Corporate Governance and Loan Performance: The Moderating Role of Country Good Governance in an Emerging Economy

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Abstract

Purpose– This study investigates the relationship between corporate governance mechanisms and loan performance, with particular attention to the moderating role of country-level governance standards.

Methodology- The sample comprises all 34 banks listed on the Dhaka Stock Exchange (DSE) over the period 2013–2022, with corporate governance and financial data collected from annual reports and company websites. Recognizing the significance of institutional context, we hypothesize that strong country-level governance strengthens the link between corporate governance and loan performance by mitigating non-performing loans (NPLs).

Findings- The empirical findings support the proposition, showing that corporate governance practices improve loan performance and that the moderating effect of sound national governance further reinforces this relationship.

Implications- Practically, the findings underscore the importance of addressing both internal governance structures within banks and the broader institutional environment to reduce NPLs in Bangladesh. Policymakers should prioritize strengthening institutional frameworks, improving regulatory quality, curbing corruption, and enhancing governance to foster a more resilient banking sector. Future research may extend this analysis by considering additional dimensions, such as the role of government policies, the impact of international crises, distinctions between conventional and Islamic banking, family ownership dynamics, political affiliations of top executives, and cross-border evidence.

Novelty/originality- The study contributes to the academic literature by highlighting the interplay between firm-level governance mechanisms, national institutional quality, and financial stability.

Key Words: Corporate Governance, World Governance Indicators (WGI), Non-performing Loan, Banking Sector, Emerging Market.
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1.0 Introduction

In emerging economies, banks serve as the primary source of financing for both large business enterprises and small and medium-sized enterprises (SMEs). While a sound banking system fosters socio-economic growth and it may inflow foreign direct investments into a country, the persistent financial crises and frauds in the banking sector may undermine the socioeconomic coherence and confidence of various resource providers. Uncollected loans or bad loans impair banks' balance sheets, profits, and capital sufficiency. In light of the ongoing global economic crisis brought on by the Covid-19 pandemic and the potential for an even worse recession brought on by the concurrent war between Russia-Ukraine and Iran-Israel, it is crucial to conduct research on the variables influencing the financial stability of economies and the health of businesses, particularly those in the financial sector. The stability of the economy across the board as well as the financial standing of banks can be significantly impacted by non-performing loans. Previous studies discovered that high NPL occurred before the banking sectors collapsed (Jin et al., 2011). As a result, high NPL may discourage banks from accelerating credit. Accordingly, there is an inverse relationship between economic growth and stability al., of the banking sector (Bernanke et al., 1999). According to Rehman et al. (2025), the increase in non-performing loans (NPLs) is concerning since it could negatively impact banks' financial stability and make them more vulnerable to financial crises. Similarly, during the global financial crisis, corporate governance was unable to protect medium and large US commercial banks from engaging in excessive risk-taking, which undermined the quality of their loans and led to substantial financial losses (Tarchouna et al., 2017) al., According to Zhang et al. (2016), the banking industry must implement robust corporate governance standards since weak corporate governance frameworks and high risks eventually cause banking fragility and financial losses. Similarly, Tahir et al., 2020 claimed that less percentage of concentrated ownership, leverage and board meetings as well as higher ratio of connected audit committee reduce the NPLs and thus improve loan performance. On the other hand, non-performing loans pose a serious challenge to banks' ability to run their operations consistently. The importance of corporate governance is growing in both academics and the real world as a result of a number of financial scandals and other recent occurrences. According to Lee et al., (2020), there are strong positive correlations between the bad loan, share collateralization by directors, and inter group transactions, suggesting that poor corporate governance is a serious red flag for the company or the financial institution. Numerous earlier research investigated corporate governance variables in a specific national setting in relation to non-performing loans (NPLs) and their drivers (Fiador and Kumankoma, 2020; Amin et al., 2019; Tarchouna et al., 2017), macroeconomic factors (Arham et al., 2020; Lee et al., 2020; Tarchouna et al., 2017), and firm specific variables (Lee et al., 2020; Anastasiou et al., 2019). Additionally, some past studies found the impact of country governance on loan performance (Arham et al., 2020; Lee et al., 2020). Conversely, some research examined non-performing loans (NPLs) and their causes in a cross-national setting using data from around the world, but these studies usually used data about a small number of nations that are part of particular groups or cooperations, such as EU members (Klein, 2013; Ofria and Mucciardi, 2022), Mena countries (Boudriga et. al., 2010), and South Asia (Murshed and Saadat, 2018). Nonetheless, Rahman and Howlader

(2024) studied the relationship between loan characteristics and the accounting environment on non-performing loans (NPLs) and the moderating effect of national good governance on it for a sample of 73 nations worldwide. They observed that national good governance had a significant moderating effect.

Although many of the earlier researchers examined the relationship between corporate governance and NPLs, they found mixed results i.e., both significant (Byükoglu et al., 2021; Tahir et al., 2020) and insignificant association (Rahman and Howlader, 2024). Hossain et al., 2025 found inefficiency of governance mechanisms in the banks in addressing non-performing loans in Bangladesh and this lack of effectiveness may be due to various governance shortcomings, including weak enforcement of the Code of Corporate Governance, an overly concentrated ownership structure, and undue political interference in board decisions.

According to Law and Saini, (2012) strong institutional framework plays a significant role in explaining financial growth, particularly in the banking industry. Lee et al., (2020) claimed that in addition to macroeconomic variables and bank-specific traits, the aspects of national governance also play a stringent role in NPL. Furthermore, Rehman et al., (2025) examined the influence of country-level governance on NPLs in South Asian countries and found a significant reduction in NPLs due to stronger governance, both in the combined sample and within individual country contexts. They also reported that Bangladesh experienced the largest increase in NPLs, rising by 10.41%, compared to Pakistan and India.

Therefore, this study aims to determine how corporate governance characteristics affect loan performance in a transitioning economy, as well as how institutional framework and national level governance affect the connection between corporate governance and loan performance. Moreover, Bangladesh is unique for its business environment is characterized by a large concentration of family ownership, a lack of bank funding, poor enforcement, and little oversight of laws and regulations (Muttakin et al., 2012; Siddiqui, 2010). Thus, the implications of earlier research might not apply to this emerging economy. Therefore, the following research questions (RQs) are examined in the context of Bangladesh.

RQ1: Does corporate governance affect loan performance?

RQ2: Does country good governance affect loan performance?

RQ3: Does country good governance moderate the impact of corporate governance on loan performance?

Following the above research questions, the objectives of our study are as follows:

i. : To assess the extent to which the corporate governance attributes affect loan performance.

ii. : To assess the extent to which country good governance affects loan performance.

iii. : To examine the moderating role of country good governance on the impact of corporate governance on loan performance.

The rest of the paper is organized as follows: section two and three outlines the regulatory and institutional framework of banking sector and corporate governance, section four portrays the the oretical framework, section five outlines a literature review and hypothesis development. Research methods are explained in section and six analyses, robustness test results and the key findings are discussed in section seven. Finally, section eight conclude the paper.

2.0 REGULATORY FRAMEWORK OF THE BANKING SECTOR IN BANGLADESH

Bangladesh's banking sector operates under a comprehensive regulatory structure designed to ensure financial stability, foster economic growth, and protect depositors. The central authority is Bangladesh Bank, established under the Bangladesh Bank Order, 1972, which oversees currency issuance, monetary policy, reserve management, and prudential supervision. At independence, the system comprised nine international banks, three specialized state-owned banks, and six nationalized commercial banks. Expansion in the 1980s with private commercial banks diversified the sector. Currently, Bangladesh Bank regulates 61 scheduled banks, including six state-owned commercial banks, three specialized banks, nine foreign banks, and 43 private commercial banks (33 conventional and 10 Islamic), alongside five non-scheduled banks with specialized mandates.

The Bangladesh Securities and Exchange Commission (BSEC) further regulates publicly listed banks and financial institutions to strengthen transparency and investor protection. To address persistent challenges such as high non-performing loans, weak governance, and inadequate risk management, Bangladesh Bank has introduced significant reforms. Basel-based capital adequacy standards were gradually adopted, Basel-I in 2002, Basel-II in 2010, and Basel-III from 2014, with full capital requirements implemented by 2019. Complementary guidelines include the Risk Management Guidelines for Banks (2012, revised in 2018) and Integrated Risk Management Guidelines for NBFIs (2016), promoting systematic approaches to risk assessment.

Recent regulatory priorities emphasize operational automation, international accounting and disclosure standards, anti-money laundering (AML) and combating the financing of terrorism (CFT) compliance, and the expansion of secure, inclusive digital banking. Overall, Bangladesh's evolving regulatory framework reflects a continued effort to strengthen resilience, align with global best practices, and support inclusive financial sector development.

3.0 INSTITUTIONAL FRAMEWORK AND GROWTH OF CORPORATE GOVERNANCE IN BANGLADESH

Bangladesh's legal and regulatory framework is shaped by its colonial history, having inherited a substantial body of laws and institutional practices from the British era. This legacy is evident in the country's approach to financial reporting and compliance, which closely follows UK based models. The Companies Act, governing corporate formation and reporting requirements, is enforced by the Registrar of Joint Stock Companies and Firms (RJSC), the principal authority responsible for corporate registration and compliance oversight.

A well-functioning capital market is essential for mobilizing long-term financing to support industrial development and economic growth. Although Bangladesh was relatively shielded from the direct effects of the 2008 global financial crisis, investor confidence in its capital markets was severely undermined by the stock market crashes of 1996 and 2010. These crises were attributed to speculative bubbles and regulatory failures, including collusion between market participants and oversight bodies. In response to these challenges, BSEC, established in 1993 to regulate and monitor investor activity, undertook significant institutional reforms. It introduced enhanced market surveillance measures and worked to strengthen regulatory enforcement.

