Does Corporate Governance and Corporate Social Responsibility Impact the Market Liquidity?

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Abstract. The study aims to investigate the impact of corporate governance and corporate social responsibility on market liquidity of the firm. It is cited from the literature and the industry that in the context of Pakistan being a developing market, firms in general do not adhere to good practices in terms of corporate governance mechanism and corporate social responsibility. This in turn does not enhance the investors' confidence, alongside some other factors, resulting a decline in the market liquidity. The study uses the data of 200 non-financial firms listed on the Pakistan Stock Exchange (PSX) for 10 years from 2013 to 2022. The results indicate that managerial and institutional ownership along with the presence of an audit committee positively influence the market liquidity. Increased ownership by managers and institutions enhances the market liquidity. Conversely, the holding of shares by the family diminishes the trading activity in the market. Additionally, there is a positive relationship between corporate social responsibility and market liquidity. These insights hold implications for investors, policymakers, and corporate governance practitioners seeking to foster market efficiency and transparency in pursuing sustainable financial markets.

Key words: Corporate governance, corporate social responsibility, market liquidity.

1 Introduction

In recent times, the corporate governance (CG) issue has received great attention around the world. After globalization, the need for corporate governance has grown due to the financial crisis. During the last three decades the world has faced harmful consequences of the Asian Financial Crisis (AFC) of 1997 and the Global Financial Crisis (GFC) of 2008. The dire results of these crises are the clear indications of failure of corporate governance, leaving many questions unanswered (Claessens and Yurtoglu, 2013). The shocks of these crises have shown long-lasting impacts on the economy and the business world. The scholars and policymakers accepted these results with the witness of a weak governance system (Claessens and Yurtoglu, 2013).

The world economic system has experienced significant fraud, manipulation of financial statements and unethical behavior in the corporate world. Many large companies (Enron, World-Com, Xerox, Vivendi, Parmalat, and later on alleged fraud cases like Lehman Brothers, AIG, and Freddie Mac) were involved in frauds. In response to these issues, several modifications have

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been made to accounting principles such as the Sarbanes–Oxley Act in the United States and the Financial Security Law in France. In addition, numerous adjustments have been made to the International Financial Reporting Standards (IFRS) on an annual basis. Even more, these adjustments are continuing compared to the accounting standards adopted in 2005 (Phillips-Pakkianathan, 2022). It was established that the traditional governance framework was ineffective and unable to prevent insider expropriation. Investors' confidence in the capital market was damaged as a result of these scandals. Consequently, global regulatory bodies have made it compulsory that the corporate sector follow the corporate governance code to advance accountability, transparency and fairness for all stakeholders (Mrabure and Abhulimhen-Iyoha, 2020).

The agency theory explains a firm's better performance and good governance and expresses how to lower the agency cost (Wang et al., 2020). A corporate governance mechanism for any firm includes managerial ownership, institutional ownership, the establishment of independent directors and independent audit committees. Mansor et al. (2013), argue that internal governance mechanisms have material effects on financial performance. Managerial stock ownership and institutional ownership are considered to reduce the risk of abuse of authority by the management (Benlemlih et al., 2023). The majority ownership directs the management to take better decision in the best interest of firm that would increase the shareholder wealth. The wrong managerial decisions put the firm performance in bad position that would negatively affect the wealth of shareholders (Damai et al., 2019).

The purpose of the firm is not only to satisfy shareholders but also consider the interest of other stakeholders. In the long run, it is observed that a firm going through such practices can realize more volume of profitability as an outcome of an improved reputation (Mwangi and Jerotich, 2013). This corporate strategy is not socially responsible; rather, it is primarily implemented to satisfy shareholders. The absence of CSR practices diminishes shareholder interest in trading activities involving these firms, which consequently leads to a decrease in market liquidity over the long term (Mwangi and Jerotich, 2013). CSR concept is the contribution of community importance by corporations (Benlemlih et al., 2023). It is not a modern notion but an old concept and contains various challenges for the firms and stakeholders (Freeman and Medoff, 1984). Business experts and academia have examined many queries about CSR concerning how it is adopted by corporations while gaining stakeholder attraction (Lim and Pope, 2022).

