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Unravelling the Nexus Between CEO Characteristics and Financial Performance in Pakistani Listed Firms

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The empirical literature highlights the importance of CEO characteristics in the paradigm of firm's performance. The CEO chair has been given considerable attention in the global competitive corporate environment. In view of this uprising importance of CEO chair, we investigate the case of 200 listed Pakistani firms to unravel the kind of nexus that does exists between CEO attributes and firm performance. We employ robust Panel Modeling Methodologies for analyzing data of these sample firms for the period 2010 to 2019. Our empirical estimations highlight that CEO tenure and duality are negatively associated with a firm's performance in Pakistan. Likewise, female CEO, and non-national CEO are also considered not been the wise choice in Pakistani context. While CEO education substantiates the firm's performance in Pakistan. Our results also report the significant contribution of insider promoted CEO to the firm's performance. The results are expected to provide insight to the investors and corporate elite in the business environment of Pakistan, and countries with similar corporate culture as Pakistan.

Key words: *CEO Characteristics; Financial Performance; Pakistani Firms*

1. Introduction

Corporate governance has emerged as the most debatable area among researchers across the globe. During the last decade or so the instances of many corporate failures put pressure on the policy makers to tighten the corporate governance practices and make possible alteration in the various determinants of corporate governance that govern the firms. Corporate governance entails the ownership structure, board structure, and CEO characteristics that directly affect the financial performance. The most noticeable are the board size, CEO characteristics and ownership structure (Boadi & Osarfo, 2019). Among these, the role of CEO characteristics is vital, which can influence the firm performance to a greater extent (Bandiera et al., 2020). As the success and failure of the firms are mainly attributed to the performance of CEO as the executive manager contribute to the driving growth, and manage the company challenges to overcome the issue confronted to a firm (ASON, BUJANG, JIDWIN, & SAID, 2021). The recent meltdown in the globe has raised the issue of effectiveness in corporate governance practices which is mainly due to the behavior of top management that stands responsible for the firm's decisions. The top management role has increasingly emerged as more vital as a top executive are focused about the firm's growth, and contentious corporate transformation of the firm. When the CEO would have enough ownership title in the firm, this will make him/her aggressive and will dominate the decision for the best interest of the firm corporate functionality. Many studies confirmed that the characteristics of the CEO could be vital for the performance of the firm. CEO,s wisdom gained from his extraordinary education, experience, and knowledge help the firm to be more prolific in performance, and such skills or characteristics considered to be more important for the decision making that directly contributes to the firm's value and reputation (Malmendier & Tate, 2008).

CEO demographic and professional characteristics play a vital role in the growth and success of the firm. In this regard many previous studies noticed the deployment of more educated and technically sound CEO with a view to uplift the firm performance. However in this regard some of instances found that CEO education is playing positive role in the firm's performance (Hsu, Chen, & Cheng, 2013). While some of the researchers consider that more education of the CEO cannot necessarily improve firm's performance (Bhagat, Bolton, & Subramanian, 2010). Similarly, the footprints of positive nexus between experience of the CEO with firm's performance also exists in the relevant literature (Peni, 2014; Peni & Vähämaa, 2012) and some evidences also highlight the negative impact of the experience on firm performance (Hamori & Koyuncu, 2015). Likewise there are divers findings exists in term of CEO tenure and firm performance, i.e. a positive nexus Luo, Kanuri, and Andrews (2014), and negative association (Y. Zhang, Cao, & Vaughn, 2009). Some of the empirical evidence proved that CEO nationality is very notable these days in the context of corporate world, as contradictory believes do exist in the area of corporate governance, some believe that non-national CEO are vital for the growth and firm's uplifting Brodie, Kane, and Clark (2012), and a school of thought believe that the CEO of the home motherland can better understand the behavior of the employees and corporate culture of the country, which make the decision making easy (Jinia, 2016). In the corporate word CEOs are appointed to foster growth in this regard some of the forms experience male and female CEOs for trial basis, in this regard the footprints suggest that female CEOs are not enhancing the firm's performance as compared to male CEOs W. A. Khan and Vieito (2013), while some of the researchers believe that Female CEO can bring change and foster the growth (Jackson, 2009). CEOs are sometime appointed from the internal board and sometime outsourced. To this end divergent results exist i.e., some believe that insider CEO are vitally important as they well know the work environment due to their experience curve Carey and Ogden (2004), and a class of the research consider that an outsourced CEO can bring his/her dynamic qualities that can radicalize the work environment of the firm. Similarly, the ownership hold by the management can also influence the firm's performance, in this regard contradictory footprints exist.