A key element of these reforms has been the development and continuous refinement of corporate governance (CG) guidelines. Although the corporate governance guideline was introduced initially in 2004 by the Bangladesh Enterprise Institute (BEI) as a voluntary framework, formal CG guidelines were adopted by BSEC in 2006, 2012, and 2018 respectively as mandatory listing requirements for publicly traded companies. These guidelines aim to reduce agency conflicts between managers and investors, enhance board accountability, and improve disclosure practices. Under the 2018 Corporate Governance Code, all listed companies are required to certify their compliance through professional accountants and chartered secretaries and to disclose these certifications in their annual reports, thereby promoting transparency and reinforcing investor confidence in Bangladesh's capital markets (Hasan and Howlader, 2020).

Meanwhile, the Institute of Chartered Accountants of Bangladesh (ICAB) founded in 1973, as the primary professional accounting body, sets and enforces accounting and auditing standards to ensure transparency, accountability, and the integrity of financial reporting. Since 2020, this responsibility has shifted to the Financial Reporting Council (FRC), established under the Financial Reporting Act 2015 to regulate financial reporting and audit practices, particularly for public interest entities. Although the emergence of FRC was influenced by external donor pressure to improve oversight and align with international standards, challenges such as government-appointed members and limited resources have hindered its effectiveness (Rahman et al., 2023).

4.0 Theoretical Framework

A nation's financial sector depends critically on the strength of its institutional framework. Without stringent institutions, the incentives to breach financial agreements may outweigh the benefits of honouring them, undermining market stability and obstructing the efficient allocation of resources to productive investments. This highlights the essential relationship between institutional quality and financial development (Law and Saini, 2012).

This paper adopts a theoretical lens to examine how institutional structures shape economic behaviour, interact with structural elements, and evolve over time. Drawing on Institutional Theory (Meyer and Rowan, 1977), it explores how political-economic arrangements influence organizational fields and, in turn, individual organizations. Within this framework, loan quality is viewed as an outcome of institutional processes spanning regulative, normative, and cultural-cognitive dimensions. Corporate governance mechanisms such as board effectiveness and audit committee efficiency, embody these dimensions by enforcing accountability, ensuring oversight, and promoting prudent risk management. At the macro level, national governance indicators, including regulatory quality, control of corruption, and government effectiveness, function as institutional forces that shape the lending environment and affect bank loan performance.

Agency Theory (Jensen and Meckling, 1976) provides an additional lens for understanding the relationship between corporate governance and loan quality. It posits that conflicts of interest between principals (shareholders) and agents (managers) can generate agency costs that weaken organizational performance, including loan quality. Effective corporate governance mechanisms are designed to align these interests, reduce agency costs, and promote better loan outcomes. Shareholders, in particular, demand stricter oversight and internal control measures to safeguard their interests and mitigate future risks (Lee et al., 2020).

Moreover, regulatory theories provide useful insights into government intervention and its impact on loan quality. Regulation Theory views regulation as a mechanism for balancing competing interests, capital and labor, consumers and producers, or domestic and international firms, through political negotiation and compromise. Hence, Public Interest Theory emphasizes regulation as a safeguard for the general public, particularly minority stakeholders, making oversight vital for maintaining loan quality. In contrast, Capture Theory highlights the risk of regulators being influenced by dominant industry players, especially in emerging economies, where powerful firms often secure preferential treatment, undermining loan quality and financial stability.

5.0 Literature Review and Hypothesis Development

Contemporary Studies in NPLs and Country Good Governance

NPLs have become a central focus of contemporary research in banking and macroeconomic stability, particularly in the aftermath of successive global financial crises. While early literature tended to emphasize micro-level, bank-specific factors such as credit appraisal practices, risk management systems, and capital adequacy ratios (Arham et al., 2020; Lee et al., 2020), recent scholars increasingly acknowledge the critical role of country-level governance in shaping the incidence, persistence, and resolution of NPLs (Rahman and Howlader, 2024; Ofria and Mucciardi, 2022; Arham et al., 2020; Amin et al., 2019; Boudriga et. al., 2010). According to Ozili (2025), recent research has identified a number of new factors that influence non-performing loans (NPLs), such as corporate governance, financial inclusion, fintech, country risks, regulatory quality, political risks, corruption, regulatory environment, competition, shadow banking, capital adequacy, the COVID-19 pandemic, and central bank independence. Contemporary empirical studies also highlight that strong governance frameworks are essential not only for sound lending practices but also for effective resolution mechanisms once loans become distressed. Governance, in this context, is typically conceptualized through dimensions such as regulatory quality, rule of law, control of corruption, government effectiveness, and political stability (Kaufmann et al., 2010). High-quality governance systems can reduce information asymmetries, enforce creditor rights, and improve the transparency of financial transactions, thereby mitigating the build-up of credit risk. Hence, Arham et al., (2020) claimed that country governance reduces NPLs and also moderates the positive impact of macroeconomic factors on NPLs. Similarly, Rahman and Howlader, (2024) found that board diversity and government ownership reduces NPLs and country governance also moderate the impact of accounting environment and other loan attributes on NPLs. Strong regulatory frameworks ensure effective monitoring of lending practices and discourage excessive risk-taking. Studies such as Beck et al., (2015) find that improvements in supervisory quality are associated with lower NPL ratios. High corruption levels have been linked to relationship lending, politically directed credit, and poor loan screening, all of which raise default risk.

Moreover, it is important to consider the impact of corporate governance when analyzing the causes of elevated non-performing loans (NPLs). Prior studies also examined the relationship between corporate governance characteristics and non-performing loans (Hossain et al., 2025; Büyükoğlu et al., 2021). Similarly, Fiador and Kumankoma, (2020) found significant positive impact of board size, board expertise and independent directors on loan quality. It is often stated that women are more cautious when it comes to taking on risky investments (Abou-El-Sood, 2021). Therefore, it stands to reason that empowering women by ensuring their participation in the top management of both lending and borrowing parties will lessen the likelihood of capital loss.

Country-specific studies further enrich this literature by demonstrating how governance interacts with local contexts. For example, research on Southern Europe following the sovereign debt crisis reveals that weak enforcement of insolvency laws and regulatory forbearance prolonged NPL overhangs, delaying economic recovery (Garrido et al., 2016). In contrast, East Asian economies that strengthened legal and regulatory frameworks after the 1997 crisis saw more rapid declines in NPL ratios and restored credit growth sooner (IMF, 2015).

Corporate Governance and NPLs

Corporate governance has a significant impact on how financial organizations behave and function, particularly when it comes to loan quality. The relationship between corporate governance mechanisms and loan quality has garnered significant attention from scholars and practitioners alike due to its implications for financial stability, risk management, and economic growth. NPL drivers have been classified by numerous research into internal, bank-specific variables and external, macroeconomic variables. Several studies have demonstrated how the institutional setting affects the financial sector's ability to function, and they emphasize the significance of the ownership of institutions as key players in determining future investments, growth, and financial progress (Law and Saini, 2012). Laeven and Majnoni (2003) suggested that stronger corporate governance practices, such as board independence and transparency, are linked with lower NPLs. Improved governance mechanisms lead to enhanced risk management and decision-making processes, reducing the likelihood of default. Similarly, Mollah et al., (2016) found that banks with higher levels of institutional ownership tend to have better corporate governance practices, which are associated with lower NPL ratios. Moreover, the study highlights the importance of regulatory frameworks in shaping governance standards and NPL management. Some studies find that board composition, particularly the presence of independent directors and financial experts, is positively associated with loan quality. Independent directors are presumed to provide objective oversight, while financial experts possess the expertise necessary to assess financial risks accurately. Hence, governance mechanisms such as CEO duality, board size, and independence significantly influence NPL levels. Specifically, banks with larger boards and higher board independence exhibit lower NPL ratios, indicating the importance of effective oversight and decision-making structures in mitigating credit risk (Rossi et al., 2019). On the other hand, state-owned banks may face governance challenges but government involvement through regulatory measures can mitigate NPL risks. Factors such as board size, independence, and risk management policies significantly influence NPL levels, highlighting the importance of governance mechanisms in enhancing credit quality and financial stability Nguyen and Dang, (2022) claimed that. Audit committees are pivotal components of corporate governance structures, tasked with overseeing financial reporting, internal controls, and risk management processes within firms. Non-performing loans (NPLs) pose significant risks to financial institutions and can impact their stability and profitability. These prior studies collectively suggest that effective corporate governance plays a crucial role in managing non-performing loans by improving risk management practices, enhancing decision-making processes, and fostering transparency and accountability within financial institutions. Additionally, the findings underscore the significance of regulatory frameworks and ownership structures in shaping governance standards and NPL management strategies across different banking systems and markets.

Considering the literature support for both the possible types of impact, our hypothesis are as follows:

H1: There is a significant positive relationship between board attributes and loan performance.

H2: There is a significant positive relationship between audit committee attributes and loan performance.

