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Modern Finance Institute

Article

Do political connections affect firm performance? Evidence from a family-firm-dominated country

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Abstract: This study explores whether the family firms outperform nonfamily firms in Bangladesh. Secondly, we test whether family firms with political connections outperform non-connected family firms, given that more than 60 percent of Members of Parliament (MPs) have business backgrounds in the same setting. We find that the performance of nonfamily firms is significantly higher than that of family firms. However, we do not find any impact of political connection on the link between family ownership and market-based performance. At the same time, we document a negative impact of political connection on operating performance. Finally, our analysis shows that COVID-19 has negatively affected operating performance but positively affected market valuation, regardless of the firms' category. The paper's findings will be highly important to researchers, policymakers, and academics in emerging economies.

1. Introduction

Substantial research focuses on family firms, as they are the dominant form of business entities worldwide (e.g., Zahra & Sharma, 2004; La Porta, De-Silanes, and Shleifer, 1999; Wu, Gu, Liu, & Liu, 2023). Unlike other business organizations, legacy is highly paramount for family firms for connecting generations (KPMG, 2024). Moreover, the family legacy shapes the long-term vision of the family business. Prior research shows that the higher the family legacy, the greater the business sustainability and firm performance (KPMG, 2024). Recently, Ernst & Young (EY), in joint research with the University of St. Gallen on family business research, found that the largest 500 family firms generate a total revenue of USD 8.02 trillion (Ernst & Young Global, 2023). In addition, more than 70% of the world's gross domestic product (GDP) is contributed by family business organisations (De Massis et al., 2018), and around 60% global employment is created in family business organisations (McKinsey & Company, 2024). In the USA, more than 30% of Standard and Poor's (S&P) listed companies are owned and controlled by family members (Fernando et al., 2014; Zellweger et al., 2012). The performance of a family business depends on its legacy, family members' visions, and their socioemotional investments. More specifically, family firm research indicates that first-generation-led family firms outperform later-generation firms (Miroshnychenko et al., 2021; Miroshnychenko et al., 2023). Unlike in the U.S., more than 80% of companies in the Asia-Pacific region are family-managed, indicating a dominant role of family businesses compared to non-family business organisations (EY Family Business Yearbook, 2014).

However, little is known about family firms relative to nonfamily firms in developing countries, where more than 60% of publicly listed companies are controlled and managed by family members (Miah et al., 2023; Muttakin et al., 2015). The present

study aims to investigate whether family firms outperform or underperform nonfamily firms in the context of a developing market, specifically Bangladesh. Secondly, family business organizations are severely affected when board members or management executives are politically connected (Faccio, 2010; Sun & Zou, 2021; Wong & Hooy, 2018; Amato, Patuelli, Basco, & Lattanzi, 2023). Prior research documents that politically connected firms enjoy lower taxes, easier bank loans, government incentives, and greater market power than their nonconnected peers (Faccio, 2010; Fisman, 2001). On the other hand, some research shows that politically connected firms underperform non-connected firms. For instance, Boubakri et al. (2012) provide evidence of the negative impact of political connection on firm performance. They further document that connected firms are exposed to greater external leverage than nonconnected firms. Recently, Wong and Hooy (2018) argued and found that not all political connections are positively associated with firm performance. They explored different forms of political connections in Malaysia and inferred that family members' political connections do not lead to better performance. In contrast, other forms of connections (through board/government connections) do.

Given such a dominance of family firms over nonfamily firms around the world and due to the presence of a significant impact of political connection, we attempt to answer the two questions from a Bangladesh perspective: (i) Does family ownership affect firm performance? (ii) Is there any impact of political connection on the link between family ownership and firm operating and market-based performance?

We use Bangladesh to answer the two research questions above. We chose Bangladesh for several reasons. First, family firms in Bangladesh report continuous losses, whereas non-family firms do not. Critics argued that performance may have declined due to a leadership crisis in family firms. Moreover, they conjecture that family firms suffer greatly in the hands of the second or third generation compared to their time with the promoter (first generation), which warrants further research. Secondly, family members in management or on the board of family firms are found to be highly corrupt and to tunnel business resources into their own pockets at the expense of other stakeholders, thereby exacerbating the firms' financial difficulties (Mohabat, 2023). Third, Bangladesh provides a unique setting in which more than 60% of Members of Parliament (MPs) are people in business, implying the severity of politicians' influence on business organisations (Ahmed, 2019). Recently, it has also been found that a politically connected group firm utilised political power to obtain loans amounting to more than 900 percent of the lenders' (banks) paid-up capital, which is a clear violation of the Central Bank's regulations (Hasan, 2024). Fourth, we employed Bangladesh because publicly listed companies are mandated to follow a unique corporate governance code, unlike in other developed markets (Sobhan et al., 2023). Finally, a series of corporate scandals has taken place in Bangladesh since its independence in 1971, including two stock market crashes, which also provide us with a strong impetus for the present study.

To test our conjectures, we use a sample of 1,450 firm-year observations from 2011 to 2023. We hand-collect firm characteristics and firm fundamentals from annual reports of the sample companies. We collect political connection data from several sources, including the Bangladesh Election Commission (BEC) website, company annual reports, government web portal, party websites, and other public domains.

We find that, compared to family firms, nonfamily firms perform better in both operating performance (i.e., ROA) and market valuation (e.g., TOBINQ). Our results are consistent with prior research that links family ownership to firm performance (Miah et al., 2023; Santos et al., 2014; Symeonidou et al., 2022). However, our findings contrast with those of Muttakin et al. (2015) for two reasons. First, the authors tested their research questions over a short period from 2005 to 2009, whereas our research was conducted over a longer period, from 2011 to 2023. A longer time horizon in the present study provides a comprehensive picture of family firms relative to nonfamily firms, which was not evident in earlier studies (e.g., Tee, 2018b). Second, we conducted our study when the regulatory body (BSEC) enacted a comprehensive corporate governance code in 2011, which is

mandatory for all publicly listed companies (Sobhan et al., 2023). It is plausible that both family and nonfamily business organizations in Bangladesh are greatly affected by such a revolutionary corporate governance reform (Sobhan et al., 2023), and its impact was not evident in prior research.

Taking these two perspectives into account, our research is distinct from that of Muttakin et al. (2015), and our study provides empirical evidence that nonfamily firms outperform family firms. Our results are robust to alternative tests. However, we do not find any impact of political connections on market-based performance measures, but we do find a significant negative impact on operating performance measures and family ownership.

Our results suggest that politicians negatively affect a firm's operating environment, thereby decreasing operating performance (e.g., ROA). However, they influence capital markets through their political power to keep stock prices higher, as reflected in TOBINQ. In our subsample analysis based on financial distress (Altman Z-score), we find that market valuation is higher for distressed family firms compared to nonfamily firms. However, the operating performance is lower for healthy family firms. We document mixed evidence of politicians' influence on both distressed and healthy companies. Finally, we tested the impact of the global pandemic (COVID-19) on firm performance. We found that market valuation has improved substantially in post-pandemic periods, whereas operating performance has declined significantly across firm categories, warranting further research.

The remainder of the present study is organised as follows. The next section presents a review of relevant literature and the development of hypotheses. Section 3 describes research methods, and Section 4 presents empirical results. Additional analyses (cross-sectional, subsample, and sensitivity analysis) are presented in Section 5. Section 6 concludes the paper.

2. Literature review and theoretical framework

2.1. Family firm and firm performance

Family firm research is no longer a new concept. Substantial academic research concentrates on comparison between family firms and nonfamily firms in terms of their performance, sustainability, capital structure, corporate governance, and audit quality in different jurisdictions and provided mixed evidence (Ali et al., 2021; Gomez-Mejia et al., 2010; González et al., 2012; Huang et al., 2015; Khan et al., 2015; Ma et al., 2015, 2017; Miah et al., 2023; Miah, 2022; Miller et al., 2007; Muttakin et al., 2015; Tee, 2018a; Wong & Hooy, 2018) Nevertheless, they conclude that the nature of family firm is so diverse and most of the cases are context specific (e.g., Gupta & Chauhan, 2023). Family firm-related studies employ various theories, including agency theory, socioemotional wealth theory, and resource dependency theory, to examine the impact of family control and family ownership on firm performance. For instance, some studies document a positive relation between family firm and firm performance (Jarchow et al., 2023; Jaskiewicz et al., 2023), and some record a negative relation between firm performance and family firm (Koji et al., 2020; Miah et al., 2023; Symeonidou et al., 2022).

The primary reason for the positive relationship between family firms and firm performance is the presence of feelings, ownership, and attachment among owners and the firm, which is consistent with the notion of the socioemotional wealth theory (Deephouse & Jaskiewicz, 2013; Labelle et al., 2018). It is expected that family firms will outperform because family members hold a significant proportion of shareholdings and, inherently, have greater motivation and responsibility to monitor their organisations (Anderson & Reeb, 2003; Barontini & Caprio, 2006). In addition, successful monitoring enhances firm performance by capitalising on the benefits of the learning curve, which is associated with the duration of family involvement (Anderson & Reeb, 2003). Prior research, such as Anderson and Reeb (2003), documents that longer tenure by family

members indicates their sincerity for their business and thereby results in superior performance. Furthermore, a longer investment horizon can become another source of competitive advantage, which may be absent in nonfamily firms. On the other hand, a greater level of insider ownership equips internal management with its own proposition and targets, which can hinder participation by external parties and result in a lower firm value (Fama & Jensen, 1983; Holderness & Sheehan, 1988). Similarly, Ghalke et al. (2022) test the impact of promoter ownership, family members on the board, and family members in management on firm performance using a sample of 576 firms listed on the SME Exchange in India.   They find a positive relation between promoter ownership and firm performance; however, they do not find any evidence on the link between family in management/family in control and firm performance. Their results are consistent with the notion of stewardship theory, in which management acts as a steward rather than an agent.

