

## How the External Governance Mechanisms Affect the Market Related Performance Measures: Evidence from Non-Financial Firms Listed on Pakistan Stock Exchange

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Keywords	Abstract
External Governance, Market Performance, Non-Financial Firms, Pakistan.	<i>The paper assesses the relationship between the governance indicators and the market-related performance in Pakistan between 2009 and 2022. The sample comprised 184 publicly listed companies. STATA was used to analyze the association between the variables. The findings suggest that the control of corruption and quality of regulations is positively and significantly correlated with performance. The study results imply that some governance indicators contribute to the performance of firms, whereas others have negative effects on it. Being an inquiry in the Pakistani setting, the study provides valuable insights by studying the effects of external governance on performance as a performance measure of the market. In the future, research should carry out cross-country comparisons and provide a more in-depth analysis of the relationship among the variables under study.</i>

### INTRODUCTION

Corporate performance is essentially connected to shareholder and stakeholder value and is also the basis of the credibility of a firm. When operations of a company are in line with the interests of the shareholders, corporate performance is enhanced (Susanti *et al.*, 2019). As a concept, corporate governance is known as a phenomenon of the alignment of the objectives of the managers and the shareholders (Rezaee, 2007). The principal-agent relationship is characterized by agency conflicts, which can be eliminated by the mechanisms of institutional ownership (Jensen & Meckling, 1976). Good corporate governance systems enable companies to supervise managerial activities, which reduces agency costs; decreases the costs involved, and eventually enhances the value of the firm (Hussain *et al.*, 2019; Almashhadani & Almashhadani, 2022).

According to Stewardship theory, there is a positive correlation between stewards and performance, and bigger boards have an opportunity to improve performance by bringing in various knowledge, expertise, and experience (Bhat *et al.*, 2018). There are multiple levels of determinants of corporate performance. Scholars identified two major governance mechanisms: the internal mechanisms that are within the direct control of a firm, and external mechanisms that are economy-wide factors that a firm cannot control (Gillan, 2006; Rezaee, 2007; Brown *et al.*, 2011). Some studies have also shown that a combination of internal and external tools is more effective in the measurement of performance compared to either of the two considered independently (Cremers & Nair, 2005). The two mechanisms jointly are capable of increasing investment opportunities and limiting managerial rent-seeking, which is not possible with only one mechanism (Acharya, 2011). If the external governance mechanism is strong, then it will

cause reduction in the conflict of interest between managers and shareholders, which is true under agency theory. Therefore, this research paper seeks to assess the relationship between external means of governance and corporate performance.

Strong governance systems also provide easier access to capital and enhanced confidence of investors (Rajagopalan & Zhang, 2008). These practices add value to firms by minimizing the asymmetry of the information between owners and resource managers (Johl *et al.*, 2016). Although there is a lot of research on the specific governance variables of firms, this research is based on country-level governance indicators, which have a wider scope regarding the performance of firms. These are external variables, which individual firms have little control over and therefore have a great impact. The presence of effective external governance can minimize the conflict of interest and enhance investor confidence, which would provide useful information to regulators, investors, and policymakers. The literature in the past shows conflicting results concerning the connection between external governance and market-based performance measures. This study contributes by employing the market-to-book ratio, a forward-looking market-based measure, in contrast to prior studies that relied primarily on accounting-based performance metrics. This provides a viewpoint that is more aligned towards market efficiency. Earlier studies only considered the accounting-base performance measure, but this study takes into consideration the market-related performance measure. According to the institutional theory, companies are not only focused on economically efficient mechanisms but also consider the laws and regulations, social values and norms, and the practices of other organizations.

## **LITERATURE REVIEW**

The correlation between the governance level in countries and the performance of stock markets has been thoroughly studied. Using the panel data approach covering 2006-2017. Modugu and Dempere (2020) concluded that the performance of stock markets was positively correlated with the rule of law and political stability and negatively linked with the quality of regulation and voice and accountability. Raithatha and Haldar (2021) also studied the same relationship between 2008 and 2011 based on data from 500 large firms.

The study of Klapper and Love (2004) states that Country-level governance plays an important role in enhancing the value of the companies. If the governance system is strong, then it will reduce the agency problems and protect the rights of investors and enhance the performance of companies. Companies that operate with good governance systems, such as good regulatory quality and rule of law, show higher performance measures. Due to this, investors are willing to pay a premium price and reduce their risk. If the external governance system is weak, then it will lead to lower market value. Puni and Anlesinya (2020) reviewed 38 companies between 2006 and 2018 in the Ghanaian context and found that the insider and outsider directors and board composition factors had a positive impact on performance. Positive effects were also observed on board meetings, shareholder concentration, and board size, but negative effects were observed on board committees. The duality of CEOs was not found to affect it.