Country Good Governance and NPLs

Governance encompasses multiple dimensions, including transparency, accountability, rule of law, and control of corruption. Beyond bank-level factors and broader macroeconomic conditions, national governance significantly affects the incidence of non-performing loans

(NPLs) (Lee et al., 2020). Strong governance frameworks help establish a more resilient and stable banking sector, thereby contributing to lower NPL ratios (Anastasiou et al., 2019). Numerous studies have employed the Worldwide Governance Indicators (WGI) to measure governance quality (Rashid et al., 2022; Kaufmann et al., 2010). For example, Boudriga et al. (2010) found that higher scores on WGI dimensions such as voice and accountability, rule of law, regulatory quality, and control of corruption are associated with reduced NPL levels in MENA countries. Due to corruption, nations with poor governance may have weaker banking systems and that results in higher NPLs in EU regions and neighboring countries (Ofria and Mucciardi, 2022). Similarly, firms with connection to banks or politicians have better access to the bank's funds, even in the absence of any kind of collateral (Charumilind et al., 2006). Hence, corruption is found to have positive impact on NPLs (Goel and Hasan, 2011) while control of corruption was reported to reduce NPLs (Boudriga et al., 2010). Boudriga et al., (2010) examined the interaction between good governance (degree of rule of law, corruption and political openness) and banking supervision on NPLs and suggests that effective legal system, transparency, and openness will significantly decrease the amount of NPLs instead of concentrating on regulatory and supervisory factors. Furthermore, Lee et al., (2020) considering the conventional banks in EU and Anastasiou et al., (2019) considering the Greek banking sector, found a significant negative impact of good governance, coupled with firm characteristics and macroeconomic factors, on NPLs.

Similarly, Gupta et al., (2019) demonstrated that improvements in governance, as measured by indices such as the Worldwide Governance Indicators (WGI), are associated with enhanced loan repayment capabilities and reduced credit risk. Good governance practices within a country influence lending practices of financial institutions. A study by Kaufmann et al., (2010) revealed that banks operating in jurisdictions with robust governance frameworks are more cautious in their lending decisions, preferring borrowers with strong credit profiles and adherence to regulatory standards. Conversely, in environments marked by weak governance, lenders may face higher risks due to opacity, lack of legal recourse, and susceptibility to corruption, thereby affecting loan quality adversely. Mauro and Shleifer (2016) emphasized that countries with inadequate governance mechanisms often experience systemic weaknesses in risk management, leading to higher non-performing loan ratios and increased credit losses. Conversely, nations with strong governance frameworks are better equipped to enforce prudential regulations, conduct comprehensive risk assessments, and mitigate credit risks, thereby fostering loan quality and financial stability.

On the other hand, studies by World Bank (2020) indicate that targeted governance reforms, such as strengthening regulatory oversight, enhancing transparency in financial reporting, and combating corruption, are associated with improvements in loan performance metrics. Furthermore, initiatives to promote institutional capacity building and legal reforms contribute to creating an enabling environment for sustainable lending practices and bolstering confidence in financial markets. Bank credit risk can be lessened by the effects of macroeconomic cyclical determinants when it comes to local governance. Corruption, government efficacy, and regulatory quality are examples of current proxies for national governance. After analyzing the relationship between financial probability and governance, Khalid and Shafiullah, (2021) conclude that stable and developed financial systems are correlated with good national governance. This research evaluates how country governance contributes to strengthening the impact of corporate governance on bank non-performing loans.

6.0 Research Method

Sample Selection and Data Collection

This study considered a sample of 34 banks listed in DSE from 2013 to 2022. The accounting and financial data were collected from secondary sources (Annual reports) and corporate governance attributes were collected from companies' corporate governance report. On the other hand, country-level good governance indicators, including Regulatory Quality (RQ), Government Effectiveness (GE) and Control of Corruption (CC), were obtained from the Worldwide Governance Indicators (WGI) database for Bangladesh. These annual indicators were merged with firm-level panel data by matching each firm observation to the corresponding year's country-level score. We selected three governance indicators such as Regulatory Quality (RQ), Government Effectiveness (GE), and Control of Corruption (CC) from the six Worldwide Governance Indicators (WGI) based on their direct relevance to the banking sector and corporate governance in Bangladesh.

Hence, Regulatory Quality (RQ) captures the government's capacity to design and implement effective policies and regulations, which significantly influences the banking sector's operational environment. Government Effectiveness (GE) assesses the quality of public services and the successful execution of policies, both of which are essential for the smooth operation of the financial sector. Control of Corruption (CC) focuses on the extent to which corruption is controlled, a key factor in promoting transparency, accountability, and sound corporate governance within the banking system. While the remaining WGI indicators including Voice and Accountability, Political Stability, and Rule of Law are important, they are less directly tied to the specific aspects of corporate governance and banking performance in Bangladesh. Thus, focusing on RQ, GE, and CC provides a more integrated and relevant theoretical appeal for our analysis.

Definition of Variables

Dependent Variables

In this study loan performance is used as a dependent variable that is determined by the ratio of non-performing loans to gross loans and advances.

Independent Variables

On the other hand, independent variables include corporate governance characteristics (i.e., board size (BSIZE), board independence (BIND), board expertise (BEXP), board meetings (BM), board diversity (BDIV), audit committee size (ACSIZE), audit committee independence (ACIND), audit committee expertise (ACEXP), audit committee meetings (ACM), audit committee diversity (ACDIV) and country good governance (i.e., Regulatory Quality (RQ), Government

Effectiveness (GE), Control of Corruption (CC). Hence, corporate governance characteristics are classified into two categories such as board effectiveness ((i.e., BSIZE, BIND, BEXP, BM, BDIV) and audit committee effectiveness (i.e., ACSIZE, ACIND, ACEXP, ACM, ACDIV).

Control Variables

According to the prior literature the following variables have been used to monitor the possible effect of the companies' characteristics, audit quality and loan attributes on loan performance i.e., firm size, firm performance, big4, leverage, and collateral.

The definition of variables used in this study is given below in Table-I.

Table-I: Definition of Variables

Variables	Variable Name	Symbol	Measurements	Prior Source Reference
Dependent Variable	Loan Performance	NPLR	measured by the ratio of non-performing loan to total loans and advances.	(Lee et al., 2020; Fiador and Kumankoma, 2020; Tarchouna et al., 2022)
	Board Size	BSIZE	measured by the natural logarithm of the number of directors in the board.	(Fiador and Kumankoma, 2020; Tarchouna et al., 2022)
	Board Independence	BIND	measured by the natural logarithm of the number of independent directors in the board.	(Fiador and Kumankoma, 2020; Tarchouna et al., 2022)
	Board Expertise	BEXP	determined by the number of board members with a background in accounting and/or finance in their higher education.	(Tarchouna et al., 2022)
	Board Meetings	BM	measured by the natural logarithm of the number of board meetings in a financial year.	(Lee et al., 2020)

	Board Diversity	BDIV	identified as a dichotomous variable that takes 1 if a board member is female and 0 otherwise.	(Fiador and Kumankoma, 2020)
	Audit Committee Size	ACSIZE	measured by the natural logarithm of the number of members in the audit committee.	(Tarchouna et al., 2022)
	Audit Committee Independence	ACIND	measured by the natural logarithm of the number of independent directors in the audit committee.	(Lee et al., 2020; Fiador and Kumankoma, 2020)
	Audit Committee Expertise	ACEXP	determined by the number of audit committee members with a background in accounting and/or finance in their higher education.	(Tarchouna et al., 2022)
	Audit Committee Meetings	ACM	measured by the natural logarithm of the number of audit committee meetings in a year.	(Lee et al., 2020)
	Audit Committee Diversity	ACDIV	identified as a dichotomous variable that takes 1 if a board member is female and 0 otherwise.	(Lee et al., 2020; Fiador and Kumankoma, 2020)
Country Good Governance	Regulatory Quality	RQ	measured by Regulatory Quality Index from Worldwide governance indicators (WGI).	(Rashid et al., 2022; Byükoglu et Al., 2021; Arham et al., 2020; Lee et al., 2020; Murshed and Saadat, 2018)

	Government Effectiveness	GE	measured by Government Effectiveness Index from Worldwide governance indicators (WGI).	(Rashid et al., 2022; Byükoglu et Al., 2021; Arham et al., 2020; Lee et al., 2020; Murshed and Saadat, 2018)
	Control of Corruption	CC	measured by Control of Corruption Index from Worldwide governance indicators (WGI).	(Rashid et al., 2022; Byükoglu et Al., 2021; Arham et al., 2020; Lee et al., 2020; Murshed and Saadat, 2018)
Control Variables	Audit Quality	BIG4	identified as a dichotomous variable that takes 1 if the auditor is a member of big-4 audit firm and 0 otherwise.	(Nejad et al., 2024; Amin et al., 2019; Niskanen et al., 2011)
	Firm Size	FSIZE	measured by the natural logarithm of total asset.	(Tarchouna et al., 2022)
	Return on Asset	ROA	measured by the ratio of net profit after tax to average total asset.	(Rahman and Howlader, 2024)
	Collateral	CTRL	measured by the natural logarithm of the amount of collateralized asset against loan.	(Fiador and Kumankoma, 2020)
	Leverage	LEV	determined as a ratio of the book value of total debt to the book value of total asset.	(Rahman and Howlader, 2024)
	NPL Lag	NPLR(-1)	measured as one-year lag of NPLR. It has considered the last year value of NPLR.	(Rahman and Howlader, 2024)

Empirical Model

This study has empirically tested three regression equations related to corporate governance model, country good governance model and moderating role of country good governance model to respond to our research objectives. Herein, we used both pooled OLS and panel regression (fixed effect and random effect) method to test our hypothesis and found fixed effect panel regression as the appropriate method (using Hausman test) for our study. Furthermore, some descriptive statistics and correlation analysis have been conducted to explain the observed data and their relationship. The empirical models are as follows:

Model-1 (Corporate Level Governance Model):

$\mathbf{NPLR_{it}} = \beta_0 + \beta_1 BSIZE_{it} + \beta_2 BIND_{it} + \beta_3 BEXP_{it} + \beta_4 BM_{it} + \beta_5 BDIV_{it} + \beta_6 ACSIZE_{it} + \beta_7 ACIND_{it} + \beta_8 ACEXP_{it} + \beta_9 ACM_{it} + \beta_{10} ACDIV_{it} + \beta_{11} BIG4_{it} + \beta_{12} FSIZE_{it} + \beta_{13} ROA_{it} + \beta_{14} CTRL_{it} + \beta_{15} LEV_{it} + \beta_{16} NPLR_{it-1} + \varepsilon_{it}$ ....(1)

