

# Role of Public Revenue and Public Expending in Achieving Sustainable Economic Development in the Perspective of Local Project Approach

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**Abstract:** This study extends the governance literature by examining the impact of firm-level along with country-level governance quality on capital structure decisions in the developing economy of Pakistan. Several studies examined the effect of firm-level governance mechanisms on capital structure decisions of listed firms in Pakistan but there is a lack of focus on the link between country-level governance quality and capital structure. Thus, this study fills this gap by examining the impact of the firm and country-level governance on the capital structure decisions of firms at the same time. For this purpose, balance panel data (2009-2020) of 187 non-financial PSX listed firms have been used. The results substantially prove that firm and country-level governance quality significantly affect the capital structure decisions of firm. The results show that board size is positively associated with total debt ratio which implies that larger boards are more capable of raising external financing on the basis of their personal relations with creditors. The positive relationship of gender diversity with total debt ratio implies that female directors more actively participate in organizational activities and influence the decision-making process and actively control the opportunistic behavior of firm managers. Blockholders ownership is positively associated with total debt ratio which indicates that larger shareholders are better able to influence managers to borrow more funds to control their opportunistic behavior. Foreign ownership is negatively associated with total debt ratio which implies that foreign investors are not in a position to effectively monitor and control managers because of their low percentage of firms' shares. They may find debt a useful tool to control the opportunistic behavior of the managers. Country-level governance quality is negatively associated with total debt ratio. The negative association implies that strong country-level governance mechanism legally empowers the creditors in situations of default or bankruptcy by firms. In case of bankruptcy, creditors may force the firms for repayment, take the collateral, and take control of the assets of the borrower, which is likely to reduce the risk of default. Additionally, strong mechanisms of country-level governance reduce firms' chance of asset substitution or taking excessive risks by imposing high expropriation costs on major shareholders. Thus, firms do not have to use debt as monitoring tool when country-level governance quality is stronger. Among the control variables, profitability, liquidity, and tangibility are negatively related to total debt ratio while firm growth is positively related to total debt ratio.

**Keywords:** Corporate Governance, Country-Level Governance, Pakistan, Capital Structure

**JEL Classification Codes:** D4, E4

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## 1 Introduction

Corporate governance has gained tremendous attention among researchers during the last several years. Its importance stems from the financial crises and corporate fraud. After the financial crises of Asia in 1997, many corporate policy and corporate structure loopholes were revealed, which stimulated a number of economic reforms. There was a need to restore the confidence of investors, which resulted in the establishment of corporate governance mechanisms to fulfill this need. The Securities Exchange Commission of Pakistan (SECP) and the Institute of Chartered Accountants of Pakistan (ICAP) followed the governance style of the United Kingdom (Tariq and Abbas, 2013) and established first code of corporate governance (CCG) in Pakistan in March 2002. The provisions of the code focus on three broad areas including a board of directors, disclosure, and a system of internal control (Khan et al., 2020).

The existing literature provides ample evidence that good corporate governance gives confidence to potential investors to invest in local as well as international stock markets. The enhanced confidence of investors is helpful to mobilize savings that ultimately result in the higher and more sustainable growth of financial markets. It is also evident that better corporate governance practices are beneficial not only for developed countries but also for developing countries like Pakistan (Arslan and Abidin, 2019). SECP revised the CCG in 2019 which has a major emphasis on disclosure and transparency. In Pakistan, the corporate governance mechanism is based on the Anglo-American model. Given Pakistan's significant differences in cultures and the countries where the Anglo-American model is successful, a critical question is whether Pakistani firms can enhance their value effectively by adopting the same governance practices from developed countries (Khan et al., 2020).

The main challenge in Pakistan is compliance with the CCG. SECP introduced many mandatory provisions in the CCG after making several amendments since 2002 but there are still some provisions that are voluntary. These provisions challenge the power of families and the state and make it difficult to implement the CCG in its true spirit (Arslan and Abidin, 2019). In his study, Khan (2014) argues that the main reason for the partial implementation of the CCG is the majority of family-owned listed firms. These firms elect family members as non-executive and executive directors. More often, independent directors and female directors are children of family members.

