	19.30 ( $p = 0.081$ )	-1.29 ( $p = 0.197$ )		-1.55 ( $p = 0.121$ )	-1.24 ( $p = 0.215$ )
Hansen test (Chi-square, $p$ -value)	9.41 ( $p = 0.660$ )	0.07 ( $p = 0.945$ )		1.30 ( $p = 0.195$ )	1.03 ( $p = 0.304$ )
		15.40 ( $p = 0.220$ )		22.68 ( $p = 0.012$ )	31.95 ( $p = 0.001$ )
		9.72 ( $p = 0.641$ )		11.34 ( $p = 0.332$ )	12.62 ( $p = 0.397$ )

**Note(s):** This table presents the findings of the two-step system GMM estimation for the CG-bank performance relationship. ROA, return-on-asset; ROA ( $n-1$ ), one year lag of return on asset; ROE, return on-equity; ROE ( $n-1$ ), one year lag of return-on-equity; NPL ( $n-1$ ), one year lag of nonperforming loan ratio; NIM ( $n-1$ ) is the one-year lag of net interest margin ratio; the estimated coefficient and  $p$ -values are the two-way system GMM. Arellano-Bond tests check whether the data process is autoregressive. The Sargan test checks whether the model is overidentified. The Hansen test of exogeneity of the instruments subset tests the null hypothesis of exogenous instruments. The signs \*\*\*, \*\* and \* indicate the statistical significance level at 1, 5 and 10%. Respectively

**Source(s):** Table by authors



These empirical findings offer some crucial implications for policymakers and the concerned bank authorities of MENA countries. The results suggest that larger boards, well-structured committees and NEDs enhance profitability. However, frequent board meetings and excessive reliance on independent directors negatively affect financial performance. Hence, to optimize CG, MENA banks should maintain a board size of up to ten directors to ensure diverse expertise while avoiding inefficiencies. Furthermore, MENA banks should establish audit, nomination and compensation committees to improve governance and accountability. Also, it is recommended to strengthen advisory and monitoring roles by including NEDs. Similarly, they are suggested limiting board meetings to a maximum of two per year to streamline decision-making, and delegating minimal power to independent directors, ensuring decision-making remains aligned with organizational stability.

These recommendations align with the cultural characteristics of MENA countries. The preference for larger boards and NEDs reflects the high PD in the region, where authority and hierarchy are respected, and decisions involve experienced leaders. The emphasis on structured board committees corresponds with collectivist values, which prioritize collaborative decision-making and consensus. Likewise, limiting board meetings and restricting independent directors' influence aligns with high uncertainty avoidance, which favors clear governance structures and stability. The emphasis on audit and compensation committees reflects the masculine cultural orientation, which values achievement and financial success.

However, short-term orientation negatively affects bank performance, as reducing board meetings may improve efficiency in the short run but could hinder long-term stability. In addition, self-restraint tendencies limit creativity and innovation, further restricting banks' growth potential. To address these challenges, policymakers must strike a balance between cultural values and long-term financial stability. While short-term measures can enhance efficiency, long-term planning and innovation-driven policies are crucial for sustained growth. Encouraging creativity, calculated risk-taking and strategic foresight can further strengthen the banking sector.

This study is subject to some limitations. First, the data set does not cover all 28 MENA countries, as only half are included. Incorporating data from the remaining countries would provide a more comprehensive understanding of CG practices across the region. Second, MENA countries exhibit significant economic disparities. Some, like Saudi Arabia, Qatar, Kuwait and the UAE, are wealthy and stable, whereas others, such as Iraq, Syria and Yemen, face economic and financial instability (González *et al.*, 2019). These disparities suggest that CG mechanisms may function differently in rich vs risky economies. Therefore, future research should explore CG frameworks separately for these two groups, offering tailored recommendations that reflect their unique financial and economic contexts.

By aligning CG strategies with national culture and economic goals, MENA banks can enhance financial performance and long-term stability, fostering a more resilient banking sector in the region.