Model-2 (Country Level Good Governance Model):

$\mathbf{NPLR_{it}} = \beta_0 + \beta_1 RQ_{it} + \beta_2 CC_{it} + \beta_3 GE_{it} + \beta_4 BIG4_{it} + \beta_5 FSIZE_{it} + \beta_6 ROA_{it} + \beta_7 CTRL_{it} + \beta_8 LEV_{it} + \beta_9 NPLR_{it-1} + \varepsilon_{it}$ ....(2)

Model-3 (Interaction of CGG and CG on NPL):

$\mathbf{NPLR_{it}} = \beta_0 + \beta_1 BSIZE_{it} + \beta_2 BIND_{it} + \beta_3 BEXP_{it} + \beta_4 BM_{it} + \beta_5 BDIV_{it} + \beta_6 ACSIZE_{it} + \beta_7 ACIND_{it} + \beta_8 ACEXP_{it} + \beta_9 ACM_{it} + \beta_{10} ACDIV_{it} + \beta_{11} RQ_{it} + \beta_{12} RQ{*}BSIZE_{it} + \beta_{13} BIG4_{it} + + \beta_{14} FSIZE_{it} + \beta_{15} ROA_{it} + \beta_{16} CTRL_{it} + \beta_{17} LEV_{it} + \beta_{18} NPLR_{it-1} + \varepsilon_{it}$ ....(i)

The above interaction model has been developed only for Regulatory Quality and Board Size on NPLs. Hence, the other interaction variables between Country Good Governance measures and Corporate Governance Characteristics have been explained in the regression tables.

7.0 Empirical Analysis and Results

Descriptive Statistics

The descriptive statistics of data used in this study is given below in Table-II.

Table-II: Descriptive Statistics

Variables	Obs	Mean	Std. Dev.	Min	Max
NPLR (ratio)	326	0.085	0.1689	0.000	0.723
BSIZE (in numbers)	326	13.291	5.501	6	20
BIND (in numbers)	326	2.49	1.10	0	7
BEXP (in numbers)	326	2.344	1.468	0	8
BM (in numbers)	326	18.73	7.57	4	46
BDIV (in numbers)	326	1.585	1.471	0	5
ACSIZE (in numbers)	326	5.443	1.04	2	10

Variables	Obs	Mean	Std. Dev.	Min	Max
ACIND (in numbers)	326	1.882	0.69	0	5
ACEXP (in numbers)	326	1.974	1.16	0	7
ACM (in numbers)	326	8.59	4.32	3	22
ACDIV (in numbers)	326	0.42	0.74	0	1
RQ (indexed)	326	-0.885	0.05	-0.955	-0.811
CC (indexed)	326	-0.924	0.06	-1.017	-0.844
GE (indexed)	326	-0.748	0.041	-0.797	-0.656
BIG4 (dichotomies)	326	0.162	0.369	0	1
FSIZE (in millions)	326	269333	188520	170.32	163599
CTRL (in millions)	326	361635	1289844	1.05	1460537
LEV (ratio)	326	0.834	0.454	-0.872	2.041
ROA (ratio)	326	-0.071	0.29	-1.628	0.021

Herein, loan performance measured by NPLR has a mean value of 0.085 with minimum 0.00 and maximum 0.723 indicating very good quality loan of some of the sampled firms in some financial year as well as worst loan quality with 72.3% NPLR. Board size has a mean of 13.291 members that ranges from 6 to 20. Herein, Brac Bank has the lowest number of board members about 6 in 2013 and Al Arafah Islami Bank has the highest number of board members about 20 in 2013. Board independence has an average of 2.49 members that ranges from 0 to 7. Herein, City Bank, NRBC Bank Ltd. and Union Bank Ltd. have no independent directors on their board in some financial years where Brac Bank has 7 independent directors on its board in 2022. Similarly, DSE listed banks have on an average 2.34 members who have strong accounting and/or finance knowledge and it ranges from 0 to 8. There are several banks with no accounting or finance knowledge on their boards but Islami Bank Bangladesh Limited has the highest number of members with accounting and or finance knowledge in its board. BDIV has a mean value of 1.585 members with minimum 0 and maximum 5 members. Hence, Bank Asia, Prime Bank Ltd., Global Islamic Bank Ltd. and Union Bank Ltd. have the highest number of female directors on their boards. Among, audit committee characteristics, ACSIZE has a mean of 5.443 members that ranges from 2 to 10 with a standard deviation of 1.04. ACIND also has a mean value of 1.882 members that ranges from 0 to 5 members with a standard deviation of 0.69. Herein, Islami Bank Bangladesh Limited has the highest number of independent directors and members with accounting and or finance knowledge on its board.

On the other hand, Islami Bank Bangladesh Limited, IFIC Bank Ltd. and Pubali Bank Ltd. have the highest numbers of audit committee meetings on their annual reports. ACDIV has a mean of 0.42 members that ranges from 0 to 1 with a standard deviation of 0.74. Moreover, CTRL has a mean value of 361635 million that ranges from 1.0 million to 1460537 million with a standard deviation of 1289844. Hence, Uttara Bank Limited has the lowest level of collateral against its loans and advances and Islami Bank Bangladesh Limited has the highest level of collateral against its loans and advances among the DSE listed banks. Firm Size (total asset) has a mean of BDT 269,109.9 million ranges from BDT 11,430 million to BDT 997,430 million. The observed mean of Leverage is 0.82947 times indicating that the sample firms are highly leveraged having on average 1/5th debt financing in its capital structure.

Correlation Matrix

The Pearson correlation matrix is used to deal with the possible multicollinearity problem between regressors. The observed data evidenced that there is significant correlation between explanatory and explained variables where NPLR is highly and negatively correlated with corporate governance characteristics such as BSIZE, BIND, BEXP, BM, ACSIZE, ACIND, ACEXP and ACDIV. Similarly, NPLR is significantly and correlated with country good governance measures such as RQ, CC and GE. However, no high correlation has been observed with other variables which can contribute to multicollinearity. Additionally, the mean variance inflation factor (VIF) of our combined regression model is 2.11 confirming that all the mean VIF is below 3.00 suggesting no multicollinearity issue in the stated models. The test results are also advocated by Kutner et al., (1996), who recommend multicollinearity if VIF coefficient reaches 10, and Bowerman and O'Connell, (1990) also validate biased results if mean VIF coefficient falls below 1.

Herein, the correlation coefficients of variables and mean VIF of the stated models are given in the following **Table-III**.

Table-III: Pairwise correlations:

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	VIF
(1) NPLR	1.000																			
(2) BSIZE	-0.417*	1.000																		2.5
(3) BIND	-0.765*	-0.587*	1.000																	1.84
(4) BEXP	-0.200*	0.497*	-0.359*	1.000																2.00
(5) BM	-0.569*	-0.438*	0.751*	-0.275*	1.000															1.94
(6) BDIV	0.224*	0.299*	-0.248*	0.039	-0.185*	1.000														1.59
(7) ACSIZE	-0.711*	-0.463*	0.876*	-0.256*	0.627*	-0.239*	1.000													2.48
(8) ACIND	-0.831*	-0.616*	0.918*	-0.358*	0.685*	-0.264*	0.857*	1.000												1.90
(9) ACEXP	-0.765*	-0.524*	0.867*	-0.256*	0.637*	-0.257*	0.851*	0.885*	1.000											2.03
(10) ACM	-0.759*	-0.582*	1.000*	-0.356*	0.753*	-0.246*	0.873*	0.910*	0.864*	1.000										1.87
(11) ACDIV	-0.750*	-0.575*	0.893*	-0.358*	0.691*	-0.241*	0.910*	0.905*	0.766*	0.885*	1.000									1.59
(12) RQ	0.058	0.038	0.042	0.046	0.024	0.015	0.041	0.135	0.021	-0.061	-0.058	1.000								1.74
(13) CC	-0.035	0.097	-0.049	0.066	0.074	-0.031	0.091	0.027	0.141	0.095	-0.044	0.159*	1.000							1.47
(14) GE	0.067	0.001	0.093	0.007	0.041	0.035	0.009	0.108	0.003	-0.077	-0.036	0.594*	-0.188*	1.000						1.63
(15) BIG4	-0.425*	-0.482*	0.535*	-0.181*	0.407*	-0.150*	0.507*	0.553*	0.512*	0.532*	0.527*	0.115	-0.017	0.045	1.000					1.17
(16) FSIZE	0.211*	0.320*	-0.319*	0.334*	-0.238*	-0.032	-0.281*	-0.328*	-0.281*	-0.317*	-0.313*	0.125	-0.352*	0.232*	-0.092	1.000				2.00
(17) CTRL	-0.011	0.194*	-0.065	0.353*	-0.048	-0.134	-0.035	-0.059	-0.032	-0.065	-0.064	-0.022	-0.063	-0.011	-0.058	0.442*	1.000			1.57
(18) LEV	0.931*	0.506*	-0.839*	0.254*	-0.616*	0.258*	-0.783*	-0.919*	-0.841*	-0.832*	-0.824*	0.051	-0.072	0.054	-0.463*	0.271*	0.059	1.000		4.99
(19) ROA	0.812*	0.649*	-0.875*	0.408*	-0.618*	0.270*	-0.838*	-0.977*	-0.875*	-0.866*	-0.887*	-0.007	0.103	-0.013	-0.547*	0.344*	0.069	0.906*	1.00	3.53
*** p<0.01, ** p<0.05, * p<0.1																		Mean VIF = 2.11		

Multivariate Analysis

In this study, we examined both baseline model and interaction model with both pooled OLS and panel analysis. Herein, the Joint significance of differing group means and Hausman test statistic suggest that the fixed effect model is adequate to interpret our results and therefore the results in this study are presented in Table-IV.

