

## DOES FAMILY OWNERSHIP MODERATE THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE AND INTEGRATING REPORTING PRACTICES: A CASE OF NON-FINANCIAL FIRMS IN PAKISTAN

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### Abstract

*Financial scandals and a decline in stakeholders' trust in the transparency of financial reporting from firms have been caused by ineffective oversight, a weak corporate governance system, and concentrated ownership, particularly family ownership and its involvement in firm affairs. Implementing an effective corporate governance practice and integrated reporting in this context is important to reducing these issues. The purpose of this study is to examine the impact of corporate governance on integrated reporting and the moderating role of family ownership. Sixty-four non-financial firms were selected as samples registered on the Pakistan Stock Exchange (PSX) from 2016 to 2023. The impact of corporate governance indicators, i.e., board size, board independence, board meetings, and CEO duality, is estimated on the integrated reporting index. We develop an integrated reporting index by calculating the weighted mean of thirty integrated reporting variables. This study applied the fixed-effect technique to test this regression model. The results showed that board meetings positively impact integrated reporting, while board size, CEO duality, and board independence have a negative effect on integrated reporting quality. We also find that family ownership moderates this relationship. In addition, the results show that Pakistan-based firms have been consistently enhancing their reporting quality by increasing the number of integrated reporting attributes by respecting the principle of disclosures in their annual reports, which depict notions of accountability and transparency, to develop trust with stakeholders. For practitioners, such as investors, regulators, and other stakeholders of the firm, our study adds new perspectives to corporate governance practices and integrated reporting. Also, the implications of the study contribute to the academic debates of corporate governance practices and integrated reporting.*

**Keywords:** Integrated reporting, Corporate Governance, Family Ownership, Fixed Effect.

### 1. INTRODUCTION

Corporate governance (CG) plays a significant role in influencing the strategic and operational framework of firms, but many firms face challenges with accountability, transparency, inefficiency in decision-making, and conflicts of interest related to governance (Naeem, 2021; Farooq and Ahmad, 2023; Naeem et al., 2024). The challenges are often detrimental to stakeholder trust, which, in turn, inhibits firms from achieving long-term sustainability (Lin and Guan, 2024; Asadi et al., 2024). Integrated Reporting (IR) has emerged as a next-generation transformation tool to address these governance issues regarding transparency and accountability related to corporate disclosures (Runesson and Samani, 2024). The IR enables firms to communicate an extensive range of information about their business model that integrates financial, social, and environmental performance in a single report (Tian et al., 2024). CG serves as an antecedent to the adoption and effect of IR has not yet been fully considered in the literature, particularly within the context of family-owned firms. Family ownership (FO) can possess unique dynamics (e.g., concentrated control, aversion to risk taking, and a focus on working towards preserving a legacy), and is a moderating factor towards the CG-IR relationship. Although it is important, previous research (Banda, 2023; Caglio et al., 2019; Aslanertik and Yardımcı, 2024) has not paid any attention to the role of FO as a moderating variable, which has limited our understanding of how FO can affect governance mechanisms and IR outcomes in a nuanced way. To address this concern, this study examines the relationship

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between CG, IR, and FO, providing new insights into the ways that family-owned firms can utilize IR to navigate governance challenges and promote sustainable performance.

This study is especially significant for non-financial firms in Pakistan, where growth and investment activity remain impeded by reliability on governance issues. Non-financial firms in Pakistan face a continual struggle with insufficient transparency, accountability, and backwardness in adopting broader non-financial measures in corporate reporting practices. All of these impediments inhibits firms from attracting investments and reduces their viability to be successfully competitive in the global market. This study will explore the relationship between CG and IR, and discuss a process whereby firms listed on the PSX can enhance transparency and accountability. Also, the examination of family ownership as a moderating variable has addressed a significant gap in the literature by recognizing and discussing the governance challenges faced by family firms in Pakistan. This study will explore the effect of family ownership on the adoption and implementation of IR as evidence-based solutions to governance inefficiencies. The evidence from the study will provide assistance to effective implementation of an IR framework that meets global standards and advances governance structures and sustainability performance of Pakistani non-financial firms.