Over the last few years, the subject of CSR has gained attention in research conferences and recurring media coverage but still there is a lack of implementation at the practical level (Malik et al., 2014). Only a few national and multinational organizations are regularly focusing on CSR activities. The firms invest certain percentage of profit for the well-being of the society where it is operating (Yunis et al., 2018). The Securities and Exchange Commission of Pakistan (SECP) has mandated the disclosure of information on 'donations' as part of CSR in financial statements in compliance with the Companies Ordinance 1984. The SECP makes it compulsory for all companies to provide clearly defined CSR policy and vision and to show commitment in terms of time and resources (Javaid Lone et al., 2016). The guidelines and principles encouraged the companies to establish a 'CSR Consultative Committee' and a 'CSR Management System to develop a comprehensive framework within the firms (Ayub et al., 2021; Ehsan et al., 2018). However, there is still a need to refine the CSR policies and establish the standards for the firms operating in Pakistan.

The concept of information asymmetry is associated with market liquidity. If the firm's liquidity is high, it tends to attract more investments and can generate funds bearing relatively low transaction costs and little lag time associated with economic agents (Glosten and Milgrom,

1985; Stoll, 1978). Therefore, enhancing liquidity is an essential purpose of stock markets especially in developing countries where the growth opportunities are relatively sufficient but under-utilized. The literature notes that when companies engage in CSR activities, market liquidity increases (Hsu et al., 2022). The existence of market liquidity is essential for an investor who is concerned with the rate of return and helps in the establishment of effective trading methods. Better market liquidity is associated with high stock returns which are flourished by corporate governance and corporate social responsibility (Amihud and Mendelson, 1986; Bradrania et al., 2015). Additionally, the variations in liquidity levels have an impact on investment strategies (Bradrania et al., 2015; Cao et al., 2018). Market liquidity is a crucial factor for business enterprises to take into account as it impacts their cost of capital and company value by strengthening the corporate governance frameworks (Javaid et al., 2023; Nadarajah et al., 2018). In Pakistan, regulatory bodies are making more efforts to encourage the companies to invest in CSR activities and to publicly acknowledge these efforts in their annual reports. Since the code of corporate governance was established in 2002 in which all listed firms are required to provide information about CSR in their published audited annual reports.

The purpose of the study is to examine the impact of corporate governance and corporate social responsibility on market liquidity in the context of developing countries i.e., Pakistan. Some managers still believe that investment in CSR activities are financial burden for the firms and leads to lower profitability (Ahmad et al., 2023). A study needs to encourage the managers of the firms to invest in CSR expenditures which should not viewed as expenses but rather improve the reputation of the firm. As a result by taking care of society, the market liquidity of the firms is affected positively. The study contributes to the understanding of how ownership structure, audit committee, donations activities and financial metrics collectively influence market liquidity. The findings underscore the importance of governance practices, ownership dynamics and financial performance to shape the liquidity levels in the capital markets. This research study has divided into five sections. Section one, the introduction, has already been discussed. Section two reviews the prior literature, while section three covers data and methodology. Section four presents the results and discussion, and section five provides the conclusion.

2 Literature Review

The established literature has focused on the association between corporate governance, corporate social responsibility and market liquidity from different angles. There are positive and negative relationships evident between these variables.

2.1 Corporate Governance and Market Liquidity

According to the Organization for Economic Cooperation and Development, corporate governance is the process and procedure used for directing and controlling the firm. Corporate governance sets the roles and responsibilities of various company members as well as the processes and guidelines for making decisions. These decisions maximize the stakeholder advantages (Kajola, 2008). There are typically two primary components of corporate governance: internal governance and external governance (Cremers and Nair, 2005). The board of directors serves as the internal monitoring body to supervise the conduct of executives whereas the external governance mechanism consists of external monitoring systems like market control and legal systems (Babalola and Moodley, 2020; Shleifer and Vishny, 1997).