The study is a novel work as in the context of Pakistan the board characteristics are rarely touched. Moreover, this study uses Pooled OLS, Fixed effects, Random effects and GMM in a single study to verify the results which is methodological contribution in the context of Pakistan. Other related studies are confined to single odd estimator hence no such a robust study exist in prevailing corporate governance literature. The study will contribute to the body of literature, and contain incredible insights for both investors and policy makers.

2. Literature Review

Most of the previous empirical literature has highlighted various characteristics of CEO that highly effect the firm's outcomes. The CEO's educational background is one of the important attributes of a CEO that affect the firm's value and overall decisions. CEO with higher education can make adequate and correct decisions, in any difficult situation or challenge. Such a CEO is having tolerance and handle situations in an innovative way (Cheng, Lam, & Yeung, 2006). Likewise, Bantel and Jackson (1989), also highlighted the importance of advanced-level education of the CEO in decision making, and uplifting the firm ,s growth. Since CEO with advanced education is involved in the strategic decisions of the Co, hence less likely to go for turnover (ALTUWAIJRI & KALYANARAMAN, 2020). Higher education of the top management helps in managerial effectiveness, optimum decisions, and motivation of key stakeholders, which enhances the firm's value (Martínez Sola, 2014). Executives with technical and business education are more versatile and make correct decisions that are fruitful for the future outcomes of the firm. While, (Kokeno & Muturi, 2016) investigated the impact of CEO characteristics on a firm's performance, and found that education of the CEO is positively associated with firm performance.

Similarly, Gottesman and Morey (2010) analyzed US firms and validated the positive but insignificant effect of CEO education on a firm's performance. Likewise, Clarke, Lindorff, and Jonson (2013) analyzed the nexus between CEO education and a firm performance, and found that CEO with business education does not affect the firm's financial performance. While, (CAMPO & L'ARTE) found that the education of the CEO, and other board of directors matters a lot, as the relevant business education highly affects the firm's performance. Similarly, (Zeeshan, Khattak, Kabeer, & Rehman, 2019; X. Zhang et al., 2013) argued that high improvement in financial performance, the business, and the high education of the CEO also helps in maintaining the environmental quality. Based on the aforementioned findings of the previous studies we postulate the following hypothesis.

H1. CEO education significantly affects the firm performance

One of the predicaments in a business environment is that who should be the CEO i.e., a national or foreign intellectual. Therefore, it is important to discuss and study the impediments of CEO nationality connecting with the firm's performance. Usually, the foreign executive introduces initiatives with creative ideas, unique tactics, creativity, and more important quality in decision making that substantiate the firm's corporate performance. However, Badru and Raji (2016) established a positive nexus between CEO nationality and the firm's performance highlighting a very sound backing for the resource dependency model. However, Ujunwa (2012), also demonstrated the positive effect of CEO nationality on a firm's corporate performance. While, some of the studies predicted that non-national CEO perform poorly as compared to the national origin CEO, due to lack of information, about the environment and sentiments of the stockholders (Masulis, Wang, & Xie, 2007). In a recent study, Kabbani (2018), also reported the low performance of non-national CEO in capturing the firm's right pace for growth and value creation.

H2: There is a significant relationship between CEO nationality and firm performance.

Many recent studies reported the negative impact of CEO power, and most of the studies used variables about managerial discretion (A. Gupta, Nadkarni, & Mariam, 2019; V. K. Gupta & Batra, 2016; Veprauskaitė & Adams, 2013). Whereby some CEOs of global companies such as WorldCom engaged in some corporate scandals. Previous studies in both theory and practice identified ownership as a key important source of power (Wu, Inderbitzin, & Bening, 2015). Previous research shows CEOs affect differently the firm investment behavior and strategic changes. The major determinant of the agent-principal relationship in agency theory is the ownership of the company. Unlike the case of the agency relationship, the CEO who acquires a good proportion of company shareholding will be an agent-cum-principal officer which gives him a good ground to influence almost every activity in the organization (Mio, Marco, & Pauluzzo, 2016). When the CEO has significant stock ownership, he can influence the selection of other directors, hence giving him an edge over the other members of the board. Having significant ownership will enable the CEO to influence the determination of the board members remuneration, scuffling their dismissal if needed to be, and dominate in most of the board decisions (Y. Zhang & Qu, 2016).