This study aims to provide answers to two research questions: Does CG increase the quality of IR, and how does FO moderate this relationship? To investigate this research questions, the researcher collected data from the annual reports of 64 non-financial companies listed on the PSX during the annual period of 2016–2023. An IR index was developed for this research by constructing the index based on 30 items that reflect both the detail of integrated reporting practices and the quality. The IR index is the weighted means of the IR index variables. The study examined the influence of CG, with indicators by board size (BS), board independence (BI), board meetings (BM), and dual role of CEO (CEO\_D), on the IR index. Using the fixed effects regression model, the employee research found that BMs do positively impact IR quality while BS, CEO\_D, and BI negatively impact IR quality. The research demonstrates that FO moderates the relationship between CG and IR, making ownership structure a key determining force in the continuum of reporting. This process establishes a solid context for understanding the relationship of CG and FO to improve reporting quality. This research makes a valuable contribution to the literature by recognizing and addressing an important gap in CG-IR research around an emerging economy like Pakistan. The consideration of FO as a moderating variable shows the particular governance dynamic of family-controlled firms and its implications for reporting practices, which has not received sufficient attention in the literature. The study also builds a full IR index of 30-items which represents a methodological contribution for assessing IR quality and also creates a replicable measure for future research. The findings also has some practical implications providing greater guidance for both policymakers and approach corporate leaders working in the non-financial sector to promote better transparency and accountability, from governance means. Finally, the study also illustrates the importance of board of directors characteristics and the effects of reporting quality at a resonance level, and provides a clearer picture of which governance characteristics yield the highest quality IR.

Each implication also provides considerable insights for investors, regulators, financial analysts, and researchers. All these stakeholders should have a much better understanding of the basis and actions for management's transition from conventional annual reporting to integrated reporting. The negative effect of BS, CEO\_D, and FO on IR reveals that it increases the agency cost. So the regulatory body, such as SECP, must impose governance codes to reduce the negative effects of these. The regulatory bodies embolden establishments to diversify their ownership structures and encourage IR by advocating rigorous compliance with governance codes. The undesirable influence of factors like BS on IR activities is assuaged by this divergence. Stakeholders of firms should recognize that when ownership remains in a few hands, it causes the ineffectiveness of CG. This concern entails the espousal of more appropriate board governance structures, such as sustaining an optimum BS, ornamental BI, and eluding CEO\_D, among further measures.

## **2. THEORETICAL FOUNDATION**

Several studies (Bollen and Inder, 2002; Dowling and Pfeffer, 1975; Freeman and Reed, 1983; Muth and Donaldson, 1998; Naeem, 2023; Farooq and Ahmad, 2023; Farooq et al., 2023) used different theories (stakeholder, agency, and legitimacy) to understand the relationship between these variables: CG, IR, and FO. Agency theory is the most relevant theory to examine this relationship. The current study focuses on the link between CG and IR, especially evaluating the moderating impact of FO through the perspective of agency theory, to examine whether they contribute to IR.

### **2.1. Agency Theory**

Agency theory explains the agency relationship (Eisenhardt, 1989; Nobanee et al., 2022). When information asymmetry problems and opportunistic management behavior lead the management's objectives to deviate from the shareholders', a conflict of interest arises (Darko et al., 2016; Huse, 2005). According to this theory, increasing internal monitoring mechanisms through CG practices and dispersed ownership is one way to address these agency concerns. According to Ryan et al. (2003), IR serves as a valuable instrument to reduce information asymmetry by providing stakeholders with more voluntarily disclosed information. According to

Kabwe et al. (2021), the role of BoD is to monitor to reduce agency problems, hence enhancing the quality of reporting, especially Integrated Reporting, and importantly increasing a firm's transparency. Nobanee et al. (2022) argue that BoD has a significant role in predicting Integrated Reporting, which aims to lower agency problems and information asymmetry, to improve IR.

