Journal of Social Sciences Review (JSSR) DOI: https://doi.org/10.54183/jssr.v3i1.188

How to Cite This Article: Hanif, M., Khan, Y., Jamal, S., Gul, S., & Zeeshan, M. (2023). Role of Corporate Governance in Industries Facing Difference Levels of Competition: Empirical Evidence from Pakistan. *Journal of Social Sciences Review*, 3(1), 639-658. https://doi.org/10.54183/jssr.v3i1.188

Role of Corporate Governance in Industries Facing Difference Levels of Competition: Empirical Evidence from Pakistan

Muhammad Hanif	PhD Scholar, COMSATS University Islamabad, Pakistan.
Yousaf Khan	PhD Scholar, National University of Modern Languages, Islamabad/Peshawar, Pakistan.
Surayya Jamal	Abdul Wali Khan University Mardan, KP, Pakistan.
Samina Gul	Assistant Professor, Women University Swabi, KP, Pakistan.
Muhammad Zeeshan	PhD Scholar, College of Business Administration, Liaoning Technical University, Liaoning, XingCheng, China.

Vol. 3, **No.** 1 (Winter 2023)

Pages: 639 – 658

ISSN (Print): 2789-441X

ISSN (Online): 2789-4428

Key Words

Corporate Governance, Product Competition, Firm value, Fixed Effects, Pakistan

Corresponding Author:

Muhammad Hanif

Email: mhanif454@yahoo.com

Abstract: *The purpose of this study is to figure out the role of corporate governance in competitive industries and its impact along with product market competition on firm's value. The sample of this study is obtained from the PSX-100 index, containing fifty-two non-financial firms from 2009 to 2018. This study documents the complementary association between competition in the product market and governance mechanisms. It concludes that good governance in Pakistani firms improves the value of the firm only in highly competitive industries, largely through mitigating the agency problem of empire-building. These findings are robust by employing alternate measures of sample division, firm governance structure, regression specifications, and ownership structure. Policymakers are required to focus governance policies mainly on the firms in highly competitive industries to get maximum progress. Moreover, they also need to improve anti-trust laws to increase the level of competition in all industries in the context of Pakistan.*

Introduction

Corporate governance is a check and balance system for corporations composed of internal (firm related e.g. board, ownership structure, financial disclosure, etc.) as well as external (market-related e.g. legal infrastructure, market for corporate control, product market competition, etc.) governance mechanisms (Bebchuk et al., 2009; Tariq & Abbas, 2013). These mechanisms are mutually dependent, and their proper use and control decreases managerial slack and enhances the firm value (Dittmar et al., 2003; Durnev & Kim, 2005).

The recent empirical literature has identified that product market competition is an important external governance mechanism that affects internal mechanisms of governance and improves firm value. For example, product market competition (PMC) as a substitute for internal governance mechanism has been examined in previous studies (Allen & Gale, 2000). They compared board supervisory mechanisms of UK and US firms with Japanese firms, and found that Japanese firms, such as Toyota and Honda have larger boards, fewer independent directors, and lesser takeovers

attempt compared to similar companies in the UK and the US. Despite the lack of board supervisory mechanisms, Japanese companies are more profitable, and produce cheaper products of high quality. Moreover, they also recognized that firms with weak board monitoring can compete with firms having a relatively stronger board, and can earn a high return. These success stories of Japanese firms explain that conventional corporate governance is not the only disciplinary mechanism for achieving strong performance. The product market competition also has a disciplinary effect on governance mechanisms as it contributes to eradicate bad management practices, and in enhances the firm, s value.

Hart (1983), in the model suggested that in competitive industries, the managerial performance of one firm is a constant comparison with other companies in the market regarding their firms' costs. Therefore, when the cost of one firm decreases so do those of the others in the industry too. Otherwise, the company's market share will be reduced leading to the liquidation of the business. In the event of liquidation, if managers were found guilty of negligence, could hurt the manager's professional reputation, and can be even found. Therefore, managers are pressurized to focus on maximizing shareholders' wealth. Thus, in competitive industries, the managerial performance of poorly governed firms can be improved using competitive pressure. On the other hand, in the absence of risk pressure of liquidation in non-competitive industries, managers take value-destroying investment decisions and launch only those projects which are beneficial for their utility maximization. The managerial response to incentives above a certain level is low (Zeeshan et al., 2022). However, Scharfstein (1988), and Schmidt (1997) alternatively assumed that managers do respond to the income above a substantial level if optimal incentive schemes are offered, the manager will strive to reduce cost and avoid liquidation. The optimal incentive schemes could replace the monitoring of managers. Consequently, corporate governance (CG) and product market competition could work in parallel to improve the value of the firm (Huang and Peyer (2010).

Previous studies' findings on developed markets are consistent with the argument that in non-competitive industries, corporate governance has a disciplinary role due to the absence of competitive pressure in these industries (Ammann et al., 2013a; Khan et al., 2022). These findings affirm that corporate governance and product market competition are substitutes that affect firm value in this way. On the other hand, evidence from emerging markets such as Liao et al. (2017), from China is in sharp contrast with this argument. The study suggested that product market competition and corporate governance is having a complementary effect, and termed this effect has been more pronounced in industries where competition is high. These contrasting phenomena might be due to the heterogeneous features of developed and developing markets. Therefore, the study of Doidge et al. (2007) argued that the differences in the state's protection of minority shareholders, and the development of the country's economic condition influence the level and structure of the firms' corporate governance. As these differences directly influence firms' governance improvement costs, and benefits the institutional, economic, legal, cultural, and financial differences between developed markets and developing/emerging markets might not be homogeneous. Moreover, these differences might be heterogeneous within different emerging markets. Therefore, our study is an attempt to extend this phenomenon to the emerging market of Pakistan; to examine whether product market competition substitutes or complements corporate governance in improving firm value.

Our study contributes to the existing empirical literature on corporate governance in few ways.

First, it addresses the gap in the literature, because existing studies either use individual governance mechanisms or governance indexes

which contain more attributes of the board i.e. leadership structure and ownership structure to measure performance (Khan, 2022). However, advanced corporate governance practices emphasize the managerial characteristics, circumstances in which managers perform their duties, and firm behavior towards various stakeholders. Therefore, we constructed a more comprehensive corporate governance index to include more advanced governance attributes, and ranked industries based on firms' governance scores within the respective industry.

Second, the existing literature on corporate governance in Pakistan has studied the influence of either corporate governance/product market competition on value of firm, and largely ignored the interaction among these mechanisms. In fact, in the presence of product market competition, managerial performance is measured relative to other firms in the industry. Also, the corporate governance mechanism monitors managers to ensure they are efficient. The studies on the joint effect of these mechanisms on firm value are mainly performed in developed countries, and it is yet to be addressed in the developing market setting like Pakistan. Therefore, our study examines the effect of corporate governance on firm value in the presence of product market competition, and further investigates whether the relationship between these mechanisms is specific to the country or remains generic to developed and developing markets. For robustness, this relationship i.e. how corporate governance and product market competition interact with each other is further investigated under different governance (democratic vs. non-democratic firms), and ownership structure settings (SOEs vs. non-SOEs).

