



Advance Journal of Econometrics and Finance

Vol-3, Issue-1, 2025

Advance Journal of Econometrics and Finance

Online ISSN

2959-8990

Print ISSN

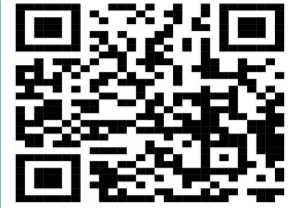
2959-8982

<https://ajeaf.com/index.php/Journal/About>

Name of Publisher: SCHOLAR CRAFT EDUCATION & RESEARCH HUB

Review Type: Double Blind Peer Review

Journal Frequency: Quarterly Research Journal



Exploring the Association Between Firm Value and Governance Quality: Using GMM and HLM Analysis

Hasnain Haider¹, Ahmad Zeb², Dr. Ayaz Qaiser³, Ansar Ali Faraz⁴, Sajid Khan⁵

	Abstract
<p>Hasnain Haider MBA, School of Business & Creative Industries, University of the West of Scotland (UWS). Email: hasnainhaider2505@gmail.com</p> <p>Ahmad Zeb Lecturer, Department of Management Science, Islamia College, Peshawar, Pakistan. Email: ahmad.zeb@icp.edu.pk</p> <p>Dr. Ayaz Qaiser Grand Asian University. Email: qaiser.ayaz06@gmail.com</p> <p>Ansar Ali Faraz Lecturer, Department of Rehabilitation Sciences, The University of Lahore, Lahore Pakistan. Email: ansar.ali@drs.uol.edu.pk</p> <p>Sajid Khan In-Charge (Health, Safety & Environment Laboratory), The Benazir Bhutto Shaheed University of Technology & Skill Development, Khairpur Mirs, Pakistan. Email: sajidkhan@bbsutsd.edu.pk</p>	<p>The basic purpose of this research is to investigate the connection between governance at the country level and the firm value of Pakistani firms from 2014 to 2023. This research contributes to the literature by using governance features at the country level instead of firm-specific aspects. In this paper, panel data was analyzed using GMM and HLM. It is concluded from GMM results that quality of governance enhance the value of companies operating in Pakistan. The results of HLM analysis shows that governance quality bring smaller change in the value of firms operating in Pakistan. The findings of this research study have broad implications for businesses, present and potential local and foreign shareholders and investors, management, and governments. The present study's findings demonstrated that governance quality at the national level enhance Pakistani companies' value. This information is also necessary for the local and global potential that stands to benefit from the macro factors. The policy maker must concentrate on country governance for betterment the of firms value.</p>
<p>Corresponding Author*</p>	
<p>Keywords:</p>	<p>Pakistan, Firm Value, GMM, Country Governance</p>



Advance Journal of Econometrics and Finance

Vol-3, Issue-1, 2025

Introduction

Significant focus has been placed on corporate governance. The Enron Corporation epitomized egregious financial statement manipulation, presuming that the Sarbanes–Oxley Act of 2002 would mitigate such issues, as shown by Valukas' (2010) report on Lehman Brothers' efforts to hide its debt. Furthermore, WorldCom falsified its financial sheet and income figures, leading to a \$200 billion loss for shareholders in 2002. The Parmalat accounting scandal stands as one of the most egregious financial frauds in history, involving the substantial Italian dairy and food corporation. It may be inferred that firms must emphasize the importance of corporate governance and business ethics. Financial crises may arise from inadequate company governance (Claessens and Yurtoglu 2013). Corporate governance and business ethics positively influence firm performance (Erondu et al. 2004). Valuing a firm necessitates an examination of changes in corporate governance (Morey et al. 2009). Since the onset of the new millennium, there has been a significant surge in corporate governance research and practice following the exposure of major accounting and corporate governance scandals at several prominent companies, including Enron, Worldcom, HealthSouth, Parmalat, Alstom, and others. In 1999, the World Bank launched a corporate governance forum to enhance governance procedures. This subject has been the focus of several empirical studies. Subsequent to the Enron crisis, several studies on corporate governance were published. Corporate governance has becoming more significant in forecasting financial crises. The global financial crisis has compelled policymakers to reassess the significance of financial system structure, especially regarding state ownership of enterprises and various forms of corporate governance, therefore challenging longstanding convictions about state ownership of financial institutions.

The relationship among the board of directors, directors, and shareholders is founded on corporate governance, which delineates the rights and responsibilities of each party (Barros et al. 2013; Donnelly & Mulcahy 2008; Forker 2012;). Hallock (1997) Crifo et al. 2015; Bhagat and Bolton (2013) underscore the role of networks amongst CEOs on boards and their adverse impact on corporate governance. Corporate governance is seen as crucial for corporate stability, performance, and value (Bhagat & Bolton 2008; Morey et al. 2009).