Most of the prior research focuses the association between firm-level governance and capital structure choice (e.g, Zaid et al., 2020; Kieschnick and Moussawi, 2018; Chow et al., 2018; Buvanendra et al., 2017; Sheikh and Wang, 2012). A growing body of literature has analyzed the linkage between country-level governance and capital structure (for example, Martins et al., 2020; Martins et al., 2017; Cheng and Shiu, 2007). These studies are based on law and finance literature and focus on the impact of country-level characteristics like investor protection, country origin, and corruption (Martins et al., 2020). These two streams of literature show that capital structure choices are sensitive to both firm-level as well as country-level governance attributes. It is imperative to understand how firm- and country-level governance attributes affect the capital structure decisions of firms, especially in emerging markets where investor protection is weaker. By examining the combined effect of governance attributes at the firm- and country-levels on capital structure decisions, this study fills the gap in the literature.

This paper contributes to the existing literature in multiple dimensions. First, it studies the association between firm-level, country-level governance attributes, and choices of capital structure in the particular environment of an emerging economy of Pakistan, based on the argument of La Porta et al. (1998) that developing countries have poor investor protection. Second, investigating the effect of firm-level and country-level governance attributes on the

capital structure at the same time is very important because emerging markets have distinctive features in terms of financing environment and governance structure (Francis et al., 2013). First, in developing markets, it is costly for firms to improve their governance and as a result, these firms cannot take advantage of a decrease in the cost of capital (Doidge et al., 2007). Hence, these firms are less likely to improve their governance practices. Second, large shareholders intensively expropriate minority shareholders in developing markets (Claessens et al., 2000) which leads to an increased cost of capital for firms (Lins et al., 2005). This paper provides useful insights into how corporate governance can reduce conflicts of interest and improve the financial environment in emerging markets.

This study extends the governance literature by examining the impact of firm-level along with country-level governance quality on capital structure decisions in the developing economy of Pakistan. There are several studies that examine the effect of firm-level governance mechanisms on capital structure decisions of listed firms in Pakistan (e.g., Butt and Hasan, 2009; Sheikh and Wang, 2012; Sheikh, 2019) but there are a very few studies that investigate the link between country-level governance quality and capital structure of Pakistani listed firms (e.g., Ahsan et al., 2016). Thus, this study attempts to fill this gap by examining the impact of the firm- and country-level governance on the capital structure decisions of firms at the same time.

This paper is organized as follows. Section 2 presents a review of the literature, Section 3 presents the methodology of the study, Section 4 presents and discusses the results and Section 5 concludes the paper.

## **2 Literature Review**

Agency theory assumes that suppliers of capital measure the intensity of firm-level agency costs when making decisions about the amount, the rate of interest, and the maturity of the loans (Pindado et al., 2015; Fan et al., 2012; Lin et al., 2011). The agency costs related to debt are typically based on three agency problems. First, the problem of underinvestment is caused when controlling shareholders and managers forgo projects with positive NPV if creditors can earn an excessive portion of earnings from that project. Second, reorganization and bankruptcy may distort firm's value (Cho et al., 2014; Aslan and Kumar, 2012). Finally, the managers and controlling shareholders can invest the creditors' money into high-risk projects with higher NPV because they have more inside information and discretion which may increase shareholders' wealth at the expense of creditors (Martins et al. 2020). These problems arise due to asymmetric information between outsiders and insiders with discretionary power to use free cash flows (Barclay and Smith, 1995; Myers 1977; Jensen and Meckling, 1976).

### **2.1 Firm-Level Governance and Capital Structure**

The existing literature reports many firm-level governance characteristics that influence firms' choice of capital structure. These characteristics include size of the board, gender diversity, composition of board, and CEO duality (see, e.g., Ehikioya et al., 2021; Das et al., 2020; Alves et al. 2015; Sheikh and Wang, 2012; Abor, 2007). The board of directors is at the top position in a firm's hierarchy and is responsible to direct the firm in a way to achieve the ultimate objective of shareholders' value maximization. It is the responsibility of the board to make strategic decisions for the firm's financial structure. The existing literature indicates an inconclusive linkage between board characteristics and capital structure. For instance, Yermack (1996) asserts that the efficiency of larger boards to monitor the firm's management is lower, possibly due to burdensome communication, coordination, and decision-making. Consistent with these results, Lipton and Lorsch (1992) contend that free-rider problem hampers the efficiency of larger boards. Ahmed et al. (2006) and Vafeas (2000) argue that

investors perceive that the earnings of firms with smaller boards are more informative. According to Berger et al. (1997), the correlation between board size and capital structure is negative and significant. However, Coles et al. (2008) find that firms with complex structures need more pieces of advice than firms with simple structures and have larger boards which are considered to be more effective. While Wen et al. (2002) found that the link between board size and capital structure is negative but statistically insignificant.