It is argued that family firms' resilience is higher during crises and they maintain their sustainability for longer periods than nonfamily firms (Bertrand et al., 2008; Jarchow et al., 2023; Miroshnychenko et al., 2023). Building on this sentiment, Miroshnychenko et al. (2023) employed an international sample of 3,350 listed firms across 33 countries to test the resilience of family firms compared to nonfamily firms during the global pandemic, specifically COVID-19. Consistently, they find that family firm performance increases significantly as COVID-19 cases rise, whereas non-family firms are severely affected by COVID-19. Authors attribute the usual positive link between global pandemics and firm performance in family firms to stronger family involvement, either on the board, in management, or in both. Their results are consistent with the notion of socioemotional wealth theory. Furthermore, family firms exhibit lower leverage during a crisis than nonfamily firms.

In contrast, many studies document a negative relation between family firms and firm performance where performance is based on accounting performance measures, such as return on assets (ROA) and return on equity (ROE) (Koji et al., 2020; Santos et al., 2014; Symeonidou et al., 2022; Yoshikawa & Rasheed, 2010). Santos et al. (2014) test the scenario of family firms and nonfamily firms in Portugal (listed on the Portuguese Stock Exchange, now Euronext-Lisbon), as they posit that a continental European country like Portugal differs from other English-speaking countries in terms of culture, governance, regulations, and enforcement regarding public companies. Moreover, it is unclear whether Portuguese family firms outperform nonfamily firms. However, their results suggest that family firms are more indebted and exposed to greater liquidity risks, resulting in lower performance relative to nonfamily firms. However, market-based performance (e.g., the MB ratio) is higher for family firms than for nonfamily firms. Similarly, Morikawa (2013) found that nonfamily firms outperform family firms in annual productivity growth in Japan, as family firm owners place greater emphasis on long-term survival. However, in the same setting, Yoshikawa and Rasheed (2010) find no relation between family ownership and firm performance in the manufacturing sector. Recently, Miah et al. (2023) found that nonfamily firms outperform family firms. However, they find that family firms outperform nonfamily firms in international business operations. They attribute such positive relations to the increased compliance and greater transparency required in the overseas market, which in turn leads to higher operating performance and greater market valuation. However, they did not include the influence of political connections, although a significant number of companies have politically connected directors on their boards. Considering the prior literature with contrasting findings regarding family ownership and firm performance, we estimate the following hypothesis:

H1: Family ownership is negatively associated with the firm's performance.

2.2 *Family firm, political connection, and firm performance*

Research related to the impact of political connection on firm performance provides mixed evidence (Chen et al., 2014; Du & Girma, 2010; Eissa & Eliwa, 2021; Faccio, 2006,

2010; Fisman, 2001; La Rocca et al., 2022; Pang & Wang, 2021; Sun & Zou, 2021). More importantly, some country-specific studies provide evidence that political connections can take various forms, including those with the ruling government, political parties, and the board of directors (Wong & Hooy, 2018). Not all connections are equally influential, and some do not even affect firm performance. Studies of the positive relationship between political connections and firm performance have examined it through the lens of three theories: resource dependency theory, rent-seeking theory, and reputation theory (Chen et al., 2014; Eissa & Eliwa, 2021). All of these theories agree that connected firms receive more subsidies and exceptional benefits and extract undeserved advantages from society because they have greater market power and reputational assets than nonconnected firms.   For instance, Wu et al. (2012) use Chinese private and state-owned firms to document that private firms with politically connected managers perform better than those without connected managers. In contrast, they do not document any such impact on the performance of local state-owned enterprises (SOEs). They attribute the positive impact of political connections to stronger ties with the government, and politically connected managers can bring tax benefits and other market-related advantages. In a similar setting, Chen et al. (2014) document that the positive relation between political connection and firm performance is particularly pronounced in industries with high entry barriers, as connected managers are more likely to obtain government entry permits and other benefits than non-connected managers. In addition, Su and Fung (2013) provide evidence that political connections worsen the negative effect of related-party transactions on firm performance; however, such political connections also bring several benefits, including larger cash holdings, lower cost of capital, greater long-term loans, and lower trade costs.

In contrast, studies document the negative impact of political connections on firm performance (e.g., La Rocca et al., 2022; Pang & Wang, 2021) from an agency-theoretic lens. It is assumed that external monitoring quality is higher in connected firms than in non-connected firms. In addition, connected firms have weak governance quality, lower investor protection, and higher corruption, which gradually results in lower profitability. For instance, La Rocca et al. (2022) demonstrate the negative relation between political connections and firm performance. They employed a large sample of 31 European countries and document that such a negative relation is more pronounced when top management has greater decision-making capacity. Moreover, they infer that the greater intensity of political connection of top management creates agency conflicts and thus gradually affects firm performance. Pang and Wang (2021) provide anecdotal evidence of the adverse effect of political connections on firm performance. More importantly, they find that the negative link between political connection and firm performance is particularly pronounced in countries characterized by lower shareholder protection, regulated industries, and a poor legal environment. However, Eissa and Eliwa (2021) document mixed evidence on the impact of political connection on firm performance and market value, taking a sample of Egyptian listed companies. They measured political connection through firms' top officers (CEO/Chairman), business owners, and government ownership. They do not find any impact of top officials' political connections on firms' profitability and market value; however, they find a significant impact of political connections through government ownership on the said association. They attribute such mixed results to the contrasting effects of resource-based theory and agency theory. However, it is not clear whether the link between family firms and firm performance is affected by the political connection, which the present paper aims to test. Based on the above discussion, we estimate the following hypothesis:

H2: Political connection affects the relation between family ownership and firm performance.

3. Research methodology/analytical techniques

3.1 Data and sample selection

The present study is based on publicly listed companies at the Dhaka Stock Exchange (DSE) in Bangladesh. We hand-collected all corporate governance, firm characteristics, firm performance, and other control variables from annual reports for the period of 2011 to 2023. We started in 2011 as publicly listed companies received a revised corporate governance code from the Bangladesh Securities and Exchange Commission (BSEC), and its compliance is mandatory for all listed companies. Our initial sample comprises 2,362 firm-year observations. Then we excluded 455 firm-year observations because no relevant control variables were available. Further, we exclude banking and financial companies (457 firm-year observations) because they are subject to different acts and regulations. This process leaves us 1450 firm-year observations. Hence, we use 1450 firm-year observations to test our conjectures in the present study. Table 1 shows the entire data selection process. Table 2 presents the data sample industry-wise and year-wise. We document that the textile sector has the greatest number of observations (18.41%), while the tannery industry has the fewest (3.52%).

Table 1. Sample selection procedure

Panel A: Sample selection procedure	
Firm-year observations from 2011 to 2023	2362
Less: firm year observations not available	(455)
Less: Observations belong to banks and non-bank financial institutions (NBFIs)	(457)
Final sample used for analysis	1450

Table 2. Data sample distribution

Panel A: Industry-wise sample breakdown				Panel B: Year-wise sample distribution			
sector	Freq.	Percent	Cum.	year	Freq.	Percent	Cum.
				2011	113	7.79	7.79
Ceramics & cements	141	9.72	9.72	2012	114	7.86	15.66
Engineering	258	17.79	27.52	2013	114	7.86	23.52
Food	127	8.76	36.28	2014	114	7.86	31.38
Fuel and power	154	10.62	46.9	2015	92	6.34	37.72
IT & services	141	9.72	56.62	2016	113	7.79	45.52
Miscellaneous	98	6.76	63.38	2017	114	7.86	53.38
Pharmaceuticals	213	14.69	78.07	2018	114	7.86	61.24
Tannery	51	3.52	81.59	2019	114	7.86	69.1
Textile	267	18.41	100	2020	112	7.72	76.83
				2021	112	7.72	84.55
				2022	112	7.72	92.28
				2023	112	7.72	100

3.2. Research design and data analysis mechanisms

To test our hypotheses, the following regression models are estimated:

$$FIRMPERFM_{I,T} = \beta_1 FAMFIRM_{i,t} + \beta_2 AUDOPINION_{i,t} + \beta_3 BIG4_{i,t} + \beta_4 BSEG_{i,t} + \beta_5 BODSIZE_{i,t} + \beta_6 ACSIZE_{i,t} + \beta_7 GOVT\_OWN_{i,t} + \beta_8 INST\_OWN_{i,t} + \beta_9 FIRMSIZE_{i,t} + \beta_{10} LEVERAGE_{i,t} + \beta_{11} OPT\_CASH_{i,t} + \beta_{12} NETWCAP_{i,t} + \beta_{13} CAPXPN_{i,t} + \beta_{14} RECTA_{i,t} + \beta_{15} INVTA_{i,t} + \sum Year\ fixed\ effects_{i,t} + \sum Industry\ fixed\ effects_{i,t} \qquad (1)$$

$$FIRMPERFM_{I,T} = \beta_1 FAMFIRM_{i,t} + \beta_2 POLCON_{i,t} + \beta_3 FAMFIRM_{i,t} \times POLCON_{i,t} + \beta_4 AUDOPINION_{i,t} + \beta_5 BIG4_{i,t} + \beta_6 BSEG_{i,t} + \beta_7 BODSIZE_{i,t} + \beta_8 ACSIZE_{i,t} + \beta_9 GOVT\_OWN_{i,t} + \beta_{10} INST\_OWN_{i,t} + \beta_{11} FIRMSIZE_{i,t} + \beta_{12} LEVERAGE_{i,t} + \beta_{13} OPT\_CASH_{i,t} + \beta_{14} NETWCAP_{i,t} + \beta_{15} CAPXPN_{i,t} + \beta_{16} RECTA_{i,t} + \beta_{17} INVTA_{i,t} + \sum Year\ fixed\ effects_{i,t} + \sum Industry\ fixed\ effects_{i,t} \qquad (2)$$

As our research is based on a longitudinal dataset, we use ordinary least squares (OLS) regression. Following prior research (Bose et al., 2021; Miah et al., 2023), we use TOBINQ as a proxy for the company's market valuation. We measure TOBINQ following prior research of Bose et al. (2021). We use two additional proxy measures of operating performance: return on sales (ROS) and return on assets (ROA). We assume these measures are sufficient to ensure robustness of our dependent variable, i.e., firm performance. Our main variable of interest is family firms. We assign 1 for a firm as Family firm (FAMFIRM) when family members of the firm hold 20% of firm's equity or at least one of the family members in the board of directors or holding managerial position such as managing director (MD) or chair of the board (Chairman) (Miah et al., 2023; Muttakin et al., 2015; Sobhan et al., 2023). Political connection (POLCON) is defined based on prior relevant studies. We use dummy variable 1 for political connection (POLCON), which is 1 when at least one of its major shareholders, a member of its board, or the CEO is or was a member of parliament, a minister, or closely associated with a political party or politician. A set of control variables relevant to our study has been used from prior literature. We provide a list of variable definitions in the appendix.