Third, we address another serious issue with the existing studies in corporate governance as the previous work explored that corporate governance reduces managerial slack, and improve firm value. However, these studies ignored to address a specific agency problem being mitigated by corporate governance to enhance the value of the firm. This study tries for the first time to explore empire building, and quiet life hypotheses. These are two channels through which good governance decreases managerial slack, and enhance the value of the firm.

This study is arranged in the following manner: 2nd section discusses literature review; 3rd section elaborates data and methods used; 4th Section explains empirical findings and discussions, and finally 5th section presents the conclusion of this study.

Literature Review

In connection to the goal of corporate governance to protect shareholders' interest, there are several studies which show the relationship between corporate governance and firm value using different instruments. The central governance instrument is the firm board of directors which practice and implement various governance provisions (Cerbioni & Parbonetti, 2007). They are the front-line managers accountable for their actions to shareholders (Anderson & Anthony, 1986; Nikomborirak & Tangkitvanich, 2001). Despite this, product market competition holds equal importance for the shareholders' value maximization.

The product market competition is the situation in product market where the existing firms compete with each other in same kind of goods or services produced (Porter, 1980). Griffith (2001), Sharma, (2011) and Shurchuluu (2002) examine the relationship between competition, agency problem and value of the firm. These studies find that product market competition can be used as an external governance mechanism to monitor managers through the comparison of firm costs and prices with their peers in the market. Therefore, managers cannot increase prices in unfair manner and strive to reduce costs to compete with existing rivals and resist new entrants. As a result, agency cost decreases and firm value increases.

Baig (2014) analyses the impact of competition in product market on the efficiency of the Pakistani manufacturing, financial and service industries. The study reports that firms working under low competitive pressure in low competitive industries, decline in efficiency, show low communal interest and charge high prices above costs. Similarly,

Giroud and Mueller (2010) and Giroud and Mueller (2011) are among the pioneers who studied the joint effect of corporate governance and product market competition on the value of the firm. They reported that the firms operating in the US are benefited more from good governance practices if they are operating in non-competitive industries than competitive industries. This is evident from higher returns of stocks, the higher value of the firms, and improved performance of the operation of firms in the non-competitive industries. Therefore, competition in the product market plays the substitutive role with corporate governance in the U.S. market. This affirms the argument that corporate governance is needed more in non-competitive industries due to the absence of competitive pressure.

However, Li et al. (2017) offered contrary evidence for firms operating in emerging markets using Chinese data, Li et al. (2017) found that corporate governance is needed more in the firms operating in highly competitive industries than non-competitive industries. Hence, enough studies on developed markets documented the substitutive impact of competition in the product market and corporate governance. However, fewer studies on developing countries documented their complementary effect. Therefore, for emerging markets, our study extends the empirical literature by investigating whether product market competition has substitutive or complementary effect on corporate governance.

Data

The sample for this study was obtained from the PSX-100 index non-financial firms. Financial firms were not included because they are highly regulated and monitored. PSX-100 index on 1st Jan of the starting year of the sample period was consisted of 77 non-financial, and 23 financial firms categorized into 35 industries. Our sample included all those industries/sectors which contain at least three firms in the domain of the PSX-100 index on that very date. Firms with missing data for more than 5 years were excluded. Due to the significant role of sales, all those firms whose sales information either missing or negative were excluded. After making all the necessary data adjustments, and based on data availability during the study period i.e. 2009 to 2018, only eleven industries consisting of 52 firms remained in the sample. Hence we considered PSX-100 index as the population of the study, not all listed firms.

Corporate Governance Index

We used a modified version of the Governance Matrix International (GMI) index described as Corporate Governance Index (CGI) hence forth to evaluate the governance practices of a firm. The GMI index, first employed by Gompers et al. (2003) and Khan et al. (2022) consisted of 6 categories i.e. board accountability, financial disclosure and internal control, shareholders rights, remuneration, a market for control, and corporate behavior. These categories were further spited into 64 governance attributes. However, we followed the five categories of Li et al. (2017) where they combine the rights of shareholders and market for control as one category. Some of the attributes were also modified according to Pakistan's Code of Corporate Governance 2002, as amended in 2017. Based on the data availability for Pakistani firms, only 47 condensed CG attributes could be used as shown in Table 1. Out of these 47 attributes, 16 were related to 'Board Accountability", 7 covering 'Financial disclosure & internal control', 4 from 'Shareholder rights & market for

corporate control', 4 about 'Remuneration' and 14 attributes about 'Corporate Behavior'.

Binary coding algorithm was used to construct this index. "1" is used as a code if a firm holds a particular attribute, otherwise "0". CGI for each firm was computed by dividing the sum of score obtained against each attribute by the total number of provisions i.e. 47. For example, if a firm fulfills all the 47 attributes, its score is 100% (47/47×100). Similarly, if a firm meets 25 attributes out of the 47, its score is 53% (25/47×100). The maximum score for CGI cannot exceed 100% (47) at all.

In contrast to the indexes used in developed country studies, our index employed more measures of the firm's management characteristics, circumstances and corporate behavior disclosure as Li et al. (2017) indicated that these are the key attributes through which firms in developing countries, such as Pakistan improve their governance practices under the pressure of economic marketization.

The Role of Product Market Competition

In this study, product market competition was measured using Herfindahl-Hirschman Index (HHI). It measures the firm's market concentration relative to other firms in each industry. High HHI score means low product market competition and high concentration, while low HHI score means high product market competition and low concentration in an industry. Initially, total sales of firm is used as a proxy for measuring market concentration. HHI based on sales is the portion of market sales controlled by the firm. It is the sum of the square of market share (sales) of each firm in the industry, for each year. The resulting score shows concentration and market competitiveness.

$$HHI_{jt} = \sum_{t=1}^{N_{jt}} S_{ijt}^2 \quad \text{..... (i)}$$

Where S_{ijt} is the market share (sales-based) of the firm *i* in industry *j* in year *t*.

Some firms have low sales, but they are rich in assets and compete in the assets market. The firm uses tangible as well as intangible assets to compete in the product market. Only valuable assets are the source of competition. Valuable assets are those which are difficult to imitate by competitors (Barney, 1991; Peteraf & Barney, 2003). Therefore, we also used total assets for computing product market competition. It is the proportion of assets owned by the firm in an industry and computed in the same manner as above. It shows how concentrated the market in assets.

$$HHI_{jt} = \sum_{t=1}^{N_{jt}} A_{ijt}^2 \quad \text{..... (ii)}$$

Where A_{ijtis} the market share (asset-based) of the firm *i* in industry *j* in year *t*.