Among the other aspects of corporate governance, the corporate board provides a system for aligning the interests of shareholders and managers (Weisbach, 1988). According to Milliken and Martins (1996), gender diversity is one of the important characteristics of the board. In contrast to their male counterparts, female directors are considered more meticulous, self-governing, and responsible (Li and Li, 2020). According to Bass (2019), the inclusion of women on the top management team enhances the collective acquaintance of the group by minimizing systemic prejudices and providing unique social links and cultural experiences by challenging the stereotypes held by men. The existence of female directors on boards warrants higher attendance and less agency conflicts because they are self-governing and tough monitors compared to their male colleagues (Adams et al., 2010; Carter et al., 2003). According to Chen et al. (2017), the active involvement of female directors in the appraisal of complicated issues provides more substantial benefits to shareholders. As a result, the efficient oversight of the gender-diverse board reduces agency problems and boosts debtholder confidence.

The literature exploring the effect of gender diversity on capital structure provides inconclusive results. For instance, Maxfield et al. (2010) report that gender diversity negatively affects debt ratios because the risk-aversion behavior of female directors is more intensive than their male counterparts. Similarly, Loukil and Yousfi (2016) and Schicks (2014) report that males can handle higher risk in using more debt. Contrarily, Virtanen (2012) finds that women are more active decision-makers and have a greater impact on the board's decision-making process. Gender-diverse boards reduce managerial opportunism and information asymmetry due to their active engagement and strict monitoring (Usman et al., 2019). Resultantly, the inclusion of female directors gives confidence to the lenders about the payment of principal and interest, which results in more availability of debt (Amin et al., 2022).

The blockholders can significantly lessen the incompatibility of interest of shareholders and managers (Sheikh and Wang, 2012). In general, compared to dispersed owners, large shareholders have a stronger position in influencing managerial decisions. For instance, blockholders may persuade management to increase leverage because issuing new debt is less expensive than the issuance of new equity due to tax benefits associated with debt. Another justification for using more debt is the contractual payments related to debt which restrict the management to use these cash flows for their own benefits or wasteful activities. The firms with more blockholders raise more debt compared to the firms with fewer blockholders (Brailsford et al., 2002; Fosberg, 2004). Contrarily, some studies find that higher blockholders ownership reduces debt financing. For instance, Lin et al. (2011) find that excessive control of large shareholders increases possible threats and other moral hazards, which will increase banks' credit risk and cost of monitoring, hence, increasing the borrowers' debt cost.

In the wake of globalization, many developing economies have attracted foreign investors by reducing the barriers. Foreign investors are better positioned to improve firms' corporate governance practices by controlling managerial behaviors because of having limited relations with firms (Ferreira and Matos, 2008; Aggarwal et al., 2011). On the other hand, according to Do et al. (2020), the role of foreign investors regarding improvement in corporate governance practice is not clear because they have low shareholdings in developing markets. Finally, various studies report that foreign ownership and capital structure are inversely related

(for example, Zou and Xiao, 2006; Gurunlu and Gursoy, 2010; Le and Tannous, 2016). On the basis of the above arguments, the following hypothesis has been developed.

H1: There is a significant relationship between firm-level governance and capital structure.

## **2.2 Country-Level Governance and Capital Structure**

Corporate debts are the financial contracts that provide a monitoring mechanism by minimizing misuse of corporate cash flows by managers and large shareholders. These contracts are effective when the internal governance of firms is strong as well as country-level governance enforces the laws related to the protection of capital suppliers (Li et al., 2009; Dargenidou et al., 2007; Demirgüç-Kunt and Maksimovic, 1999). Therefore, internal governance and country-level governance work as a coiled system to control and minimize agency problems (Haxhi and Aguilera, 2017; Aguilera et al., 2008; Judge et al., 2008).

The extant literature on country-level governance proves that capital structure choices of firms are largely dependent on legal environment of a country as it plays a crucial role in developing capital market and protecting rights of shareholders and creditors (Arosa et al., 2014; Aggarwal and Goodell, 2014 a,b; La Porta et al., 1998). There is increased demand for equity in various countries because of strict control over corruption and higher regulatory quality (Aggarwal and Goodell, 2010). The characteristics of a firm are not the only determinants of its capital structure but traditions and environment surrounding the firm are also very important (Gungoraydinoglu and Oztekin, 2011). Alves et al. (2015) and Fan et al. (2012) extend the same argument as country-level attributes, like business environment, economic environment and financial development are important elements in making capital structure decisions. Antoniou et al. (2008) find that various factors, like corporate governance, capital market, tax system, the relationship between banks and corporations and level of investor protection influence the firm-specific attributes in determining capital structure of a firm.