The nation's governance is also essential. Ngobo and Fouda (2012) propose that the establishment of the rule of law and a reduction in corruption may improve company performance through efficient national governance. The six components of national governance include voice and accountability, political stability, absence of terrorism or violence, regulatory quality, government effectiveness, rule of law, and corruption control (Kaufmann et al. 2009).

Robust and liquid financial systems can emerge in countries with efficient governance, characterized by the rule of law and specific legislative safeguards for creditors and investors (La Porta et al. 1998). The rule of law encompasses respect for property rights and judicial integrity. The degree of public trust and adherence to social standards is assessed by the rule of law. A higher rule of law score implies more faith in the legal system (Kaufmann et al. 2009). Esseen et al. (2013) assert that enterprises in countries with more sophisticated legal frameworks play superior during financial crises. The establishment of the rule of law and a reduction in corruption can improve corporate performance through effective national government (Ngobo and Fouda 2012). Risks in financial markets detrimental to economic development may be mitigated by a stable and efficient national governance structure. Bruno and Claessens (2010) examine the correlation between business success and legal investor protection at the national level, as well as corporate governance practices at the corporate level.

The study aims to objectively examine how national government influences the value of the top 60 enterprises in Pakistan. The subsequent structure of the essay is outlined as follows.



Advance Journal of Econometrics and Finance

Vol-3, Issue-1, 2025

The subsequent part will include the formulation of research hypotheses and a discussion of the relevant literature. The methodology is detailed in Section 3. Section 4 provides robustness tests and empirical evidence. The implications are ultimately discussed in Section 5.

Literature Review

Governance is the mechanism via which a society's laws are formulated, implemented, and modified. The formal institutional framework of the state is crucial in shaping societal operations; yet, governance extends well beyond this scope. In practice, governance is intricate and context dependent. Formal and informal processes, regulations, and connections must interact with one another in order to accomplish this job. Consequently, governance pertains to power and determines who possesses the authority to create and regulate social standards. La Porta et al. (1999) contend that socio-political and various cultural theories furnish the factors that dictate governmental success. La Porta concludes that cultural distinctions, together with religious and ethnic diversity, influence governmental operations. Islam and Montenegro (2002) posited that there is no association between institutional excellence and social traits. The researcher advocates enhancing the efficacy of larger and more proficient administrations while accounting for their scale. Brunetti and Weder (1999) and Afonso et al. (2003), however, presented data supporting the other perspective.

Voice and accountability are fundamental elements of a robust government. The ability to express one's thoughts and ideas is encapsulated in the concept of voice. In other words, individuals have the right to express their views on governmental policies and processes. Politicians and public officials are accountable to the populace affected by their decisions and acts when their rules and regulations prove insufficient. Consequently, access to voice and responsibility are critical markers of the relationship that exists between a state and the people that live the state. Frink et al. (2008) assert that it delineates the attributes of all entities and communicates their functions across various contexts. A separate research indicates that responsibility effects the execution, planning, and evaluation of job behavior among employees (Breux et al., 2009). Frink et al. (2008) assert that accountability sustains social symmetry and delineates job expectations for employees. Furthermore, it imparts many suitable attitudes and behaviors for job completion. Furthermore, Hochwarter et al. (2007) suggest a gradual correlation between performance and responsibility.

The process of coordinating all acts related to the development and distribution of resources is termed politics. Leftwich (2006) asserts that the process of social and political negotiation is essential for both individual and community goals. Rules are essential for political stability and predictability. Given that terrorism and violence affect government, political stability and nonviolence are crucial for effective administration. Georgiou (2014) asserts that political instability arises from disagreements inside a nation's political framework. Prior studies by Venieris and Gupta (1986) and Gupta (1990) demonstrate that political volatility influences corporate performance. Political instability adversely affects stock firm value and, consequently, economic development, since it effects corporate decisions, investments, and savings (Durnev, 2010; Chen & Rodden, 2013). Nevertheless, several studies indicate that political turmoil may occasionally present investors with economic prospects (Irshad, 2017; Masood & Serge, 2008).

Effective governance establishes the benchmark for civil and public services free from political influence. It delineates the process of formulating effective policies and then implementing them. Effective governance and robust institutions are two separate notions that mutually impact others. The effectiveness of Government encompasses the effectiveness of public employees and bureaucracy, the accountabilities and functions of provincial and local governments, the technical and administrative competencies of the government, governance capability, the efficacy of policy and program development, and the optimal utilization of resources. Kaufman and Kraay (2003) assert that every nation ought to implement exemplary governance. It elucidates the government's capacity to devise and implement sound policies, distribute resources, and provide services efficiently. Good governance is



Advance Journal of Econometrics and Finance

Vol-3, Issue-1, 2025

the mechanism that empowers individuals to select, monitor, hold accountable, and alter their government. Respect for the government and its institutions is essential for a nation's economic advancement. An effective governmental framework enhances the financial performance of enterprises.