### **3. LITERATURE REVIEW**

#### **3.1 Board Size**

Previous research shows that a larger board size (BS) is most commonly associated with more released information (Adhikariparajuli et al., 2021) to reduce information asymmetry. Previous studies (Zidi-Jrah et al., 2016; Suttipun et al., 2019; Memon et al., 2025; Naeem et al., 2025) demonstrated a positive association between BS and information released about corporations. Chouaibi et al. (2022) argue that smaller boards are more efficient than larger boards in mitigating agency problems. In addition, Fasan et al. (2016) report that small boards are more effective than large boards in advising corporate behavior because larger boards face challenges fully reaching agreement, particularly agreement identifying what is relevant, and the way large teams might face difficulties, leading to managers posting worse disclosures. Zouari and Dhifi (2022) discovered an inverse relationship between BS and IR. Meanwhile, Falatifah et al. (2021) and Tudor et al. (2020) found an insignificant association between BS and IR. In light of the inconsistency in results, this study aims to fill this gap. This study formulates the following hypothesis based on the above literature;

***H<sub>1</sub>: Board size has an effect on integrated reporting.***

#### **3.2 Board Meetings**

BM serves as an important venue for directors and management to participate in strategic conversations, assess policies and performance, and address key concerns. Various points of view have been expressed on the relationship between the frequency of BM and IR. Some (Torre et al., 2020; Vitolla et al., 2020) claim that frequent BM, when linked with agency theory, can help to reduce agency conflicts, improve board performance, and encourage good CG by prioritizing stakeholder interests. Increased oversight, accomplished through more meetings, is thought to lower the possibility of earnings manipulation, promote information sharing, and reduce agency-related expenses. In contrast to this, Chouaibi et al. (2022) argue that an excessive number of BMs indicates inefficiency and unsatisfactory performance. In light of the inconsistency in results, this study aims to fill this gap. Based on the above literature, we formulate the following hypothesis;

***H<sub>2</sub>: Board meetings have effects on integrated reporting.***

#### **3.3 Board independence**

BI plays an important role in reducing information asymmetry and increasing IR quality (Chouaibi et al., 2022). According to Amran et al. (2014), firms with a greater percentage of independent directors boost the board's efficacy because they may moderate agency conflicts with managers in the absence of information asymmetry. Consequently, there is more transparency on boards with a higher proportion of independent directors (Haniffa et al., 2005). Even though the majority of companies' boards consist primarily of independent members, it can be challenging to determine whether a director is independent (Barako et al., 2007), and, as a result, may impact reporting practices (Omran et al., 2021). Furthermore, shareholders may choose independent directors to represent their interests rather than depending on disclosures made to the public, and they can obtain the information they need directly from the directors they choose (Eng et al., 2003). Previous research provides inconsistent empirical findings, which drives this study to investigate the link between BI and IR. Suttipun et al. (2019) discovered a negative association between BI and IR disclosure level; however, Zouari and Dhifi (2022) discovered a positive link. Contrary to Falatifah et al. (2021), Huse (2005) discovered no association between BI and IR disclosure levels. As a result, the following hypothesis is recommended by this study:

***H<sub>3</sub>: Board independence influences integrated reporting.***

#### **3.4 CEO Duality**

According to agency theory, having an independent board apart from management assists in controlling decision-making and avoiding authoritarian leadership (Eisenhardt, 1989). Allowing a single person to play many jobs may raise the likelihood of opportunistic behavior that is difficult to identify. On the contrary, resource dependence theory calls for the CEO and chairman posts to be combined in one person to create unified leadership. This strategy, however, may reduce BI and impartial supervision, thereby affecting disclosure quality, particularly in the setting of voluntary disclosure (Wang et al., 2013). The Securities Exchange Commission of Pakistan proposes that the CEO and chairman be appointed separately. Wang et al. (2013) and Zhou and Banking (2019) found a negative association between CEO\_D and IR. Chanutup et al. (2020) and Hichri (2022) found no link between CEO\_D and IR. In light of the inconsistency in results, this study aims to fill this gap. Based on the above literature, we formulate the following hypothesis;

***H<sub>4</sub>: CEO duality has effects on integrated reporting.***

### 3.5 Corporate Governance, Family Ownership, and Integrated Reporting

FO is found in situations when the principal shareholder and senior management are either the same individual or persons from the same family (Suttipun et al. 2019). Haniffa et al. (2005) and Cooray et al. (2020) found a positive association between FO and reporting quality and indicated that larger levels of family shareholdings are associated with higher levels of transparency. Haji and Mohd Ghazali (2018) and Suttipun et al. (2019) found a negative effect of FO on reporting quality. Organizations with an FO structure are likely to have a lower amount of voluntary reporting transparency, including IR. Previous research on the link between FO and IR has been limited.