According to Aggarwal and Goodell (2014a), a firm has easy access to funds when investor protection is better, and the financing choice will indicate the perceived and actual transaction costs of resolving the problem of information asymmetry. Claessens and Yurtoglu, (2013) also found that firms with strong governance practices have better performance and easy access to financing. Based on these arguments, the following hypothesis has been developed.

H2: There is a significant relationship between country-level governance and capital structure.

## **3 Methods**

This section presents the details about sample selection, data collection, model of the study, and estimation method.

### **3.1 Sample and data collection**

This study examines the impact of firm-level governance practices and country-level governance environment on capital structure decisions of firms. For this purpose, this study uses a sample of non-financial firms listed on Pakistan Stock Exchange during 2009-2020. The firm-level governance and capital structure data were extracted from annual financial reports of the sample firms, while the data related to country-level governance were collected from the website of the World Bank. This study deleted the firms that have incomplete records regarding the variables of the study. Hence, the final sample consists of 187 firms that cover a period of 12 years (2244 firm-year observations).

### 3.2 Operationalization of Variables

In order to compare the findings with others, this study adopts operationalization and measurement of variables from the existing literature. The definitions of variables are given in Table 1.

**Table 1: Definition of Variable**

Variables	Symbol	Formula
<i>Dependent variables</i>		
Financing	$TDR_{it}$	Total debt / Total assets
<i>Explanatory variable</i>		
<b>Firm-Level Governance</b>		
Board size	$BSIZ_{it}$	Log of total number of directors
Gender diversity	$GDIV_{it}$	Number of female directors/Total number of directors
Blockholders ownership	$BOWN_{it}$	Shares held by five largest individual shareholders/Total shares outstanding
Foreign ownership	$FOWN_{it}$	Shares held by foreign investors/Total shares outstanding
<b>Country-Level Governance</b>		
Country governance quality	$CGQ_{it}$	A combined indicator of six aggregate indicators of governance that capture the overall quality of national governance.
<i>Control Variables</i>		
Firm size	$SIZE_{it}$	(ln) total assets
Profitability	$PROF_{it}$	Earnings before taxes / Total assets
Liquidity	$LIQ_{it}$	Current assets / Current liabilities
Tangibility	$TANG_{it}$	Tangible non-current assets / Total assets
Growth	$GROW_{it}$	Per share market price / Per share book value

This study uses the ratio of total debt to total assets as proxy of financing/capital structure decisions (Sheikh, 2019; Matemilola et al., 2019; Farooq and Sheikh, 2021). This study takes the log of total directors to measure board size (Ehikioya et al., 2021; Huang and Mirza, 2023). Gender diversity is measured as the number of women directors dividend by total directors (Alves et al., 2015; Ye et al., 2019; Amin et al., 2022). The current study measures blockholders ownership with the ratio number of shares held by the five largest shareholders to total number of common stocks outstanding (Detthamrong et al., 2017; Sheikh, 2019). Foreign ownership has been measured as the ratio of shares held by foreign investors to total number of common stocks outstanding (Khan et al., 2020). The country-level governance data consists of overall national governance quality indicators (Kirch and Terra, 2012; Martins et al., 2017). Factor analysis has been conducted to merge the effects of the governance quality indicators into a combined indicator which is in line with Lensink et al. (2008), Kirch and Terra (2012) and Martins, Schiehl and Terra. (2017). Martins, Schiehl and Terra (2017) justified the use of a combined indicator with some arguments. First, the six aggregate indicators, developed by Kaufmann et al. (2010), are time varying and are more suitable for this study than the time constant indicators developed by LaPorta et al. (2002) and Djankov et al. (2008) because current study uses panel data for analysis. Second, the six indicators of Kaufmann et al. (2010) capture corresponding features of national legal enforcement. Thus, combining them into a single indicator results in better coverage of the rights of shareholders and creditors.