4. Empirical Results

4.1 Descriptive statistics

Table 3 presents descriptive statistics for the variables used in the present study. Panel A shows the entire sample (1450 firm-year observations), Panel B reports the same variables for family firms (1008 firm-year observations), and Panel C presents descriptives for non-family firms (442 firm-year observations). We find that, in Panel A, the mean and median values of TOBINQ are 2.470 and 1.673, respectively, while the mean and median values of ROA are 0.043 and 0.029, respectively. More importantly, we find that the average TOBINQ (2.175) for family firms is lower than that for nonfamily firms (3.141), implying lower market valuation for family firms. This result is consistent with our hypothesis and in line with prior related research (Miah et al., 2023). Similarly, operating performance is higher in nonfamily firms compared to family firms. For instance, the mean return on assets (ROA) for family firms is 0.031, while the mean (median) ROA for nonfamily firms is 0.072 (0.057). We find identical mean and median values for other proxy measures for nonfamily firms and family firms. In sum, we conclude that nonfamily firms outperform family firms on both market-based and operating performance-based measures. In contrast to prior research by Miah et al. (2023), we explore the impact of political connection on the relationship between family ownership and firm performance, given that more than 30% of firms are politically connected. We are interested in whether such a political affiliation with the board affects the performance of family firms over non-family firms. The mean debt (LEVERAGE) in family firms is 0.262, while in nonfamily firms it is 0.192, implying family firms are highly indebted relative to their counterparts. It is plausible that family firms are more likely to rely on external debt than nonfamily

firms, and further research is needed on the disparity in capital structure between these groups. More than 23.5% (10.10%) of nonfamily firms (family firms) are audited by one of the big 4 audit firms. Further, external monitoring is higher in non-family firms than in family firms. For instance, on average, 18.58% of nonfamily firms are owned by institutional shareholders, whereas family shareholders control 16.9% of family firms. Overall, governance, monitoring, and audit quality are highly prioritized in non-family firms, which may result in better market and operating performance than in family firms. Other control variables are self-explanatory.

Table 3. Descriptive statistics (Panel A: Pooled Sample)

Variables	N	Mean	Median	S.D.	P25	P75	P90	Min	Max
TOBINQ	1450	2.470	1.673	2.214	1.257	2.751	4.666	0.000	13.827
ROA	1450	0.043	0.029	0.075	0.008	0.073	0.144	-0.211	0.282
ROE	1450	0.113	0.067	0.261	0.022	0.154	0.291	-0.654	1.351
ROS	1450	0.074	0.053	0.354	0.014	0.137	0.240	-1.725	1.564
FAMFIRM	1450	0.695	1.000	0.460	0.000	1.000	1.000	0.000	1.000
POLCON	1450	0.305	0.000	0.460	0.000	1.000	1.000	0.000	1.000
POLCON*FAMFIRM	1450	0.224	0.000	0.417	0.000	0.000	1.000	0.000	1.000
CG_PERF	1450	2.529	2.000	1.514	1.000	3.000	4.000	-1.000	8.000
AUDOPINION	1450	0.208	0.000	0.406	0.000	0.000	1.000	0.000	1.000
BIG4	1450	0.143	0.000	0.350	0.000	0.000	1.000	0.000	1.000
BSEG	1450	0.657	0.000	1.898	0.000	0.000	2.000	0.000	18.000
BODSIZE	1450	7.828	7.000	2.602	6.000	9.000	11.000	0.000	20.000
ACSIZE	1450	3.793	4.000	0.939	3.000	4.000	5.000	0.000	9.000
GOVT_OWN	1450	4.943	0.000	16.827	0.000	0.000	1.930	0.000	76.250
INST_OWN	1450	17.431	14.690	15.303	6.870	23.400	33.545	0.000	98.860
FIRMSIZE	1450	8.127	8.074	1.765	7.024	9.283	10.481	0.000	11.919
LEVERAGE	1450	0.241	0.174	0.317	0.039	0.347	0.561	0.000	8.025
OPT_CASH	1450	0.061	0.045	0.098	0.005	0.105	0.183	-0.229	0.386
NETWCAP	1450	0.024	0.035	0.230	-0.100	0.157	0.309	-0.683	0.529
CAPXPN	1450	0.425	0.421	0.225	0.260	0.579	0.730	0.000	1.179
RECTA	1450	0.157	0.111	0.634	0.039	0.197	0.297	0.000	23.367
INVTA	1450	0.249	0.166	2.296	0.079	0.258	0.405	0.000	87.415
Panel B: Family firms [1008 firm year observations]									
TOBINQ	1008	2.175	1.590	1.836	1.244	2.297	3.986	0.000	13.827
ROA	1008	0.031	0.024	0.061	0.007	0.052	0.100	-0.211	0.282
ROE	1008	0.080	0.056	0.229	0.018	0.111	0.204	-0.654	1.351
ROS	1008	0.039	0.042	0.312	0.011	0.111	0.195	-1.725	1.564
POLCON	1008	0.322	0.000	0.468	0.000	1.000	1.000	0.000	1.000
POLCON *FAMFIRM	1008	0.322	0.000	0.468	0.000	1.000	1.000	0.000	1.000
CG_PERF	1008	2.331	2.000	1.465	1.000	3.000	4.000	-1.000	8.000
AUDOPINION	1008	0.176	0.000	0.381	0.000	0.000	1.000	0.000	1.000
BIG4	1008	0.101	0.000	0.302	0.000	0.000	1.000	0.000	1.000
BSEG	1008	0.784	0.000	2.206	0.000	0.000	3.000	0.000	18.000
BODSIZE	1008	7.403	7.000	2.498	5.000	8.000	10.000	0.000	20.000
ACSIZE	1008	3.656	4.000	0.788	3.000	4.000	5.000	0.000	7.000
GOVT_OWN	1008	0.184	0.000	2.910	0.000	0.000	0.000	0.000	51.610
INST_OWN	1008	16.924	14.480	13.219	7.235	23.540	34.090	0.000	82.870
FIRMSIZE	1008	7.935	7.916	1.658	6.829	9.118	10.011	0.000	11.919
LEVERAGE	1008	0.262	0.212	0.237	0.076	0.395	0.577	0.000	1.645
OPT_CASH	1008	0.046	0.034	0.083	0.003	0.090	0.148	-0.229	0.386

NETWCAP	1008	0.033	0.034	0.211	-0.079	0.140	0.297	-0.683	0.529
CAPXPN	1008	0.448	0.436	0.217	0.285	0.600	0.733	0.000	1.179
RECTA	1008	0.170	0.127	0.745	0.050	0.206	0.298	0.000	23.367
INVTA	1008	0.279	0.170	2.751	0.084	0.259	0.410	0.000	87.415
Panel C: Non-Family firms [442 firm year observations]									
TOBINQ	442	3.141	2.151	2.785	1.309	3.821	6.019	0.000	13.827
ROA	442	0.072	0.057	0.093	0.016	0.128	0.199	-0.211	0.282
ROE	442	0.189	0.132	0.308	0.042	0.261	0.476	-0.654	1.351
ROS	442	0.155	0.099	0.425	0.031	0.183	0.389	-1.725	1.564
POLCON	442	0.265	0.000	0.442	0.000	1.000	1.000	0.000	1.000
POLCON *FAMFIRM	442	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CG_PERF	442	2.977	3.000	1.528	2.000	4.000	5.000	-1.000	7.000
AUDOPINION	442	0.281	0.000	0.450	0.000	1.000	1.000	0.000	1.000
BIG4	442	0.238	0.000	0.426	0.000	0.000	1.000	0.000	1.000
BSEG	442	0.369	0.000	0.778	0.000	0.000	2.000	0.000	3.000
BODSIZE	442	8.796	9.000	2.576	7.000	10.000	12.000	4.000	18.000
ACSIZE	442	4.106	4.000	1.157	3.000	5.000	6.000	2.000	9.000
GOVT_OWN	442	15.797	0.000	27.224	0.000	16.050	67.660	0.000	76.250
INST_OWN	442	18.589	15.280	19.196	6.040	22.400	31.550	0.000	98.860
FIRMSIZE	442	8.566	8.440	1.920	7.258	9.903	11.452	4.134	11.919
LEVERAGE	442	0.192	0.089	0.445	0.012	0.267	0.468	0.000	8.025
OPT_CASH	442	0.095	0.073	0.119	0.015	0.163	0.258	-0.229	0.386
NETWCAP	442	0.002	0.036	0.268	-0.152	0.198	0.326	-0.683	0.519
CAPXPN	442	0.375	0.372	0.235	0.179	0.514	0.725	0.014	1.179
RECTA	442	0.128	0.074	0.226	0.022	0.173	0.289	0.000	4.049
INVTA	442	0.180	0.147	0.156	0.052	0.256	0.389	0.000	0.759