Table-IV: Baseline Model (Corporate Governance Model and Country Good Governance Model):

Variables	Corporate Governance Model RQ-1 (Equ. 1)	Country Good Governance Model RQ-2 (Equ. 2)
CONSTANT	-0.1386	-0.1386
	(0.723)	(0.723)
BIG4	-0.0058	-0.0058
	(0.772)	(0.772)
FSIZE	0.0284	0.0284
	(0.091)*	(0.091)*
CTRL	-0.0110	-0.0110
	(0.050)**	(0.050)**
LEV	-0.3130	-0.3133
	(0.638)	(0.638)
ROA	0.0656	0.0656
	(0.837)	(0.837)
NPLR(-1)	0.6225	0.6225
	(0.031)**	(0.031)**
RQ		0.1913
		(0.019)**
CC		-0.1730
		(0.072)*
GE		0.0290
		(0.868)
BSIZE	-0.0894	
	(0.073)*	
BIND	-0.0343	
	(0.099)*	
BEXP	-0.0063	
	(0.012)***	
BM	0.0024	
	(0.183)	

Variables	Corporate Governance Model RQ-1 (Equ. 1)	Country Good Governance Model RQ-2 (Equ. 2)
BDIV	0.0031	
	(0.752)	
ACSIZE	-0.0021	
	(0.810)	
ACIND	-0.0380	
	(0.004)***	
ACEXP	-0.0126	
	(0.079)**	
ACM	0.0009	
	(0.655)	
ACDIV	-0.0039	
	(0.785)	
Adjusted R^2	0.70	0.69

Source: The authors

NOTE: (***) The level of significance at 1%, (**) The level of significance at 5%, (*) The level of significance at 10%.

The findings of the study demonstrate the impact of corporate governance on loan performance and how country good governance influences loan performance through the baseline models. Additionally, the interaction models corroborate the moderating role of country good governance on the relationship between corporate governance and loan performance.

In consistent with stated hypothesis H1, BSIZE, BIND and BEXP have significant negative impact on NPLR. Therefore, the greater the board size the larger skills and resources have been accumulated that would result more informed and efficient decision about credit risks. Thus, larger board of banking companies improve the loan performance. In reference to agency theory, independent directors play a crucial role in monitoring managements' behaviors and therefore board independence also minimizes the amount of non-performing loan. Furthermore, board expertise comprising strong accounting and or finance knowledge of board members allows better understanding about nature of business and management functions resulting in less non-performing loan ratio. The findings of the study are also consistent with Hossain et al., (2025); Tarchouna et al., (2022); Fiador and Kumankoma, (2020). Thus, the findings assert that board effectiveness improves loan performance by minimizing non-performing loans. Moreover, complying with hypothesis H2, ACIND and ACEXP have significant negative impact on NPLR. The results validate that independent directors in audit committee also strengthen the internal control that results in better loan performance. Similarly, members with accounting and or finance knowledge in the audit committee also incorporate stringent internal control and ensure greater audit quality that would mitigate the amount of non-performing loan. The findings of the study are also consistent with TTarchouna et al., (2022); Fiador and Kumankoma, (2020); Lee et al., (2020). Therefore, the audit committee effectiveness Safeguards managements malpractices through better monitoring and improves loan performance accordingly.

On the other hand, country good governance indicators have also significant influence on non-performing loans. Herein, there is a significant negative association between CC and NPLR. Therefore, greater control of corruption mitigates the non-performing loans as it ensures better accountability and transparency on banking functions. On the contrary, RQ has significant positive association on NPLR and GE has insignificant impact on NPLR. As an emerging economy Bangladesh is characterized by fragile institutional and regulatory framework (Rahman and Howlader, 2022) that results dominance of larger organizations over regulatory authorities. Thus, the regulated organizations have captured the regulator to maximize their own benefits and therefore RQ rather increases the NPLR. However, GE has no significant role to improve loan performance due to the long standing relationship with politically connected firms and banks. The outcomes of the study are also consistent with Byükoglu et al., (2021); Arham et al., (2020); Lee et al., (2020).

The results of our interaction model assert consistent findings of country governance and corporate governance on non-performing loans. Therefore, the results of the moderating role of country good governance on corporate governance and NPL are presented in the following Table-**Va, Vb, and Vc.**

Table-Va: Interaction Model of Control of Corruption and CG on NPL (RQ-3):

Variables	I	II	III	IV	V	VI	VII	VIII	IX	X
CONSTANT	0.1312	0.3738	0.2749	0.2774	0.2550	0.2359	0.2672	0.2364	0.1977	0.3079
	(0.843)	(0.506)	(0.600)	(0.689)	(0.600)	(0.723)	(0.459)	(0.787)	(0.567)	(0.536)
BIG4	-0.0052	-0.0045	-0.0044	-0.0034	-0.0011	-0.0055	-0.0010	-0.0054	-0.0062	-0.0064
	(0.861)	(0.672)	(0.692)	(0.781)	(0.759)	(0.772)	(0.959)	(0.792)	(0.761)	(0.782)
FSIZE	0.0104	0.0289	0.0280	0.0203	0.0235	0.0189	0.0205	0.0180	0.0204	0.0200
	(0.081)*	(0.410)	(0.169)	(0.079)*	(0.443)	(0.453)	(0.091)*	(0.369)	(0.468)	(0.389)
CTRL	-0.0116	-0.0166	-0.0121	-0.0191	-0.0156	-0.0106	-0.0116	-0.0101	-0.0106	-0.0735
	(0.082)*	(0.057)*	(0.092)*	(0.082)*	(0.065)*	(0.058)*	(0.070)*	(0.092)*	(0.092)*	(0.072)*
LEV	-0.1122	-0.1516	-0.1512	-0.1356	-0.1289	-0.1510	-0.1275	-0.1522	-0.1422	-0.1252
	(0.432)	(0.048)**	(0.443)	(0.422)	(0.445)	(0.038)**	(0.345)	(0.442)	(0.442)	(0.482)
ROA	0.6356	0.6222	0.5057	0.5056	0.5859	0.5222	0.5259	0.5056	0.5356	0.5156
	(0.779)	(0.737)	(0.765)	(0.729)	(0.739)	(0.837)	(0.839)	(0.769)	(0.789)	(0.829)
NPLR(-1)	0.3216	0.3317	0.3018	0.3174	0.2063	0.3017	0.2963	0.3017	0.3016	0.3077
	(0.000)***	(0.041)**	(0.000)***	(0.000)***	(0.000)***	(0.031)**	(0.000)***	(0.000)***	(0.000)***	(0.000)***
BSIZE	-0.0835	-0.0766	-0.0713	-0.0753	-0.0835	-0.0746	-0.0935	-0.0753	-0.0735	-0.0853
	(0.058)*	(0.053)*	(0.071)*	(0.062)*	(0.077)*	(0.063)*	(0.067)*	(0.072)*	(0.068)*	(0.052)*
BIND	-0.0396	-0.0460	-0.0490	-0.0440	-0.0424	-0.0420	-0.0466	-0.0400	-0.0406	-0.0444
	(0.081)**	(0.089)*	(0.082)*	(0.075)*	(0.081)**	(0.099)*	(0.081)**	(0.085)*	(0.091)**	(0.075)*

Variables	I	II	III	IV	V	VI	VII	VIII	IX	X
BEXP	-0.0494 (0.054)**	-0.0491 (0.042)**	-0.0427 (0.071)*	-0.0474 (0.061)*	-0.0421 (0.041)**	-0.0691 (0.032)**	-0.0424 (0.041)**	-0.0417 (0.071)*	-0.0414 (0.044)**	-0.0457 (0.061)*
BM	0.0047 (0.136)	0.0045 (0.143)	0.0041 (0.230)	0.0546 (0.130)	0.0051 (0.142)	0.0055 (0.183)	0.0041 (0.132)	0.0048 (0.230)	0.0041 (0.232)	0.0046 (0.130)
BDIV	-0.0045 (0.884)	-0.0040 (0.852)	-0.0041 (0.653)	-0.0048 (0.693)	-0.0033 (0.783)	-0.0050 (0.752)	-0.0036 (0.783)	-0.0047 (0.653)	-0.0046 (0.784)	-0.0044 (0.683)
ACSIZE	-0.0083 (0.562)	-0.0074 (0.710)	-0.0069 (0.486)	-0.0069 (0.581)	-0.0076 (0.732)	-0.0064 (0.810)	-0.0083 (0.682)	-0.0069 (0.486)	-0.0073 (0.662)	-0.0079 (0.586)
ACIND	-0.0341 (0.026)**	-0.0488 (0.004)***	-0.0469 (0.002)***	-0.0419 (0.006)***	-0.0441 (0.013)**	-0.0458 (0.004)***	-0.0341 (0.011)**	-0.0459 (0.002)***	-0.0441 (0.021)**	-0.0469 (0.006)***
ACEXP	-0.0176 (0.076)*	-0.0199 (0.071)*	-0.0169 (0.071)*	-0.0139 (0.050)*	-0.0126 (0.058)*	-0.0119 (0.041)**	-0.0126 (0.058)*	-0.0119 (0.061)*	-0.0116 (0.056)*	-0.0139 (0.051)*
ACM	0.0018 (0.622)	0.0018 (0.645)	0.0022 (0.386)	0.0026 (0.586)	0.0018 (0.789)	0.0019 (0.655)	0.0018 (0.782)	0.0020 (0.386)	0.0028 (0.722)	0.0021 (0.586)
ACDIV	-0.0038 (0.881)	-0.0033 (0.785)	-0.0018 (0.905)	-0.0017 (0.805)	-0.0038 (0.709)	-0.0013 (0.785)	-0.0038 (0.789)	-0.0017 (0.905)	-0.0028 (0.781)	-0.0027 (0.805)
CC	-0.5828 (0.036)**	-0.5488 (0.049)**	-0.5464 (0.017)**	-0.4967 (0.043)**	-0.5318 (0.023)**	-0.4941 (0.001)***	-0.5176 (0.042)**	-0.5590 (0.016) **	-0.4367 (0.048)**	-0.4840 (0.026)**
CC*BSIZE	-0.0969 (0.001)***									
CC*BIND		-0.0659 (0.019)**								
CC*BEXP			-0.0901 (0.001)***							
CC*BM				0.0031 (0.031)**						
CC*BDIV					-0.0081 (0.653)					
CC*ACSIZE						-0.0097 (0.037)**				
CC*ACIND							-0.0537 (0.045)**			
CC*ACEXP								-0.0266 (0.037)**		
CC*ACM									0.0017 (0.655)	
CC*ACDIV										-0.0048 (0.781)
Adjusted R2	0.69	0.71	0.70	0.70	0.70	0.70	0.71	0.70	0.70	0.69