#### Note

1. Data access 6.6.2023, available at: [www.hofstede-insights.com/country-comparison-tool](http://www.hofstede-insights.com/country-comparison-tool)

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**Further reading**

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**Table A1.** A synopsis of difference between current study and the similar earlier studies on corporate governance, national culture and bank performance

Authors	Study topic	Study findings	Sector and observations	Study economy	Study gaps					National culture index
					Board size	Board committee	Board meetings	Board composition	Board independence	
<b>Farooq <i>et al.</i> (2020)</b>	National culture and firm performance (2007–2016)	Firms with higher masculinity, uncertainty avoidance and indulgence have high firm performance	Nonfinancial sector (7,623 obs.)	Asia	No	No	No	No	No	Yes
<b>Kyere and Ausloos (2021)</b>	Corporate governance and firm performance (2014)	Right corporate governance increases firm performance	Nonfinancial sector (252 obs.)	United Kingdom	Yes	Yes	No	No	Yes	No
<b>Arayssi and Jizi (2018)</b>	Corporate governance, firm characteristics and firm performance (2012–2016)	Corporate governance is firm characteristics and pivotal element in increasing firm performance	Nonfinancial sector (165 obs.)	Middle East and North Africa (MENA)	Yes	Yes	No	No	Yes	No
<b>AlHares <i>et al.</i> (2019)</b>	Compliance and disclosure practice of corporate governance mechanism (2009–2016)	Level of voluntary compliance and disclosure of nonutility firms corporate governance vary significantly across MENA countries	Nonfinancial and nonutility firms (2,000 obs.)	Middle East and North Africa (MENA)	No	No	No	No	Yes	No
<b>Ghosh (2017)</b>	Corporate governance reform and bank performance (2000–2012)	Corporate governance reforms along with some governance characteristics impact bank profitability	Banking sector (1,297 obs.)	Middle East and North Africa (MENA)	Yes	No	No	No	No	No
<b>Buallay (2019)</b>	Corporate governance, Sharia'ah governance and bank performance (2007–2016)	Corporate governance positively impacts market-based bank performance while Sharia'ah governance impacts accounting-based bank performance	Banking sector (1,270 obs.)	Middle East and North Africa (MENA)	Yes	No	No	No	Yes	No

(continued)

Table A1. Continued

Authors	Study topic	Study findings	Sector and observations	Study economy	Board size	Board committee	Corporate governance			Study gaps		
							Board meetings	Board composition	Board independence	National culture index		
Boubakri <i>et al.</i> (2017)	National culture and bank performance during financial crisis (2007–2009)	Societies with high power distance and uncertainty avoidance are performing better during financial crisis	Banking sector (3,438 obs.)	Mixed economies	No	No	No	No	No	No	Yes	
Ayadi <i>et al.</i> (2019)	Internal and external corporate governance mechanism and bank performance (2004–2009)	Internal corporate mechanism is significantly influencing bank performance	Banking sector (147 obs.)	Europe	Yes	No	No	No	Yes	No	No	
Our study	Corporate governance, national culture and bank performance (2004–2018)	Both corporate governance and country's national index significantly impact bank's financial performance	Banking sector (1,920 obs.)	Middle East and North Africa (MENA)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

**Note(s):** This table offers a summary of the prime features of earlier studies on corporate governance, national culture and firm performance and the study gaps that this research desires to address. These studies address multiple sectors and economies in exploring the aforementioned concepts. The “NO” indicates not being explored in earlier studies; “Yes” indicates the alternative

**Source(s):** Table by authors

**Note(s):** This table offers a summary of the prime features of earlier studies on corporate governance, national culture and firm performance and the study gaps that this research desires to address. These studies address multiple sectors and economies in exploring the aforementioned concepts. The “NO” indicates not being explored in earlier studies; “Yes” indicates the alternative

**Source(s):** Table by authors