4.2 Correlation statistics

Table 4 presents the pairwise correlations among the dependent, independent, and control variables used in the present study. We find that the variable FAMFIRM is negatively associated with both TOBINQ and operating performance measures (ROA, ROS). Similarly, the political connection (POLCON) is also negatively associated with both TOBINQ and ROA/ROS. Signs of both variables of interest are consistent with our prediction and support our hypotheses (H1 and H2). TOBINQ is positively associated with audit quality (BIG4), governance variables (BODSIZE, ACSIZE), and firm liquidity performance (OPT_CASH), and negatively associated with ownership structure variables (GOVT_OWN, INST_OWN), firm size (FIRMSIZE), firm leverage conditions (LEVERAGE), and the intensity of capital expenditure (CAPXPN). In contrast, operating performance, i.e., ROA, is positively associated with audit quality (BIG4), firms' complexity (BSEG), governance (BODSIZE, ACSIZE), operating cash flows (OPT_CASH), working capital (NETWCAP), and negatively associated with audit opinion types (AUDOPINION), government ownership (GOVT_OWN), firms' leverage (LEVERAGE), and capital expenditure (CAPXPN). In sum, we infer that nonfamily firms' performance is superior to that of family firms, consistent with prior research. However, we document that political connections deter firm performance, and this holds for both firm categories.

Table 4. Correlation statistics

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TOBINQ	1	1.00																			
ROA	2	0.37	1.00																		
ROS	3	0.03	0.49	1.00																	
ROE	4	0.28	0.56	0.23	1.00																
FAMFIRM	5	-0.20	-0.25	-0.15	-0.19	1.00															
POLCON	6	-0.01	-0.04	-0.11	0.06	0.06	1.00														
AUDOPINION	7	0.01	-0.18	-0.02	-0.11	-0.12	-0.02	1.00													
BIG4	8	0.17	0.36	0.08	0.25	-0.18	0.03	-0.14	1.00												
BSEG	9	-0.03	0.04	0.01	0.00	0.10	-0.03	-0.07	0.15	1.00											
BODSIZE	10	0.02	0.08	0.10	0.06	-0.25	0.07	0.15	0.26	0.09	1.00										
ACSIZE	11	0.12	0.17	0.03	0.14	-0.22	0.08	0.04	0.20	-0.01	0.28	1.00									
GOVT_OWN	12	-0.04	-0.01	0.24	0.06	-0.43	-0.17	0.29	-0.07	-0.10	0.25	0.01	1.00								
INST_OWN	13	-0.06	0.09	0.11	0.07	-0.05	0.04	-0.06	0.06	0.17	0.08	0.00	0.00	1.00							
FIRMSIZE	14	-0.25	0.22	0.29	0.12	-0.16	-0.01	-0.02	0.24	0.24	0.38	0.24	0.32	0.29	1.00						
LEVERAGE	15	-0.06	-0.30	-0.08	-0.04	0.10	0.06	0.01	-0.08	-0.02	0.00	-0.08	0.01	-0.11	-0.07	1.00					
OPT_CASH	16	0.30	0.57	0.17	0.34	-0.23	0.01	-0.09	0.27	-0.02	0.11	0.18	0.02	0.07	0.12	-0.24	1.00				
NETWCAP	17	-0.07	0.13	0.03	-0.13	0.06	-0.04	-0.05	-0.03	0.00	-0.23	-0.09	-0.08	0.03	-0.08	-0.22	-0.11	1.00			
CAPXPN	18	-0.04	-0.20	-0.21	-0.20	0.15	-0.03	0.03	-0.13	0.02	0.05	0.07	-0.16	-0.19	-0.10	0.05	-0.08	-0.19	1.00		
RECTA	19	0.11	0.07	0.02	0.00	0.03	-0.02	0.00	-0.02	0.02	-0.02	-0.02	0.03	-0.01	-0.04	-0.01	0.06	-0.03	0.02	1.00	
INVTA	20	0.14	0.09	0.01	0.01	0.02	-0.01	-0.02	0.00	0.02	-0.02	0.01	-0.02	-0.01	-0.07	-0.01	0.08	-0.07	0.06	0.96	1.00

4.3. Main test results

Table 5 reports the results of our analysis of the links between family firms and firm valuation and operating performance. Further, we report the results of the second hypothesis regarding political connection and firm performance. Column (1) shows the results for market valuation, where columns (3) and (5) report the results of the relation between family firm and operating performance. Columns (2), (4), and (6) show the results of the interaction between family firm and political connection on both market-based and operating performance-based measures. The family firm coefficient is negative and statistically significant across all columns, suggesting that nonfamily firms outperform family firms, consistent with prior research (Li & Ryan Jr., 2022; Miah et al., 2023). They attribute the negative relationship between family ownership and performance to lower levels of sustainable investment in research and development. However, our research also contradicts another stream of family firm and performance research (e.g., Ghalke et al., 2022; Miroshnychenko et al., 2023; Muttakin et al., 2015; Shyu, 2011). Our results contrast with those of Muttakin et al. (2015) in several respects. First, they tested the impact of family firms on firm performance using a sample from 2005 to 2009, whereas our study covers a longer period from 2011 to 2023. Second, our study spans more than 10 years, during which one political party held the government for more than 15 years. Such a prolonged government system may have severely affected board formation, resulting in lower performance. For instance, Shyu (2011) used a sample of Taiwanese public companies and documented a non-linear relation between firm performance and family ownership. Next, when we interact with family firms with political connections, our results show that market valuation is positive. However, the coefficient of the interaction term is negative and statistically significant for both measures (ROA and ROS). In terms of economic significance, we find that a one standard deviation change in family ownership results in a 2.12% decrease in firm operating performance (ROA) and a 2.02% decrease in operating performance when we interact with a family firm with a political connection.

Notably, return on sales (ROS) decreases by 14.6% for every one standard deviation increase in the interaction between family firm and political connection. In sum, we infer that political connections lead to lower performance for family firms relative to politically connected nonfamily firms. In Table 5, we find that the coefficients on governance and firm-level controls have the expected, consistent signs and significance. Moreover, all variables exhibit similar significance, consistent with prior family firm and performance-related literature. For instance, market valuation (TOBINQ) and operating performance (ROA) are higher for clients audited by high-quality auditors (BIG4), and the results are statistically significant. Firm-level governance (BODSIZE and ACSIZE) is positively associated with firm valuation and accounting-based performance measures, implying that firms with greater monitoring, higher board size, and larger audit committees improve firm performance. However, we document inconclusive evidence regarding the link between firm size and firm performance. We find that market valuation is lower for larger firms than for smaller firms, whereas operating performance is higher for larger firms than for smaller firms. Next, we document that firm liquidity positively affects firms' market valuation and operating performance. This is because the coefficient on the ratio of operating cash flows to total assets is positive for both market performance and accounting performance and statistically significant, suggesting that firms with greater operating cash flows perform better than those with less. Nevertheless, greater cash holding helps firms pay current and long-term debt, including operating expenses. However, firms that spend more on fixed assets perform lower as the capital expenditure coefficient (CAPXPN) is negative (operating performance). It shows that firms investing more in fixed effects will not be able to generate more profits, thereby resulting in lower market values.

Table 5. Regression analysis of family firm, political connection, and firm performance 53

VARIABLES	TOBINQ		ROA		ROS	
	(1)	(2)	(3)	(4)	(5)	(6)
FAMFIRM	-0.739***	-0.854***	-0.021***	-0.014***	-0.006	0.041
	[-5.53]	[-5.33]	[-5.68]	[-3.24]	[-0.29]	[1.53]
POLCON		-0.267		0.006		0.042
		[-1.17]		[0.95]		[1.10]
POLCON *FAMFIRM		0.347		-0.020***		-0.137***
		[1.30]		[-2.64]		[-3.07]
AUDOPINION	-0.145	-0.143	-0.009**	-0.009**	-0.012	-0.010
	[-0.99]	[-0.98]	[-2.30]	[-2.25]	[-0.49]	[-0.43]
BIG4	0.939***	0.929***	0.023***	0.023***	-0.059**	-0.056**
	[5.62]	[5.56]	[4.86]	[4.96]	[-2.10]	[-2.01]
BSEG	0.035	0.038	-0.001	-0.001	-0.003	-0.005
	[1.23]	[1.31]	[-0.66]	[-0.98]	[-0.59]	[-0.97]
BODSIZE	0.009	0.009	-0.000	-0.000	-0.007*	-0.006
	[0.36]	[0.37]	[-0.56]	[-0.18]	[-1.85]	[-1.40]
ACSIZE	0.212***	0.206***	0.003*	0.004**	-0.004	0.001
	[3.51]	[3.40]	[1.94]	[2.29]	[-0.35]	[0.05]
GOVT_OWN	-0.001	-0.002	-0.001***	-0.001***	0.001	0.001
	[-0.31]	[-0.54]	[-4.50]	[-4.20]	[0.75]	[1.00]
INST_OWN	-0.002	-0.003	-0.000	-0.000	0.000	0.000
	[-0.67]	[-0.71]	[-1.15]	[-0.95]	[0.51]	[0.75]
FIRMSIZE	-0.513***	-0.513***	0.007***	0.007***	0.048***	0.048***
	[-14.13]	[-14.14]	[6.85]	[6.92]	[7.87]	[7.96]
LEVERAGE	0.127	0.106	-0.030***	-0.028***	-0.035	-0.020
	[0.73]	[0.61]	[-6.16]	[-5.70]	[-1.21]	[-0.68]
OPT_CASH	5.222***	5.301***	0.317***	0.313***	0.342***	0.314***
	[8.93]	[9.02]	[19.27]	[19.01]	[3.48]	[3.20]
NETWCAP	-0.135	-0.139	0.051***	0.051***	0.037	0.038
	[-0.55]	[-0.56]	[7.26]	[7.31]	[0.89]	[0.91]
CAPXPN	-0.363	-0.335	-0.042***	-0.045***	-0.281***	-0.303***
	[-1.47]	[-1.35]	[-6.03]	[-6.46]	[-6.79]	[-7.30]
RECTA	-0.189	-0.190	-0.014*	-0.014*	-0.055	-0.053
	[-0.65]	[-0.65]	[-1.77]	[-1.75]	[-1.12]	[-1.09]
INVTA	0.136*	0.135*	0.006***	0.006***	0.021	0.021
	[1.69]	[1.68]	[2.81]	[2.79]	[1.59]	[1.56]
Industry and year fixed effects	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
Constant	5.630***	5.764***	0.013	0.007	-0.097	-0.137*
	[13.18]	[13.11]	[1.04]	[0.55]	[-1.35]	[-1.87]
Observations	1,450	1,450	1,450	1,450	1,450	1,450
R-squared	0.29	0.29	0.51	0.52	0.22	0.23
Adj. R-squared	0.27	0.27	0.50	0.50	0.20	0.21