IR is closely related to CG mechanisms and practices since it mixes financial and non-financial information to create a comprehensive perspective of a firm's performance. FO firms frequently have distinct traits and dynamics that might impact the CG-IR nexus. Prior research (Anderson and Reeb, 2003; Bennedsen et al., 2009) has emphasized the influence of FO on CG structures and their consequences for a firm's performance, but ignored the moderating role of FO between CG and IR. This is the pioneer study conducted on moderating the role of FO in the nexus of CG-IR. Based on the above literature, the following hypotheses are formulated:

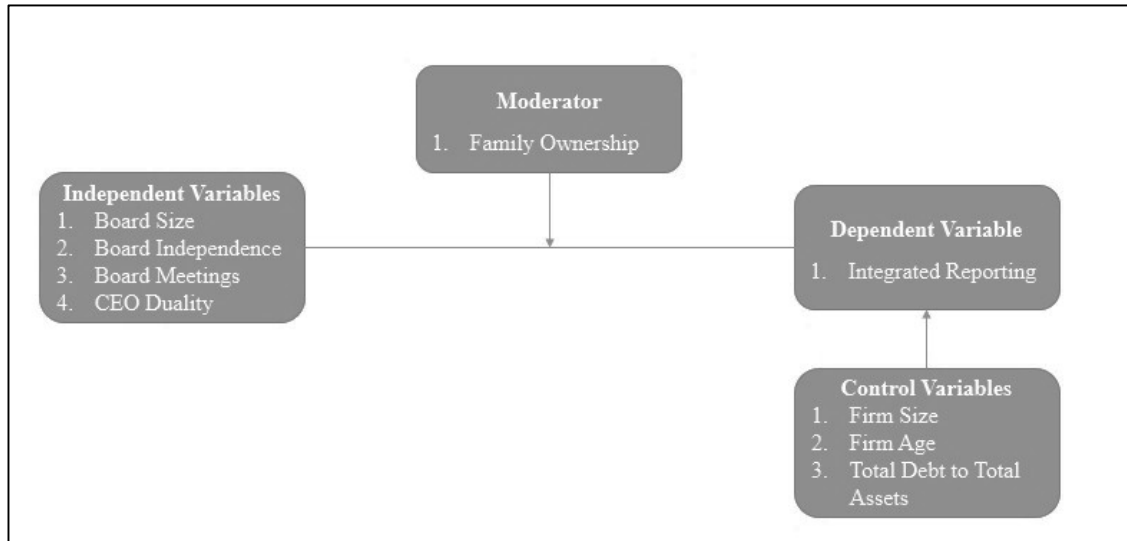
**H<sub>5</sub>:** *There is a significant relationship between family ownership and integrated reporting.*

**H<sub>6</sub>:** *Family Ownership moderates the relationship between Corporate Governance and Integrated Reporting.*

### 3.7 Conceptual Framework

The conceptual model of this research which consists of variables relationship is given below in Figure 1.

**Figure 3.1: Conceptual Framework**



## 4. METHODOLOGY

### 4.1 Sample

The study used quantitative methods, and data were collected from annual reports of 64 non-financial firms from 2016 to 2023 listed at PSX. Panel data techniques were used for analysis.

### 4.2 Model specification

To test this association between variables, this study formulated two econometric models. Model 1 consists of the direct effect of CG variables on IR, while Model 2 consists of the full model (moderating role of FO).

$$\text{Model 1: } IR_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BI_{it} + \beta_3 BM_{it} + \beta_4 CEO\_D_{it} + \beta_5 FSize_{it} + \beta_6 FAge_{it} + \beta_7 TDTA_{it} + \varepsilon_{it}$$

$$\text{Model 2: } IR_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BI_{it} + \beta_3 BM_{it} + \beta_4 CEO\_D_{it} + \beta_5 FO_{it} + \beta_6 BS*FO_{it} + \beta_7 BI*FO_{it} + \beta_8 BM*FO_{it} + \beta_9 COE\_D*FO_{it} + \beta_{10} FSize_{it} + \beta_{11} FAge_{it} + \beta_{12} TDTA_{it} + \varepsilon_{it}$$

Where as;

