

CEO DUALITY, BOARD INDEPENDENCE AND FIRM FINANCIAL PERFORMANCE: EVIDENCE FROM AN ASIAN EMERGING MARKET

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Abstract. *This study explores the relationship between CEO duality, board independence, and firm financial performance of listed companies in Pakistan, an Asian emerging market with a unique institutional background, family-controlled business, larger board independence, and CEO duality in companies listed on the Pakistan Stock Exchange (PSX). We used a sample of 146 listed manufacturing companies for the period–2003-2012. The dynamic generalised method (GMM) is employed to estimate and address endogeneity issues. The study finds an insignificant association between CEO duality and firm financial performance in the absence of board independence. However, we observed a significant positive association between CEO duality and financial performance in the presence of large board independence. This study concludes that the association between CEO duality and firm financial performance is contingent on the being of outside directors on the board. This study extends the body of existing literature on CEO duality and board independence financial performance with reference to an emerging Asian market, more specifically Pakistan. Based on the results, it suggests that policymakers should pay particular attention to the quality of corporate governance, specifically board structure, while predicting financial performance.*

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Introduction

CEO duality is a significant factor in the corporate governance mechanism that affects the financial performance of companies. CEO duality occurs when an

individual holds two main positions in the management, namely the CEO position, and also acts as a chairman on the board of directors. According to corporate law and corporate governance codes, an individual must not hold the two positions. The CEO position is a full-time job and is responsible for the day-to-day operations as well as strategic planning for a company. The primary responsibility of the CEO is to enhance its financial performance. In contrast, the chairman position is normally a part-time job, and the key responsibility is to administer board activities and decisions. Therefore, the chairman's role is to monitor and evaluate the activities of the CEO and executive directors of the company.

According to Cadbury (1992), the chairman position has the responsibility to overlook boardroom activities, such as ensuring that the relevant information is disseminated to the non-executive directors regarding board meetings and other pertinent information. Cadbury's report also contended that the chairman should be distanced from the company's daily operations. Cadbury's report recommended that the positions of chairman and the roles of CEO should be separated in corporates and encouraged the appointment of non-executive directors as chairman of the board for objective opinions on proposals, effective monitoring, on-board decisions, and protecting shareholder interests. CEO duality and its impact on the firm performance represent one of the most contentious and controversial issues in both the academic and business world (Dalton, Hitt, Certo, & Dalton, 2007; Duru, Iyengar, & Zampelli, 2016; Finkelstein, Cannella, Hambrick, & Cannella, 2009) and support by the two important theories. That is, agency theory and stewardship theory. The proponents of agency theory (Jensen & Meckling, 1976) argue that the role of the CEO and chairman should be separated in modern corporations. In the case of duality, the chairman dominates board decisions, and the monitoring role of the chairman becomes ineffective. The second major issue is that duality enhances CEO entrenchment and curtail board independence.

In opposition to the agency theorist, followers of stewardship argue that executives are by nature trustworthy and that they are a good bailiff of the organisation resources (Donaldson & Davis, 1991, 1994; Donaldson & Preston, 1995). Proponents of stewardship theory recommend that managers be self-actualized rather than opportunistic individuals.

In Pakistan, the corporate sector is not mature, and acceptable corporate governance practices are at an initial stage. The Code of Corporate Governance 2013 (hereafter, CG 2013), issued by the Securities Exchange and Commission of Pakistan (SECP), clearly prohibited CEO duality in public limited companies. The Code stated that the role of the chairman and chief executive and the separation of the two positions. The office of the chairman shall be separate and his responsibilities distinct, from those of the chief executive' (Corporate Governance Rules, 2013, p. 265). The Code of Corporate Governance is in line with international principles, including openness, transparency, and accountability in