However, one of the primary ways that Chief Executive Officers may affect the way firms operate by sharing different values they possess. These values set the tone for the firm, s culture which influences growth, efficiency, and employee behavior. A recent study based on a sample of 13749 CEOs from Europe shows that CEO characteristics significantly affect the firm innovative behavior. A recent study conducted by (Saidu, 2019) examined the CEO characteristics of education, origin, and ownership by using panel data for the period 2011 to 2016. The study used a sample from firms listed in the stock exchange of Nigeria, and found that CEOs previous firm experience improved the firm stock performance. Another characteristic of the CEO that may influence the firm financial performance is the origin of the CEO. The CEO may be prompted to the position from the workforce/insider board, and may be outsourced. In this regard, Y. Zhang and Rajagopalan (2010) asserted that promoting insider executives to the CEO position will give power. Other studies found that in case a CEO is made from an internal executive board, it will exhibit their power, and positive sentiments will prevail in the organization (Pathan, 2009). Evidence exists, that the insider promoted to the position that outsourced mechanism will have a positive effect on the firm's performance (Kamal, Mat, Rahim, Husin, & Ismail, 2012). Likewise, (R. B. Adams, Almeida, & Ferreira, 2005) confirmed that CEO power can be vital in the variability of the firm's performance. A better return is expected in the case of an insider CEO (Favaro, Vidal, & Ravichandran, 2011). Hence, we postulated the following hypothesis.

H3: CEO insider has positive impact on firm performance

CEO duality is the prevailing practice in the majority of firms which means the CEO holding both the CEO of the firm position, and chairperson position at the same time. Holding both positions justify the control and authority for the CEO. It is considered a two-edged weapon (Finkelstein, Lazarov, Cagnano, & Halevy, 1994). The following of the agency theory asserts that CEO holding the position of chairmanship beside his primary authorized CEO position will hinder the evaluation process and other board members will have reservations and apprehensions about the CEO performance, that will affect the firm's performance (Kaur & Singh, 2019). While, on their hand proponents of stewardship theory that CEO duality helps promote the CEO's accountability to both internal and external stack holders (Kaur & Singh, 2019). And CEO duality additionally covers the odds that arises concerning goal alignment between CEO and board members as CEO having chairperson spot facilitates a link between management and board (Kaur & Singh, 2019; H. T. S. Pham & Tran, 2019). The existing body of literature shows three-dimensional findings i.e., non-statistical results, positive effect on firm performance, and negative effect on the firm performance. Moreover, Daily and Johnson (1997) report a statistically insignificant nexus between CEO duality and a firm performance. While, investigating the relationship between CEO duality and firm performances, some other valuable researches report the statistically insignificant association between CEO duality and a firm's corporate performance, justifying that CEO duality would not affect the firm performance (Elsayed, 2007; Vintila, Paunescu, & Gherghina, 2015). Another school of thought, which also reports the positive relationship between CEO duality and firm value also exists in the empirical body of literature (Peni, 2014; D. Pham & Pham, 2020). Another footprint of the CEO duality, and firm's performance illustrates that CEO duality is negatively associated with the firm's financial performance. We draw a hypothesis to reflect the association between these variables.

H4: CEO duality significantly affects the firm financial performance

In addition, the long tenure of the CEO makes him/her more accountable due to more ownership and extra responsibilities. The empirical literature found the footprints of the positive signs, negative signs, and insignificant relationship between CEO tenure, and firm performance. CEOs with long tenure have significant contributions in the growth and uplifting of a firm performance than short-tenured executives (Peni, 2014; Peterson, Galvin, & Lange, 2012). While, some of the studies proclaimed that the long tenancy of the CEO negatively affects the firm performance (N. T. K. Nguyen, 2017; Okoye, Amaefule, & Onyekpere, 2016; Tsai, Hung, Kuo, & Kuo, 2006). Moreover, some of the studies highlighted the CEO tenure does not significantly affect the firm performance (Kusumasari, 2018; Serra, Tres, & Ferreira, 2016). Based on the above empirical footprint between CEO tenure and the firm performance, we postulate the following hypothesis.