3.3 Data and Variables

The data of variables were largely retrieved from companies' annual and sustainability reports, available on companies' websites. However, the data of some variables were not available in these annual reports and were obtained from other sources of information. For example, the financial times' website was used to construct the firm age variable, and the website of the competition commission of Pakistan was used to construct the acquisition likelihood dummy variable and the variable measuring the number of acquisitions in a year.

We used Tobin's Q to find value of the firm. It is calculated as follows.

$$Tobin's\ Q = \frac{Total\ Assets - Book\ Value\ of\ Equity + Market\ Value\ of\ Equity}{Total\ Assets}$$

Industry adjusted Tobin's Q is computed by subtracting the Tobin's Q of each year from industry median. Firm size, measured as log of total sales (LNTS) and firm age, measured as log of number of months (LNAGE) since listing[2], are used as control variables. Subsequently, the analysis is extended to examine the channels by which good governance enhances value of the firm. Therefore, empire building hypothesis is examined through the data of capital expenditures, acquisition likelihood dummy and "number of acquisitions in a year". Whereas, the data of the sum of selling, general and

administrative, financial, and tax expenses, the administrative expenses, and the cost of goods sold were used to examine the quiet life hypothesis.

Estimation Techniques and Empirical results

This paper investigates the relationship between corporate governance and value of the firm in relation with competition in product market. To draw this relationship, the approach of Giroud and Mueller (2011), and Li et al. (2017) was adopted, and panel fixed effect regression was used to capture the heterogeneity among the firms within the industry. However, it is argued that the fixed effect method may not capture. The complete variation between parameters with slight change in the explanatory variables, such as the corporate governance index. Therefore, to capture the unobserved heterogeneity, the year and industry fixed effects were also added. Standard errors were clustered at industry level to control autocorrelation between error terms over time and across industries. The resultant multiple regression model is as follows.

$$TQ_{it} = \alpha_j + \alpha_t + \beta(CGI_{it} \times I_{jt}) + \gamma X_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where TQ*it* denotes industry-adjusted Tobin's Q of a firm *i* in year *t*. α denote industry and *j* denote year fixed effect. CGI *it* represents Corporate Governance Index score of the firm *i* in the year *t*. I*jt* is an HHI dummies' (3×1) vector. While X*it* represents control variables of firm size and firm age . All regressions specifications reported in table 4 to 11 include the year and industry fixed effects. Also, the number of observations is 520 in all specifications except where sample is divided on the basis of any criteria.

Table 3 contains the descriptive statistics. To make a comparison we split the overall sample into two sub samples i.e. high competition, and low competition. The unreported correlation test[3] for full sample showed a significantly negative correlation of -3.4207 between CGI and HHI. This depicts that when HHI decreases, CGI also increases.

Table 1

Descriptive Statistics

	Mean	Median	Maximum	Minimum	Std. Dev.	Obs.
Panel A: Overall Sample						
TQ	0.197	0.014	7.045	-2.354	0.961	520
CGI	65.785	65.957	93.617	27.660	11.736	520
HHI	0.345	0.308	0.820	0.144	0.173	520
TS	25,003.454	22,750.974	1,188,502	535.797	0.581	520
AGE	0.00033	0.00036	0.00089	0.00001	0.312	520
Panel B: High Competition						
TQ	0.149	0.014	7.045	-2.354	0.665	271
CGI	65.414	68.085	93.617	27.660	11.524	271
HHI	0.223	0.225	0.315	0.144	0.057	271
TS	23,768.403	22,750.974	677,641.508	1,018.591	0.490	271
AGE	0.000330	0.00034	0.00086	0.00001	0.282	271
Panel C: Low Competition						
TQ	0.094	0.003	2.027	-2.354	0.523	248
CGI	65.118	68.957	93.234	34.043	11.956	248
HHI	0.477	0.376	0.820	0.318	0.058	248
TS	41,591.061	38,370.725	1,188,502.227	1,770.109	0.667	248
AGE	0.00034	0.00038	0.00085	0.00001	0.339	248

Table 2 presents the fixed-effect regression results of the impact of corporate governance on firm value in presence of product market competition. In column 1, the industry-adjusted Tobin's Q is regressed on CGI scores. The beta coefficient of CGI is positive and statistically significant. This depicts that good governance decreases managerial slack and enhances value of firm in Pakistan. To capture the influence of product market competition on the relationship between corporate governance and firm value, the sample was divided based on HHI tertile dummies. The CGI was also allowed to change industry product market competition by interacting it with each HHI tertile dummy. The regression results in column 3 shows that the interaction term has a significant positive coefficient in low tertile and insignificant coefficient in median and high tertile. This depicts that the benefit of improved governance practices is observable only in the highly competitive industries. Further, the results in column 3 also suggest that product market competition and corporate governance are complements. The complementary impact implies that individually neither competition in product market nor good governance could enhance value of the firm, and both must work jointly with each other. These results are consistent with emerging market evidence from China Li et al. (2017), but in brief contrast with US and EU based evidence in (Ammann et al., 2013b; Giroud & Mueller, 2011) who suggested that corporate governance and product market competition are mutual substitutes.

Table 2

Corporate Governance, Product Market Competition, and Firm Value

DV TQ	(1)	(2)	(3)	(4)	(5)	(6)	(7)
CONSTANT	-4.893 (3.751)	-3.857 (4.240)	-4.225 (3.949)	-4.264 (4.067)	-4.434 (4.013)	-3.926 (3.890)	-3.974 (3.781)
CGI	1.322*** (0.351)						
LOWMED×CGI		1.431** (0.700)			1.811*** (0.511)		
HIGHMED×CGI		0.406 (0.306)			0.417 (0.332)		
LOWTER×CGI			2.662*** (0.684)			2.786** (0.906)	
MEDTER×CGI			0.361 (0.252)			1.664 (1.092)	
HIGHTER×CGI			-0.167 (0.466)			0.202 (1.204)	
Q_1× CGI				1.736*** (0.728)			0.819* (0.422)
Q_2 × CGI				-0.092 (0.239)			0.077 (0.155)
Q_3 × CGI				0.120 (0.215)			0.317 (0.399)
Q_4 × CGI				0.567 (0.580)			-0.294 (0.235)
LNTS	0.447	0.465	0.459	0.501	0.479	0.467	0.448

	(0.316)	(0.351)	(0.338)	(0.352)	(0.336)	(0.324)	(0.316)
LNAGE	-0.020	-0.259	-0.034	-0.218	-0.080	-0.231	-0.096
	(0.662)	(0.713)	(0.666)	(0.701)	(0.692)	(0.697)	(0.637)
Years Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	520	520	520	520	520	520	520
Firms	52	52	52	52	52	52	52
R^2	0.240	0.232	0.232	0.231	0.229	0.243	0.236

Sales based HHI was used in column 2 to 4 whereas in column 5 to 7 assets based HHI is used. Standard errors reported in parenthesis are clustered at the industry level. All regressions include the year and industry fixed effects. *, **, and *** denotes significance level at 0.10, 0.05 and 0.01 percent, respectively.