The government's ability to formulate and then implement rules and regulations for enhanced development is referred to as regulatory quality. If the quality of government-imposed limits is high, the country will advance towards riches. The contrary occurrence caused the total annihilation of the nation's system. Thus, a positive correlation will exist between financial success and regulatory quality. Due to organizations' accountability to stakeholders for their performance, institutionalism examines the need of institutions' functions outside of market considerations (Campbell, 2007). Li et al. (2016) assert that enterprises in advanced economies are frequently impacted by governmental influence, with regulatory pressure yielding positive effects on these firms. Regulators are tasked with formulating laws, regulations, and ordinances to govern and economy management. Berone et al. (2013) assert that enhanced regulatory limitations elevate a firm's motivation to adopt more responsible practices. Organizations that demonstrate responsible behavior are more inclined to invest in green technologies and consider environmental initiatives. Chen et al. (2005) highlight the impact of ownership structure and regulation on the performance of Chinese security organizations. They claim that performance metrics and government-imposed conditions will exhibit a positive correlation.

The institution's traditional environment comprises government laws, rules, and initiatives. The paramount element for worldwide competitiveness and national growth and development has been discovered (Ahn & York, 2009; Peng, 2010; Ismail et al., 2008). Institutional theory posits that normative influences generally influence innovators and investors. These requests may originate from enterprises or other entities, such as the government (Petzer et al., 2012). According to institutional theory, a robust rule of law framework inside a nation facilitates investment transactions for investors and innovators. The institution's legal environment is fundamentally formed by the regime of law. It denotes the legislation, essential infrastructure, policies, regulations, programs, and services of the government that enhance all facets of economic functioning (North, 1992). Ahn and York (2009) and Fogeel et al. (2006) assert that the rule of law delineates the limit of legal rights protection and enforcement for persons and corporations. The rule of law safeguards property rights, hence cultivating a corporate environment conducive to growth (Hagard et al., 2008). Fogel et al. (2006) assert that it delivers the individual with trust of transaction. Hausman et al. (2005) assert that it confirms the financial stability of the nation.

Calhoun (2011) and Transparency International (2013) define corruption as the use of authority for individual benefit. Juddge et al. (2011) define corruption as the use of administrative power for personal benefit. Investors and innovators are reluctant to invest in a country seen to have pervasive corruption. Corruption diminishes economic performance due to ineffective investments, misallocation of production resources, and heightened transaction costs and uncertainty (Kaufmann & Wei, 2000; Shleifer & Vishny, 1993). Further study has examined the effects of corruption on corporate performance and economic growth, substantiating the notion that corruption influences the economy (Doh et al., 2003; Uhlenbruck et al., 2006; Rodriguez et al., 2006). Kaufman et al. (2011) contend that these six country-level determinants are not independent of one another. For example, a government is deemed effective only if it exhibits political stability, reduced corruption leads to more accountability, and the rule of law diminishes private gain. Transparency International (2010) and the IMF (2011) assert that enhanced governance at the country level augments the financial performance of firms. Developing nations face substantial governance issues that require investigation (Malik et al. 2018; Tahir et al. 2020). Consequently, the researcher selected the sampled counties.

Stewardship and institutional theories propose positive relationship of governance. In this research study, the researcher establishes the following assumptions based on the theories and empirical literature:

H1: The quality of governance contributes to an increase in the value of firms.

Conceptual Frame Work

The purpose of this study is to determine whether there is a correlation between the value of companies and governance at the national level. There are several elements that may be utilized in order to evaluate the quality of governance. These include accountability, political certainty, policies of government, framework of authoritative, Rule of Law, and the ability of governments to battle corruption. The market value, on the other hand, is the dependent variable in this study. As a stand-in for the worth of the company, the Tobins Q (TQ) is utilized.