the affairs of listed companies. Despite these initiatives, in Pakistan, listed companies are still concentrated ownership through cross-shareholding and pyramid shareholdings, family-owned or closed business groups. In Pakistan, major companies are owned by the state and large business groups and families. Sixty-four percent of the listed companies are family-owned businesses in Pakistan [ICMAP Research Report Shareholding Pattern of Corporate Sector in Pakistan (2011), p.8]. The major shares of these family firms are owned by family members and managers. Furthermore, in family-controlled firms, controlling family members may appoint directors on their boards. They usually avoid the appointment of directors who are unable to control. In family-controlled firms, board decisions are usually controlled by family members and non-executive directors. In fact, the controlling family members and shareholders are keen to run their company in their own way and are least concerned about the protection of minority shareholders' rights. Furthermore, in family-controlled firms, family members do not allow any kind of interference from outside, and they are not ready to share any of their powers with outsider directors. As in family-controlled firms, controlling family members may appoint directors to the boards, and thus the independence of directors may be sacrificed due to their strong binding with family members (Chen & Jaggi, 2000; Lam & Lee, 2012; Leblanc & Gillies, 2005). Furthermore, the family members hold the top position, such as the CEO and/or chairman, to dominate and control the board. CEO duality is more common in family-controlled firms than non-family firms (see also, Chen, Cheung, Stouraitis, & Wong, 2005; Cheung, Connelly, Limpaphayom, & Zhou, 2004; Lei & Song, 2004). In a family-controlled environment, the business is usually managed and controlled by family members, which provides opportunities for managerial opportunism and expropriation of minority shareholders (Claessens, Djankov, Fan, & Lang, 2002). Thus, this opportunistic behaviour would adversely affect corporate governance practices in family-controlled firms, such as Pakistan. For example, Chen and Jaggi (2000) find weak financial disclosure practices in family-controlled firms compared to non-family-controlled firms.

In the corporate finance literature, many studies have investigated the impact of CEO duality on firm financial performance, but they failed to reach a consensus on the findings. The association between CEO duality and firm financial performance varies from country to country and the corporate governance model. However, the literature on CEO duality and firm performance in emerging markets is scant, and the impact of CEO duality on firm performance has yet to be deeply explored in emerging markets such as Pakistan, with a unique institutional setup of the family-controlled business.

To fill the gap, the study examines the impact of CEO duality on firm financial performance in Pakistan by considering 146 manufacturing firms for the period 2003-2012, before enforcing the Code of Corporate Governance 2013 to separate

the role of CEO and the chairman. This study contributes to the corporate governance literature on the duality-performance relationship of listed companies in emerging markets such as Pakistan and other Asian countries.

The remainder of this paper is organized as follows. Section 2 describes the literature review and hypotheses development. Section 3 provides the research methodology, sample selection procedure, empirical model, and estimation strategy. Further, this section explains the operational definitions of the variables. Section 4 explains the empirical results and findings, and Section 5 concludes the study.

2. Literature Review

The two main competing theories that assist in understanding the relationship between CEO duality and firm financial performance are agency theory and stewardship theory.

Agency theory highlights the conflict between shareholders and management of the company and argues that boards should be independent of management to limit managerial entrenchment and opportunism (Meckling & Jensen, 1976). Furthermore, agency theory opposed the dual role of the CEO and encouraged the separate role of the CEO and chairman of the board. Further Jensen (1993, 1994) argues that if the posts of the CEO and chairman are held by the same individual, it concentrates the power of the CEO and makes decisions to protect his own interest than the interests of the shareholders. Splitting the role of CEO and chairman of the board improves the financial performance of the firm (Coles, McWilliams, & Sen, 2001; Peel & O'Donnell, 1995).

In contrast to agency theory and dual leadership/ joint leadership structure is supported by a number of eminent scholars and organizational theorists (such as Awan, Shah, Khan, & Javeed, 2020; Barney, 1990; Duru et al., 2016; Lipton & Lorsch, 1992; Lorsch & MacIver, 1989) argue that CEO duality can enhance the firm financial performance. Stewardship theorists support the phenomenon of CEO duality/joint leadership structure in firms and argue that managers are intrinsically believable and are good stewards of company resources' (Barney, 1990; Donaldson & Davis, 1991, 1992, 1994). Stewardship theory contends that non-financial factors such as intrinsic satisfaction from achievement, recognition, respect, and reputation motivate CEOs to enhance firm financial performance by using the unity of command to manage the firm resources as good stewards. Further, Stewardship theorists reject the implied assumption of the agency theory that CEOs are inherently opportunistic and managerial entrenchment behaviour (Duru et al., 2016). Furthermore, Palmon and Wald (2002) suggested that small firms have the advantage of quick, clear, and decisive decision-making under a single leadership, while large firms enjoy more benefits from monitoring and balancing acts of the board in a duality situation. They conclude that the optimal management structure depends on the firm size. Similarly, Peng, Zhang, and Li

(2007) studied the relationship between CEO duality and firm financial performance from the aspects of agency and stewardship theories. Agency theory suggests a negative relationship between duality and firm financial performance due to the weak monitoring and controlling power of the CEO. In contrast to agency theory, stewardship theory argues that CEO duality has a positive influence on firm financial performance due to single leadership and timely decisions. However, empirical findings from both emerging and emerging markets are still inconclusive.