Shedding light on the case of Pakistan, Aziz and Akhtar (2024) examined how external governance influences the efficiency of firms in the period between 2009 and 2020. They found that most of their governance indicators were negatively related, with the exception of voice and

accountability and rule of law, which had a positive and significant relationship with efficiency. Dharmastuti and Wahyudi (2013) compared the mechanisms between 2007 and 2010 and found that external corporate governance was more impactful on the performance rather than internal mechanisms, which were not significant. They pointed out that there is a need to strike a balance between the two. On the other hand, Low *et al.* (2011) in their study using data between the years 2002 and 2008 identified a negative relationship between stock market returns and the quality of governance. They claimed that markets of lower governance quality require high returns to cover high risk. Aziz and Akhtar (2024) support the fact that external governance mechanisms are significantly interrelated with corporate performance. In earlier studies, market-related performance measures have not been used in the analysis, and this study focuses on market-related performance measures and country-level governance variables.

## DATA, VARIABLES AND METHODOLOGY

The sample size of the study included non-financial Pakistani Stock Exchange-traded firms. The dependent variable, market-to-book ratio, used data that was provided in annual reports, whereas the independent variables were obtained from World Bank Governance Indicators (WBGI). The time frame of the research is 2009-2022. A sample of 184 companies was selected for analysis. The “panel least squares” methodology was used in the analysis, and the option of fixed and random effects was taken based on the Hausman test.

### Variables of the Study

The following Table 1 describes the variables measurement.

**Table 1: Variables Measurements**

Variable	Operationalization/Measurements
<i>Dependent Variables</i>	
Market to Book Ratio	Market Capitalization/Book Value of equity
<i>Explanatory Variables</i>	
<i>External Governance Measures</i>	
Voice and Accountability	The extent to which country’s citizens can take part in choosing the government, in addition to the degree of freedom of expression and media.
Political Stability	Chances of instability of political or violence which is to be motivated by political factors and includes terrorism.
Government Effectiveness	Public services quality, autonomy and efficiency of the civil service, independence from political pressure, effectiveness of formulation of policy and its implementation and the government’s integrity regarding these policies.
Regulatory Quality	Ability of the government to create and implement effective policies and regulations that promote the growth of private sector.
Rule of Law	Trust of individuals and compliance with societal rules, with an emphasis on enforcement of contract, property rights protection, law enforcement performance and judicial system and the risk of violence and crime.
Control of Corruption	Use of public authority for personal gain, which includes minimal and major corruption, along with impact of the elites and personal interest on state functions.

## Econometric Model

To represent the association between external governance and the market-to-book ratio, the following econometric model was developed by considering the above variables.

$$Performance = \beta_0 + \beta_1 EXTGOV + \varepsilon_{it}$$

$$MBR_{it} = \beta_0 + \beta_1 VA_{it} + \beta_2 PS_{it} + \beta_3 GE_{it} + \beta_4 RQ_{it} + \beta_5 RL_{it} + \beta_6 CC_{it} + \varepsilon_{it}$$

Where

t= 1, 2 ...14 (2009 to 2022), and i= 1, 2... 184 (company 1 to 184).

MBR = Market to book ratio

VA= Voice and Accountability

PS = Political Stability

GE = Government Effectiveness

RQ = Regulatory Quality

CC= Control of Corruption

RL = Rule of Law

## FINDINGS AND DISCUSSION

**Table 2: Descriptive Statistics**

Variable	Obs.	Mean	Std. Dev.	Min	Max
MBR	2576	2.0969	8.6619	-88.0006	120.0851
VA	2576	-0.8016	0.0637	-0.8802	-0.6934
PS	2576	-2.3705	0.3251	-2.8100	-1.7137
GE	2576	-0.6818	0.1064	-0.8179	-0.4384
RQ	2576	-0.6725	0.0785	-0.8864	-0.5784
CC	2576	-0.9041	0.1156	-1.0877	-0.7797
RL	2576	-0.7594	0.0813	-0.9018	-0.6585

The above table shows that the market-to-book ratio (MBR) varies from -88.0006 to 120.0851. VA varies from -0.88 to -0.69. PS shows the low value from -2.81 to -1.71. The minimum value of RL is -0.9018 and the higher value is -0.6585. The highest and lowest values of GE are -0.8179 and -0.4384.

**Table 3: Correlation Matrix**

	MBR	VA	PS	GE	RQ	CC	RL
MBR	1						
VA	0.0796	1					
PS	0.0119	-0.3170	1				
GE	0.0428	-0.0458	0.5900	1			
RQ	0.0405	0.4048	-0.5511	-0.3805	1		

CC	0.0750	0.2948	0.6141	0.5592	-0.3188	1	
RL	0.0324	-0.1420	0.5172	0.5785	-0.2949	0.4299	1

The correlation matrix shows that all the above variables are not correlated with each other. Multicollinearity can exist between variables when the correlation is 0.90 (Gujarati, 2003).