Independent Variables

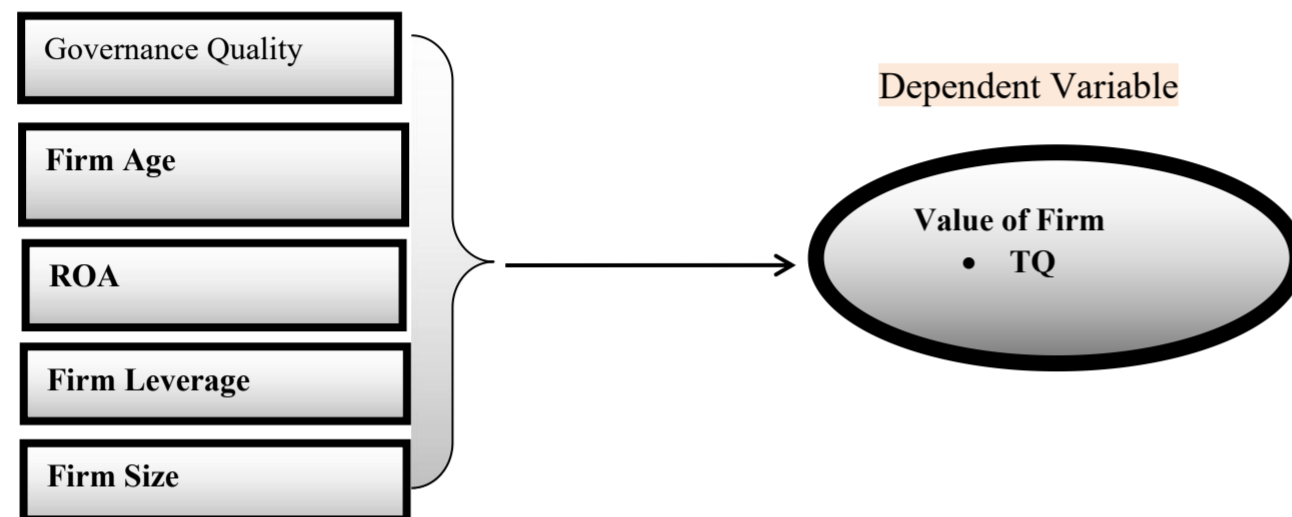


Figure 1: Showing the association between firm value and country governance.

Research Methodology

Data, Sample and Population

In light of the extensive literature review and discourse, the present study is quantitative. The researchers employ the Panel data type. Panel data was obtained from many enterprises throughout various time intervals. The population of this research comprised all non-financial enterprises listed on Pakistani stock exchanges. The study's sample is derived from leading corporations listed on Pakistan's stock exchange. This analysis utilizes a decade of data, spanning from 2014 to 2023. The World Governance Indicator (WGI) and yearly reports serve as the sources for the data related to each indicator..

Variable Explanation

In this particular study, the dependent variable is the valuation of enterprises. The valuation of enterprises in this study is evaluated using Tobin's Q (TQ). Tobin's Q is employed to assess corporate value. Tobin's q is calculated by dividing the replacement cost of all assets (COA) by the product of the market value (MV) of equity and the book value (BV) of debt (Turamari & Hyderabad, 2018; Song et al., 2008; Giannopoulos et al., 2021).

The Tobin's Q ratio was created by Branard and Tobin in 1968. It illustrates the percentage disparity between the intended market value and the replacement value of the existing assets. Lindenbrg & Roas (1981) also Smirrlock et al. (1984) state that the replacement cost of all assets (COA) is divided by the market value (MV) of equity and the book value (BV) of debt to get Tobin's q. The assembly industry has utilized Tobin's q to elucidate several business phenomena. These encompass (a) the distinctions between venture and growth options across various categories, (b) the correlation between value and company valuation, (c) the association between implementation and consequences stemming from the complex proposition, initiation, and nuanced response, and (d) finance, profit, and compensation strategy. Chung and Pruitt (1994).



Advance Journal of Econometrics and Finance

Vol-3, Issue-1, 2025

The Tobin's Q (TQ) is an indicator of organizational market performance, as noted in the references (Jamal et al., 2022; Yu et al., 2018; Ortas et al., 2015; Xie et al., 2018; Pintea et al., 2014).

The independent variable employed in the study is governance quality. Notwithstanding its measurement limitations, the World Bank has been actively engaged in the analysis of governance traits since 1996. This study utilized the World Bank's Governance Index (WGI), which provides extensive data on governance scores across six aggregate dimensions. This document summarizes the definitions of indicators as outlined by De Petrillo et al. (2009).

Voice and accountability: this term denotes how respondents assess the degree to which individuals may openly engage with the press, participate in governmental elections, and access independent media;

The likelihood that violent and terrorist actions violating constitutional requirements might destabilize the government is assessed via political stability. The perspectives of individuals about the quality, efficacy, and autonomy of public services from political interference, together with their aspirations for enhanced policymaking and implementation, are also documented.

Effectiveness of government: The term "government effectiveness" refers to public perceptions of the quality, competency, and autonomy of public services from political interference, together with the principles associated with enhanced policy formulation and implementation.

Regulatory quality measures the state's capacity to formulate and implement effective rules and regulations that foster private sector growth.

The rule of law entails the public's conviction in their capacity to comply with social standards, the safeguarding of private property, the reliability of law enforcement, and the inherent threat of illegal behavior. The corruption control pertains to the degree to which governmental authority is used for personal benefit, encompassing both minor and major corruption.

Numerous politicians, international organizations, and scholars have embraced these governance indicators, initially utilized by Kaufmann et al. (2002) to evaluate governance quality (Dickson et al., 2021; Minghai, Khan et al., 2024; Schulenberg et al., 2020). The indicators, classified into six clusters, were assessed through perception-based research involving diverse entities, including think tanks, non-governmental organizations, governmental bodies, and investment consultant firms.

The researcher also incorporates control factors in this study. Firm size, firm age, firm leverage, and return on assets (ROA) are the control variables in this study work.