In table 5, the analysis is extended to investigate whether corporate governance mechanisms and competition in product market are substitutes or complements in democratic firms. Democratic firms are those which have relatively better governance structure. The effect of product market competition on the relationship between corporate governance and firm value may differ in democratic firms. Therefore, the firms were divided into democratic and non-democratic classification. Firms with CGI Score ≥55 is regarded as democratic firms. For this purpose, a democracy dummy variable was constructed, which is codded "1" if a firm fulfills the minimum criteria; otherwise, it is coded "0". Thus, CGI was replaced by democracy dummy and the regressions were run. In column 1 of table 4, we regressed industry-adjusted Tobin's Q on democracy dummy, and the coefficient of democracy dummy was found positive and statistically significant. Thus, it is argued that democratic firms outperformed non-democratic firms in managing their governance issues and improved firm value using the best governance practices in Pakistan. However, competition in product market may alter this relationship and to capture this effect, the sample was divided based on HHI median and democracy dummy interacted with each HH median based dummy.

The regression results reported in column 2 shows that the interaction term has a positive and statistically significant coefficient in the low median dummy only suggesting that even in the democratic firms, good governance practices matters more in industries where competition is high to improve firm value. It is also argued that democratic firms, corporate governance and product market competition have complementary effect. For robustness check, in column 3 the sample was divided based on HHI tertiles and democracy dummy interacted with each HHI tertile dummy. Here also democracy dummy has a significant positive coefficient only in low tertile, while the remaining interaction coefficients are statistically insignificant. Similarly, in column 4 the sample is divided based on HHI quartile dummies and democracy dummy interacted with each HHI quartile dummy. Here, only the interaction term for the first quartile has a significant positive coefficient. The results in column 2, 3 and 4 are consistent with earlier findings in table 4. For robustness purpose, the analysis was repeated with total assets based HHI and the results are reported in column 5 to 7, which are robust and consistent with results in column 2 to 4.

Table 3

Democracy Dummy, Product Market Competition, and Firm Value

DV TQ	(1)	(2)	(3)	(4)	(5)	(6)	(7)
CONSTANT	-3.921 (4.129)	-3.424 (4.149)	-3.645 (4.038)	-3.501 (4.169)	-3.833 (4.089)	-3.767 (3.972)	-3.320 (4.086)
Democracy	0.326*** (0.103)						
LOWMED × Democracy		1.379*** (0.413)			0.280*** (0.073)		
HIGHMED × Democracy		0.546 (0.395)			0.187 (0.145)		
LOWTER × Democracy			1.175*** (0.438)			0.242** (0.099)	
MEDTER × Democracy			0.971 (0.600)			0.349 (0.298)	
HIGHTER × Democracy			0.401 (0.339)			-0.018 (0.111)	
Q_1 × Democracy				1.390*** (0.504)			0.274*** (0.065)
Q_2 × Democracy				2.816 (2.023)			0.132 (0.100)
Q_3 × Democracy				0.643 (0.652)			0.437 (0.275)
Q_4 × Democracy				0.451 (0.361)			0.334 (0.329)
LNTS	0.444 (0.344)	0.420 (0.351)	0.432 (0.340)	0.430 (0.353)	0.444 (0.341)	0.440 (0.328)	0.416 (0.334)
LNAGE	-0.146 (0.686)	-0.241 (0.676)	-0.198 (0.697)	-0.276 (0.688)	-0.154 (0.688)	-0.142 (0.686)	-0.221 (0.709)
Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	520	520	520	520	520	520	520
Firms	52	52	52	52	52	52	52
R^2	0.254	0.249	0.242	0.248	0.241	0.236	0.238

Sales based HHI was used in column 2 to 4 whereas in column 5 to 7 assets based HHI is used. Standard errors reported in parenthesis are clustered at the industry level. All regressions include the year and industry fixed effects. *, **, and *** denotes significance level at 0.10, 0.05 and 0.01 percent, respectively.

In column 1 of table 6, we first regressed industry-adjusted Tobin's Q on CGI, the interaction term (i.e. CGIxHHI), HHI, and LNTS and LNAGE as two controlling variables. The CGI-HHI interaction variable's coefficient was found negative and statistically significant. This suggests that good governance practices increase value of the firm but only in industries where there is high level of competition in product market, by having a complementary effect on product market competition. In column 3 and 4, the sample was divided into the high and low competition. The regression results showed that

CGI has a significant positive coefficient in high competition, while it has a statistically insignificant coefficient in low competition. This again shows that corporate governance is beneficial relatively in industries where competition is high. Thus, supporting the findings in column 2 to 4 of table 4. For robustness purpose, sales based HHI were replaced with total assets based HHI, and the results are reported in column 2, 5 and 6 of table 6.The results in column 2 are inconsistent with Li et al. (2017), who reported a statistically insignificant coefficient for the interaction between CGI and HHI. However, a negative and statistically significant coefficient of the interaction term was found. Moreover, the results in columns 3 and 5 report that CGI has a significant positive coefficient in high competition, while its coefficient in low competition is statistically insignificant. Hence, these results are consistent with results in column 2, 3 and 4 of table 4 and column 5 to 7 of table 5. Consequently, the results are once again similar to Li et al. (2017) evidence from emerging market but contrasting with (Ammann et al., 2013b; Giroud & Mueller, 2011) evidence of developed markets.

Table 4

Corporate Governance, Product Market Competition, and Firm Value: Alternate sample division and specifications

DV	Full Sample		High Competition	Low Competition	High Competition	Low Competition
TQ	(1)	(2)	(3)	(4)	(5)	(6)
CONSTANT	-0.830	-1.331	-1.197	-4.110	-4.317	-3.839
	(1.881)	(1.742)	(3.679)	(3.926)	(3.928)	(4.014)
CGI	1.425**	0.296	3.187***	0.202	0.290**	0.216
	(0.672)	(0.244)	(0.905)	(0.200)	(0.126)	(0.275)
CGI × HHI	-1.183***	-1.444***				
	(0.292)	(0.442)				
HHI	0.378***	0.517***				
	(0.085)	(0.167)				
LNTS	0.147	0.270	0.189	0.473	0.464	0.465
	(0.160)	(0.166)	(0.276)	(0.324)	(0.326)	(0.329)
LNAGE	-0.393	-0.768	-0.252	-0.130	-0.033	-0.217
	(0.529)	(0.550)	(0.689)	(0.663)	(0.684)	(0.726)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	516	516	520	520	520	520
Firms	52	52	52	52	52	52
R^2	0.555	0.468	0.278	0.222	0.223	0.222

In column 1, 3 and 4 sales based HHI is used while in Column 2, 5 and 6 assets based HHI is used. Standard errors reported in parenthesis are clustered at the industry level. All regressions include the year and industry fixed effects. In column 1 and 2, CGI interacts with HHI. While in column 3 to 6 sample is divided into two sub-sample according to whether CGI is below HHI

median (column 3 and 5) or above the HHI median (Column 4 and 6). "*", "**" and "***" denotes significance level at 0.10, 0.05 and 0.01 percent, respectively.