Sheikh, Bhutta, & Sultan (2019) investigate the relationship between CEO compensation and firm unobserved future firm performance for non-financial firms listed on Pakistan Stock Exchange (PSX). This study reports a significant positive association between CEO compensation and future firm performance. Lam and Lee (2008) examine the relationship between CEO duality and corporate financial performance by moderating the effect of the family-controlled factor for a sample of publicly listed companies on the Hong Kong Stock Exchange. They argue that neither agency theory nor stewardship theory alone amply elucidates the relationship between CEO duality and corporate financial performance. They further conclude that in non-family-controlled firms, the relationship between CEO duality and financial performance is positive. In contrast, in the case of family-controlled firms, this relationship is negative. They also suggest that the association between duality and financial performance is contingent on ownership structure. Peni (2014) studied the relationship between CEO characteristics, board chairman, and firm financial performance for a sample of 500 S&P listed firms. This study reports that demographic and experience-related characteristics may relate to firms' financial performance and market valuation. He also finds a positive relationship between CEO duality and firm financial performance measured by ROA and Tobin's Q. Guillet, Seo, Kucukusta, and Lee (2013) investigate the influence of CEO duality on corporate financial performance in a sample of the U.S restaurant industry for the period–1992-2004. The theoretical foundation of this study was based on stewardship theory. They report that duality, in general, improves restaurant performance. Rashid and Islam (2013) study the relationship between CEO duality and agency costs for publicly listed companies in Bangladesh. This study considers a sample of 94 public manufacturing companies listed on the Dhaka Stock Exchange for the period 2000–2009 and reports that CEO duality does not stimulate firm efficiency under any of the efficiency proxies. Altuwajri and Kalyanaraman (2020) examine the relationship between CEO education and firm performance for a sample of 85 non-financial companies listed on the Saudi stock exchange during 2018. They find that companies with CEOs with a higher degree from the domestic country perform better than CEOs with foreign qualifications. Further, Yang and Zhao (2014) studied the relationship between CEO duality and firm financial performance using

an exogenous shock to a competitive environment. A total of 25,246 publicly listed companies were selected as samples for the period 1979 -1989. This study reports mixed evidence on the relationship between COE duality and firm financial performance due to endogeneity challenges. They argue that the positive effect of dual leadership is greater when firms have high levels of information costs and better corporate governance. Furthermore, Rahman and Saima (2018) find an insignificant association between board independence, female directors, and firm performance. Thus the literature review provide mixed evidences on the relationship between CEO duality and firm financial performance (see, for example, Daily & Dalton, 1997a; Daily & Dalton, 1997b; Dalton, Daily, Johnson, & Ellstrand, 1999; Kang & Zardkoohi, 2005; Lam & Lee, 2008).

Based on the agency theory and develop the following testable hypothesis.

H1: The relationship between CEO duality and firm financial performance is negative

H2: In the presence of concentrated board independence, the relationship between CEO duality and firm financial performance is positive.

3. Methodology

3.1 Sample selection

The present study utilizes a sample of 146 manufacturing companies listed on the PSX for the period of 2003-2012. We consider manufacturing firms for two reasons: (i) the manufacturing sector is the third-largest sector of Pakistan, and its contribution to the GDP is 13.5% and 14% of the total employment of the country. (ii)The financial data and corporate governance data of manufacturing firms are stable and consistent as compared to financial sector firms. The financial data of manufacturing companies can be collected easily compared to financial service firms. Further, financial service firms are heavily regulated, state-owned enterprises and restructuring of the financial sector in Pakistan has been initiated since 1990, which resulted from inconsistencies and wobbly financial sector data.