Econometric model

This study use the Generalized Method of Moments (GMM), a dynamic panel data estimator, to solve econometric concerns such as autocorrelation, fixed effects, and endogeneity. Generalized Method of Moments (GMM) is frequently employed in the analysis of panel data. This comprehensive estimator is designed for "small T and large N" panels, indicating a limited number of periods and a substantial number of individuals or data. It is also utilized for linear functional connections. Due to the potential emergence of heteroscedasticity following one-step estimations, a two-step GMM estimator is utilized for all estimations in this study.

The following is the study's regression model:

$$TQ_{i,t} = \alpha + \delta_0 TQ_{i,t-1} + \delta_1 GAI_{i,t} + \delta_2 FSI_{i,t} + \delta_3 FAI_{i,t} + \delta_4 ROAI_{i,t} + \delta_5 FLI_{i,t} + \epsilon_{i,t} \quad (1)$$

The first equation (1) illustrates the relationship between governance quality and Tobins Q. The symbols α , δ , and ϵ represent the intercept, coefficient, and error term, of the equation.

HLM (Hierarchical Linear Modeling) is a complex variant of OLS (ordinary least square) regression. HLM is employed to assess the effects of variation in variables when the conjecturer variables operate at varying ordered levels.

The subsequent are the expected models in terms of TQ.

$$TQ = \alpha + \beta_1 GQ + \epsilon_{i,t} \quad (2)$$

$$TQ = \alpha + \beta_1 GQ + \beta_2 FS + \epsilon_{i,t} \quad (3)$$

$$TQ = \alpha + \beta_1 GQ + \beta_2 FS + \beta_3 FA + \epsilon_{i,t} \quad (4)$$

$$TQ = \alpha + \beta_1 GQ + \beta_2 FS + \beta_3 FA + \beta_4 ROA + \epsilon_{i,t} \quad (5)$$

$$TQ = \alpha + \beta_1 GQ + \beta_2 FS + \beta_3 FA + \beta_4 ROA + \beta_5 FL + \epsilon_{i,t} \quad (6)$$

Equation 2 to 6 shows the association between firm value governance quality, size of firm, ROA, age of firm and leverage, β represents the slope, the beta coefficient, whereas $\epsilon_{i,t}$ denotes the error term.

Analysis

Descriptive Analysis

Descriptive statistics offer a detailed and clear representation of data. Descriptive statistics encompass essential components like observation, mean, standard deviation, and minimum and maximum values. Table 1 displays descriptive statistics, offering a succinct summary of the essential characteristics of the variables.

Table 1. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
TQ	900	13.41	8.61	111.91	136.34
GQ	900	4.381	2.19	-1.24	6.87
FS	900	8.03	4.51	2.29	19.74
FA	900	131.79	34.23	101.1	204.67
ROA	900	7.03	.685	5.74	8.74
FL	900	43.63	16.62	13	73

The table represents the descriptive statistics of Pakistan.

Correlation Matrix

This study examines the collinearity across variables using a correlation matrix. Table 2 presents the correlation matrix for Pakistan. All variable correlations are below the 70% level (Greene & Hensher, 2003; Gujarati & Porter, 2010; Khan et al., 2022).

Multicollinearity is not an issue.

Table 2. Pearson Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) TQ	1					
(2) GQ	0.173***	1				
(3) FS	0.721***	-0.024	1			

(4) FA	0.775***	-0.102**	0.893***	1		
(5) ROA	0.097*	0.005	0.094**	0.127***	1	
(6) FL	0.000	0.000	0.000	-0.000	-0.030	1

The coefficients of Pearson correlation among the variables are shown in Table 2, along with the significance levels of each correlation. Table 1 has a description of the variables. Statistically significant values are represented by the symbols ***, **, and *, with 1%, 5%, and 10% meanings, respectively.

Generalized Method of Moments

For the purpose of estimate, this research makes use of the dynamic panel data estimator, often known as the Generalised Method of Moments (GMM).

Table 3 presents the results.

Table 3: Estimation Results for Pakistan

Regressor	Model	Prob: value
L.TQ	-.393***	0.001
GQ	.66**	0.02
FS	.282***	0.00
FA	.28**	0.04
ROA	17.05***	0.02
FL	0.831	0.13
Constant	0.213***	0.00
Year Dummies	NO	
AR(1)	0.027	16.36
AR(2)	0.645	0.36
Hansen	0.16	0.397
No. Of groups	90	-
No. Of instruments	84	-
No of observations	810	-

Table presents the GMM step two results. ***, **and * are significance at 1%, 5% and 10% .