Note. This table reports the regression results for family firms, political connections, and firm 54
performance. We use *TOBINQ* as a market-based performance measure, and *ROA* and *ROS* are used 55
as proxy measures of operating performance. t-values for each coefficient are given in parentheses. 56
Superscripts asterisks *, **, and *** refer to 5%, 10%, and 1% significant levels, respectively. 57

4.4. Robustness Tests 58

Family ownership variables may be endogenous as family members have greater 59
internal information than other stakeholders in nonfamily firms, which may induce them 60

to increase or decrease share ownership. Hence, there is a natural question of whether firm performance affects family ownership. Further, such endogeneity may arise due to self-selection bias or from the omission of relevant variables (e.g., Costa & Habib, 2023; Sobhan et al., 2023; Miah, Ferdous, Shams, and Ahmed, 2025). To mitigate potential endogeneity, we use propensity score matching (PSM) and the Heckman two-stage self-selection regression approach.

4.4.1. Propensity Score Matching (PSM)

To ensure the robustness of the link between family firm and firm performance, we employ PSM to control for firm-level attributes of family firms and nonfamily firms. First, we develop scores using a logistic regression that estimates the probability that a firm prefers to be family-controlled, based on all firm-level control variables from equation (1). Next, we match all firm-year observations of family firms with firm-year observations of nonfamily firms (NONFAM), assigning a value of 1 (a treatment observation) to family-firm observations and 0 (a control observation) to nonfamily-firm observations. Following the PSM procedure, we use the same firm-level control variables to confirm an accurate balance between the two groups (treatment and control) (Shipman et al., 2017). To implement PSM, we run an OLS regression using matched observations. The PSM results are reported in Table 6, with Panel A reporting the results of the first-stage logistic regression. In the first stage, we document that firm size (FIRMSIZE), firm level complexity (RECTA, INVTA) and leverage (LEVERAGE) are positively associated with the likelihood of family control. In contrast, the type of audit firm (BIG4), business segment (BSEG), external monitoring (INST_OWN), government ownership (GOVT_OWN), and firms' liquidity (OPT_CASH) are negatively associated with the propensity to be controlled by family owners. Table 6, Panel B, shows the effective matching of family-controlled firms and nonfamily firms based on the firm attributes we used in the first stage. Table 6, Panel C, reports on the results of the second-stage regression under PSM samples. It shows that the family firm coefficient (FAMFIRM) is significantly negative (p<0.01) in the market-based performance model (TOBINQ). However, we find a negative and statistically insignificant relation for FAMFIRM on ROA. Later, we document mixed evidence for the coefficient of the interaction term of political connection and family firms for market-based performance, while we find a negative impact on accounting-based performance measures, which is consistent with our main test results.

4.4.2 Heckman two-stage regression

We rely on Heckman's two-stage regression approach (Heckman, 1979) as PSM has some limitations. For instance, PSM ignores the possibility of a significant impact of unobservable factors on firm performance, and those may drive firms to be family controlled. For instance, firms with high quality governance through a greater proportion of independent directors both in the board of directors (INDBOD) and in the audit committee (INDAC) may induce sponsor shareholders to continue firms as their family controlled. In addition, older firms have less inclination to be family-controlled as management or executives have grown their own interests and they do not like to be controlled by the family owners.

Hence, we employ the following regression equations, where the family firm dummy (FAMFIRM) will be the dependent variable, and we include three more new variables as controls in the first stage. Then we add the coefficient of the Inverse Mills Ratio (LANG) in the second stage using the following two equations to test our hypothesis.

$$FIRMVALUE_{I,T} = \beta_1 FAMFIRM_{i,t} + \beta_2 AUDOPINION_{i,t} + \beta_3 BIG4_{i,t} + \beta_4 BSEG_{i,t} + \beta_5 BODSIZE_{i,t} + \beta_6 ACSIZE_{i,t} + \beta_7 GOVT\_OWN_{i,t} + \beta_8 INST\_OWN_{i,t} + \beta_9 FIRMSIZE_{i,t} + \beta_{10} LEVERAGE_{i,t} + \beta_{11} OPT\_CASH_{i,t} + \beta_{12} NETWCAP_{i,t} + \beta_{13} CAPXPN_{i,t} + \beta_{14} RECTA_{i,t} + \beta_{15} INVTA_{i,t} + \beta_{16} LANG_{i,t} + \sum Year\ fixed\ effects_{i,t} + \sum Industry\ fixed\ effects_{i,t} \quad (3)$$

$$FIRMVALUE_{i,t} = \beta_1 FAMFIRM_{i,t} + \beta_2 POLCON_{i,t} + \beta_3 FAMFIRM_{i,t} \times POLCON_{i,t} +$$ 112
$$\beta_4 AUDOPINION_{i,t} + \beta_5 BIG4_{i,t} + \beta_6 BSEG_{i,t} + \beta_7 BODSIZE_{i,t} + \beta_8 ACSIZE_{i,t} +$$ 113
$$\beta_9 GOVT\_OWN_{i,t} + \beta_{10} INST\_OWN_{i,t} + \beta_{11} FIRMSIZE_{i,t} + \beta_{12} LEVERAGE_{i,t} +$$ 114
$$\beta_{13} OPT\_CASH_{i,t} + \beta_{14} NETWCAP_{i,t} + \beta_{15} CAPXPN_{i,t} + \beta_{16} RECTA_{i,t} + \beta_{17} INVTA_{i,t} +$$ 115
$$\beta_{18} LANG_{i,t} + \sum Year\ fixed\ effects_{i,t} + \sum Industry\ fixed\ effects_{i,t}$$ (4) 116

Table 6. Endogeneity test with Propensity Score Matching (PSM) 117

Panel A: Propensity score matching (PSM) stage 1			
	Coef.	z	P>z
AUDOPINION	-0.120	-1.140	0.255
BIG4	-0.564	-4.580	0.000
BSEG	0.088	2.600	0.009
BODSIZE	-0.048	-2.840	0.004
ACSIZE	-0.268	-5.820	0.000
GOVT_OWN	-0.066	-8.070	0.000
INST_OWN	-0.005	-1.790	0.074
FIRMSIZE	0.087	3.000	0.003
LEVERAGE	0.081	0.710	0.480
OPT_CASH	-2.195	-4.920	0.000
NETWCAP	-0.242	-1.220	0.222
CAPXPN	0.728	3.090	0.002
RECTA	1.543	5.600	0.000
INVTA	0.387	1.190	0.235
INTERCEPT	1.127	3.840	0.000
Industry Fixed Effects	NO		
Observations	1450		
Pseudo-R2	0.2825		
Log likelihood	-639.754		
Panel B: Mean differences between treatment and control groups			
	Treatment	Control	t-test (p-value)
AUDOPINION	0.1756	0.20833	.062
BIG4	0.1011	0.06944	.011
BSEG	0.7837	0.42262	.000
BODSIZE	7.402	7.9871	.000
ACSIZE	3.655	3.5258	.000
GOVT_OWN	0.1835	1.0749	.001
INST_OWN	16.92	15.614	.038
FIRMSIZE	7.935	7.3595	.000
LEVERAGE	0.2616	0.45562	.000
OPT_CASH	0.0459	0.02364	.000
NETWCAP	0.0331	0.05612	.000
CAPXPN	0.4475	0.48361	.000
RECTA	0.1696	0.15756	.650
INVTA	0.2788	0.15455	.152
Panel C: PSM Second stage regression results			
VARIABLES	TOBINQ	TOBINQ	ROA
FAMFIRM	-0.529***	-0.694***	-0.004
	[-5.52]	[-5.77]	[-1.35]
POLCON		-0.517***	-0.007
		[-3.34]	[-1.52]