3.2 Model specification

$$PER_{it} = \alpha_o + \alpha_1 PER_{it-1} + \beta_2 CEODU_{it} + \beta_3 SIZ_{it} + \beta_4 PM_{it} + \beta_5 PR_{it} + \beta_6 LEV_{it} + \beta_7 GRW_{it} + \sum_{i=1}^n YDUM + \eta_i + \varepsilon_{it} \tag{1}$$

$$PER_{it} = \alpha_o + \alpha_1 PER_{it-1} + \beta_2 CEODU \times BIND_{it} + \beta_3 SIZ_{it} + \beta_4 PM_{it} + \beta_5 PR_{it} + \beta_6 LEV_{it} + \beta_7 GRW_{it} + \sum_{i=1}^n YDUM + \eta_i + \varepsilon_{it} \tag{2}$$

where PER_{it} is used as a proxy for financial performance and measured by return on assets (ROA), return on equity (ROE), market to book ratio (MBR), and Tobin's Q (TQ). $BIND_{it}$ is Board independence and $CEODU_{it}$ is CEO Duality. Further, SIZ_{it} = Size of the Firm, PM_{it} = Profit Margin, PR_{it} = Payout Ratio, LEV_{it} = Leverage of the Firm, GRW_{it} = Sales growth of the firm, $YDUM$ and Year dummies and the term η_i is the unobserved time-variant firm effect. The term is μ_i the firm-specific effect and e_{it} is the error term.

3.3 Estimation technique

To examine the relationship between CEO duality and firms financial performance, we employed the dynamic GMM estimator following Antoniou, Guney, & Paudyal (2008), Nakano & Nguyen (2012), Wintoki, Linck, & Netter (2012), Nguyen, Locke, & Reddy (2014). The dynamic panel GMM estimator uses the lag of the dependent variable as a predictor in the model estimation. Dynamic GMM is used to cater to endogeneity issues in panel data estimates. Endogeneity is a common issue in corporate governance studies. Further, we follow the study of Nguyen et al. (2014) and used one-year lag of dependent variable lag of the financial performance “ PER_{it} ”, to address the dynamic relationship between CEO duality and firm financial performance.

3.4 Explanation of the variables

Table 1. *Definition of Variables and Sources of Data*

| Variables | Symbol | Definition | Source |
|---|---------------|--|----------------------------------|
| Board Independent | $BIND_{it}$ | Number of non-Executive Directors/Total number of directors on the board | Annual Reports of the companies. |
| CEO Duality | $CEODU_{it}$ | A dummy variable: it is 1 if CEO is also as the Chairman of the board. Otherwise, it is 0. | Annual Reports of the companies. |
| Dependent Variables: Financial Performance | | | |
| Return on Asset | ROA_{it} | $ROA = \frac{Net\ Income}{Total\ Asset}$ | Balance Sheet Analysis |
| Return on Equity | ROE_{it} | $ROE = \frac{Net\ Income}{Total\ Asset}$ | Balance Sheet Analysis |

| | | | |
|--------------------------|------------|--|---------------------------|
| Tobin's Q | TQ_{it} | $TQ = \frac{\text{Total Borrowings} + \text{Market Value Equity}}{\text{Total Assets}}$ | Constructed by authors |
| Market to Book Ratio | MBR_{it} | $MBR = \frac{\text{Market Capitalization on last trading day each year}}{\text{Book Value of Equity}}$ | Calculated by the authors |
| Control Variables | | | |
| Net profit margin | PM_{it} | $PM = \frac{\text{Net Income}}{\text{Net Sales}}$ | Balance Sheet Analysis |
| Firm size | SIZ_{it} | Natural log of Market Capitalization | Balance Sheet Analysis |
| Payout ratio | PR_{it} | $PR = \frac{\text{Dividend paid to common shareholders}}{\text{Total number of common shares}}$ | Calculated by authors |
| Leverage | LEV_{it} | $LEV = \frac{\text{Total Debts}}{\text{Total Assets}}$ | Balance Sheet Analysis |
| Sales growth | GRW_{it} | $GRW = \frac{\text{Sales}_t - \text{Sales}_{t-1}}{\text{Sales}_{t-1}}$ | Calculated by authors. |

4 Data Analysis, Results and Discussion

4.1 Descriptive statistics

Table 2 presents sample summary statistics. Table 2 shows that the average value of leverage is 60%, with a standard deviation of 24%. The mean and median of firm size are 6.98% and 6.82%, respectively. The average value of growth is 17.8%.