Analysis for HLM

The provided Table 4.33 displays the outcomes of the hierarchical linear model for TQ in Pakistan. Tobin's Q serves as the dependent variable. The f value indicate that all models are statistically significant. The R-squared value for M1 is 0.009, indicating that 0.9% of the overall variance in company value is accounted for by governance quality. The alteration in R-squared for M2 is 0.058, indicating that 5.8% of the overall variance in firm value is elucidated by the variable of firm size in model 2. The alteration in R-squared for M3 is 0.000, indicating that 0% of the overall variance in firm value is elucidated by the model 3 variable, which is firm age. The alteration in R-squared for M4 is 0.456, indicating that 45.6% of the overall variance in firm value is elucidated by the variable of model-4, ROA. The alteration in R2 for M5 is 0.026, indicating that 2.6% of the overall variance in firm value is

elucidated by the variable of model-5, that is firm leverage. Furthermore, the value of P findings indicate that the alteration in P-value for M3 is inconsequential, but the changes for M4, M2, also M5 are at the 1% level significant.

Table 4. The HLM analysis

Variable	Coeff	S.E	P
Model-1			
GQ	-0.001**	0.002	0.013
Model-2			
GQ	-0.002**	0.020	0.036
FS	0.021***	0.040	0.0001
Model-3			
GQ	-0.002**	0.003	0.018
FS	0.006***	0.0002	0.000
FA	-0.0256	0.0045	0.946
Model-4			
GQ	0.0006	0.005	0.963
FS	0.004***	0.003	0.0002
FA	0.003	0.007	0.283
ROA	-0.380***	0.062	0.0000
Model-5			
GQ	0.002	0.005	0.700
FS	0.002***	0.001	0.0005
FA	0.002*	0.005	0.08
ROA	-0.397***	0.032	0.0001
FL	-0.006***	0.004	0.0002

Review of the models

Model	R	F	df	P	Change-R2	F(variation)	Df(variation)	P-variation
1	0.009	2.36*	1,268	0.104				
2	0.069	11.69***	2,279	0.001	0.058	17.53	1,295	0.001****
3	0.068	7.65***	3,286	0.004	0.0001	0.007	1,298	0.928
4	0.514	76.46***	4,297	0.006	0.456	69.44	1,297	0.002 ***
5	0.537	65.87***	5,296	0.007	0.026	13.97	1,296	0.005 ***

This table presents the results of hierarchical linear modeling (HLM) for TQ. The value of P for each value is presented beside its significance level.

*** at the 1%, ** at 5%, * at 10%.



Advance Journal of Econometrics and Finance

Vol-3, Issue-1, 2025

Discussion on Results

The observed results for Pakistan are illustrated in Table 3. The results indicate the statistical significance of the F-statistics for each variable. The finding reveals that a positive coefficient for governance quality signifies an enhancement in the value of enterprises operating in Pakistan.

The advantageous impact of GQ on TQ further corroborates stakeholder theory. According to stakeholder theory, the company's long-term value is enhanced by optimal actions and performance. This enhances investors' views, leading to increased demand for the firms' shares, elevating the share price and fostering economic growth. The subsequent studies (Nebojša et al., 2020; Paitoon & Panawong, 2023) validate this conclusion. Strategic and effective governmental regulations may enhance competitiveness, reduce transaction costs, augment trade, and elevate productivity—key factors that drive economic progress and the nation's remarkable governance standards (Selvamani et al., 2023).

Weber (2008) asserts that the quality of governance influences organizational growth. These results correspond with a significant body of previously established empirical study findings (Abdullahi et al., 2019; Khyareh & Amini, 2021). It shows that Pakistan's economy and enhanced governance are being impeded by governance effectiveness. The outcomes of the HLM study specify that governance quality contributes to a minimal change in the value of enterprises operating in Pakistan. Inadequate systems to combat corruption, ineffective administrations, and challenges in the proper enforcement of the law have all been shown to exert a diminished impact on business value. The findings of Dahir et al. (2018) and Megaravalli and Sampagnaro (2018) shown a consistent effect of governance on corporate value.

Furthermore, Table 3 indicates the existence of negative 1st-order serial correlation AR(1), but no 2nd-order serial correlation was detected, as per the examination of second-order serial correlation AR(2). The Hansen test results indicate no possible association amongst the error term and the instruments, suggesting that the instruments are valid and the null hypothesis cannot be rejected for any variable. Furthermore, it indicates that there are 90 groups and 84 instruments.

Conclusion

This research examines the influence of country-level governance on the company value in Pakistan from 2014 to 2023. This analysis adds to the literature by utilizing country-level governance traits as a replacement of firm-level ones. Generalized Method of Moments (GMM) and Hierarchical Linear Modeling (HLM) were employed in this study to examine panel data. According to Pakistan's empirical data, it can be asserted that governance aspects in the nation enhance the value of firms operating inside its borders. The outcomes of the current research study have significant implications for enterprises, potential and existing local and foreign investors, management, shareholders, and regulators. The GMM results indicated that governance quality enhances the firm value of Pakistani enterprises. The conclusions of the HLM study indicate that governance quality induces a minimal change in the value of enterprises operating in Pakistan. The local and international entities that may benefit from the macro variables must also be aware of this information. The findings of this study aid shareholders and investors in determining whether to invest based on macroeconomic factors. It seems logical that inferior governance is generally linked to developing countries. Developing nations must emphasize enhancing their governance standards to elevate their status. Consequently, developing nations have to implement various macroeconomic policies to enhance governance standards, ensure legal independence from political influence, and strengthen corruption control measures. Enhancements in a nation's governance quality indirectly attract additional investors, hence increasing the value of stock firms. Future studies should also explore more macroeconomic factors. This will assist in elucidating how macroeconomic variables with complex relationships influence governance quality. Additional investigation of the impact of governance variables on foreign direct investment is recommended. Future investigations into the mediating and intervening variables alongside macroeconomic concerns are also advised.