POLCON *FAMFIRM		0.546**	-0.008
		[2.56]	[-1.27]
AUDOPINION	-0.003	0.011	-0.001
	[-0.02]	[0.09]	[-0.15]
BIG4	0.301*	0.254	0.008*
	[1.76]	[1.48]	[1.76]
BSEG	-0.014	-0.009	-0.002***
	[-0.61]	[-0.38]	[-3.21]
BODSIZE	-0.131***	-0.122***	-0.001
	[-5.60]	[-5.02]	[-1.06]
ACSIZE	0.460***	0.436***	0.002
	[6.72]	[6.22]	[0.95]
GOVT_OWN	-0.025*	-0.025*	-0.001**
	[-1.65]	[-1.70]	[-2.21]
INST_OWN	0.007**	0.007**	0
	[2.10]	[1.96]	[1.02]
FIRMSIZE	-0.357***	-0.348***	0.010***
	[-7.73]	[-7.44]	[8.92]
LEVERAGE	1.102***	1.072***	-0.005**
	[14.01]	[13.06]	[-2.54]
OPT_CASH	1.687**	1.787***	0.358***
	[2.56]	[2.70]	[18.80]
NETWCAP	-0.408**	-0.336*	0.090***
	[-2.06]	[-1.66]	[11.87]
CAPXPN	-0.336	-0.233	-0.053***
	[-1.54]	[-1.02]	[-6.97]
RECTA	-0.414	-0.459	-0.006
	[-1.42]	[-1.58]	[-0.60]
INVTA	0.219***	0.232***	0.005*
	[2.78]	[2.93]	[1.81]
YEAR AND INDUSTRY EFFECTS	Yes	Yes	Yes
CONSTANT	4.455***	4.636***	-0.018*
	[9.96]	[10.33]	[-1.75]
Observations	960	960	960
R-squared	0.5	0.5	0.64
Adj. R-squared	0.49	0.49	0.63

Note This table reports the results of PSM between family firms and nonfamily firms. Panel A shows the results of first stage of PSM, Panel B shows the differences between treatment firms and control firms, and Panel C presents the results of second stage PSM regression on family firms, political connection interaction and firms' performance. T-value for each coefficient is given in parentheses. Superscripts asterisks *, **, and *** refer to 5%, 10% and 1% significant levels respectively

Results of the analysis are presented in 7. Panel A shows the first-stage regression, and we document that firm age (listing to current year), board independence (INDBOD), and audit committee independence (INDAC) are strongly associated with family firm ownership. We posit that firm age affects its decision whether it will be controlled by family or not, and accordingly, our results show that older firms are less likely to attempt to change their ownership structure compared to younger firms. Next, we find that high-quality governance mechanisms (INDBOD, INDAC) are also negatively associated with family firm variables, and they are statistically significant and consistent with prior research. We present the second stage regression results in Panel B of Table 7, which reflects the presence of endogeneity (because LANG is significant), which is then controlled in the further stage. Family firm coefficient is found to be negatively associated

with both market valuation (TOBINQ) and operating performance (ROA and ROS), which   134
are in line with our main test results. Similarly, when we interact with family firm and   135
political connection (FAMFIRM*POLCON) we find that the interacted coefficient is   136
statistically significant and negatively associated with operating performance measures.   137
However, we find an insignificant and positive relation between TOBINQ and the   138
coefficient of the interacted variable, which is shown in Model (5). Overall, our results   139
remain the same as in our main results, and we can infer that our models do not suffer   140
from self-selection bias and our results are robust.   141

Table 7: Self-section bias mitigation analysis [Heckman two-stage regression approach]   142

Panel A: Heckman's first stage regression results of family firms and control variables			
DV: FAMFIRM	Coef.	z	P>z
FIRMAGE	-0.188	-2.47	0.014
INDBOD	-0.204	-3.34	0.001
INDAC	-0.257	-3.49	0
AUDOPINION	-0.044	-0.34	0.733
BIG4	-0.527	-3.96	0
BSEG	0.11	2.7	0.007
BODSIZE	0.004	0.2	0.839
ACSIZE	-0.24	-4.58	0
GOVT_OWN	-0.065	-7.46	0
INST_OWN	-0.004	-1.32	0.188
FIRMSIZE	0.061	1.91	0.057
LEVERAGE	-0.036	-0.31	0.759
OPT_CASH	-2.478	-5.19	0
NETWCAP	-0.028	-0.13	0.897
CAPXPN	0.55	2.17	0.03
RECTA	1.354	4.67	0
INVTA	0.376	1.07	0.283
Intercept	1.510077	3.45	0.001
Year effects	Controlled		
Industry fixed effects	Controlled		
Observations	1450		
Pseudo-R2	0.3535		
Log pseudo-likelihood	-576.3911		
Panel B: Heckman's (1979) second stage regression results of family firm, political connection and firm performance						
	(1)	(2)	(3)	(5)	(6)	(7)
VARIABLES	TOBINQ	ROA	ROS	TOBINQ	ROA	ROS
FAMFIRM	-0.716***	-0.020***	-0.002	-0.849***	-0.014***	0.042
	[-5.35]	[-5.40]	[-0.11]	[-5.31]	[-3.21]	[1.56]
POLCON				-0.300	0.005	0.038
				[-1.31]	[0.74]	[0.98]
*FAMFIRM*POLCON*				0.409	-0.017**	-0.128***
				[1.53]	[-2.30]	[-2.88]
AUDOPINION	-0.200	-0.012***	-0.021	-0.201	-0.012***	-0.018
	[-1.36]	[-2.90]	[-0.86]	[-1.37]	[-2.81]	[-0.74]
BIG4	0.710***	0.012**	-0.098***	0.685***	0.013**	-0.089***
	[3.70]	[2.27]	[-3.03]	[3.56]	[2.49]	[-2.76]
BSEG	0.054*	0.000	0.000	0.058*	0.000	-0.002
	[1.81]	[0.39]	[0.05]	[1.94]	[0.02]	[-0.40]
BODSIZE	-0.009	-0.001*	-0.010**	-0.011	-0.001	-0.008*

	[-0.38]	[-1.73]	[-2.49]	[-0.42]	[-1.28]	[-1.95]
ACSIZE	0.117	-0.001	-0.019	0.105	-0.000	-0.013
	[1.63]	[-0.54]	[-1.61]	[1.44]	[-0.10]	[-1.07]
GOVT_OWN	-0.039**	-0.002***	-0.006**	-0.042***	-0.002***	-0.005*
	[-2.41]	[-5.04]	[-2.14]	[-2.59]	[-4.66]	[-1.69]
INST_OWN	-0.004	-0.000*	0.000	-0.004	-0.000	0.000
	[-1.10]	[-1.85]	[0.07]	[-1.17]	[-1.62]	[0.36]
FIRMSIZE	-0.481***	0.008***	0.053***	-0.480***	0.008***	0.053***
	[-12.50]	[7.84]	[8.24]	[-12.45]	[7.78]	[8.18]
LEVERAGE	0.134	-0.030***	-0.034	0.109	-0.028***	-0.019
	[0.78]	[-6.12]	[-1.16]	[0.63]	[-5.70]	[-0.67]
OPT_CASH	4.319***	0.275***	0.190	4.359***	0.275***	0.189
	[6.23]	[14.16]	[1.63]	[6.28]	[14.18]	[1.63]
NETWCAP	-0.208	0.047***	0.025	-0.216	0.048***	0.027
	[-0.83]	[6.77]	[0.60]	[-0.87]	[6.84]	[0.66]
CAPXPN	-0.212	-0.035***	-0.256***	-0.167	-0.038***	-0.280***
	[-0.83]	[-4.89]	[-5.99]	[-0.65]	[-5.33]	[-6.55]
RECTA	0.291	0.008	0.026	0.318	0.006	0.015
	[0.83]	[0.79]	[0.44]	[0.90]	[0.64]	[0.26]
INVTA	0.014	0.001	0.001	0.007	0.001	0.004
	[0.15]	[0.27]	[0.06]	[0.07]	[0.42]	[0.24]
LANG	0.690**	0.032***	0.116**	0.730**	0.029***	0.097**
	[2.41]	[3.99]	[2.42]	[2.54]	[3.67]	[2.03]
Constant	5.612***	0.012	-0.100	5.766***	0.007	-0.137*
	[13.16]	[0.98]	[-1.40]	[13.14]	[0.55]	[-1.87]
Observations	1,450	1,450	1,450	1,450	1,450	1,450
R-squared	0.29	0.52	0.22	0.30	0.52	0.23
Adj. R-squared	0.28	0.50	0.20	0.28	0.51	0.21
F-statistics	16.36***	41.89***	11.22***	15.57***	40.26***	11.21***

Note. This table reports the results of Heckman two-stage self-selection test. Panel A shows the
results of first stage logistic regression where we show the propensity of a firm to be family
owned/family managed/family controlled with a set of control variables. Following prior research,
we added three new variables including firm age (FIRMAGE), bord independence (INDBOD) and
audit independence (INDAC) in the first stage logistic regression model.   Panel B shows the results
of the second stage of Heckman two-stage regression model on family firms, political connection
interaction and firms performance. Here we put Inverse Mills Ratio (LANG) derived from stage 1
and we put it as control variable in the second stage. We find that the coefficient of LANG is highly
significant at 1 percent level which implies that self-selection problems are well addressed. T-value
for each coefficient is given in parentheses. Superscripts asterisks *, **, and *** refer to 5%, 10% and
1% significant levels respectively.

5. Additional Analysis

5.1. Subsample analysis: (distressed firms vs. sound firms).

In this section, we attempt to see whether the link between family firms and firm
performance is affected by the state of the firm they belong to. In this paper, we use
Altman (1968), which is calculated as follows:

Altman Z = 1.2 * (WRCAP/TA) + 1.4*(RE/TA) + 3.3 *(EBIT/TA) + 0.6* (MBE/TL) +
0.999* (REV/TA).

We classify a firm as healthy when its Altman Z score is equal to or greater than 1.81,
and all other firms are categorised as distressed (0). We find that more than 876 firm-year
observations fall within healthy firms, and 574 within financially distressed firms. We run
our baseline regression and find that the family firm dummy (FAMFIRM) is negatively

connected with market valuation for healthy firms and positively associated with distressed firms. It indicates that family control positively helps firms when they are suffering or struggling. In addition, the result implies that family members intensify their involvement and dedicate their efforts to helping companies overcome financial difficulties, thereby resulting in positive firm performance.