It is further added that the effectiveness in the supervisory role of the board of directors (BODs) needs audit committee members on a high level. According to the theme of agency theory, managers think that independent directors are more watchful of agency issues (Meckling and Jensen, 1976). It is the primary responsibility of these independent directors on the board to oversee the management's actions and conduct (Uwuigbe et al., 2014). Good governance can encourage management to act as an agent as well as possible in the best interest of the principal (Asaduzzaman and Virtanen, 2023). The investors trade concerning asymmetry in the market, affecting the market liquidity (Kamran and Shah, 2014; Lee et al., 2015).

Managerial ownership serves to align the interests of both shareholders and managers. The market liquidity of the company is positively correlated with the proportion of management shares (Fox et al., 2024). Christiawan et al. (2020) conclude that a company's performance with or without managerial ownership does not significantly differ from one another. On average a company that has high managerial ownership performs marginally better. The percentage of shares held by outside businesses relative to the total value of the company's shares is known as institutional ownership. The external ownership has promoted the better management performance oversight to raise overall firm performance. Institutional ownership has a favorable impact on the business (Guo and Platikanov, 2019).

Different argument are given in previous studies on the relationship of family ownership and market liquidity. Some researchers have found a negative relationship, while citepcheng2023 have suggested a positive relationship between family ownership and firm liquidity. If the share of firm are held by the small group of individual, this concentration lead the firms towards lower stock liquidity (Ali Taher and Al-Shboul, 2023). Major portion of shares held by the families leading to a lower free float of shares available for trading in the market (Manzoor et al., 2022). This concentration can significantly reduce stock liquidity as fewer shares are available for active trading. Similarly, Biswas (2020) found that family ownership is associated with lowering the trading activity and wider bid-ask spread, as a result the liquidity reduces. Contrary, Christiawan et al. (2020) found that the family ownership has significant positive relationship with stock liquidity.

Audit committee members (ACM) improves the board's roles, including the audit standards, nomination process and compensation criteria. The functions of audit committees are to evaluate the financial reporting criteria and to supervise the performance of the executive's activities associated with the board's success (Al Farooque et al., 2020). When an audit committee functions on behalf of the board, it can monitor successfully the working behaviors of the executives (Al Farooque et al., 2020). According to this, an audit committee increases the board supervision function which ultimately leads to the maximization of wealth and market liquidity. Musallam (2020) concludes that there is a positive relationship between audit committee members and market liquidity. According to Endrawes et al. (2020), an increase in the number of audit committee members is associated with improved criteria for the firm's financial statements. This suggests that a larger audit committee can enhance the quality and accuracy of financial reporting standards. As the audit committee's member's increases, the market liquidity also improves, allowing it to efficiently oversee management's activities and assess financial reporting (Tornyeva and Wereko, 2012).

2.2 Corporate Social Responsibility and Market Liquidity

Corporate Social Responsibility is a firm's activities to improve economic, social, and environmental performance concerning stakeholder expectations (Aguinis and Glavas, 2012). The

firms engaged in CSR activities have a positive influence on market liquidity (Jo and Harjoto, 2012). This offers a chance to evaluate the significance of CSR-related data for market players by looking at the function of sell-side financial analysts (Scalet and Kelly, 2010; Tschopp and Huefner, 2015). Financial analysts at investment banks play an important role in capital markets based on publicly available information. They also focus on market price discovery by analyzing and interpreting the variety of information and work in an information-rich environment that might be influenced by CSR initiatives (Aronson and Henriques, 2023; Palmon and Yezegel, 2012).

Firms that are more socially responsible, tend to make long-term relationships with their stakeholders rather than focusing on short-term benefits (Choi et al., 2018). The resources that are necessary for businesses to survive are under the control of stakeholders. A manager must strategically satisfy the needs of the investors to ensure the company's success which generates high liquidity (Chih et al., 2008; Choi et al., 2018; Hong and Andersen, 2011). There are some contradicting arguments given by Lange and Washburn (2012); Mishra and Modi (2013), who concluded that there is negative relationship between CSR and market liquidity. They found that by investing in CSR activities, the profitability of the firm decreases. The firms' CSR strengths and weaknesses have an impact on credit ratings positive and negative indicators which are frequently viewed in combination with one another (Barauskaite and Streimikiene, 2021).