Table 2. *Summary Statistics (N=146)*

| | Mean | Median | Maximum | Minimum | Std. Dev. |
|-----------------------|------|--------|---------|---------|-----------|
| CEO Duality (dummy) | 0.98 | 1 | 1 | 0 | 0.15 |
| (%) | | | | | |
| Board Independent (%) | 0.56 | 0.57 | 1 | 0 | 0.22 |
| MBR (%) | 2.24 | 0.92 | 63.37 | -4.43 | 5.28 |
| ROA (%) | 0.09 | 0.05 | 3.03 | -0.00 | 0.18 |
| ROE (%) | 0.27 | 0.12 | 7.6 | -0.01 | 0.65 |
| Tobin's Q (%) | 0.63 | 0.35 | 6.84 | 0 | 0.88 |
| Leverage (%) | 0.60 | 0.62 | 2.31 | 0.00 | 0.25 |
| Firm size | 6.99 | 6.83 | 13.63 | 1.74 | 2.12 |

| | | | | | |
|-------------------|------|------|------|-------|------|
| Growth (%) | 0.18 | 0.16 | 2.74 | -0.84 | 0.33 |
| Payout Ratio (%) | 0.19 | 0.10 | 1.72 | 0 | 0.24 |
| Profit margin (%) | 0.08 | 0.04 | 0.91 | 0 | 0.12 |

The mean values of the payout ratio and profit margins are 19% and 7.8%, respectively. The average value of the profit margin is very small, showing that firms have low profitability, while some firms have a high-profit margin from their operations and earn up to 91% profit. The mean and median of all series were consistent and persistently within the maximum and minimum values of the series. The standard deviation of most series was smaller than their mean values, supporting low variation in the data.

Table 2 also shows the summary statistics of firm financial performance. The mean value of ROA, ROE, MBR, and TQ are 9.1%, 27 %, 2.24%, and 63%, respectively. The standard deviation of ROA and ROE is higher than their mean values, which implies a large variation in the data. The reason behind this variation could be that our sample contains large companies, and they are outperforming in the market as compared to firms with small market capitalization. The standard deviation of MBR and Tobin's Q is higher than the mean value, which supports high variation in data.

Table 2 also shows that the mean and median values of board independence are 55% and 57%, respectively, which suggests that most firms have 55% board independence, which is in line with the compliance of the CCG issued by the SECP. According to the corporate governance rule of 2013, the corporate board must consist of 40% independent directors of the total board members within the first two years, and after two years, this percentage shall be raised to a majority of independent directors, and that majority shall be maintained subsequently. Public sector companies should disclose the number of non-executives, executives, and independent directors in their annual reports. Table 2, Row 1, reports the summary statistics for the CEO duality variable. A binary variable is used as a proxy for CEO duality. This binary variable takes the value of '1' if the CEO also served as board chairman and '0' otherwise. This categorization suggests that for 97% of firms in our sample, individuals hold the title of CEO and chairperson (single leadership structure). This implies that the majority (97%) of the listed firms in Pakistan do not adhere to the governance practice of separating the role of the CEO and chairperson. This finding also indicates family-controlled firms in the capital market. Family-controlled firms have a higher proportion of CEO duality than do non-family firms see, for example, Chen et al. (2005), Lei & Song (2004), and Lam and Lee (2008). CG code 2013 specifically prohibits CEO duality because the board of directors appoints and evaluates the performance and ensures a succession plan for the CEOs. We also observed that the firms in our sample are managed by

boards with larger proportions of independent directors (55.7 % to 57.7%) and a slightly larger proportion of CEOs acting as chairs (97% to 100%).

4.2 Correlation matrix and variance inflation factor analysis

Correlation analysis was used to examine the possibility of multicollinearity among independent variables. Nanka-Bruce (2009, p. 135) argued that “collinearity among the independent variables inflates standard errors and results in over-estimating the effects of some collinear variables and underestimating the effects of some other” Gujarati and Porter (2003) argue that the correlation coefficient between two independent variables must be less than 80%.