In table 7, the alternative specifications and sample division for democratic firms were tested. In column 1, we first regressed industry-adjusted Tobin's Q on democracy dummy, the HHI, the interaction between democracy dummy and HHI and, and LNTS and LNAGE as two controlling variables. The interaction term's (Democracy × HHI) coefficient was found negative and statistically significant. The results are consistent with the results in column 2 to 6 of table 5 and depicted that good governance in democratic firms enhances firm value but only in highly competitive industries. Moreover, corporate governance and product market competition are complements in democratic firms.

In columns 3 and 4, the sample was divided into low and high competition. If the democracy dummy is below HHI median, it is considered high competition, and if it is above HHI median, it is considered low competition. The results in column 3 and 4 shows that democracy dummy have a significant positive coefficient in high competition, while its coefficient is statistically insignificant in low competition. These results are again like the findings in column 2 of table 4.The analysis in table 7 was applied on total assets based HHI, and the regression results reported in column 2, 5 and 6 are consistent with results in column 5 to 7 in table 4.

Table 5

Democracy Dummy, Product Market Competition, and Firm Value: Alternate Sample Division and Specification

Dependent Variable	Full Sample		High Competition	Low Competition	High Competition	Low Competition
TQ	(1)	(2)	(3)	(4)	(5)	(6)
CONSTANT	-1.810	-1.081	-3.812	-4.095	-3.997	-3.812
	(1.899)	(1.875)	(3.969)	(3.935)	(4.011)	(4.042)
Democracy	-0.089	0.158**	0.143**	0.124	0.261***	0.160
	(0.076)	(0.073)	(0.059)	(0.114)	(0.064)	(0.152)
Democracy × HHI	-1.316***	-1.388***				
	(0.320)	(0.434)				
HHI	0.404***	0.545***				
	(0.089)	(0.161)				
LNTS	0.251	0.263	0.461	0.470	0.450	0.463
	(0.172)	(0.175)	(0.326)	(0.327)	(0.336)	(0.332)
LNAGE	-0.377	-0.800	-0.208	-0.118	-0.094	-0.206
	(0.513)	(0.530)	(0.680)	(0.653)	(0.676)	(0.683)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	516	516	520	520	520	520
Firms	52	52	52	52	52	52
R^2	0.256	0.274	0.225	0.222	0.234	0.225

In column 1, 3 and 4 sales based HHI is used while in Column 2, 5 and 6 assets based HHI is used. Standard errors reported in parenthesis are clustered at industry level. All regressions include year and industry fixed effects. Study period is from 2007 to 2016. "*", "**" and "***" denotes significance level at 0.10, 0.05 and 0.01 percent, respectively.

Endogeneity is the reverse causation between dependent and independent variables and omitted variables are one of its reason. In our case CGI may be endogenous and to overcome endogeneity, we added some additional variables as control variables in the regression analysis of table 4. These other control variables are total debts to total assets ratio (LEV), fixed capital to total assets ratio (FCS) and SOE dummy which takes the value of '1' if the largest shareholder of the firm is government otherwise '0'. These control variables are previously identified as omitted variables by Klapper and Love (2004), Lang et al. (1996) and (Li et al., 2017). The regressions results presented in table 8 are consistent with our results in table 4, after controlling for endogeneity. Thus, we found similar results to Li et al. (2017) and once again documented the complementary effect of good governance practices and competition in product market on value of the firm.

Table 6

Corporate Governance, Product Market Competition, and Firm Value: Endogeneity Issue

DV TQ	(1)	(2)	(3)	(4)	(5)	(6)	(7)
CONSTANT	-4.564	-3.845	-4.095	-4.407	-3.457	-3.834	-3.409
	(4.747)	(4.958)	(4.681)	(4.859)	(4.966)	(4.804)	(4.949)
CGI	0.723***						
	(0.247)						
LOWMED × CGI		1.150*			1.148***		
		(0.611)			(0.438)		
HIGHMED × CGI		0.082			0.046		
		(0.132)			(0.212)		
LOWTER × CGI			1.824***			0.969**	
			(0.497)			(0.423)	
MEDTER × CGI			0.192			0.497	
			(0.129)			(0.289)	
HIGHTER × CGI			-0.376			-0.064	
			(0.254)			(0.184)	
Q_1 × CGI				2.128***			1.146**
				(0.480)			(0.576)
Q_2 × CGI				0.028			1.229
				(0.150)			(0.884)
Q_3 × CGI				0.056			0.025
				(0.155)			(0.403)
Q_4 × CGI				0.536			0.035
				(0.478)			(0.234)
LNTS	0.491	0.492	0.483*	0.535*	0.453	0.473	0.463
	(0.289)	(0.301)	(0.283)	(0.306)	(0.304)	(0.294)	(0.300)
LNAGE	0.422	0.269	0.456	0.305	0.252	0.341	0.200
	(0.572)	(0.613)	(0.584)	(0.546)	(0.628)	(0.597)	(0.628)

LEV	-0.708	-0.711	-0.658	-0.632	-0.569	-0.599	-0.674
	(0.456)	(0.464)	(0.477)	(0.447)	(0.426)	(0.481)	(0.452)
FCS	-0.399	-0.406	-0.414	-0.414	-0.409	-0.409	-0.404
	(0.326)	(0.323)	(0.318)	(0.322)	(0.326)	(0.323)	(0.324)
SOE dummy	-0.596	-0.612*	-0.580*	-0.609*	-0.602	-0.598*	-0.610**
	(0.335)	(0.339)	(0.329)	(0.342)	(0.341)	(0.337)	(0.332)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	520	520	520	520	520	520	520
Firms	52	52	52	52	52	52	52
R^2	0.443	0.443	0.443	0.448	0.452	0.445	0.450

In this table analysis in Column 2 to 4 are HHI total sales based while in Column 5 to 7 HHI total assets based. The controlling variables are, LNTS, LNAGE, debts to assets ratio (LEV), capital to sales ratio (FCS) and dummy of SOEs as control variables. Standard errors reported in parenthesis are clustered at industry level. All regressions include year and industry fixed effects. The sample includes 520 firm year observations over the period from 2007 to 2016. "*", "**" and "***" denotes significance level at 0.10, 0.05 and 0.01 percent, respectively.