The goal of management is to maximize the firm's profits through operational activities of the firm while simultaneously meeting short-term capital requirements and future operational expenditures, thereby preserving liquidity (Briones et al., 2024). To reach this objective, the firm should reduce the risk of inability to fulfill its short-term requirements while preventing unnecessary investments in current assets (Egginton and McBrayer, 2019). Furthermore, a wider range of investors are drawn to businesses with robust corporate social responsibility programs since they are seen as lower-risk investments. The market is more actively traded which results in smaller bid-ask spreads and increased trading volumes. Hamrouni et al. (2022) explains that initiatives improve market liquidity by promoting trust and minimizing information asymmetry among the shareholders.

Liquidity plays a pivotal role in the successful functioning of a profitable firm. Both the potential investors and shareholders pay significant attention to the liquidity measures (Alarussi and Gao, 2023). The bid-ask spread is a more reliable method used to measure the market liquidity of the firm (Biswas and Zhai, 2021). It represents the liquidity level and the ease with which transactions can be completed. In contrast, current ratios are unable to assess the market liquidity fluctuations (Naik et al., 2020). A higher bid-ask spread represent the low trading volume in market which indicates low market liquidity. As the bid-ask spread decreases, the transaction costs for investors are reduced, which in turn increases trading activity in the market. This rise in trading volume enhances the market liquidity of the firm.

The market liquidity is dependent on the information asymmetry which reduces the market liquidity (Handa et al., 1998). The CG and CSR are significant factors to determine the market liquidity of firm (Ehikioya, 2009; Gemmill and Thomas, 2004). Some contradicting finding of the studies suggest that investment in CSR activities lowers the market liquidity of the firms (Lange and Washburn, 2012; Mishra and Modi, 2013). Some studies found no relationship between the variables (Abdullah and Page, 2009; Aboagye and Otieku, 2010; Sueyoshi et al., 2010; Velte, 2022).

3 Data and Methodology

The study uses the data of 200 non-financial firms listed on the Pakistan Stock Exchange (PSX). The regulations and accounting methods differ from those of the other industries, financial, real estate and insurance firms are not included in the sample. Moreover, the analysis excludes the companies with outliers and those for whom data is unavailable. The data involves the annual audit reports for the period of ten years from 2013 to 2022. Moreover, the emphasis on practicing CG and CSR is prevalent more in this time frame in the firm's annual disclosure. Multivariate regression is used to draw the analysis. Following is the mathematical form of the model applied.

$$ML_{it} = \beta_0 + \beta_1 CG_{it} + \beta_2 CSR_{it} + \beta_3 Lev_{it} + \beta_4 EPS_{it} + \beta_5 AT_{it} + \beta_6 FS_{it} + \varepsilon_{it}$$

Where: ML is market liquidity and it is measured through quoted spread and effective spread. CG is corporate governance which is represented as the independent variable and is measured through managerial ownership, institutional ownership, family ownership and audit committee members. CSR is corporate social responsibility and it is measured through donations by the firm. The control variables are leverage, earning per share, asset tangibility and firm size. Leverage is measured by total debt over total assets Umam and Yusuf (2024), earnings per share is calculated as net income over total number of outstanding shares (Akben-Selcuk, 2019). Asset tangibility is the property, plant, and equipment scaled by total assets (Auliffe et al., 2023). Firm size is the log of total assets (Ahmad et al., 2023). The details of variables are as follows:

Table 3.1: Description of Variables

Variables		Measurement
Quoted Spread	QS _{it}	Quoted spreads = $\frac{Ask_t - Bid_t}{\frac{Ask_t + Bid_t}{2}}$ (Ajina and Habib, 2017)
Effective Spread	ES_{it}	Effective spreads = $2 \frac{\left \frac{\stackrel{2}{A}sk_t + Bid_t}{2} - P_t \right }{\frac{Ask_t + Bid_t}{2}}$
Managerial Ownership	MO_{it}	Percentage of common stock held by management (Saleh et al., 2005)
Institutional Ownership	IO_{it}	Percentage of common stock held by the institution (Roodposhti and Chashmi, 2011)
Family Ownership	FO_{it}	Percentage of common stock held by the family (Habash and Baidoun, 2024)
Audit Committee Members	ACM_{it}	Number of audit committee members (Habash and Baidoun, 2024)
Donations	Don _{it}	Level of computed donation expenses scaled by total assets in a year (Hess et al., 2002)
Leverage	Lev _{it}	The ratio of total liabilities to total assets (Roodposhti and Chashmi, 2011)
EPS	EPS_{it}	Net income divided by total number of shares (Akben-Selcuk, 2019)

4 Results and Discussions

4.1 Descriptive Statistics and Correlation Analysis

The study reports summary statistics and correlation analysis of the variables of the study. The results of descriptive statistics and correlation analysis are reported in Tables 2 and 3.

On average management holds 28% common equity in the firms while institutional shareholders hold 24% of total equity and family ownership holds maximum ownership which is 45.1% because in developing countries there is more trend of family businesses. The mean value of the audit committee is 4.123. The mean value of the donations is 0.8% which shows that the firms are investing 0.8% of total assets for the welfare of the society. The average value of leverage is 48.7% of total assets. Firms have an average earnings per share (EPS) of 25%. It is derived from the descriptive statistics that tangible assets are 69.4% of total assets. The average firm size is 12.53.

The correlation analysis presented in Table 3 which shows that all the variables are partially correlated and there is no multicollinearity issue in the model.

Variables	Mean	SD	Maximum	Minimum
Quoted spread	0.003	0.083	0.110	0.000
Effective spread	0.002	0.061	0.102	0.000
Managerial ownership	0.283	0.235	0.580	0.000
Institutional ownership	0.241	0.194	0.560	0.000
Family ownership	0.451	0.338	0.890	0.000
Audit committee members	4.123	1.425	8.000	3.000
Donations	0.008	0.076	0.090	0.000
Leverage	0.487	0.197	0.616	0.207
EPS	0.259	0.169	0.790	0.029
Assets tangibility	0.694	0.256	0.894	0.451
Firm size	12.532	1.925	23.197	6.000

Table 4.1: Summary Statistics for Variables Characteristics

Table 4.2: Correlation Matrix

	QS	ES	MO	IO	FO	ACM	Don	Lev	EPS	AT	FS
QS	1										
ES	0.024	1									
MO	0.039	-0.017	1								
IO	0.042	0.043	0.052	1							
FO	-0.058	0.390	-0.067	0.041	1						
ACM	0.044	-0.026	0.041	-0.022	-0.052	1					

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Don
0.012
0.023
0.002
0.032
-0.421
0.032
1

Lev
-0.005
0.061
-0.023
-0.063
0.019
-0.020
-0.003
1

EPS
-0.025
0.021
-0.055
-0.043
-0.030
-0.055
-0.045
-0.060
1

AT
0.033
-0.044
-0.390
0.130
-0.365
0.241
-0.065
0.245
-0.084
1

FS
0.020
0.053
-0.011
-0.086
0.062
-0.041
0.015
0.088
0.055
-0.370
1
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Note: Table 3 presents the correlation matrix between the dependent variable, explanatory variables, and control variables, showing the direction of the relationships among them. The partial correlations among all independent variables indicate no multicollinearity issues in the model. The analysis includes variables such as quoted spread, effective spread, managerial ownership, institutional ownership, family ownership, audit committee members, donations, leverage, earnings per share, asset tangibility and firm size.

4.2 Multivariate Regression

Table 4 indicates the results of multiple regression with the objective to find the relationship of corporate governance, corporate social responsibility and market liquidity. It shows the results of quoted spread and effective spread as a measure of the liquidity of the firm.