$IR_{it}$  = Integrated Reporting score of firm  $i$  at time  $t$

$BS_{it}$  = Board Size

$BI_{it}$  = Board Independence

$BM_{it}$  = Board Meetings

$CEO\_D_{it}$  = CEO Duality  
 $FO_{it}$  = Family Ownership  
 $FSize_{it}$  = Firm Size  
 $FAge_{it}$  = Firm Age  
 $TDTA_{it}$  = Total Debt to Total Assets ratio  
 $\beta_0$  = Intercept  
 $\beta_1 \dots \beta_{12}$  = Coefficients of independent and interaction variables  
 $\varepsilon_{it}$  = Error term

### 4.3 Measurements of Variables

#### 4.3.1 Measurements of the Dependent Variable

In order to measure IR, the dependent variable for this study, a content analysis of annual reports, was analyzed using the methodology established by Mala and Chand (2012). The thirty disclosure items were coded using a dummy scoring method, which provided a code of 1 if the item was disclosed and 0 if it was not. Then, using the weighted mean, the scores were combined to reflect their relative significance for each item disclosed. The 30 indicators provide a structured view of IR, considering all the IPC elements in the international framework. Each category, organizational overview, governance, business model, risks, strategy, performance, outlook, and the basis of reporting, is important to value creation and accountability. The combination of qualitative and quantitative indicators will ensure a more even measurement of the quality of the disclosures. To rank each indicator, the weighted mean method makes explicit the relative importance of each indicator, resulting in a measure of IR that is more nuanced and representative than an IR index created without weighting.

#### 4.3.2 Measurements of Independent Variables

- Size of Board: BS is the total board members of directors (Alfiero et al., 2017; Falatifah et al., 2021).
- Board Independence: BI is the percentage of non-executive directors on the board (Haan et al., 2023).
- Board Meetings: It is measured through the total number of meetings conducted in one financial year (Farooq and Ahmad, 2023).
- CEO Duality: CEO\_D is measured through whether duality exists, then assign 1; otherwise, assign 0 (Farooq et al., 2023).

#### 4.3.3 Measurements of Moderator

FO is measured through the proportion of shares owned by the family to the total shares outstanding.

#### 4.3.4 Measurements of Control Variables

To improve the quality of the model, some control variables were added to the regression model.

- Firm Size: FS is natural logarithm of total assets (Ghani, 2018; Aceituno et al., 2013).
- Firm Age: Age is measured through the number of years the firm has been in existence.
- Total Debt to Total Assets: This is measured by dividing the total debt of the firm by the total assets.

## 5. RESULTS

### 5.1 Descriptive Statistics

**Table 5.1: Descriptive Results**

Variable	Obs	Mean	SD	Min	Max
IR	512	1.89	0.51	0.81	2.66
BS	512	7.89	1.32	7.00	13.00
BI	512	0.44	0.27	0.00	1.00
BM	512	5.32	2.10	2.00	11.00
CEO_D	512	0.83	0.37	0.00	1.00
FO	512	0.18	0.23	0.00	0.74
Fsize	512	7.01	0.59	5.46	8.32
Fage	512	42.81	20.89	19.00	161.00
TDTA	512	0.55	0.38	0.03	1.74

Table 5.1 provides an overview of the study's variables through descriptive statistics. Results showed that Pakistani firms have an average IR index of 1.89. BS also has significant variation, with an average of 7.89, a minimum value of 7, and a maximum value of 13 across different firms. On average, BI has a mean score of 0.44, suggesting that independent directors make up 44 percent of the board of the firms surveyed. BM has an

average of 5.32, with a minimum score of 2 and a maximum score of 11. CEO\_D has an average score of 0.83, showing that duality in the firm is roughly 83 percent. The mean of FO 0.18 indicates that 18% of the sample firms are owned by the family. The size of the firm has a mean of 5.46, while the firm age mean is 42.81, indicating that the sample firm's average age is approximately 43 years. The TDTA mean is 0.55, indicating that sample firms rely more on debt in their capital structure. 55% of debt exists in their total assets.