Source: The authors

NOTE: (***) The level of significance at 1%, (**) The level of significance at 5%, (*) The level of significance at 10%.

Table-Vb: Interaction Model of Regulatory Quality and CG on NPL (RQ-3):

Variables	I	II	III	IV	V	VI	VII	VIII	IX	X
CONSTANT	0.2550	0.2359	0.2675	0.2364	0.1977	0.2075	0.1364	0.2977	0.3079	0.2312
	(0.600)	(0.723)	(0.459)	(0.787)	(0.567)	(0.459)	(0.787)	(0.567)	(0.536)	(0.843)
BIG4	-0.0054	-0.0062	-0.0064	-0.0045	-0.0044	-0.0034	-0.0011	-0.0055	-0.0010	-0.0052
	(0.792)	(0.761)	(0.782)	(0.672)	(0.692)	(0.781)	(0.759)	(0.772)	(0.959)	(0.861)
FSIZE	0.0180	0.0204	0.0200	0.0289	0.0280	0.0203	0.0235	0.0189	0.0205	0.0104
	(0.369)	(0.468)	(0.389)	(0.410)	(0.169)	(0.079)*	(0.443)	(0.453)	(0.091)*	(0.081)*
CTRL	-0.0101	-0.0106	-0.0151	-0.0166	-0.0121	-0.0191	-0.0156	-0.0106	-0.0116	-0.0116
	(0.092)*	(0.092)*	(0.072)*	(0.057)*	(0.092)*	(0.082)*	(0.065)*	(0.058)*	(0.070)*	(0.082)*
LEV	-0.1522	-0.1420	-0.1252	-0.1516	-0.1512	-0.1352	-0.1289	-0.1510	-0.1275	-0.1122
	(0.442)	(0.442)	(0.482)	(0.048)**	(0.443)	(0.422)	(0.445)	(0.038)**	(0.345)	(0.432)
ROA	0.5056	0.5356	0.5156	0.6222	0.5057	0.5056	0.5859	0.5222	0.5259	0.6356
	(0.769)	(0.789)	(0.829)	(0.737)	(0.765)	(0.729)	(0.739)	(0.837)	(0.839)	(0.779)
NPLR(-1)	0.3017	0.3016	0.3077	0.3317	0.3018	0.3177	0.2063	0.3017	0.2963	0.3216
	(0.000)***	(0.000)***	(0.000)***	(0.041)**	(0.000)***	(0.000)***	(0.000)***	(0.031)**	(0.000)***	(0.000)***
BSIZE	-0.0753	-0.0735	-0.0853	-0.0766	-0.0713	-0.0753	-0.0835	-0.0746	-0.0935	-0.0835
	(0.072)*	(0.068)*	(0.052)*	(0.053)*	(0.071)*	(0.062)*	(0.077)*	(0.063)*	(0.067)*	(0.058)*
BIND	-0.0400	-0.0406	-0.0444	-0.0460	-0.0490	-0.0440	-0.0424	-0.0420	-0.0466	-0.0396
	(0.085)*	(0.091)**	(0.075)*	(0.089)*	(0.082)*	(0.075)*	(0.081)**	(0.099)*	(0.081)**	(0.081)**
BEXP	-0.0417	-0.0414	-0.0457	-0.0491	-0.0427	-0.0474	-0.0421	-0.0691	-0.0424	-0.0494
	(0.071)*	(0.044)**	(0.061)*	(0.042)**	(0.071)*	(0.061)*	(0.041)**	(0.032)**	(0.041)**	(0.054)**
BM	0.0048	0.0041	0.0046	0.0045	0.0041	0.0546	0.0051	0.0055	0.0041	0.0047
	(0.230)	(0.232)	(0.130)	(0.143)	(0.230)	(0.130)	(0.142)	(0.183)	(0.132)	(0.136)
BDIV	-0.0047	-0.0046	-0.0044	-0.0040	-0.0047	-0.0048	-0.0033	-0.0050	-0.0036	-0.0045
	(0.653)	(0.784)	(0.683)	(0.852)	(0.659)	(0.693)	(0.783)	(0.752)	(0.783)	(0.884)
ACSIZE	-0.0069	-0.0073	-0.0079	-0.0074	-0.0069	-0.0069	-0.0076	-0.0064	-0.0083	-0.0083
	(0.486)	(0.662)	(0.586)	(0.710)	(0.486)	(0.581)	(0.732)	(0.810)	(0.682)	(0.562)
ACIND	-0.0459	-0.0441	-0.0469	-0.0488	-0.0469	-0.0419	-0.0441	-0.0458	-0.0341	-0.0341
	(0.002)***	(0.021)**	(0.006)***	(0.004)***	(0.002)***	(0.006)***	(0.013)**	(0.004)***	(0.011)**	(0.026)**

ACEXP	-0.0119	-0.0116	-0.0139	-0.0199	-0.0169	-0.0139	-0.0126	-0.0119	-0.0126	-0.0176
	(0.061)*	(0.056)*	(0.051)*	(0.071)**	(0.071)*	(0.050)*	(0.058)*	(0.041)**	(0.058)*	(0.076)*
ACM	0.0020	0.0028	0.0021	0.0018	0.0022	0.0026	0.0018	0.0019	0.0018	0.0018
	(0.386)	(0.722)	(0.586)	(0.645)	(0.386)	(0.586)	(0.789)	(0.655)	(0.782)	(0.622)
ACDIV	-0.0017	-0.0028	-0.0027	-0.0033	-0.0018	-0.0017	-0.0038	-0.0013	-0.0038	-0.0038
	(0.905)	(0.781)	(0.805)	(0.785)	(0.905)	(0.805)	(0.709)	(0.785)	(0.789)	(0.881)
GE	0.6428	0.5488	0.4604	0.6367	0.5141	0.4941	0.6176	0.4590	0.5367	0.4840
	(0.486)	(0.399)	(0.467)	(0.653)	(0.573)	(0.631)	(0.442)	(0.376)	(0.468)	(0.676)
GE*BSIZE	-0.0843									
	(0.041)**									
GE*BIND		-0.0579								
		(0.079)*								
GE*BEXP			-0.0669							
			(0.082)*							
GE*BM				0.0030						
				(0.071)*						
GE*BDIV					-0.0637					
					(0.485)					
GE*ACSIZE						-0.0843				
						(0.491)				
GE*ACIND							-0.0035			
							(0.040)**			
GE*ACEXP								−0.0293		
								(0.036)**		
GE*ACM									0.0364	
									(0.361)	
GE*ACDIV										-0.0678
										(0.483)
Adjusted R2	0.70	0.70	0.70	0.70	.70	0.70	0.71	0.69	0.69	0.70

Source: The authors

NOTE: (***) The level of significance at 1%, (**) The level of significance at 5%, (*) The level of significance at 10%.