Further, we extended our empirical analysis and explored which specific managerial slack is being mitigated by good governance in Pakistan. Moreover, we also addressed this relationship in connection with product market competition. The previous literature has identified two possible channels of corporate governance through which firm value may be enhanced. The first channel is the empire building hypothesis, which is related to the firm productivity and investment decisions. Empire building hypothesis was first proposed by Jensen (1989), who stated that managers acquire other firms and competitors to enlarge their firm size. This help them to enhance their social fame, public status, and political power. For this purpose, managers either take inefficient capital investment decisions that increases firm capital expenditures Gompers et al. (2003) or acquire other firms that destroy firm value but improve their empire building (Masulis et al., 2007). The second channel through which corporate governance enhance firm value is quiet life hypothesis which is related to firm's cost management and cash management. It was first proposed by Hicks (1935), who stated that due to the absence of competitive pressure in non-competitive industries enable managers to make less efforts and bypass difficult decisions. They also shrink their responsibilities and work only for their personal benefits Hicks (1935). As a result, either firm's costs increases through managing firm's cost inefficiently Bertrand and Mullainathan (2003) or poor management of cash (Dittmar et al., 2003). We adopted various proxies used in (Ammann et al., 2013b; Li et al., 2017; Yousaf Khan et al., 2021) and Giroud and Mueller (2011) and explored whether good governance uses the channel of empire building or quiet life to improve firm value in Pakistan.

In table 9 we used three different proxies for empire building hypothesis through which good governance reduces managerial slack and improve firm value. In column 1 and 2 firm capital expenditures to total assets ratio (CE/TA) was taken as dependent variable. The CGI coefficient is negative and statistically significant, which depicts that good governance improves firm value through reducing firm's capital expenditures. However, this relationship between corporate governance and firm capital expenditures may be affected by competition in product market. Thus, in column 2 we divided the sample based on HHI tertile dummy and let the

CGI to very in level of product market competition by interacting it with each HHI tertile dummy. Here CGI has negative and statistically significant coefficient only in low tertile. This shows that good governance decreases firm capital expenditures but only in highly competitive industries.

Li et al. (2017) identified "number of acquisitions in a year" as another channel of managerial empire building hypothesis. The higher the acquisition number (AQn) in a year, the more managers destroy shareholders' wealth by acquiring excessive power to influence. Therefore, in column 5 and 6, instead we used amount of acquisitions by firm in a year as a dependent variable and regressed it on CGI using Tobit regression technique. The negative and statistically significant coefficient of CGI indicates that good governance improves firm value by reducing value destroying number of acquisitions in a year. We also tested this relationship in the presence of product market competition by using HHI tertile dummies. The negative and statistically significant coefficient in low tertile confirms that good governance enhances firm value by reducing number of acquisitions in year but only in highly competitive industries.

Table 7

The Test of Empire Building Hypothesis of Ineffective Investment and Value Destroying Acquisitions

DV	CA/TA		AQL		AQn	
	(1)	(2)	(3)	(4)	(5)	(6)
CONSTANT	0.709***	0.694***	-4.390**	1.314	1.243***	1.244***
	(0.102)	(0.057)	(2.001)	(2.242)	(0.036)	(0.033)
CGI	-0.061*		-3.600**		-1.263***	
	(0.034)		(1.698)		(0.476)	
LOWTER×CGI		-0.628***		-11.772**		-3.911*
		(0.143)		(4.672)		(2.118)
MEDTER×CGI		0.018		0.052		-0.959
		(0.016)		(0.626)		(1.074)
HIGHTER×CGI		0.015		3.412*		-1.081
		(0.015)		(1.858)		(0.789)
LNTS	-0.006	-0.004	-0.703	-0.641	0.381**	0.350**
	(0.007)	(0.003)	(0.667)	(0.669)	(0.158)	(0.162)
LNAGE	-0.021	-0.035*	1.568	1.787	-0.057	-0.126
	(0.023)	(0.019)	(1.778)	(1.794)	(0.074)	(0.122)
LNBtoM	0.007	0.001	0.415	0.466	0.895	0.895
	(0.006)	(0.004)	(0.587)	(0.579)	(0.642)	(0.621)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	516	516	346	346	516	516
Firm	52	52	52	52	52	52
R^2	0.113	0.461				
Pseudo R^2			0.137	0.156	0.113	0.113

All regressions here used total sales based HHI. Logarithm of book value of equity to the market value of equity is another control variable. Standard errors reported in parenthesis are

clustered at industry level. All regressions include year and industry fixed effects. Column 3 and 4 report results of logit regression, whereas column 5 and 6 report results of tobit regression. The study period is from 2007 to 2016. "*", "**" and "***" denotes significance level at 0.10, 0.05 and 0.01 percent, respectively.

Table 10 examines various proxies to test quiet life hypothesis through which good governance reduces managerial slack and improve firm value. In column 1 and 2, the regress and is the sum of selling, general and administrative, tax, financial expenses (SG&A) to total assets ratio. It was regressed on CGI. The statistically insignificant coefficient of CGI indicates that by reducing firm's SG&A, good governance does not improve firm value. To test this relationship in the presence of product market competition we again used interaction of CGI with HHI tertile dummies. The statistically insignificant coefficients in low and median tertiles indicates that competition in product market does not change the role of corporate governance in reducing firm's SG&A. However, the positive and statistically significant coefficient of the interaction term in high tertile shows that firm's SG&A increases when the competition is low.

In column 3 and 4 of table 10, we used another proxy i.e. administrative expense to total assets ratio (Admn Exp/TA) to test quiet life hypothesis. The statistically insignificant coefficient of CGI reveals that good governance does not improve firm value by reducing firm administrative expenses. Similarly, the insignificant coefficients of all three tertile dummies pointed out that the level of competition product market does not alter the role of good governance to improve value of the firm by reducing firm administrative expenses.

In column 5 and 6, we used a third proxy i.e. cost of goods sold to sales income ratio (COGS/ TS) for testing the quite life hypothesis. The similar results in column 5 & 6 indicates that corporate governance does not improves firm value by reducing firm's cost of goods sold and competition in product market does not alter the role of good governance to reduce firm cost of goods sold.