## 5.2 Correlation Result

**Table 5.2: Correlation Matrix**

Variables	IR	BS	BI	BM	CEO_D	FO	Fsize	Fage	TDTA
IR	1.000								
BS	0.001	1.000							
BI	0.048	-0.055	1.000						
BM	0.051	0.034	0.020	1.000					
CEO_D	-0.001	-0.029	-0.033	0.082	1.000				
FO	-0.115	-0.071	-0.200	-0.043	0.019	1.000			
Fsize	-0.031	0.148	0.157	0.268	-0.008	-0.193	1.000		
Fage	-0.104	-0.052	0.155	-0.142	-0.152	0.011	-0.180	1.000	
TDTA	0.008	0.043	0.046	0.078	-0.062	0.006	0.084	-0.134	1.000

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

In Table 5.2, correlation coefficients among the study's variables are presented. Notably, IR exhibits statistically significant and positive correlations with BS, BI, BM, and TDTA. Conversely, IR demonstrates negative correlations with CEO\_D, FO, Fsize, and Fage. BM and Fsize had the greatest correlation value of 0.268 among the explanatory factors. This low figure indicates that multicollinearity is not a major problem in our investigation. A further test of the variance inflation factor is performed as shown in Table 5.3 to corroborate this, and the results are good, with the maximum achieved value much below the crucial threshold of 10 (Farooq, 2023; Kline, 2005).

**Table 5.3: Variance inflation factor**

	VIF	1/VIF
Fsize	1.197	.836
Fage	1.126	.888
BI	1.109	.902
BM	1.097	.912
FO	1.077	.929
CEO_D	1.039	.962
TDTA	1.038	.964
BS	1.035	.966
Mean VIF	1.09	.

## 5.3 Regression Result

To select suitable model for the study, several assessments were conducted after the diagnostic tests. The Pooled Ordinary Least Squares (OLS) model and the Random Effect Model (REM) were selected using the Lagrange Multiplier (LM) test. According to the results of the LM test, REM was the better choice. Through the Hausman test Fixed-Effect Model (FEM) and the REM were also compared. With a p-value of less than 0.05, particularly 0.000, the Hausman test results indicate that the FEM is more suited. Consequently, this investigation was concluded using the FEM.

The diagnostics presented in Tables 5.5, 5.6, and 5.7 indicate that there are major issues with the panel data that could affect the reliability of standard error estimates if taken at face value. The Modified Wald statistics for groupwise heteroskedasticity was  $\chi^2 = 212.37$  indicating there is a concern about heteroskedasticity present in the panel data; the Wooldridge's statistics estimated using the F-statistic was ( $F = 15.62$ ) indicating concern about first order serial correlation among the residuals, and Pesaran's test for cross-sectional dependence gave, a CD statistic ( $CD = 5.48$ ) indicating significant cross-sectional dependence among firms. In summation, these diagnostics suggest that the fixed-effects estimators' results could be inefficient if the standard errors are not adjusted. As a safeguard, this study estimates heteroskedasticity-consistent and cross-sectionally robust standard errors, accounting for the concerns of these violations, to estimate valid parameter regression results.

**Table 5.4: Diagnostic tests**

Test type	Chi2()	Prob>Chi2
LM Test	928.55	0.0000
Hausman	70.43	0.0000

**Table 5.5: Test for Heteroskedasticity**

Test	Chi² (df)	p-value	Decision
Modified Wald Test for Heteroskedasticity	212.37	0	Heteroskedasticity present

**Table 5.6: Test for Autocorrelation**

Test	F(df1, df2)	p-value	Decision
Wooldridge Test for Autocorrelation	15.62 (1, 63)	0.0002	First-order autocorrelation present

**Table 5.7: Pesaran's Cross-Sectional Dependence Test**

Test	CD Statistic	p-value	Decision
Pesaran's Cross-Sectional Dependence Test	5.48	0	Cross-sectional dependence present

**Table 5.8: Husman Test**

Model	Chi² (df)	p-value	Preferred Model	Decision
Model 1	70.43 (8)	0	Fixed Effects Model	Reject H <sub>0</sub> (Random Effects not appropriate)
Model 2	549.09 (8)	0	Fixed Effects Model	Reject H <sub>0</sub> (Random Effects not appropriate)