**Table 4: VIF (Variance Inflation Factor)**

Variable	VIF	1/VIF
ps	9.16	0.109130
cc	6.04	0.165636
rl	4.77	0.209485
va	3.05	0.328033
rq	2.57	0.388671
fs	1.09	0.914536
<b>Mean VIF</b>	<b>4.45</b>	

### Regression Analysis

The relationship between independent and dependent variables was tested through regression analysis to determine whether the relationship is significant or insignificant and to ascertain its direction (positive or negative).

**Table 5: Results of Regression**

Variables	Coefficients	Std. Error	Z	Prob.
C	12.6362	4.9608	2.55	0.011
VA	2.4682	4.112	0.60	0.548
PS	-0.7839	2.2164	-0.35	0.724
GE	2.5440	4.097	0.62	0.535
RQ	5.6282	3.3643	1.67	0.094*
CC	7.5230	2.9042	2.59	0.010***
RL	-2.5046	3.7587	-0.67	0.505

Dependent Variable: Market to Book Ratio (MBR)\*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.10$

Table 5 shows the results of regression analysis, which shows whether the relationship between MBR and independent variables is positive or negative, as well as describes the level of significance of the relationship between the variables. The table shows that the performance measure is significantly and positively linked with regulatory quality and control of corruption, while the relationship of the market performance measure with the remaining variables is insignificant.

### Discussion

Freedom of association, freedom of speech, social media freedom, control of corruption, and regulatory quality translate into the performance of companies. The findings of the study are congruent with institutional theory because media freedom, regulatory quality, and civil liberty decrease the uncertainty and also reduce agency problems. Due to this, there is an increase in investors' trust in the companies, which ultimately increases the market valuation. The findings

confirm the findings of Hu *et al.* (2021) and Farooq *et al.* (2022). The relationship between performance of companies and the control of corruption and regulatory quality is positive. These findings are matched with the studies of Savari (2023), Modugu & Dempere (2020), and Boadi & Amegbe (2017). If the governance system is strong, then it will increase the regulatory quality and protect the interests of minority shareholders, which ultimately positively impact the performance of companies. In Pakistan, the institutional context, regulatory quality, and control of corruption play an important and significant role compare to other variables.

## CONCLUSION

This study examined whether external governance variables affect the market-related performance measures of the companies. The results show that governance variables of regulatory quality and control of corruption are positively associated. Therefore, it shows that external governance mechanisms positively affect the performance of companies, and following these external governance variables enhances the performance of companies. Policy makers and regulators should implement effective regulatory reforms to increase the performance of firms. The study tells that not all governance variables are equally important.

## Limitations and Recommendations

This study used the data from 14 years. Future research can be done by taking the period of study greater than 14 years for better results. The study also used only one dependent variable; other researchers can use more than one dependent variable for more robust results. The data used in the study were collected from the Pakistani firms; therefore, these results are only applicable to Pakistan. Researchers should study data from different countries and conduct a comparative study.

**Note:** This article is part of my PhD dissertation, which I have already defended.

**Acknowledgement:** I acknowledged all those who supported me in the completion of this study.

**Conflict of Interests:** The authors declare that no competing interests exist.

**Funding Information:** This research received no specific grant from any funding agency in the government, commercial, or not-for-profit sectors.

## REFERENCES

- Acharya, V. V., Myers, S. C., & Rajan, R. G. (2011). The Internal Governance of Firms. *The Journal of Finance*, 66(3), 689-720. <https://doi.org/10.1111/j.1540-6261.2011.01649.x>
- Almashhadani, M., & Almashhadani, H. A. (2022). Does Corporate Governance Improve Corporate Profitability: Reviewing the Role of Internal Corporate Governance Mechanisms. *International Journal of Business and Management Invention*, 11(6), 07-11. DOI: 10.35629/8028-1106030711
- Aziz, S., & Akhtar, S. (2024). Impact of External Governance Mechanisms on Firms' Efficiency: Evidence from Non-Financial Firms Listed on Pakistan Stock Exchange. *South Asian Review of Business and Administrative Studies (SABAS)*, 6(1), 13-18. <https://doi.org/10.52461/sabas.v6i1.3103>
- Bhat, K. U., Chen, Y., Jebran, K., & Bhutto, N. A. (2018). Corporate Governance and Firm Value: A Comparative Analysis of State and Non-State Owned Companies in the Context