Advance Journal of Econometrics and Finance

Vol-3, Issue-1, 2025

References

- Barros, C. P., Boubaker, S., & Hamrouni, A. (2013). Corporate governance and voluntary disclosure in France. *Journal of Applied Business Research (JABR)*, 29(2), 561-578.
- Baysinger, B. D., & Butler, H. N. (2019). Corporate governance and the board of directors: Performance effects of changes in board composition. In *Corporate governance* (pp. 215-238). Gower.
- Belkhir, M., Boubaker, S., & Derouiche, I. (2014). Control–ownership wedge, board of directors, and the value of excess cash. *Economic Modelling*, 39, 110-122.
- Breuer, W., Müller, T., Rosenbach, D., & Salzmann, A. (2018). Corporate social responsibility, investor protection, and cost of equity: A cross-country comparison. *Journal of Banking & Finance*, 96, 34-55.
- Broadstock, D. C., Chan, K., Cheng, L. T., & Wang, X. (2021). The role of ESG performance during times of financial crisis: Evidence from COVID-19 in China. *Finance research letters*, 38, 101716.
- Calomiris, C. W., & Carlson, M. (2016). Corporate governance and risk management at unprotected banks: National banks in the 1890s. *Journal of financial economics*, 119(3), 512-532.
- Claessens, S., & Yurtoglu, B. B. (2013). Corporate governance in emerging markets: A survey. *Emerging markets review*, 15, 1-33.
- Dey, A. (2008). Corporate governance and agency conflicts. *Journal of accounting research*, 46(5), 1143-1181.
- Donaldson, T., & Preston, L. E. (1995). The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of management Review*, 20(1), 65-91.
- Eskeland, G. S., & Harrison, A. E. (2003). Moving to greener pastures? Multinationals and the pollution haven hypothesis. *Journal of development economics*, 70(1), 1-23.
- Friedman, M. (1970). The Social Responsibility of Business is to Increase its Profits, *The New York Times Magazine*, September, 33.
- Garcia, A. S., Mendes-Da-Silva, W., & Orsato, R. J. (2017). Sensitive industries produce better ESG performance: Evidence from emerging markets. *Journal of cleaner production*, 150, 135-147.
- Gerged, A. M., Beddewela, E., & Cowton, C. J. (2021). Is corporate environmental disclosure associated with firm value? A multicountry study of Gulf Cooperation Council firms. *Business Strategy and the Environment*, 30(1), 185-203.
- Ghosh, B., Basit, A., & Hassan, Z. (2017). impact of corporate social responsibility on financial performance: a study on manufacturing companies listed in london stock exchange (lse)-uk.
- Goyal, P., Rahman, Z., & Kazmi, A. A. (2013). Corporate sustainability performance and firm performance research. *Management Decision*, 51(2), 361–379. <https://doi.org/10.1108/00251741311301867>.
- Gray, W. B., & Shadbegian, R. J. (1993). *Environmental regulation and manufacturing productivity at the plant level* (No. w4321). National Bureau of Economic Research.
- Gupta, A. K., & Gupta, N. (2020). Effect of corporate environmental sustainability on dimensions of firm performance–Towards sustainable development: Evidence from India. *Journal of cleaner production*, 253, 119948
- Hillman, A. J., & Keim, G. D. (2001). Shareholder value, stakeholder management, and social issues: what's the bottom line?. *Strategic management journal*, 22(2), 125-139.