**Table 5.9: Regression results**

Variables	Model 1	Model 2
BS	-0.052* (0.0170)	-0.033** (0.0210)
BI	0.1590 (0.0640)	-0.1170 (0.0810)
BM	0.7630 (0.0020)	-0.2030 (0.0080)
CEO_D	-0.9750 (0.0010)	-0.041** (0.1190)
FO	-0.006*** (0.0630)	-0.004*** (0.8140)
BS*FO		-0.8200 (0.0060)
BM*FO		0.734** (0.0700)
BI*FO		0.0140 (0.0580)
CEO_D*FO		0.002*** (0.5550)
Fsize	-0.2460	-0.098*

	(0.0930)	(0.1350)
Fage	0.000***	0.000***
	0.0790	(0.0790)
TDTA	-0.6110	-0.7230
	(0.0140)	(0.0100)
Constant	-0.1490	-0.7500
	(0.6510)	(0.1530)
Observations	512	512
R-squared	0.5	0.517
Number of Firms	64	64

Note: Standard errors are in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

In model 1, the FEM is employed to estimate the impact of CG variables and control factors on IR, as outlined in Table 5.8. The model exhibits statistical significance at the 1% level, with a p-value of 0.001 and an R-squared value of 0.500.

The results in Table 5.9 show that BS has negative effects on IR. Our findings are inconsistent with Aceituno et al. (2013) and Makri et al. (2023). The result shows that firms with the maximum board members are less likely to engage in IR initiatives. This unexpected result may stem from the challenges associated with increased communication and coordination problems within a larger board, showing that larger boards control the management, and this act ultimately reduces the quality of reporting (IR) activities. This finding suggests that a large BS can reduce director culpability and accountability, leading them to be less concerned with poor IR and less likely to promote IR to the board. BI has a negative, but not significant, relationship with IR. Independent directors are thought to monitor management and increase voluntary disclosure of IR, but in the case of Pakistan, they seem to place their interests before the firm's and inhibit their focus on reporting. The regression results also show that BM has insignificant effects on IR. This outcome is consistent with Girella et al. (2019), asserting that a high frequency of BMs may be a waste of the business's time and money without having an insurmountable effect on the quality of the disclosure. Next, considering CEO\_D, it shows a non-significant negative relation to IR. This study validates the argument made for CEO\_D increasing power concentration, whereby established CEOs (long tenured) have the best interest of shareholders at heart; it also decreases board effectiveness, particularly when it comes to efficiency, which can undermine the gainful social and financial performance of the firm. The result is aligned with Cheng and Courtenay (2006).

Most businesses in Pakistan are family-owned (Ehsan et al., 2019; Farooq, 2023). Family members are more often serving on the BoD. FO has, consequently, an important negative effect on IR, as family members are often preoccupied with family business matters. Family members selected onto BoDs in Pakistan also tend to be less engaged with IR practices, which reinforces the impact of family ownership in shaping reporting behaviors. Age of the firm has a negative and significant impact on IR, which is also consistent with the study's sample firms being from Pakistan, where sample firms have been around for many years but still focus mainly on operations and not on reporting, while being around for many years shows a negative association with IR.

Model 2 in Table 5.9 demonstrates the complete model result. The results show that the moderating effect of FO on the BS–IR relation is statistically insignificant. Likewise, FO has a positive moderating effect on the BI–IR relation, but it is statistically insignificant. This suggests that independent directors, regardless of FO, have a significant role in assessing and endorsing long-term strategies that enhance reporting quality. Previous studies have considered FO to influence CG structures, and these structures have implications on company performance, as noted by Anderson and Reeb (2003) and Bennedsen et al. (2009). These results offer a foundation for future research on the influence of FO on the relationship between CG mechanisms and IR adoption and efficacy.

Additionally, the findings indicate that FO does have an effect on the relationship between BM and IR. The frequency of board meetings, in particular, has a significant role for family-owned firms, positively influencing the quality of disclosure and reporting items. Furthermore, FO offsets the negative effect of CEO\_D on IR. The findings suggest that policies and strategies developed by family members are helpful to improve reporting quality and CEO\_D effectiveness, particularly in offering management valuable guidance and advice on strategic matters, and exemplifying the advantage of FO when determining reporting practices.

## 5.5 Robustness Result

To ensure robustness, we compute the IR index using a benchmark that involves summing the scores of items that firms disclosed. We include a diagnostic test, the LM and Hausman test. Then, based on Hausman, we see that FEM is appropriate for this. Robustness results can be found in tables 5.10 and 5.11, and they are similar to the previous results.