Firm size has been measured as natural log of total assets (Khan et al., 2020; Farooq and Sheikh, 2021). The earnings before income taxes have been divided on total assets to measure profitability (Sheikh, 2019; Farooq and Sheikh, 2021). To measure liquidity, this study uses current ratio (Sheikh and Wang, 2011; Sheikh, 2019; Farooq and Sheikh, 2021). The value of tangible assets is divided on total assets to measure asset tangibility (Sheikh and Wang, 2011; Suman and Singh, 2020; Rashid and Hersi, 2021). Finally, the ratio of market value to book value is used to measure firm growth (Kirch and Terra, 2012; Martins et al., 2017; Ye et al., 2019).

### 3.3 Empirical Model and Estimation

The panel data technique, ordinary least squares (OLS) method is used to estimate the impact of firm-level governance practices and country-level governance environment on capital structure decisions of firms. Basic regression model is presented below.

$$TDR_{it} = \beta_0 + \beta_1 BSIZ_{it} + \beta_2 GDIV_{it} + \beta_3 BOWN_{it} + \beta_4 FOWN_{it} + \beta_5 CGQ_{it} + \beta_6 SIZE_{it} + \beta_7 PROF_{it} + \beta_8 LIQ_{it} + \beta_9 TANG_{it} + \beta_{10} GROW_{it} + u_{it}$$

In the regression model, the endogenous variable is total debt ratio ( $TDR_{it}$ ). The explanatory variables are board size ( $BSIZ_{it}$ ), gender diversity ( $GDIV_{it}$ ), blockholders ownership ( $BOWN_{it}$ ), foreign ownership ( $FOWN_{it}$ ), country governance quality ( $CGQ_{it}$ ), firm size ( $SIZE_{it}$ ), profitability ( $PROF_{it}$ ), liquidity ( $LIQ_{it}$ ), asset tangibility ( $TANG_{it}$ ), and firm growth ( $GROW_{it}$ ).

## 4 Results

Table 2 presents the descriptive statistics of the variables used in the study. Mean value of total debt ratio depicts that sample firms have financed 54.91% of their assets with debt. The yearly averages in Table 3 show a decline in total debt ratio from 59.15% in 2009 to 57.20% in 2020. State Bank of Pakistan regulates monetary supply and rates of interest in the best interest of the country. The discount rate varies with the changes in the monetary policy and the market rate is adjusted accordingly. Lower interest rates increase the borrowings by the firms while higher interest rates lower the corporate borrowings. Thus, the year-wise variation of total debt ratio may indicate the changes in market interest rate. Board size has a mean value of 8. Table 3 shows that, on average, sample firms have 9 directors on their boards during 2009 to 2020. The mean value of gender diversity is 9.98%. The year-wise average indicates that the representation of female directors has increased to 13.91% in 2020 which may be due to the mandatory requirement of the CCG 2019 that restricts firms to include at least one female director on their boards. The mean of blockholders ownership indicates that the five largest shareholders hold 67.51% shares of firms. The blockholders ownership varies between 66.68% to 68.40% during 2009 to 2020 which is an indication of poor governance in the country because fate of a firm is in the hands of a very few large shareholders. The mean of foreign ownership is 12.96%. The year-wise averages show that foreign ownership has slightly declined from 12.46% in 2009 to 11.76% in 2020.

Among the control variables, firm size has a mean value of 15.73. The year-wise averages in Table 3 show that sample firms have increased their assets from 15.21 in 2009 to 16.21 in 2020. Mean of profitability is 5.27%.

### Table 2: Descriptive Statistics

<b>Variables</b>	<b>Obs.</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Minimum</b>	<b>Maximum</b>
<i>TDR<sub>it</sub></i>	2244	0.5491	0.2007	0.0271	1.4003
<i>BSIZ<sub>it</sub></i>	2244	8.0789	1.5842	6.0000	17.000
<i>GDIV<sub>it</sub></i>	2244	0.0998	0.1334	0.0000	0.7143
<i>BOWN<sub>it</sub></i>	2244	0.6751	0.1970	0.0692	0.9998
<i>FOWN<sub>it</sub></i>	2244	0.1296	0.2526	0.0000	0.9765
<i>CGQ<sub>it</sub></i>	2244	8.31e-07	0.9576	-1.5205	1.6030
<i>SIZE<sub>it</sub></i>	2244	15.732	1.4903	11.266	20.574
<i>PROF<sub>it</sub></i>	2244	0.0769	0.1252	-0.5946	0.9978
<i>LIQ<sub>it</sub></i>	2244	1.4673	1.1515	0.0442	14.516
<i>TANG<sub>it</sub></i>	2244	0.4373	0.2121	0.0005	0.9428
<i>GROW<sub>it</sub></i>	2244	2.6336	17.546	-635.67	218.87