Table 3. *Correlation Matrix and Variance Inflation Factor (VIF)*

| Variables | Leverage | Growth | Size | P. Ratio | Prfit Margin | Board Ind. | CEO Duality | VIF |
|---------------|----------|--------|---------|----------|--------------|------------|-------------|------|
| Leverage | 1.00 | | | | | | | 1.01 |
| Growth | -.016 | 1.00 | | | | | | 1.03 |
| Firm size | -.268** | .059* | 1.00 | | | | | 1.00 |
| Payout Ratio | -.055* | .006 | .105** | 1.00 | | | | 1.00 |
| Profit Margin | -.108** | .059* | .059* | .012 | 1.00 | | | 1.15 |
| Board Indep. | -.020 | .026 | .039 | -.021 | -.009 | 1.00 | | 1.01 |
| CEO Duality | .110** | .019 | -.146** | -.024 | -.009 | -.042 | 1.00 | 1.01 |

***, ** and * denote the significances at 1%, 5% and 10%, respectively.

Table 3 shows that board independence is positively correlated with ROA, ROE, MBR, and TQ. CEO duality has a positive relationship with both accounting-based financial performance ROA and ROE, with correlation coefficients are 0.10 and 0.08, respectively. CEO duality has a negative relationship with MBR and TQ. The correlation coefficients between CEO duality, MBR, and TQ were -0.14 and -0.05, respectively. It exists a positive correlation between CEO duality and firm leverage. Further, there is a positive relationship between CEO duality and firm sales growth, while CEO duality is negatively correlated with profit margin, payout ratio, and firm size, with correlation coefficients of -0.019, -0.10, and -0.14, respectively. Furthermore, we also observe that the highest value of the VIF test was 1.15, suggesting no problem of multicollinearity among the variables.

5 Empirical Results

Table 4 shows the insignificant association between CEODU, ROA, ROE, MBR, and TQ. Our regression results are not supported by agency theory or stewardship theory. Empirical studies (see, for example, Al Farooque, Van Zijl, Dunstan, & Karim, 2007; Daily & Dalton, 1992a, 1992b; Khan, Awan, Saleem, & Javeed, 2017; Ponnu, 2008; Rashid Afzalur, De Zoysa, Lodh, & Kathy, 2010; Rashid & Islam, 2013; Yasser, Entebang, & Mansor, 2011) find an insignificant association between CEO duality and firm financial performance.

Table 4. Relationship between CEO duality and Firm Financial Performance.

| Variables | Accounting-based Financial Performance | | Market-based Financial Performance | |
|----------------------|--|----------------------|------------------------------------|----------------------|
| | ROA_{it} | ROE_{it} | MBR_{it} | TQ_{it} |
| ROA_{it-1} | 0.281*** (6.64) | - | - | - |
| ROE_{it-1} | - | 0.280*** (12.25) | - | - |
| MBR_{it-1} | - | - | 0.090** (6.82) | - |
| TQ_{it-1} | - | - | - | 0.4556*** (16.41) |
| $CEODU_{it}$ | 0.039 (0.24) | 0.233 (0.198) | -0.478 (-0.37) | -0.988 (-1.56) |
| Siz_{it} | 0.081*** (4.057) | 0.105*** (7.23) | 0.649*** (13.69) | 0.410*** (6.62) |
| PM_{it} | 0.0150 (1.477) | 0.077 (0.319) | 0.283 (0.484) | 0.389 (0.781) |
| $Pratio_{it}$ | -0.031* (-1.77) | -0.563 (-0.95) | -0.757*** (-12.27) | -0.582*** (-5.42) |
| Lev_{it} | -0.244*** (-5.48) | 0.344 (1.41) | 0.388*** (13.97) | 0.781*** (4.85) |
| $Growth_{it}$ | 0.066*** (9.45) | -0.894*** (-3.69) | -0.226*** (-14.7) | -0.321*** (-14.9) |
| <i>YearDummies</i> | Yes | Yes | Yes | Yes |
| <i>J – statistic</i> | 36.0 [0.17] | 36.96 [0.14] | 31.04 [0.36] | 32.84 [0.284] |
| Instrument rank | 44 | 44 | 44 | 44 |
| AR (1) p-value | 0.031** | 0.000*** | 0.000*** | 0.001** |
| AR (2) p-value | 0.355 | 0.811 | 0.664 | 0.555 |
| Observations | 1460 | 1460 | 1460 | 1460 |

Note: The dynamic panel GMM model includes ROA, ROE, MBR, and TQ as dependent variables, while lagged values of explanatory variables are used as instruments. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively; t-values are presented in parentheses, while [] are p-values.