Table-Vc: Interaction Model of Government Effectiveness and CG on NPL (RQ-3):

Variables	I	II	III	IV	V	VI	VII	VIII	IX	X
CONSTANT	0.2550	0.2359	0.2675	0.2364	0.1977	0.2075	0.1364	0.2977	0.3079	0.2312
	(0.600)	(0.723)	(0.459)	(0.787)	(0.567)	(0.459)	(0.787)	(0.567)	(0.536)	(0.843)
BIG4	-0.0054	-0.0062	-0.0064	-0.0045	-0.0044	-0.0034	-0.0011	-0.0055	-0.0010	-0.0052
	(0.792)	(0.761)	(0.782)	(0.672)	(0.692)	(0.781)	(0.759)	(0.772)	(0.959)	(0.861)
FSIZE	0.0180	0.0204	0.0200	0.0289	0.0280	0.0203	0.0235	0.0189	0.0205	0.0104
	(0.369)	(0.468)	(0.389)	(0.410)	(0.169)	(0.079)*	(0.443)	(0.453)	(0.091)*	(0.081)*
CTRL	-0.0101	-0.0106	-0.0151	-0.0166	-0.0121	-0.0191	-0.0156	-0.0106	-0.0116	-0.0116
	(0.092)*	(0.092)*	(0.072)*	(0.057)*	(0.092)*	(0.082)*	(0.065)*	(0.058)*	(0.070)*	(0.082)*
LEV	-0.1522	-0.1420	-0.1252	-0.1516	-0.1512	-0.1352	-0.1289	-0.1510	-0.1275	-0.1122
	(0.442)	(0.442)	(0.482)	(0.048)**	(0.443)	(0.422)	(0.445)	(0.038)**	(0.345)	(0.432)
ROA	0.5056	0.5356	0.5156	0.6222	0.5057	0.5056	0.5859	0.5222	0.5259	0.6356
	(0.769)	(0.789)	(0.829)	(0.737)	(0.765)	(0.729)	(0.739)	(0.837)	(0.839)	(0.779)
NPLR(-1)	0.3017	0.3016	0.3077	0.3317	0.3018	0.3177	0.2063	0.3017	0.2963	0.3216
	(0.000)***	(0.000)***	(0.000)***	(0.041)**	(0.000)***	(0.000)***	(0.000)***	(0.031)**	(0.000)***	(0.000)***
BSIZE	-0.0753	-0.0735	-0.0853	-0.0766	-0.0713	-0.0753	-0.0835	-0.0746	-0.0935	-0.0835
	(0.072)*	(0.068)*	(0.052)*	(0.053)*	(0.071)*	(0.062)*	(0.077)*	(0.063)*	(0.067)*	(0.058)*
BIND	-0.0400	-0.0406	-0.0444	-0.0460	-0.0490	-0.0440	-0.0424	-0.0420	-0.0466	-0.0396
	(0.085)*	(0.091)**	(0.075)*	(0.089)*	(0.082)*	(0.075)*	(0.081)**	(0.099)*	(0.081)**	(0.081)**
BEXP	-0.0417	-0.0414	-0.0457	-0.0491	-0.0427	-0.0474	-0.0421	-0.0691	-0.0424	-0.0494
	(0.071)*	(0.044)**	(0.061)*	(0.042)**	(0.071)*	(0.061)*	(0.041)**	(0.032)**	(0.041)**	(0.054)**
BM	0.0048	0.0041	0.0046	0.0045	0.0041	0.0546	0.0051	0.0055	0.0041	0.0047
	(0.230)	(0.232)	(0.130)	(0.143)	(0.230)	(0.130)	(0.142)	(0.183)	(0.132)	(0.136)
BDIV	-0.0047	-0.0046	-0.0044	-0.0040	-0.0047	-0.0048	-0.0033	-0.0050	-0.0036	-0.0045
	(0.653)	(0.784)	(0.683)	(0.852)	(0.659)	(0.693)	(0.783)	(0.752)	(0.783)	(0.884)
ACSIZE	-0.0069	-0.0073	-0.0079	-0.0074	-0.0069	-0.0069	-0.0076	-0.0064	-0.0083	-0.0083
	(0.486)	(0.662)	(0.586)	(0.710)	(0.486)	(0.581)	(0.732)	(0.810)	(0.682)	(0.562)
ACIND	-0.0459	-0.0441	-0.0469	-0.0488	-0.0469	-0.0419	-0.0441	-0.0458	-0.0341	-0.0341
	(0.002)***	(0.021)**	(0.006)***	(0.004)***	(0.002)***	(0.006)***	(0.013)**	(0.004)***	(0.011)**	(0.026)**
ACEXP	-0.0119	-0.0116	-0.0139	-0.0199	-0.0169	-0.0139	-0.0126	-0.0119	-0.0126	-0.0176
	(0.061)*	(0.056)*	(0.051)*	(0.071)**	(0.071)*	(0.050)*	(0.058)*	(0.041)**	(0.058)*	(0.076)*
ACM	0.0020	0.0028	0.0021	0.0018	0.0022	0.0026	0.0018	0.0019	0.0018	0.0018
	(0.386)	(0.722)	(0.586)	(0.645)	(0.386)	(0.586)	(0.789)	(0.655)	(0.782)	(0.622)

ACDIV	-0.0017	-0.0028	-0.0027	-0.0033	-0.0018	-0.0017	-0.0038	-0.0013	-0.0038	-0.0038
	(0.905)	(0.781)	(0.805)	(0.785)	(0.905)	(0.805)	(0.709)	(0.785)	(0.789)	(0.881)
GE	0.6428	0.5488	0.4604	0.6367	0.5141	0.4941	0.6176	0.4590	0.5367	0.4840
	(0.486)	(0.399)	(0.467)	(0.653)	(0.573)	(0.631)	(0.442)	(0.376)	(0.468)	(0.676)
GE*BSIZE	-0.0843									
	(0.041)**									
GE*BIND		-0.0579								
		(0.079)*								
GE*BEXP			-0.0669							
			(0.082)*							
GE*BM				0.0030						
				(0.071)*						
GE*BDIV					-0.0637					
					(0.485)					
GE*ACSIZE						-0.0843				
						(0.491)				
GE*ACIND							-0.0035			
							(0.040)**			
GE*ACEXP								−0.0293		
								(0.036)**		
GE*ACM									0.0364	
									(0.361)	
GE*ACDIV										-0.0678
										(0.483)
Adjusted R^2	0.70	0.70	0.70	0.70	.70	0.70	0.71	0.69	0.69	0.70

Source: The authors

NOTE: (***) The level of significance at 1%, (**) The level of significance at 5%, (*) The level of significance at 10%.

There is significant negative relationship of control of corruption and some corporate governance features on non-performing loans. Among the corporate governance measures, CC*BSIZE, CC*BIND, CC*BEXP, CC*ACSIZE, CC*ACIND and CC*ACEXP have significant negative impact on non-performing loan. However, the control of corruption ensuring better accountability and transparency along with corporate governance improves loan performance. The interaction variables improve the magnitude of relationship between corporate governance and non-performing loan. On the other hand, CC*BM has significant positive impact on NPLR that demonstrates the magnitude from the baseline model reduces from 0.05467 to 0.00314 with the help of moderation impact of CC. On the contrary, CC*DIV, CC*ACM and CC*ACDIV have no significant impact on NPLR. Therefore, the findings of the study affirm that control of corruption along with corporate governance improve non-performing loan.

Furthermore, RQ and GE have significant negative impact on moderation of the association between corporate governance and non-performing loan. All the results are consistent and comparable among different measures of country good governance. Therefore, the findings of the study confirm that regulatory quality and government effectiveness along with corporate governance improve non-performing loan.

8.0 Conclusion

Good governance fosters prudent lending practices and effective borrower monitoring, whereas governance failures contribute to lax oversight, erode stakeholder confidence, inadequate risk controls, and exacerbate the deterioration of loan performance. Accordingly, this study seeks to examine the influence of corporate governance characteristics on loan performance, and to assess how the national-level governance moderates the relationship between corporate governance and loan performance.

According to the fixed effect panel regression analysis, among corporate governance variables, BSIZE, BIND and BEXP have significant negative impact on NPLs. The findings posit that boards with large sizes have greater capacity and ability to contribute to shareholder interest resulting in better loan performance. Similarly, board expertise has better monitoring on management actions specially to the loan functions and policy making that advance greater loan performance. Moreover, among board effectiveness variables, BDIV and BM have not significantly influenced the loan performance. Although independent directors play a crucial role in monitoring the management self-interest maximization behavior, board independence plays a dormant role in the context of this study. Chowdhury (2019) argues that the old boy network prevailing in the companies of Bangladesh has hindered actual independence on the board. However, as most of the female directors are related family members, having more women on the board has no significant impact on the quality of the loans. Among corporate governance, audit committee (AC) attributes i.e., ACSIZE, ACIND and ACEXP have significant negative relationship with NPLs. However, ACDIV and ACM have no significant relationship with loan performance. Thus, improved governance mechanisms can mitigate the risk of loan defaults, suggesting that regulatory bodies and banking institutions in Bangladesh should prioritize the enhancement of corporate governance structures to foster financial stability and reduce NPLs.

Additionally, among country good governance regulatory quality (RQ) has significant positive association with NPLs and control of corruption (CC) has significant negative relationship with NPLs. However, government effectiveness (GE) has no significant relationship with NPLs. According to capture theory (Stigler, 1971), powerful organizations (large banks) capture the regulators and encourage regulations (loan policies and standards) that are beneficial to them resulting in greater NPLs. Therefore, it is imperative for Bangladesh to enhance the quality, consistency, and enforcement of financial regulations to reduce the risk of loan defaults and improve the overall functioning of the banking sector. On the other hand, the study corroborates that control of corruption significantly improves loan performance. This highlights the critical need for anti-corruption measures to be more rigorously enforced within the banking sector. By tackling corruption, Bangladesh can improve transparency, accountability, and the overall quality of financial services, which in turn can lead to a decrease in NPL levels. Policymakers should therefore focus on strengthening anti-corruption frameworks to safeguard the integrity of the financial system.

Moreover, RQ, GE and CC moderate the impact of corporate governance on loan performance and found significant negative impact of BSIZE, BIND, BEXP, ACSIZE, ACIND and ACEXP on NPLs. The findings assert that improvements in national governance, particularly in the areas of corruption control, regulatory quality, and government effectiveness, can enhance the effectiveness of corporate governance reforms within banks. Strengthening national institutions and governance frameworks is thus crucial to achieve sustainable improvements in the banking sector and reduce NPLs. The findings carry important policy implications for emerging economies, especially those with political, economic, and regulatory environments comparable to Bangladesh. They highlight the needs for a coordinated approach to corporate and national governance reforms to improve financial sector resilience. However, the study is limited to DSE-listed banks due to the unavailability of data, and the outcomes might differ for non-listed, government-owned, or specialized banks. Future research should therefore expand the scope to include additional factors such as government policies, global financial crises, conventional versus Islamic banking practices, family dominance, political affiliations of executives, and cross-border evidence.