However, when we run the same regression for operating performance measures (e.g., ROA), we find a similar scenario for healthy companies, and the result is also statistically significant. However, the negative relation between family firm and ROA is insignificant in the sample of distressed firms. Table 8 reports the results. Next, we incorporate the interaction of family firm and political connections in both subsamples of financially distressed and healthy firms. It is found that the family firm is negatively associated with market valuation and positively associated with operating performance; however, no impact of political connection is evident. In essence, we can infer that political affiliation does not matter for family firms, whether they are politically connected or not. In terms of operating performance, we find a negative interaction coefficient between family firms and political connection, implying that, as in our main results, political connection reduces firm accounting-based operating performance. In sum, we find mixed results for operating performance measures.

5.2. Subsample analysis: (high-quality governance vs. low-quality governance)

Following prior research, we compute a composite score of nine corporate governance variables, including the size of the board of directors (BOD), board independence and audit committee independence, female presence on the board and audit committee, meeting frequency (BOD and AC), and CEO duality. Later, we create two samples, categorizing highly governed firms (703) and poorly governed firms (747). Table 9 presents the results. It is found that the family firm (FAMFIRM) is negatively associated with both accounting and market-based performance measures, which suggests that the negative relation between firm performance and family firm is not affected by whether a firm has strong governance or poor governance, which demands further investigation into the role of corporate governance mechanisms on firm performance. Future researchers can complement our present study.

5.3. Alternative measure of firm performance

In addition to return on assets (ROA) and return on sales (ROS), we utilize another widely used measure of firm performance, i.e., return on equity (ROE) (Bennouri et al., 2018; Bhagat & Bolton, 2019; Miah et al., 2023; Pucheta-Martínez & Gallego-Álvarez, 2020). We run both our baseline and interaction models to explore the moderating effect of political connection on the link between family ownership and ROE. Results of the analysis are presented in Table 10. Consistently, we find that ROE is negatively associated with family ownership, supporting our main hypothesis. Similarly, we find the negative coefficient of FAMFIRM* POLCON, which is also in line with our main analysis, and it implies that political connection further intensifies the given negative relation between family ownership and firm operating performance. Returning to control variables, we find that the variables show consistent behaviour with the dependent variables.

Table 8. Sub-sample analysis: Financially distressed companies vs Healthy Companies 209

VARIABLES	Healthy Companies TOBINQ	Distressed Companies TOBINQ	Healthy Companies ROA	Distressed Companies ROA	Healthy Companies TOBINQ	Distressed Companies TOBINQ	Healthy Companies ROA	Distressed Companies ROA
FAMFIRM	-0.946***	0.212***	-0.020***	-0.008	-1.131***	0.216***	-0.012**	0.004
	[-5.09]	[3.48]	[-4.66]	[-1.20]	[-5.13]	[3.04]	[-2.49]	[0.50]
POLCON					-0.258	-0.203*	0.004	0.026**
					[-0.87]	[-1.81]	[0.58]	[2.04]
*FAMFIRM*POLCON*					0.574	0.033	-0.023***	-0.036***
					[1.58]	[0.27]	[-2.80]	[-2.69]
AUDOPINION	-0.247	0.150***	-0.000	-0.021***	-0.230	0.154***	-0.001	-0.020***
	[-1.12]	[3.00]	[-0.02]	[-3.87]	[-1.04]	[3.12]	[-0.11]	[-3.60]
BIG4	0.734***	0.035	0.011**	0.005	0.741***	0.070	0.010*	0.005
	[3.13]	[0.48]	[2.13]	[0.57]	[3.15]	[0.98]	[1.94]	[0.68]
BSEG	0.057	0.016*	0.001	0.001	0.060	0.011	0.000	0.000
	[1.09]	[1.85]	[0.48]	[0.68]	[1.16]	[1.27]	[0.39]	[0.42]
BODSIZE	0.012	0.018**	-0.000	-0.002**	0.006	0.028***	0.000	-0.002**
	[0.35]	[2.04]	[-0.20]	[-2.30]	[0.18]	[3.05]	[0.32]	[-2.38]
FIRMSIZE	-0.614***	-0.082***	0.008***	0.011***	-0.617***	-0.082***	0.008***	0.011***
	[-11.31]	[-5.34]	[6.80]	[6.17]	[-11.37]	[-5.37]	[6.97]	[6.20]
ACSIZE	0.233**	0.010	0.007***	0.000	0.225**	0.013	0.008***	0.002
	[2.53]	[0.45]	[3.40]	[0.07]	[2.44]	[0.60]	[3.73]	[0.72]
GOVT_OWN	0.010	0.004**	-0.000**	-0.000*	0.009	0.004**	-0.000*	-0.000
	[1.62]	[2.46]	[-2.05]	[-1.91]	[1.40]	[2.28]	[-1.89]	[-1.49]
INST_OWN	-0.006	-0.001	-0.000**	0.000	-0.006	-0.001	-0.000	-0.000
	[-1.17]	[-0.52]	[-1.98]	[0.03]	[-1.31]	[-0.78]	[-1.58]	[-0.13]
LEVERAGE	0.494**	0.035	-0.025***	-0.017**	0.462*	0.067	-0.023***	-0.013*
	[2.07]	[0.49]	[-4.57]	[-2.23]	[1.93]	[0.94]	[-4.34]	[-1.65]
OPT_CASH	4.215***	0.015	0.281***	0.108***	4.423***	0.125	0.271***	0.102***
	[4.98]	[0.06]	[14.71]	[3.85]	[5.17]	[0.49]	[14.17]	[3.60]
NETWCAP	-2.148***	-0.487***	-0.000	0.045***	-2.127***	-0.463***	-0.002	0.045***

	[-5.26]	[-5.37]	[-0.00]	[4.53]	[-5.20]	[-5.17]	[-0.19]	[4.54]
CAPXPN	-0.733**	0.214**	-0.066***	-0.012	-0.626*	0.229**	-0.073***	-0.016
	[-1.96]	[2.22]	[-7.88]	[-1.09]	[-1.65]	[2.38]	[-8.56]	[-1.44]
RECTA	0.446	0.086	-0.013	-0.008	0.514	0.118	-0.017	-0.007
	[0.72]	[1.07]	[-0.93]	[-0.94]	[0.83]	[1.48]	[-1.22]	[-0.73]
INVTA	-0.058	0.357**	0.006	-0.015	-0.076	0.466***	0.007*	-0.016
	[-0.35]	[2.31]	[1.50]	[-0.85]	[-0.46]	[3.01]	[1.79]	[-0.91]
Industry fixed effects	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
Year fixed effects	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
Constant	6.735***	1.593***	0.000	-0.024	6.906***	1.579***	-0.005	-0.037*
	[10.33]	[8.81]	[0.00]	[-1.20]	[10.39]	[8.63]	[-0.35]	[-1.82]
Observations	876	574	876	574	876	574	876	574
R-squared	0.33	0.30	0.58	0.37	0.34	0.32	0.58	0.38
Adj. R-squared	0.31	0.26	0.56	0.33	0.31	0.28	0.57	0.34

Note. This table reports the results of a subsample analysis by firm category (Healthy vs. Distressed firms). We classify a firm as a healthy firm when its Altman Z score is equal to or greater than 1.81, and all other firms are categorized as distressed firms (0) following prior research. We find that more than 876 firm-year observations fall under healthy firms, and 574 firm-year observations are under the financially distressed firms sample. The first four columns (1-4) show the results for family firms and firm performance, while the last four columns (5-8) present the results for the interaction between family firms and political connections on firm performance. In sum, results provide mixed evidence regarding market-based and operating performance measures. Details are provided in section 5.1 T-value for each coefficient is given in parentheses. Superscripts asterisks *, **, and *** refer to 5%, 10%, and 1% significant levels, respectively.

Table 9. Sub-sample analysis: Corporate governance performance based

VARIABLES	HIGHER CGPF **TOBINQ**	LOWER CGPF **TOBINQ**	HIGHER CGPF **ROA**	LOWER CGPF **ROA**
FAMFIRM	-0.456**	-0.866***	-0.011**	-0.024***
	[-2.17]	[-5.08]	[-2.03]	[-4.35]
AUDOPINION	-0.365*	0.052	-0.016***	-0.004
	[-1.66]	[0.28]	[-2.78]	[-0.64]
BIG4	0.916***	0.897***	0.033***	0.010
	[3.52]	[4.26]	[4.95]	[1.49]
BSEG	-0.002	0.139***	-0.001	-0.000
	[-0.06]	[2.72]	[-0.99]	[-0.22]
BODSIZE	0.013	-0.038	-0.001	-0.001
	[0.35]	[-1.06]	[-0.75]	[-0.93]
ACSIZE	0.147*	0.186*	0.004**	-0.005
	[1.77]	[1.81]	[2.03]	[-1.55]
GOVT_OWN	0.004	-0.017**	-0.000*	-0.001***
	[0.78]	[-2.14]	[-1.69]	[-3.70]
INST_OWN	-0.003	-0.002	-0.000	-0.000
	[-0.53]	[-0.48]	[-0.53]	[-0.48]
FIRMSIZE	-0.578***	-0.470***	0.006***	0.008***
	[-10.04]	[-10.44]	[4.20]	[5.71]
LEVERAGE	-0.872**	0.536***	-0.045***	-0.026***
	[-2.21]	[3.05]	[-4.45]	[-4.62]
OPT_CASH	7.447***	1.905***	0.370***	0.234***
	[8.09]	[2.61]	[15.77]	[9.96]
NETWCAP	-0.376	0.249	0.056***	0.052***
	[-0.93]	[0.78]	[5.48]	[5.07]
CAPXPN	-0.808*	0.319	-0.045***	-0.042***
	[-1.87]	[1.00]	[-4.14]	[-4.09]
RECTA	-0.042	-0.015	-0.017	-0.008
	[-0.09]	[-0.04]	[-1.50]	[-0.59]
INVTA	0.465	0.107	-0.019	0.005
	[0.63]	[1.00]	[-0.99]	[1.54]
Industry fixed effects	Controlled	Controlled	Controlled	Controlled
Year effects	Controlled	Controlled	Controlled	Controlled
Constant	6.015***	6.025***	0.025	0.041**
	[8.26]	[10.26]	[1.34]	[2.18]
Observations	703	747	703	747
R-squared	0.36	0.31	0.60	0.45
Adj. R-squared	0.33	0.28	0.58	0.42

Note. This table reports the results of a subsample analysis based on the quality of corporate governance (High-governed firms vs. poorly governed firms). We classify a firm as highly governed and assigned with the value of 1 when the composite score of corporate governance is equal or greater than median value (i.e.3.0) and all other firms are categorized as poorly governed firms (0). We find that more than 703 firm-year observations under highly governed sample and 747 firm year observations are under poorly governed firms. Our results provide a consensus that family firms are negatively associated with firm performance in terms of both market-based and operating performance measures. Details are provided in section 5.2. T-value for each coefficient is given in parentheses. Superscripts asterisks *, **, and *** refer to 5%, 10% and 1% significant levels respectively.