The insignificant association between CEO duality and financial performance implies that statistically speaking, financial performance, either accounting-based or market-based, is not affected by CEO duality status within Pakistani listed companies. In line with Baliga et al. (1996), this study concludes that CEO duality as a single variable does not impact financial performance in Pakistani-listed companies. The reason behind the insignificant association between CEO duality and firm performance might be the larger board independence in Pakistani-listed companies.

In Pakistan, major listed companies have special characteristics, such as high family ownership concentration, often belonging to large business groups with cross-ownership and pyramidal ownership structure, lack of corporate transparency, and diversified business structures. As concentrated family ownership is very common, with the family members sitting in the top management positions, a key driver of the agency relationship, which theoretically suggests the inverse impact of CEO duality on financial performance.

The descriptive analysis (Table 2) shows that major Pakistani companies' boards are generally dominated by outside directors; the average board independence is 56 percent, it means that the structure of the board of directors in Pakistan is largely independent of management and does not dominate the CEO. The Pakistani Code of Corporate Governance (2012) recommends that one-third of board members be independent, and a revised code of corporate governance (2013) recommended 40 percent (40%) of total board members as independent directors. Similarly, the mean (55.7%) and median (57.1%) are above the requirements of the Code of Corporate Governance, which is 40%. This indicates that listed companies in Pakistan have greater board independence. The independent director effectively monitors managerial activities and discontinues the manager's self-benefit pursuing behaviour in decision making, which reduces firm monitoring costs. Further, in the presence of larger board independence, the CEO (CEODU) makes decisions to improve financial performance. Among the other control variables, firm size is reported to be positive and significant with ROA, ROE, MBR, and TQ, respectively. The firm leverage decision has a negative and significant impact on return on assets (ROA), but has reported a positive and statistically significant association with return on equity (ROE), market to book ratio (MBR), and Tobin's Q. Tahir, Rahman, and Masri (2020) contend that corporate board attributes (that is, board size, board members' age, female board members, and CEO duality, have a weak impact on financial leverage and payout ratio. Similarly, growth has a significant positive association with return on asset, while a significant negative association with ROE, MBR, and Tobin's Q, respectively. Further, we perform several critical diagnostic tests for system GMM estimation, including the Arellano–Bond test of no second-order serial correlation in the first-differenced residuals, the Hansen over-identification test of the null hypothesis that the instruments are robust, and the Difference-in-Hansen test of the null hypothesis that the instruments are exogenous. The J-statistics values were 36.0; 36.9; 31.04; and 32.8 in all models. In all four models, the p-values are greater than 0.05, indicating that instruments (instruments lag period) are valid.

Table 4 shows that the dynamic GMM estimator, along with all the relevant diagnostic tests, across all the performance measures, we observed an insignificant association between CEO duality and financial performance. On this insignificant association, we conjecture that the duality-performance relationship is coupled with the larger board independence and effective monitoring of the independent

boards. To probe this question and to moderating the role of larger board independence on duality-performance, we re-estimate dynamic GMM by creating a new variable, that is, an interaction term between CEO duality and board independence [CEODU*Bind].