	Model 1 Quoted Spread	P-Values	Model 2 Effective Spread	P-Values
Constant	1.048***	0.000	1.055***	0.000
Managerial ownership	0.010***	0.002	0.006***	0.002
Institutional ownership	0.012***	0.011	0.010***	0.015
Family ownership	-0.034**	0.019	-0.040**	0.029
Audit committee members	0.060**	0.006	0.050***	0.006
Donations	0.034***	0.015	0.030***	0.005
Leverage	-0.076***	0.011	-0.083***	0.011
Earnings per share	-0.035***	0.002	-0.039***	0.002
Assets tangibility	-0.069	0.234	-0.082	0.301
Firm size	0.046***	0.005	0.044***	0.005
\mathbb{R}^2	0.41		0.40	
F-Statistics	36.12		33.89	

Table 4.3: Multivariate Regression

4.3 Corporate Governance and Market Liquidity

It is explored from the results that corporate governance have statistical significant relationship with market liquidity. The results find that managerial ownership and institutional ownership exert significant

positive effects on quoted and effective spreads. It is indicating that higher levels of ownership by managers and institutions are associated with increased market liquidity. The findings indicate that investors perceive companies with substantial managerial and institutional ownership as more attractive investment opportunities. This perception is likely due to higher levels of managerial expertise, alignment of interests between managers and shareholders, and greater monitoring and oversight by institutional investors. The findings are consistent with the results of Bajaher and Shawtari (2024), who found that better governance mechanism improves market liquidity of the firm.

Furthermore, the presence of audit committee members is found to have a positive impact on market liquidity, suggesting that robust governance mechanisms contribute to enhanced liquidity. The significance of the audit committee in enhancing market liquidity suggests that its presence contributes positively to the overall trading activity in the market. The findings suggest that investors view companies with robust audit committees as more transparent, reliable, and accountable, thereby increasing investor confidence and participation in trading their shares. Additionally, the audit committee's oversight role in ensuring accurate financial reporting and internal controls may mitigate information asymmetry and reduce uncertainty for investors, thereby enhancing liquidity. The results of the study are consistent with the findings of Farooq et al. (2022), found that ownership structure has a positive impact on market liquidity. This improvement in CG in terms of ownership structures create better market liquidity.

It is derived from the results that family ownership significantly declines the market liquidity of firms. Interestingly, family ownership shows a negative relationship with quoted and effective spreads. A higher family ownership would lower the market liquidity (Eibannan, 2017). This results suggests that the influence of family ownership on market liquidity warrants further investigation and consideration. If the family owns more shares and there are fewer shares traded in the market which consequently decreases market liquidity (Chih et al., 2008; Choi et al., 2018; Habash and Baidoun, 2024; Hong and Andersen, 2011).

4.4 Corporate Social Responsibility and Market Liquidity

The study highlights the donations as a feature of CSR and exhibit a positive association with market liquidity, indicating that corporate philanthropy may enhance market liquidity (Hess et al., 2002). The firm's CSR activities in the form of donations to charitable cause, creates a signal of the commitment of the corporations towards ethical behaviours. Investors perceive that the firms engage in CSR activities are socially conscious and trustworthy. This positive perception of shareholders and investors leads the firms to attract more investment and increase confidence of all the stakeholders. The trading activities increases in the market due to which the liquidity rises. Firms which are engaged in corporate social responsibilities activities in the form of charitable donations for the well-being of society, also reduces the risk associated with the environmental externalities. Moreover, risk mitigation strategies enhances the investor and shareholder confidence and boost the market liquidity.

4.5 Conclusion

This study has the purpose of investigating the influence of corporate governance characteristics and corporate social responsibility activities on the market liquidity of firms listed in Pakistan. The study period is from 2013 to 2022. Multivariate regression is applied for empirical testing. It is concluded from the results that managerial and institutional ownership increase the market liquidity. The results have implied that the audit committee improves the firm's liquidity in the market. The family ownership lowers the market liquidity of the firm. Moreover, CSR is a significant feature that the firms are utilizing to improve their firm's liquidity. These insights hold implications for investors, policymakers, and corporate governance practitioners seeking to foster market efficiency and transparency in pursuing sustainable financial markets. Further research exploring the complexities of ownership structures and their impact on market liquidity would enrich our understanding of this critical aspect of financial markets.

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