Table 8

The Test of Quiet Life Hypothesis of Cost Management and Cash Management

DV	SG&A		Admn Exp/ TA		COGS/ TS	
	(1)	(2)	(3)	(4)	(5)	(6)
CONSTANT	-0.608***	-0.646***	0.063	0.046	2.672***	2.265**
	(0.217)	(0.195)	(0.062)	(0.065)	(0.991)	(0.920)
CGI	-0.003		-0.010		-0.105	
	(0.037)		(0.028)		(0.147)	
LOWTER×CGI		-0.022		-0.004		3.746
		(0.076)		(0.054)		(3.177)
MEDTER×CGI		0.006		-0.002		0.005
		(0.006)		(0.004)		(0.054)
HIGHTER×CGI		0.077***		0.018		0.014
		(0.019)		(0.017)		(0.062)
LNTS	0.062***	0.066***	-0.002	-0.002	-0.189*	-0.198*
	(0.019)	(0.018)	(0.006)	(0.006)	(0.093)	(0.107)
LNAGE	0.050*	0.045***	-0.0002	-0.0004	0.033	0.176
	(0.024)	(0.016)	(0.008)	(0.007)	(0.070)	(0.138)
LNBtoM	-0.037*	-0.039**	-0.010	-0.009	0.015	0.091

	(0.017)	(0.016)	(0.008)	(0.007)	(0.080)	(0.058)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	516	516	516	516	516	516
Firm	52	52	52	52	52	52
R^2	0.114	0.135	0.026	0.030	0.025	0.066

In this table all the regression analyses are HHI total sales based. Logarithm of book value of equity to the market value of equity is another control variable Standard error reported in parenthesis are clustered at industry level. All regressions include year and industry fixed effects. The sample includes 520 firm year observations over the period from 2007 to 2016. "*", "**" and "***" denotes significance level at 0.10, 0.05 and 0.01 percent, respectively.

After testing the empire building and quiet life hypotheses as the two possible channels of corporate governance which can be employed to enhance value of the firm, we explored that our results stand in favor of empire building hypothesis and argue that corporate governance improves firm value by reducing managerial empire building. However, this relationship is more prominent in highly competitive industries. Our findings are consistent with Li et al. (2017), but in brief contrast with (Ammann et al., 2013b; Giroud & Mueller, 2011).

State and non-state ownership is an important country characteristic and play significant role to enhance value of the firm (Bai et al., 2004; Boardman & Vining, 1989; Sun & Tong, 2003). Therefore, it is possible that our results may be sensitive to the division of state and non-state-owned firms in two ways. First, state-owned firms have lenient budgetary restraints and the government shields them in case of losses. Presence of poor incentives plans demoralizes managers, and they do not work faithfully. Second, SOEs managers' incentives are related to their ranks and highly monitored. This decreases their concern to work for the best interest of shareholders because their incentives are due on the state in any case (Li et al., 2017). Thus, we further extended empirical analyses to explore the impact of governance performance on firm value in association with product market competition in SOEs and non-SOEs.

Table 11, shows the relationship between corporate governance, product market competition, and the firm value in SOEs and non-SOEs. The panel regression results for SOEs are presented in columns 1 to 3 while the results for non-SOEs are presented in columns 4 to 6. In column 1 industry-adjusted Tobin's Q was regressed on CGI. The positive and statistically significant coefficient of CGI shows that corporate governance improves firm value in SOEs. In the presence of product market competition, this relationship holds only in case of high competition as reported in column 2. This suggests that in SOEs, corporate governance and product market competition are also complementing each other. In column 3, alternative specifications were used, and industry-adjusted Tobin's Q was regressed on CGI, the interaction term between CGI and HHI, HHI, while LNTS and LNAGE are the two controlling variables. The regression results showed that the interaction term between CGI and HHI has a negative and statistically significant coefficient, which confirms the earlier results in column 2. In Column 4, Tobin's Q was regressed on CGI for non-SOEs and the CGI coefficient was insignificant. The positive and significant coefficient of lower turtle interaction dummy in column 5 suggested that corporate governance improves the firm value of non-SOEs in highly competitive industries only. Moreover, corporate governance and product market

competition are also complementing even in non-SOEs. The significant negative coefficient of the interaction term between CGI and HHI in column 6 confirms the results in column 5.

Table 9

Corporate Governance, Product Market Competition and Firm Value: State vs. Non-state Ownership

Dependent Variable TQ	State Ownership			Non-state Ownership		
	(1)	(2)	(3)	(4)	(5)	(6)
CONSTANT	-4.738	-3.920	-5.007	-3.855	-3.993	-1.552
	(3.702)	(3.998)	(3.892)	(3.956)	(3.871)	(1.693)
CGI	1.512***		1.528***	-0.525		0.347
	(0.405)		(0.409)	(0.649)		(0.430)
LOWTER × CGI		0.816*			2.627***	
		(0.398)			(0.576)	
MEDTER × CGI		-0.018			0.332	
		(0.144)			(0.213)	
HIGHTER × CGI		1.498			-0.380	
		(0.921)			(0.518)	
CGI × HHI			-0.677**			-1.459***
			(0.296)			(0.398)
HHI			0.293**			0.378***
			(0.125)			(0.100)
LNTS	0.435	0.462	0.453	0.463	0.437	0.243
	(0.308)	(0.329)	(0.319)	(0.326)	(0.336)	(0.158)
LNAGE	-0.022	-0.154	0.041	-0.158	-0.038	-0.452
	(0.655)	(0.675)	(0.665)	(0.673)	(0.660)	(0.514)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	520	520	520	520	520	520
Firm	52	52	52	52	52	52
R^2	0.244	0.221	0.260	0.221	0.232	0.235

In this table all the regression analyses are HHI sales based. Standard errors reported in parenthesis are clustered at industry level. All regressions include year and industry fixed effects. The sample includes 520 firm year observations over the period from 2007 to 2016. "*", "**" and "***" denotes significance level at 0.10, 0.05 and 0.01 percent, respectively.

Consequently, the results of table 4 which document that corporate governance improves value of the firm in industries where competition is relatively high also stand true for SOEs and non-SOEs in table 8. However, the value enhancing impact of corporate governance is observable only in SOEs. This is consistent with the argument that the value of corporate governance matters more in firms such as SOEs where managerial slack is high. Moreover, the overall results in this table are also like findings of (Li et al., 2017).

Conclusion

This study investigated the joint effect of corporate governance (CG) and product market competition (PMC) on firm value. This study basically considered the research gap in the existing literature on corporate governance that previous studies examined either the effect of

corporate governance or product market competition on firm value. The results of the current study reveal that firms with good governance practices tend to have a high firm value. This positive association is strong in highly competitive industries only. These results are robust to different measures of sample division, firm governance structure, regression specifications, and ownership structure. Our findings are in contrast with evidence from the developed market, which says that due to the absence of competitive pressure, corporate governance matters only in low competitive industries by having a substitutive effect between corporate governance and product market competition on firm value. Similarly, good governance mitigates the agency problem of quiet life hypothesis in these markets. However, our results are consistent with the developing market evidence, which documented good governance benefit those firms only which operate in industries where competition in high. This suggest the competition in product market works as a complementarity with corporate governance to enhance value of the firm. And good governance mitigates the agency problem of empire building in these markets. Therefore, the relationship between corporate governance and product market competition is generic to markets and not country specific.