Table 5. *CEO Duality* Board Independence and Financial Performance.*

| Variables | Accounting-based Financial Performance | | Market-based Financial Performance | |
|--------------------------|--|----------------------|------------------------------------|-----------------------|
| | ROA_{it} | ROE_{it} | MBR_{it} | TQ_{it} |
| ROA_{it-1} | 0.278*** (6.90) | - | - | - |
| ROE_{it-1} | - | 0.319*** (26.08) | - | - |
| MBR_{it-1} | - | - | 0.120*** (10.46) | - |
| TQ_{it-1} | - | - | - | 0.420*** (12.94) |
| $CEODU_{it} * BIND_{it}$ | 0.117 (1.41) | 0.116*** (4.58) | 0.119*** (8.47) | 0.261*** (14.14) |
| Siz_{it} | 0.067*** (3.77) | 0.142*** (4.96) | 0.524*** (11.66) | 0.350*** (6.67) |
| PM_{it} | 0.015 (1.59) | -0.045 (-0.498) | -0.368 (-0.506) | -0.218 (-0.46) |
| PR_{it} | -0.029* (-1.78) | -0.723* (-1.84) | -0.588*** (-6.15) | -0.588*** (-6.15) |
| Lev_{it} | -0.262*** (-6.04) | 0.178** (1.98) | 0.347*** (10.99) | 0.143*** (7.96) |
| $Growth_{it}$ | 0.066*** (9.88) | -0.718*** (-2.91) | -0.262*** (-17.77) | -0.301*** (-10.11) |
| <i>YearDummies</i> | Yes | Yes | Yes | Yes |
| AR (1) p-value | 0.001** | 0.002*** | 0.000*** | 0.002** |
| AR (2) p-value | 0.55 | 0.82 | 00.74 | 0.64 |
| <i>J – statistic</i> | 37.7 [0.13] | 27.17 [0.56] | 28.37 [0.49] | 45.12[0.28] |
| Instrument rank | 44 | 44 | 44 | 44 |
| Observations | 1460 | 1460 | 1460 | 1460 |

Note: see notes below Table 4

Table 5 shows a positive and significant association between CEO duality and financial performance. Our findings are supported by Combs, Ketchen Jr, Perryman, and Donahue (2007), Finkelstein and D'aveni (1994), Quigley and Hambrick (2012), Ud-Din, Khan, Javeed, & Phan (2020), and Duru et al. (2016) argue that vigilant oversight of an independent board mitigates implicated assumption of the agency theory that CEOs are inherently opportunistic and

managerial entrenchment behaviour. Since a number of studies show that, in the being of outside directors (board independence) on the board, CEO duality of companies behaves like a steward and enhances firm financial performance. Scholars generally believe that the boards of directors, specifically outside directors, are responsible for monitoring management decisions. The empirical evidence shows that the relationship between CEO duality and corporate performance is contingent on the presence of outside directors on the board in the case of Pakistani-limited companies.

6. Conclusion

Differently to the agency theory predictions, we observed an insignificant positive association between CEO duality and financial performance in the absence of concentrated board independence. Further, this study concludes that CEO duality as a single variable does not impact a firm's financial performance. We have observed that in the existence of larger board independence, CEO duality has a positive and significant impact on both accounting-based and market-based financial performance. Hence, the CEO/Chairman acts as a steward in the presence of larger independent outside directors on board and enhances the firm's financial performance. It is generally observed that outside directors effectively monitor management decisions compared to insider directors. We conclude that the relationship between CEO duality and corporate performance is contingent on the presence of outside directors on the board, in the case of listed companies in Pakistan. Among the control variables, firm size has a significant positive effect on both accounting-based and market-based financial performance. The positive coefficient of firm size indicates that investing in the total assets of a business improves corporate financial performance. Furthermore, the larger the firm size, the greater the efficiency in operating and financing, as the companies become quite mature through economies of scale and managerial skills. Similarly, firm growth has a positive and significant impact on ROA, but a significant negative association with ROE, MBR, and TQ. Similarly, leverage (debt financing) has a negative and significant impact on ROA because debt finance increases the cost of the business in the form of financial costs and decreases the firm's net earnings. However, leverage has a significant positive association with the ROE, MBR, and TQ. The positive effect of leverage on market-based performance is due to signaling effects, which argue that shareholders perceive debt financing as an investment opportunity that improves market-based financial performance.

The findings of the study indicate that boards with a larger percentage of non-executive directors tend to be associated with higher financial performance. This implies that the Code of Corporate Governance Recommendation of SECP should comprise a majority of non-executive directors applicable to Pakistani listed companies (independent directors shall hold 40% of the board members for the first two years based on this notification, then the board can be raised to a majority of independent directors in the two years after, and the majority shall be

maintained subsequently). The study proposes that the role of independent non-executive directors obviously could be defined in the Code of Corporate Governance in Pakistan, and SECP strictly implements independent non-executive directors' requirements in listed companies.

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