*TDR<sub>it</sub>* is total liabilities to total assets, *BSIZ<sub>it</sub>* is log of number of directors on board, *GDIV<sub>it</sub>* is number of female directors to total board members, *BOWN<sub>it</sub>* is shares held by five largest shareholders to total shares outstanding, and *FOWN<sub>it</sub>* is number of shares held by foreign investors to total shares outstanding, *CGQ<sub>it</sub>* is a combined indicator of national governance quality, *SIZE<sub>it</sub>* is natural log of assets, *PROF<sub>it</sub>* is profit after tax to total assets, *LIQ<sub>it</sub>* is measured by current ratio, *TANG<sub>it</sub>* tangible non-current assets to total assets, and *GROW<sub>it</sub>* is market-to-book ratio.

The yearly averages in Table 3 show that profitability has declined to 1.41% in 2020 which may be attributed to the outbreak of COVID-19 in December 2019. The mean value of liquidity is 1.47 times, which shows that sample firms use long-term funds to finance working capital. Table 3 indicates that the yearly average of current ratio is more than one during 2009 to 2020. The conservative policy of working capital financing is possibly due to the pressure on firms to maintain more current assets than current liabilities (i.e., positive net working capital) to complete orders of clients on time despite energy problems. Additionally, frequent changes in material prices may force the firms to maintain higher current assets. Asset tangibility has a mean value of 43.73%. The yearly averages (Table 3) show that investment in tangible assets is declining which might be due to the fluctuation in exchange rate because firms import most of the capital goods from various countries by making payments in US dollars. Thus, changes in the exchange rate prohibit firms from investing more in capital assets. Finally, the mean value of firm growth is 2.63 times. Table 3 shows that sample firms documented the highest growth of 5.23 times in 2017 during the study period which declined to 2.94 times in 2020.

#### **4.1 Correlation Matrix**

Table 4 presents the results of pair wise correlation which show that multicollinearity is not a serious problem in the data. The results show that gender diversity has a positive relationship with TDR and an inverse relationship with board size. Blockholders ownership has a positive relationship with TDR and negative relationship with board size. Foreign ownership has a negative relationship with TDR and gender diversity while positive relationship with board size and blockholders ownership. Country governance quality has a negative relationship with TDR and positive relationship with board size and gender diversity. Firm size is positively related to board size, blockholders ownership, foreign ownership, and country governance quality while negative relationship with gender diversity. Profitability is negatively related to TDR, gender diversity and country governance quality while positively related to board size, blockholders ownership, foreign ownership, and firm size. Liquidity has a negative relationship with TDR and gender diversity while positive relationship with board size, blockholders ownership, foreign ownership and profitability. Tangibility has positive relationship with TDR and gender diversity while negative relationship with board size, blockholders ownership, foreign ownership, country governance quality, firm size, profitability, and liquidity. Finally, growth has a positive relationship with TDR, blockholders ownership, foreign ownership,



country governance quality and profitability whereas negatively related to firm size and liquidity.

**Table 4: Year-wise mean values of variables**

Year	TDR	BSIZ	GDIV	BOWN	FOWN	SIZE	PROF	LIQ	TANG	GROW
2009	0.5915	0.8945	0.0964	0.6742	0.1246	15.2071	0.0343	1.4680	0.4763	1.4161
2010	0.5689	0.8951	0.0911	0.6668	0.1265	15.2977	0.0592	1.4576	0.4666	0.6849
2011	0.5691	0.8943	0.0916	0.6742	0.1399	15.4436	0.0629	1.3627	0.4315	1.1651
2012	0.5574	0.8941	0.0921	0.6789	0.1349	15.5210	0.0541	1.4259	0.4381	1.5305
2013	0.5355	0.8989	0.0951	0.6779	0.1343	15.6018	0.0730	1.5307	0.4259	3.6337
2014	0.5321	0.9011	0.0941	0.6840	0.1376	15.6969	0.0541	1.5242	0.4322	3.8798
2015	0.5242	0.9040	0.0939	0.6745	0.1381	15.7555	0.0532	1.5662	0.4366	-0.0443
2016	0.5086	0.9027	0.0893	0.6704	0.1336	15.8204	0.0653	1.5536	0.4410	3.8341
2017	0.5266	0.9032	0.0929	0.6668	0.1331	15.9613	0.0674	1.5258	0.4238	5.2289
2018	0.5424	0.9049	0.1026	0.6715	0.1273	16.0896	0.0556	1.4595	0.4208	4.1598
2019	0.5608	0.9042	0.1197	0.6798	0.1199	16.1737	0.0390	1.3642	0.4247	3.1716
2020	0.5720	0.9080	0.1391	0.6823	0.1176	16.2109	0.0141	1.3695	0.4305	2.9430