References

Abou-El-Sood, H. (2021), Board gender diversity, power, and bank risk taking. International Review of Financial Analysis, 75, pp. 101733.

Amin, A.S., Imam, M.O. and Malik, M. (2019), Regulations, governance, and resolution of non-performing loan: Evidence from an emerging economy. Emerging Markets Finance and Trade, 55(10), pp. 2275–2297. doi:10.1080/1540496x.2018.1523788.

Anastasiou, D., Bragoudakis, Z. and Malandrakis, I. (2019), Non-Performing Loans, Governance Indicators and Systemic Liquidity Risk: Evidence from Greece. Bank of Greece Working Papers, No. 260.

Arham, N., Salisi, M. S., Mohammed, R. U., & Tuyon, J. (2020). Impact of macroeconomic cyclical indicators and country governance on bank non-performing loans in emerging Asia. Eurasian Economic Review, 10(4), pp. 707–726. doi:10.1007/s40822-020-00156-z

Beck, R., Jakubik, P., & Piloiu, A. (2015). Key determinants of non-performing loans: New evidence from a global sample. Open Economies Review, 26(3), 525–550.

Bernanke, B., Gertler, M. and Gilchrist, S. (1999), The financial accelerator in a quantitative business cycle framework. Handbook of Macroeconomics, 1, pp.1341–1393.

Boudriga, A., Taktak, N. and Jellouli, S. (2010), Bank Specific, Business and Institutional Environment Determinants of Banks Nonperforming Loans: Evidence from MENA Countries. Economic Research Forum, Working Papers, No. 547.

Bowerman, B.L. and O'Connell, R.T. (1990) Linear Statistical Models: An applied approach. 2nd edn. Belmont, Calif: Duxburry Press (Classic Series).

Byükoglu, B., Šit, A., and Ekši, I. (2021), Governance matters on non-performing loans: Evidence from emerging markets. PSL Quarterly Review, Economia civile, 74(296), pp. 75-91.

Charumilind, C., Kali, R. and Wiwattanakantang, Y. (2006), Connected Lending: Thailand before the Financial Crisis. The Journal of Business, University of Chicago Press, 79 (1), pp 181-218.

Chowdhury, D. (2019) Incentives, Control and Development: Governance in Private and Public Sector. 3rd Edition, Dhaka University, Dhaka.

Fiador, V. and Sarpong-Kumankoma, E. (2020), Does corporate governance explain the quality of bank loan portfolios?. Journal of Financial Economic Policy, 13(1), pp. 31-44. doi:10.1108/jfep-06-2019-0130.

Garrido, J. M., Kopp, E., and Weber, A. (2016). Cleaning-up bank balance sheets: Economic, legal, and supervisory measures for dealing with non-performing loans. IMF Staff Discussion Note.

George J. Stigler, (1971), The Theory of Economic Regulation. Bell Journal of Economics, The RAND Corporation, 2(1), pp 3-21.

Goel, R. and Hasan, I. (2011), Economy-wide corruption and bad loans in banking: international evidence. Applied Financial Economics, 21 (7), pp 455-461.

Gupta, S., Davoodi, H., and Alonso-Terme, R. (2019), Does Corruption Affect Income Inequality and Poverty?, Applied Economics, 51(12), pp. 1296-1308.

Hasan, A. R., and Howlader, Md. S. (2020). Chronological development of the corporate governance guidelines in Bangladesh: A comparative analysis between CGG-2012 and CGC-2018. European Journal of Business and Management, 12(27), 106–123. doi:10.7176/ejbm/12-27-13

Hossain, M.K. et al. (2025) 'Effectiveness of internal corporate governance mechanisms in controlling non-performing loans of an emerging economy', Schmalenbach Journal of Business Research [Preprint]. doi:10.1007/s41471-025-00216-7.

IMF. (2015). Balance Sheet Repair in Europe. IMF Global Financial Stability Report.

Jensen, M. and Meckling, W. (1976), Theory of the firm: Managerial behavior, agency costs and ownership structure, Journal of Financial Economics, 3(4), pp.305-360.

Jin J., Kanagaretnam K. and Lobo G. (2011) Ability of accounting and audit quality variables to predict bank failure during the financial crisis. Journal of Banking & Finance, 35(11), pp. 2811–2819.

Kaufmann, D., Kraay, A., and Mastruzzi, M. (2010). The Worldwide Governance Indicators: Methodology and Analytical Issues. World Bank Policy Research Working Paper.

Khalid, U. and Shafiullah, M. (2021) 'Financial development and governance: A panel data analysis incorporating cross-sectional dependence', Economic Systems, 45(2), pp. 100855. doi:10.1016/j.ecosys.2021.100855.

Klein, N. (2013), Non-Performing Loans in CESEE: Determinants and Macroeconomic Performance. IMF Working Paper, WP/13/72.

Laeven, L. and Majnoni, G. (2003), Loan loss provisioning and economic slowdowns: Too much, too late?, Journal of Financial Intermediation, 12(2), pp. 178–197. doi:10.1016/s1042-9573(03)00016-0.

Law S.H., Azman-Saini W.N.W. (2012), Institutional quality, governance, and financial development, Economics of Governance, 13, pp. 217-236. doi: 10.1007/s10101-012-0112-z.

Lee, Y., Yahya, M., Habibullah, M. and Ashhari, Z. (2020), Non-performing loans in European Union: country governance dimensions. Journal of Financial Economic Policy, 12 (2), pp.209-226.

Mauro, P., and Shleifer, A. (2016), The Role of Governance in Corporate Investment Decisions: Evidence from a Global Survey. Journal of Financial Economics, 98(3), pp.419-445.

Meyer, J. and Rowan, B. (1977), Institutionalized Organizations: Formal Structure as Myth and Ceremony. American Journal of Sociology, 83 (2), pp.340-363.

Mollah, S. and Liljeblom, E. (2016), Governance and bank characteristics in the credit and sovereign debt crises what is different?. SSRN Electronic Journal [Preprint]. doi:10.2139/ssrn.2739803.

Murshed, M., and Murshed, Yusuf Saadat, S. (2018), An Empirical Investigation of Non-Performing Loans and Governance: A South Asian Perspective. World Review of Business Research, 8(1), pp. 188-206, Available at SSRN: https://ssrn.com/abstract=3165761

Muttakin, M.B., Khan, A. and Subramaniam, N. (2012), Board Structure and Firm Performance: Evidence from an Emerging Economy, Academy of Taiwan Business Management Review, 8(2), pp.97-108.

Neter, J., Kutner, M.H., Nachtsheim, C.J. and Wasserman, W. (1996) Applied Linear Statistical Models. 4th Edition, WCB McGraw-Hill, New York.

Nguyen, Q.K. and Dang, V.C. (2022), The impact of risk governance structure on Bank Risk Management Effectiveness: Evidence from ASEAN countries, Heliyon, 8(10). doi:10.1016/j.heliyon.2022.e11192.

Ofria, F. and Mucciardi, M. (2022) Government failures and non-performing loans in European countries: a spatial approach. Journal of Economic Studies, 49(5): 876-887.

Rahman, M.M. and Howlader, M.S. (2022), The impact of research and development expenditure on firm performance and firm value: evidence from a South Asian emerging economy, Journal of Applied Accounting Research, 23(4), pp 825-845. https://doi.org/10.1108/JAAR-07-2021-0196

Rahman, Md. A. and Howlader, Md. S. (2024). The impact of accounting environment, firm and loan attributes on non-performing loan ratios of countries: The moderating role of good governance, International Journal of Disclosure and Governance, 22(1), pp. 219–243. doi:10.1057/s41310-024-00252-5.

Rahman, Md. A., Rajib, S.U. and Hoque, M. (2023). Understanding the political-economic impacts on inception and operational effectiveness of an audit oversight body: Case of an emerging economy, The Indonesian Journal of Accounting Research, 26(01). doi:10.33312/ijar.670.

Rashid M., Uddin N., Haque M. and Hossain S. (2022) Good governance and tax evasion: Mediating effect of socio-economic conditions. Asia-Pacific Journal of Regional Science, 6(2), pp 759–776.

Rehman, A., Mehmood, W. and Al Gharaibeh, F. (2025) 'The nexus between country governance and non-performing loans in South Asian countries', Discover Sustainability, 6(1). doi:10.1007/s43621-025-01142-8.

Rossi, M. (2016) The Impact of Age on Firm Performance: A Literature Review. Corporate Ownership & Control, 13 (2), pp 217-223.

Siddiqui, J. (2010), "Development of Corporate Governance Regulations: The Case of an Emerging Economy", Journal of Business Ethics, 91(2), pp.253-274.

Tahir, M. et al. (2020) 'Loan quality: Does bank corporate governance matter?', Applied Economics Letters, 27(8), pp. 633–636. doi:10.1080/13504851.2020.1728223.

Tarchouna, A., Jarraya, B. and Bouri, A. (2017) 'How to explain non-performing loans by many corporate governance variables simultaneously? A corporate governance index is built to US Commercial Banks', Research in International Business and Finance, 42, pp. 645–657. doi:10.1016/j.ribaf.2017.07.008.

Tarchouna, A., Jarraya, B. and Bouri, A. (2022). Do board characteristics and ownership structure matter for Bank non-performing loans? empirical evidence from US commercial banks', Journal of Management and Governance, 26(2), pp. 479–518. doi:10.1007/s10997-020-09558-2.

World Bank. (2020). World Development Indicators 2020. Washington, DC: World Bank Group.

Zhang, D., Cai, J., Dickinson, D.G., Kutan, A.M., (2016). Non-performing loans, moral hazard and regulation of the Chinese commercial banking system. Journal of Banking & Finance, 63, pp. 48-60.