**Table 5.10: Diagnostic tests**

Test type	Chi2()	Prob>Chi2
LM Test	984.46	0.0000
Hausman	549.09	0.0000

**Table 5.11: Regression results**

Variables	Model 1	Model 2
BS	-0.1450 (0.1070)	-0.042** (0.1680)
BI	0.2200 -(0.4550)	0.7970 (0.1100)
BM	0.1570 (0.0590)	0.7740 (0.0150)
CEO_D	-0.8970 (0.0460)	-0.4440 (0.3650)
FO	-0.2750 (0.2030)	-0.022** (5.3450)
BS*FO		0.1020 (0.3550)
BM*FO		-0.0060 (4.7120)
BI*FO		0.208*** (0.2440)
CEO_D*FO		0.1730 (1.9580)
Fsize	0.2300 (0.7830)	0.6070 (0.3430)
Fage	0.000*** (1.0020)	0.000*** (1.0060)
TDTA	-0.8780 (0.0350)	-0.8570 (0.0410)
Constant	-0.000*** (29.6710)	-0.000*** (25.7360)
Observations	512	512
R-squared	0.734	0.741
Number of Firms	64	64

Note: Standard errors are in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## 6. CONCLUSION, LIMITATIONS, AND RECOMMENDATIONS

This research presents a modest attempt to investigate the effect of CG on the implementation of IR when the role of FO is moderated, specifically within the context of Pakistan. This was accomplished using 64 firm-level samples over 8 years (2016-2023). The results found from previous research suggest there are limited firms listed at the PSX that use IR practices, but there is currently a slowly increasing trend surrounding the use of IR. (Arbani and Siddiqui, 2023). This study has some contributions. This research makes multiple theoretical contributions. First, it helps close the current fundamental gap about what is intended by IR. There is still disagreement over how to define IR despite the number of studies that look into it. Secondly, this study expands the discussion on how CG processes impact voluntary corporate reporting by including IR. As a new reporting paradigm, IR provides a thorough understanding by capturing the connections between strategy, governance, performance, and prospectus. This offers new insights because other voluntary reporting models, like corporate social responsibility and sustainability reporting, place more emphasis on a particular dimension, like sustainability. Thirdly, this study adopts the FO as a moderator. This pioneering study was conducted on moderating the role of FO between CG and IR. We take FO as a moderator because in Pakistan, the whole country's economy is controlled by some families.

The results of the study have practical implications for stakeholders such as the SECP, policymakers, and boards of family-owned businesses. The result shows that BS, CEO\_D, and FO negatively influence IR, which signals greater agency costs. As a result, legislative agencies should consider the implementation of governance codes that may help alleviate these negative influences through ownership structures that are more dispersed and adherence to good governance practices. Similarly, the negative impact of BS on IR may be mitigated through

using higher BI, suggesting that diversity on boards can encourage greater transparency or accountability. Also be aware, policymakers and investors alike, that concentrated ownership may compromise effectiveness for effective governance, creating a negative impact on IR practice quality. Firms should strive to find the right balance as it relates to governance mechanisms such as suitable board size, improved board independence, and excessive levels of CEO\_D. The findings also present implications when firms move from traditional or annual reporting into less traditional, more transparent, and more interactive IR practice, only to make overall a more positive movement forward.

This study has limitations that indicate possible directions for future studies. First of all, the research only focuses on a single variable of CG (BoD), leaving other variables (i.e., audit framework and other elements of ownership structure). Future scholars can explore the influence of additional CG mechanisms on IR, improving knowledge of the effects of CG. The study also ignores cultures, diversity in director qualifications, diversity in age, and diversity in experience, and focuses instead on a limited number of board governance practices. Future studies must encompass these details to present a fuller picture of the CG/IR relationship. For the second limitation, although the financial sector is economically significant, the study limited its coverage to the non-financial sector. Future studies should focus on the financial sector to better contribute to new understandings of investor relations practices in Pakistan. The third limitation follows from the premise that this study only considers one country and should consider the limited ability to generalize findings to other nations. Future studies should consider cross-country studies to enhance understanding of the moderating role of FO in the CG/IR relationship in other nations, especially considering the differences in outcomes.

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