## 4.2 Regression Results

Table 5 shows the impact of firm-level governance practices and country governance quality on capital structure decisions of firms. The results show that board size, gender diversity and blockholders ownership are significantly positively associated with TDR. Foreign ownership and country governance quality are significantly negatively associated with TDR. Among the control variables, profitability, liquidity, and tangibility are significantly negatively associated with TDR. Finally, growth is significantly positively associated with TDR.

**Table 3: Regression estimates**

Variable	Coefficient	Std. Error	t-statistics	Prob.
<i>CONST.</i>	0.3888	0.0477	8.16	0.000
<i>BSIZ<sub>it</sub></i>	0.2917	0.0429	6.80	0.000
<i>GDIV<sub>it</sub></i>	0.0780	0.0235	3.32	0.001
<i>BOWN<sub>it</sub></i>	0.1175	0.0163	7.22	0.000
<i>FOWN<sub>it</sub></i>	-0.0543	0.0133	-4.07	0.000
<i>CGQ<sub>it</sub></i>	-0.0176	0.0032	-5.44	0.000
<i>SIZE<sub>it</sub></i>	0.0037	0.0023	1.63	0.103
<i>PROF<sub>it</sub></i>	-0.6336	0.0347	-18.27	0.000
<i>LIQ<sub>it</sub></i>	-0.0980	0.0029	-33.69	0.000
<i>TANG<sub>it</sub></i>	-0.1488	0.0154	-9.67	0.000
<i>GROW<sub>it</sub></i>	0.0008	0.0002	4.42	0.000

TDR<sub>it</sub> is total liabilities to total assets, BSIZ<sub>it</sub> is log of number of board members, GDIV<sub>it</sub> is number of female directors to total board members, BOWN<sub>it</sub> is number of shares held by five largest shareholders to total shares outstanding, and FOWN<sub>it</sub> is number of shares held by foreign investors to total shares outstanding, CGQ<sub>it</sub> is a combined indicator of national governance quality, SIZE<sub>it</sub> is natural log of assets, PROF<sub>it</sub> is profit after tax to total assets, LIQ<sub>it</sub> is measured by current ratio, TANG<sub>it</sub> tangible non-current assets to total assets, and GROW<sub>it</sub> is market-to-book ratio.,

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## 5 Discussion and conclusion

This paper examines the impact of firm- and country-level governance quality on capital structure decisions of firms. For this purpose, balance panel data (2009-2020) of 187 non-financial PSX listed firms have been used. The results substantially prove that firm- and country-level governance quality significantly affect the capital structure decisions of firm. The results show that board size is positively associated with total debt ratio which supports the argument of the resource dependence theory that larger boards are more capable of raising external financing based on their personal relations with creditors. These findings are congruent with Abor (2007), Sheikh and Wang (2012) and Balagobei (2020). The positive relationship of gender diversity with total debt ratio supports the arguments of Virtanen (2012) and Usman et al. (2018) that female directors more actively participate in organizational activities and influence the decision-making process. The active role of female directors in the board effectively controls the opportunistic behavior of firm managers. Therefore, the presence of female directors is a positive signal for the creditors about repayment of debt and interest. These findings support the results of Amin et al. (2022). Blockholders ownership is positively associated with total debt ratio which indicates that larger shareholders are better able to influence managers to borrow more funds to control their opportunistic behavior. These findings are congruent with Sheikh and Wang (2012) and Feng et al. (2020). Foreign ownership is negatively associated with the total debt ratio. According to Vijayakumaran and Vijayakumaran (2019), are not able to effectively monitor and control managers because of their holding low percentage of shares firms. They may find debt a useful tool to control the opportunistic behavior of the managers (Zou and Xiao, 2006). The positive association of foreign ownership with total debt ratio is congruent with Vijayakumaran and Vijayakumaran (2019) and Zaid et al. (2020). Country-level governance quality is negatively associated with the total debt ratio. The negative association implies that strong country-level governance mechanism legally empowers the creditors in situations of default or bankruptcy by firms. In case of bankruptcy, creditors may force the firms for repayment, take the collateral, and take control of the assets of the borrower, which is likely to reduce the risk of default (Diamond, 1991). Additionally, strong mechanisms of country-level governance reduce firms' chance of asset substitution or taking excessive risks by imposing high expropriation costs on major shareholders (Acharya et al., 2011; Aslan and Kumar, 2012). Thus, firms do not have to use debt as monitoring tool when country-level governance quality is stronger. These results are congruent with the findings of Martins et al. (2017).