Advance Journal of Econometrics and Finance

Vol-3, Issue-1, 2025

- Iatridis, G. E. (2013). Environmental disclosure quality: Evidence on environmental performance, corporate governance and value relevance. *Emerging Markets Review*, 14, 55-75.
- Ingram, R. W., & Frazier, K. B. (1980). Environmental performance and corporate disclosure. *Journal of accounting research*, 614-622.
- Jensen, M., & Meckling, W. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3(4): 305-360.
- Jin, T. T., & Zailani, S. (2010). Antecedent and outcomes study on green value chain initiatives: a perspective from sustainable development and sustainable competitive advantage. *International Journal of Value Chain Management*, 4(4), 319-364.
- Kim, B., Chang, Y., & Kim, T. (2023). Translating corporate social responsibility into firm value: Exploring roles of work engagement and strategic coherence. *Corporate Social Responsibility and Environmental Management*. Portico. <https://doi.org/10.1002/csr.2502>
- Li, X., & Olorunniwo, F. (2008). An exploration of reverse logistics practices in three companies. *Supply Chain Management: An International Journal*.
- Li, Y., Gong, M., Zhang, X. Y., & Koh, L. (2018). The impact of environmental, social, and governance disclosure on firm value: The role of CEO power. *The British Accounting Review*, 50(1), 60-75.
- Limkriangkrai, M., Koh, S., & Durand, R. B. (2017). Environmental, social, and governance (ESG) profiles, stock returns, and financial policy: Australian evidence. *International Review of Finance*, 17(3), 461-471.
- Lu, W., & Taylor, M. E. (2016). Which factors moderate the relationship between sustainability performance and firm value? A meta-analysis study. *Journal of International Accounting Research*, 15(1), 1–15. <https://doi.org/10.2308/jiar-51103>.
- Margolis, J. D., & Walsh, J. P. (2003). Misery loves companies: Rethinking social initiatives by business. *Administrative science quarterly*, 48(2), 268-305.
- Miralles-Quirós, M., Miralles-Quirós, J., & Valente Gonçalves, L. (2018). The value relevance of environmental, social, and governance performance: The Brazilian case. *Sustainability*, 10(3), 574.
- Mohammad, W. M. W., & Wasiuzzaman, S. (2021). Environmental, Social and Governance (ESG) disclosure, competitive advantage and performance of firms in Malaysia. *Cleaner Environmental Systems*, 2, 100015.
- Muslichah, M. (2020). The effect of environmental, social disclosure, and firm value on firm value. *Jurnal Akuntansi dan Auditing Indonesia*, 24(1), 22-32.
- Ochiri, G., Wario, G., Odhiambo, R., & Arasa, R. (2015). Effects of waste reduction strategy on firm performance: A survey of publishing firms in Kenya.
- Orlitzky, M. (2013). Corporate social responsibility, noise, and stock market volatility. *Academy of Management Perspectives*, 27(3), 238-254.
- Ortas, E., Álvarez, I., & Garayar, A. (2015). The environmental, social, governance, and firm value effects on companies that adopt the United Nations Global Compact. *Sustainability*, 7(2), 1932-1956.
- Sadiq, M., Singh, J., Raza, M., & Mohamad, S. (2020). The impact of environmental, social and governance index on firm value: evidence from Malaysia. *International Journal of Energy Economics and Policy*, 10(5), 555.
- Sadorsky, P. (2010). The impact of financial development on energy consumption in emerging economies. *Energy policy*, 38(5), 2528-2535.
- Sahut, J. M., & Pasquini-Descomps, H. (2015). ESG impact on market performance of firms: International evidence. *Management international/International Management/Gestión Internacional*, 19(2), 40-63.



Advance Journal of Econometrics and Finance

Vol-3, Issue-1, 2025

- Seto-Pamies, D. (2015). The relationship between women directors and corporate social responsibility. *Corporate Social Responsibility and Environmental Management*, 22(6), 334–345. <https://doi.org/10.1002/csr.1349/>.
- Shahbaz, M., Shahzad, S. J. H., Ahmad, N., & Alam, S. (2016). Financial development and environmental quality: the way forward. *Energy Policy*, 98, 353-364.
- Shakil, M. H., Mahmood, N., Tasnia, M., & Munim, Z. H. (2019). Do environmental, social and governance performance affect the firm value of banks? A cross-country study of emerging market banks. *Management of Environmental Quality: An International Journal*.
- Shrivastava, M., & Tamvada, J. P. (2019). Which green matters for whom? Greening and firm performance across age and size distribution of firms. *Small Business Economics*, 52(4), 951-968.
- Tadesse, S. A. (2005). Financial development and technology. *Available at SSRN 681562*.
- Tamazian, A., & Rao, B. B. (2010). Do economic, financial and institutional developments matter for environmental degradation? Evidence from transitional economies. *Energy economics*, 32(1), 137-145.
- Van Essen, M., Engelen, P. J., & Carney, M. (2013). Does “Good” corporate governance help in a crisis? The impact of country-and firm-level governance mechanisms in the European financial crisis. *Corporate governance: an international review*, 21(3), 201-224.
- Xie, J., Nozawa, W., Yagi, M., Fujii, H., & Managi, S. (2019). Do environmental, social, and governance activities improve corporate firm value?. *Business Strategy and the Environment*, 28(2), 286-300.
- Yuxiang, K., & Chen, Z. (2011). Financial development and environmental performance: evidence from China. *Environment and Development Economics*, 16(1), 93-111.
- Zhang, Y. J. (2011). The impact of financial development on carbon emissions: An empirical analysis in China. *Energy policy*, 39(4), 2197-2203.