- of Pakistan. *Corporate Governance: The International Journal of Business in Society*, 18(6), 1196-1206. <https://doi.org/10.1108/CG-09-2017-0208>
- Brown, P., Beekes, W., & Verhoeven, P. (2011). Corporate Governance, Accounting and Finance: A Review. *Accounting & Finance*, 51(1), 96-172. <https://doi.org/10.1111/j.1467-629X.2010.00385.x>
- Boadi, I., & Amegbe, H. (2017). The Link between Quality of Governance and Stock Market Performance: International Level Evidence. *European Journal of Government and Economics*, 6(1), 78-101. <https://doi.org/10.17979/ejge.2017.6.1.4324>
- Cremers, K. M., & Nair, V. B. (2005). Governance Mechanisms and Equity Prices. *The Journal of Finance*, 60(6), 2859-2894. <https://doi.org/10.1111/j.1540-6261.2005.00819.x>
- Dharmastuti, C., & Wahyudi, S. (2013). The Affectivity of Internal and External Corporate Governance Mechanisms towards Corporate Performance. *Research Journal of Finance and Accounting*, 4(4), 132-139. <https://www.iiste.org/Journals/index.php/RJFA/article/view/4986>
- Farooq, U., Tabash, M. I., Al-Rdaydeh, M., & Al-Faryan, M. A. S. (2022). Measuring the Impact of Country-Level Governance on Corporate Investment: A New Panel Data Evidence. *Global Business Review*, 09721509221112993. <https://doi.org/10.1177/09721509221112993>
- Gillan, S. L. (2006). Recent Developments in Corporate Governance: An Overview. *Journal of Corporate Finance*, 12(3), 381-402. <https://doi.org/10.1016/j.jcorpfin.2005.11.002>
- Hussain, S., Ahmad, T., & Hassan, S. (2019). Corporate Governance and Firm Performance Using GMM. *International Journal of Information, Business and Management*, 11(2), 300-316. <https://ijibm.elitehall.com/index4.htm>
- Hu, Q., Zhu, T., Lin, C. L., Chen, T., & Chin, T. (2021). Corporate Social Responsibility and Firm Performance in China's Manufacturing: A Global Perspective of Business Models. *Sustainability*, 13(4), 2388. <https://doi.org/10.3390/su13042388>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3(4), 305-360. [https://doi.org/10.1016/0304-405x\(76\)90026-x](https://doi.org/10.1016/0304-405x(76)90026-x)
- Johl, S., Khan, A., Subramaniam, N., & Muttakin, M. (2016). Business Group Affiliation, Board Quality and Audit Pricing Behaviour: Evidence Based on Indian Companies. *International Journal of Auditing*, 20(2). <https://doi.org/10.1111/ijau.12061>
- Klapper, L. F., & Love, I. (2004). Corporate Governance, Investor Protection, and Performance in Emerging Markets. *Journal of Corporate Finance*, 10(5), 703-728. [https://doi.org/10.1016/S0929-1199\(03\)00046-4](https://doi.org/10.1016/S0929-1199(03)00046-4)
- Low, S. W., Kew, S. R., & Tee, L. T. (2011). International Evidence on the Link between Quality of Governance and Stock Market Performance. *Global Economic Review*, 40(3), 361-384. <https://doi.org/10.1080/1226508X.2011.601646>
- Modugu, K. P. & Dempere, J. M. (2020). Country-Level Governance Quality and Stock Market Performance of GCC Countries. *Journal of Asian Finance, Economics, and Business*, 7(8), 185-195. <https://doi.org/10.13106/jafeb.2020.vol7.no8.185>

- Puni, A., & Anlesinya, A. (2020). Corporate Governance Mechanisms and Firm Performance in a Developing Country. *International Journal of Law and Management*, 62(2), 147-169. <https://doi.org/10.1108/ijlma-03-2019-0076>
- Raithatha, M., & Haldar, A. (2021). Are Internal Governance Mechanisms Efficient? The Case of a Developing Economy. *IIMB Management Review*, 33(3), 191-204. <https://doi.org/10.1016/j.iimb.2021.08.004>
- Rajagopalan, N., & Zhang, Y. (2008). Corporate Governance Reforms in China and India: Challenges and Opportunities. *Business Horizons*, 51(1), 55-64. <https://doi.org/10.1016/j.bushor.2007.09.005>
- Rezaee, Z. (2007). *Corporate Governance Post-Sarbanes-Oxley: Regulations, Requirements, and Integrated Processes*. John Wiley & Sons.
- Savari, Z., Rostami, M. R., Fallah Shams, M., & Jamali, J. (2023). Regulatory Quality, Rule of Law and Stock Market Performance: A System GMM Approach. *International Journal of Nonlinear Analysis and Applications*, 14(6), 211-220.
- Susanti, N., Affandi, A., & Herwany, A. (2019). Implications of Ownership Structure on Firm Value with Financial Decision as Intervening Variable (State-Owned Enterprise Sector of Indonesia Stock Exchange). *International Journal of Innovation, Creativity and Change*, 9(12), 347-363. <https://www.ijicc.net/index.php/ijicc-editions/2019/134-vol-9-iss-12>