Among the control variables, the inverse relationship between profitability and total debt ratio supports the pecking order theory that profitable firms prefer the use of internally generated funds. These results are in line with Sheikh and Qureshi (2014), Sheikh (2019) and Farooq and Sheikh (2021). Liquidity and total debt ratio are inversely associated which support the pecking order theory which implies that highly leveraged firms implement more restrictive policy of working capital to avoid tying up firm resources in trade debts and inventory. These findings are congruent with Sheikh and Wang (2011), Rashid and Jabeen (2018) and Farooq and Sheikh (2021). The negative relationship of asset tangibility with total debt ratio is not congruent with the predictions of the trade-off theory proposing that the firms which have more tangible assets are better able to raise more external funds compared to the firms which have intangible assets. According to Berger and Udell (1995), firms that have strong connections with creditors are better able to borrow funds by offering lower collateral because the requirement of physical assets as collateral is substituted by strong links. Moreover, in Pakistan

short-term loans are the dominant source of external financing which do not need collateral. These results are congruent with Sheikh and Wang (2011;2013) and Sheikh and Qureshi (2017).

Finally, firm growth and total debt ratio are positively associated which supports the prophecies of trade-off theory that there is an optimal capital structure that can be achieved by creating a balance between cost and benefits of debt. Since higher opportunities of growth reduce the cost of borrowing, firms that have higher opportunities of growth borrow more funds to create an optimal capital structure (Chen and Zhao, 2006). These results support the findings of Zafar et al. (2019) and Farooq and Sheikh (2021).

This study contributes to the governance literature by examining the impact of firm-level governance as well as country-level governance quality on capital structure decisions in the developing economy of Pakistan. The emphasize of several governance related studies is the connection between firm-level governance mechanisms and capital structure decisions Pakistani of listed firms (e.g., Butt and Hasan, 2009; Sheikh and Wang, 2012; Sheikh, 2019) while a very limited studies have emphasized on the connection between country-level governance quality and capital structure decisions (e.g., Ahsan et al., 2016). Thus, this study simultaneously examines the effects of firm- and country-level governance on capital structure decisions of firms and fills the gap in the existing governance literature.

## **5.1 Practical implications**

Prospective investors in developing economies like Brazil and Chile would do well by considering national governance elements that increase the efficacy of debt holders' external oversight. The findings of this study are especially helpful to policy makers who want to alter corporate governance standards in emerging economies, since they highlight the significance of considering and enhancing the quality of governance at the national level.

**Table 4.6: Correlation Analysis**

<i>Variable</i>	<i>TDR</i>	<i>BSIZ</i>	<i>GDIV</i>	<i>BOWN</i>	<i>FOWN</i>	<i>CGQ</i>	<i>SIZE</i>	<i>PROF</i>	<i>LIQ</i>	<i>TANG</i>	<i>GROW</i>
<i>TDR</i>	1										
<i>BSIZ</i>	0.02	1									
<i>GDIV</i>	0.07***	-0.11***	1								
<i>BOWN</i>	0.04*	-0.05**	0.01	1							
<i>FOWN</i>	-0.17***	0.07***	-0.13***	0.33***	1						
<i>CGQ</i>	-0.04**	0.06***	0.07***	0.003	-0.01	1					
<i>SIZE</i>	-0.02	0.31***	-0.21***	0.08***	0.19***	0.19***	1				
<i>PROF</i>	-0.45***	0.15***	-0.13***	0.13***	0.25***	-0.06***	0.16***	1			
<i>LIQ</i>	-0.62***	0.08***	-0.03***	0.05**	0.19***	0.004	0.02	0.36***	1		
<i>TANG</i>	0.09***	-0.11***	0.14***	-0.09***	-0.23***	-0.04*	-0.10***	-0.24***	-0.32***	1	
<i>GROW</i>	0.04*	0.29	-0.01	0.05**	0.08***	0.05**	-0.04*	0.12***	-0.01***	-0.01	1

Note: Correlation is significant \* at 0.1, \*\* at 0.05, \*\*\* at 0.01 significance level respectively.

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