Table 10. Family firms, political connection, and firm performance (with alternative measure of firm performance, i.e., ROE)

VARIABLES	ROE	
	Equation (1)	Equation (2)
FAMFIRM	-0.040**	-0.007
	[-2.43]	[-0.37]
POLCON		0.104***
		[3.74]
POLCON *FAMFIRM		-0.101***
		[-3.12]
Control variables	Considered	Considered
Industry fixed effects	Controlled	Controlled
Year fixed effects	Controlled	Controlled
Constant	0.065	0.021
	[1.24]	[0.39]
Observations	1,450	1,450
R-squared	0.24	0.25
Adj. R-squared	0.22	0.23

Note. This table presents the results of the family-firm and firm-performance regression, where we use return on equity (ROE) as the dependent variable. In Equation (1), we estimate our baseline regression of family firms and firm performance, while in Equation (2), we estimate the interaction between family firms and political connections on firm performance. Our results remain qualitatively the same as in our main analysis. Control variables have retained the same significance as in the main analysis. For brevity, we do not report the control variables.

5.4 Impact of the global pandemic on firm performance

In this section, we examine whether the link between family firms and firm performance is affected by COVID-19. Because prior research provides empirical evidence that COVID-19 has affected: firms' corporate governance (Putra, 2024); and firm profitability (Bose et al., 2022; Zhang & Zheng, 2022). Firm profitability is affected because firms require longer operating cycles to clear their transactions, increase the cost of capital, and involve larger operating cash flows (Zhang & Zheng, 2022). However, the negative effect of COVID-19 is lower in the countries with higher environmental performance and stronger stakeholders' culture. However, it is unclear about the impact of COVID-19 in a developing market context like Bangladesh. Results of the analysis are reported in Table 11. Our analysis shows that COVID-19 significantly reduces operating performance; however, market-based performance is enhanced in the post-COVID periods. Such a positive impact, if found, may be due to the floor price policy enacted by the regulatory body in Bangladesh.   More specifically, under the floor fixation policy, the stock price was not allowed to increase or decrease by more than 10 percent in a day, thereby restricting the share price's free movement, which may be reflected in the market valuation of listed companies in Bangladesh. We do not find any moderating effect of COVID-19 on family firms' performance, implying that the link between COVID-19 and firm performance is not contingent on firm category. Similarly, this study finds no impact of political connections on the nexus between family firms and firm performance. Control variables show signs and significance consistent with our main tests.

Table 11. Family firms, COVID-19, and firm performance

VARIABLES	TOBINQ	ROA	TOBINQ	ROA
COVID	0.633*	-0.037***	0.833***	-0.042***
	[1.90]	[-4.69]	[2.65]	[-4.70]
FAMFIRM			-0.652***	-0.023***
			[-4.27]	[-5.46]
*COVID*FAMFIRM*			-0.284	0.007
			[-1.18]	[1.02]
CONTROLS	Considered	Considered	Considered	Considered
CONSTANT	5.032***	-0.005	5.585***	0.014
	[8.49]	[-0.40]	[13.02]	[1.13]
Observations	1450	1450	1,450	1,450
R-squared	0.28	0.50	0.29	0.51
Adj. R-squared	0.26	0.49	0.27	0.50

Note. This table presents the results of the impact of the global pandemic (COVID-19) on firm performance. The first two columns show the results of the impact of COVID-19 on firm performance, merging both family firms and nonfamily firms (Pooled sample). In columns (3) and (4), we report the results of the interaction between COVID-19 and the family-firm dummy (1,0) to assess the moderating effect of the global pandemic. We use the same set of control variables used in our main models.

6. Conclusion

The present study examines the link between family firms and firm performance in Bangladesh, a country dominated by family firms. Secondly, we explore the role of political connections in the relationship between family firms and firm performance. We are motivated by the current study, as in the latest Bangladesh national election held in 2018, where we find that more than 60 percent of Members of Parliament (MPs) have business backgrounds, indicating the intensity of politicians' involvement in the business environment in Bangladesh. Further prior research shows that earnings manipulations were significantly higher in family firms in Bangladesh, providing us with added impetus to conduct the current study (Razzaque, Ali, and Mather, 2016).

Based on our analysis, we conclude that nonfamily firms outperform their peer family firms, and this link holds across both accounting performance and market valuation measures. Secondly, we document a negative impact of political connection on the above link when we focus on accounting-based operating performance, but no impact when we focus on market-based performance measures. Our results support the argument that politicians exploit their political power to enhance their business reputation, which may be reflected in share prices and, hence, market valuation, and this notion is consistent with the study by Faccio (2010). However, politicians or politically connected directors exercise their powers over firm management, intensifying agency conflicts and resulting in lower operating performance. Finally, we document that the global pandemic has negatively affected firms' operational profitability, but surprisingly, the pandemic has positively affected market-based performance. We believe this positive impact on market prices may be due to BSEC's floor price-fixation policy, which limits upward and downward share price movements. More importantly, the secondary market is constrained by such a floor-pricing policy, which may have led to a higher market valuation of the company in the post-COVID period. Other reasons can be examined in future research.

Given the mixed findings in the present study, policymakers and regulators should focus on the quality of corporate governance compliance in family firms, particularly politically connected firms, to safeguard public companies, which are the hubs of employment, growth, and sustainability. Our research contributes to the literature on

family firms and political connections, where socio-emotional theory, agency theory, and resource dependency theory are particularly prominent, and it focuses on developing markets such as Bangladesh. Given several contributions from the study, our paper has some limitations. For instance, we used a dummy variable for political connection measures, though the same methodology has been widely used in accounting and finance research. Future researchers can use alternative quantitative measures, such as shareholding or money spent on political purposes, to provide anecdotal evidence in a similar context. Second, this study uses only nonfinancial companies, as the banking sector in Bangladesh is highly influenced by politicians. Future researchers can either conduct a separate study on the banking sector to examine the influence of political connections on firm performance or combine all industries to assess the impact of such political connections on firm performance.

Finally, our study recommends that future researchers expand on our work by testing whether our results generalize to other settings in which family firms dominate over nonfamily firms. Finally, interested researchers can complement our research by disentangling the dynamics of political connections between directors and management, and they can also investigate the transformation of these connections over generations within the same family and its impact on firms' sustainability.

Appendix A. Variable definitions.

Appendix: Variable definition	
Variables	Definition
Dependent variables:	
TOBINQ	We measured TOBINQ as the sum of the book value of total assets plus the market value of equity minus the book value of equity divided by total assets.
ROA	The ratio of net income to total assets of the company.
ROS	The ratio of net income to total sales revenue of the company.
ROE	The ratio of net income to the total value of equity of the company.
Independent variables:	
FAMFIRM	1 when the firm's CEO and Chairman are the same person, and 0 otherwise.
LEVERAGE	The ratio of long-term debt to total assets of the company.
POLCON	Equals 1 for politically connected firms and 0 otherwise.
AUDOPINION	1 if the firm is issued with a qualified opinion, and 0 for otherwise.
BIG4	1 if the sample company is audited by one of the Big Four affiliated audit firms and 0 for otherwise.

BSEG	BSEG is measured as the natural logarithm of (1 + the number of business segments of the sample company).
BODSIZE	The number of directors on the board of directors (BOD).
ACSIZE	The number of directors in the audit committee.
GOVT_OWN	The proportion of shares owned by the government.
INST_OWN	The proportion of shares owned by the institutional investors.
FIRMSIZE	The natural log of total assets of the firm in the current period.
OPT_CASH	The ratio of cash flow from operating activities to total assets of the company in the current period.
NETWCAP	The ratio of current assets, less current liabilities, less cash and marketable securities, to total assets of the company in the current period.
CAPXPN	The ratio of property, plant, and equipment to total assets of the company for the current period.
RECTA	The ratio of total receivables to total assets of the company in the current period.
INVTA	The ratio of total inventories to total assets of the company in the current period.
FIRMAGE	Natural log of a firm's listing age with the stock exchange (e.g., DSE).
INDBOD	The ratio of the number of independent directors to the total number of directors on the board.
INDAC	The ratio of the number of independent directors to the total number of directors in the audit committee.
COVID	1 for the periods of post-COVID (2020-2023) and 0 for the other periods (2011-2019).
WRCAP	Working capital of the firm.
RE	Retained earnings for the current period of the company.
EBIT	Earnings before interest and taxes.
MBE	Market value of the equity.
REV	Revenue of the company.
TA	Total assets of the company for the current period.

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