It is recommended that policy makers could be benefited more by focusing on governance improvement policies on firms in highly competitive industries as in these industries corporate governance improves firm value by working together with product market competition. Moreover, anti-trust laws and deregulation need to be implemented to maintain intense competition in highly competitive industries, and to improve competition in non-competitive industries. The results are fruitful to other industries as well as firms in Pakistan, especially those focusing on improving corporate governance mechanism to be in market competition, and it is evident that well governed firms can efficiently perform in the industry as compared to their counterparts. The findings of the study would really matter to the firms in other countries, especially developing countries case in Asian region or other part of the world. These results also have implication for future researchers. They must consider other measures of product market competition such as Lerner index, rent, market size, existing competitors, competition entry cost and dominance index, and can check the validity of the empirical findings of this study. Comparative study of two emerging markets can also add value to the existing body of literature.

References

Allen, F., & Gale, D. (2000). Corporate governance and competition. *Corporate governance: Theoretical and empirical perspectives*, *23*.

Ammann, M., Oesch, D., & Schmid, M. (2013a). The construction and valuation effect of corporate governance indices. In *Handbook of Research Methods and Applications in Empirical Finance* (pp. 314-340). Edward Elgar Publishing.

Ammann, M., Oesch, D., & Schmid, M. (2013b). The construction and valuation effect of corporate governance indices. In *Handbook of Research Methods and Applications in Empirical Finance*. Edward Elgar Publishing.

Anderson, C. A., & Anthony, R. N. (1986). *The corporate director*. Wiley Publication New York.

Bai, C.-E., Liu, Q., Lu, J., Song, F. M., & Zhang, J. (2004). Corporate governance and market valuation in China. *Journal of Comparative Economics*, *32*(4), 599-616.

Barney, J. (1991). Special theory forum the resource-based model of the firm: origins, implications, and prospects. *Journal of Management*, *17*(1), 97-98.

Bebchuk, L., Cohen, A., & Ferrell, A. (2009). What matters in corporate governance? *The Review of Financial Studies*, *22*(2), 783-827.

Bertrand, M., & Mullainathan, S. (2003). Enjoying the quiet life? Corporate governance and managerial preferences. *Journal of Political Economy*, *111*(5), 1043-1075.

Boardman, A. E., & Vining, A. R. (1989). Ownership and performance in competitive environments: A comparison of the performance of private, mixed, and state-owned enterprises. *the Journal of Law and Economics*, *32*(1), 1-33.

Cerbioni, F., & Parbonetti, A. (2007). Exploring the effects of corporate governance on intellectual capital disclosure: an analysis of European biotechnology companies. *European Accounting Review*, *16*(4), 791-826.

Dittmar, A., Mahrt-Smith, J., & Servaes, H. (2003). International corporate governance and corporate cash holdings. *Journal of Financial and Quantitative analysis*, 111-133.

Doidge, C., Karolyi, G. A., & Stulz, R. M. (2007). Why do countries matter so much for corporate governance? *Journal of Financial Economics*, *86*(1), 1-39.

Durnev, A., & Kim, E. H. (2005). To steal or not to steal: Firm attributes, legal environment, and valuation. *The Journal of Finance*, *60*(3), 1461-1493.

Giroud, X., & Mueller, H. M. (2010). Does corporate governance matter in competitive industries? *Journal of financial economics*, *95*(3), 312-331.

Giroud, X., & Mueller, H. M. (2011). Corporate governance, product market competition, and equity prices. *The Journal of Finance*, *66*(2), 563-600.

Gompers, P., Ishii, J., & Metrick, A. (2003). Corporate governance and equity prices. *The Quarterly Journal of Economics*, *118*(1), 107-156.

Hart, H. (1983). *Hart's Rules for Compositors and Readers at the University Press, Oxford*. Oxford University Press, USA.

Hicks, G. (1935). *The Great Tradition: An Interpretation of American Literature Since the Civil War*. Biblo & Tannen Publishers.

Huang, S., & Peyer, U. (2010). *Governance adjustments, product market competition, and firm value*.

Jensen, M. C. (1989). Eclipse of the public corporation.

Khan, Y. (2022). The sophisticated role of accounting information system (AIS) on the performance of Small and medium-sized enterprises (SMEs): Evidence from an emerging economy. *Competitive Social Science Research Journal*, *3*(2), 199-214.

Khan, Y., Ahmad, W., & Malik, F. (2022). THE INFLUENCE OF CORPORATE GOVERNANCE ON ACCOUNTING CONSERVATISM IN TOP NON-FINANCIAL FIRMS OF PSX: THE MODERATING ROLE OF AUDIT QUALITY. *Competitive Social Science Research Journal*, *3*(1), 321-340.

Klapper, L. F., & Love, I. (2004). Corporate governance, investor protection, and performance in emerging markets. *Journal of Corporate Finance*, *10*(5), 703-728.

Lang, A., Lindauer, S., Kuhn, R., & Wagner, G. A. (1996). Procedures used for optically and infrared stimulated luminescence dating of sediments in Heidelberg. *Ancient TL*, *14*(3), 7-11.

Li, H., Zhang, H., Tsai, S.-B., & Qiu, A. (2017). China's insurance regulatory reform, corporate governance behavior and insurers' governance effectiveness. *International Journal of Environmental Research and Public Health*, *14*(10), 1238.

Liao, S.-K., Cai, W.-Q., Liu, W.-Y., Zhang, L., Li, Y., Ren, J.-G., Yin, J., Shen, Q., Cao, Y., & Li, Z.-P. (2017). Satellite-to-ground quantum key distribution. *Nature*, *549*(7670), 43-47.

Masulis, R. W., Wang, C., & Xie, F. (2007). Corporate governance and acquirer returns. *The Journal of Finance*, *62*(4), 1851-1889.

Nikomborirak, D., & Tangkitvanich, S. (2001). Corporate governance: The challenge facing the Thai economy. *Corporate governance in Asia: a comparative perspective*, *3*(1), 407-422.

Peteraf, M. A., & Barney, J. B. (2003). Unraveling the resource-based tangle. *Managerial and decision economics*, *24*(4), 309-323.

Scharfstein, D. (1988). Product-market competition and managerial slack. *The RAND Journal of Economics*, 147-155.

Schmidt, K. M. (1997). Managerial incentives and product market competition. *The Review of Economic Studies*, *64*(2), 191-213.

Sun, Q., & Tong, W. H. (2003). China share issue privatization: the extent of its success. *Journal of Financial Economics*, *70*(2), 183-222.

Tariq, Y. B., & Abbas, Z. (2013). Compliance and multidimensional firm performance: Evaluating the efficacy of rule-based code of corporate governance. *Economic Modelling*, *35*, 565-575.

Yousaf Khan, D., Ahmad, W., & Malik, F. (2021). Does Audit Quality Moderate the Nexus Between Corporate Governance and Accounting Earnings Quality in Emerging Economies? *Indian Journal of Economics and Business*, *20*(4).

Zeeshan, M., Han, J., Rehman, A., Ullah, I., Afridi, F. E. A., & Rehman, S. U. (2022). Does financial reporting quality affect the investment efficiency of listed textile sector firms in Pakistan? A myth or reality. *Industria Textila*, *73*(2), 177-183.