H5: CEO tenure has a positive significant effect on a firm's performance

CEO gender is another attribute that can affect the firm performance. The corporate finance literature highlighting the CEO characteristic explains the gender of individuals carry an effect on a firm performance and outlines his/her success. The literature on gender CEO is diverse with no concrete consensus, that male or female CEOs are better. Likewise, (Peni, 2014) argued that firms with female CEOs perform better than those with male CEOs. Moreover, Cullen, Kirwan, and Brennan (2006), also confirmed that female CEO shows more devotion, and commitment than her counterpart, which resultantly help more in substantiating the firm's success, value, and overall corporate performance. While a part of the literature exhibits that male CEO is vital than female CEO in strengthening the firm's value (Amran, 2011; Dwivedi, Joshi, & Misangyi, 2018). However, some of the studies proclaimed that the presence of female CEO does not affect the firm performance (Lee & Marvel, 2014; Pletzer, Nikolova, Kedzior, & Voelpel, 2015; Vintila & Nenu, 2015).

H6: Female CEO adversely effect on a firm performance

3. Methodology

3.1 Data and Sources

We analyzed the sample of 200 firms, data listed on manufacturing sector of the Pakistan stock exchange. We did not consider the firms listed in the financial sector as these firms have unique characteristics. We considered those firms whom data were available continuously for each year from 2010. We collected the data relating to the CEO, s characteristics from the Companies annual reports and websites. However, where manually data acquisition were found difficult and was expected to erupt problem, we approached Bloomberg, Thomson Router database stream, Wikipedia and LinkedIn accounts of the sample firms CEOs. We collected the data of the firm's financial performance from the annual reports of the sample firms, and also approached SBP balance sheet analysis where we felt necessary. We also established two control variables i.e., firm size and firm leverage, for which data were also collected from the firm, s annual reports, and SBP database.

3.2 Variables Definition and Measurements

We used financial performance as the dependent variable. Financial performance has been explored through three different proxies i.e., ROA, ROE, and Tobin's Q. These are most commonly used in literature, and these ratios assess the different dimensions of financial performance. ROA and ROE measure the accounting performance of the firm whereas Tobin's Q measures the market performance of a firm. ROA indicates that how a firm uses its assets to generate returns. In this paper, it is measured as net income divided by the total assets of a firm in a specific period. ROA predicts the effective utilization of assets by the firm. We employ ROE as a second proxy of financial performance that exhibits the ability of a firm to generate and produce income using shareholders' investment in the corporation. It is measured as the proportion of net income to total equity. We use Tobin's Q as the third proxy of the financial performance, which shows the market performance of a company over the period. Hence, we measure it as the sum of the market value of equity and book value of total assets minus the book values of equity divided by the book value of the total assets.

The financial performance proxies i.e., ROA, ROE, and Tobin's Q have been used in previous literature (Binacci, Peruffo, Oriani, & Minichilli, 2016; Ishak & Latif, 2012; Tosi, Katz, & Gomez-Mejia, 1997; Yemi & Ife, 2013). We have used numerous characteristics for capturing CEO impact. We use CEO education as an independent variable, measuring through dummy variables e.g., 1 for CEO having postgraduate business education and professional business education (ACCA, ICMA, CPA, CA) and 0 otherwise (Darmadi, 2013; Ujunwa, 2012). We measure CEO tenure by holding the position of CEO since his/her appointment (Peni, 2014; Serra et al., 2016). CEO duality exhibits the dual positions hold by CEO as being the CEO and chairperson. We measure this using a dummy variable to capture the effect of CEO duality on a firm's performance. We use 1, in case the CEO holds both positions and 0 otherwise (Peni, 2014; H. T. S. Pham & Tran, 2019; Ujunwa, 2012). We also use CEO gender as an independent variable measuring through dummy variable, using 1 if the CEO is a female (Amran, 2011; Lee & Marvel, 2014; Peni, 2014). CEO nationality is also measured through dummy variable, where we assign 1 for foreigner CEO and 0 otherwise (Badru & Raji, 2016; Elsharkawy, Paterson, & Sherif, 2018; Masulis, Wang, & Xie, 2012; Ujunwa, 2012). CEO origin is also considered as a vital factor that affects financial performance. We use 1 if the CEO is taken from the internal board and 0 otherwise if appointed from the outside world (Pathan, 2009; Y. Zhang & Rajagopalan, 2010). The relevant previous literature has also used numerous control variables. We use firm size by taking the natural log of total assets that appear at the end of the year in annual reports of a firm, and leverage as the ratio of total debts to total assets (T. Nguyen & Nguyen, 2020).

Table 1: Variables Definition and Measurement

S. No	Variables	Symbol	Definition/Measurement	Measurement Ref
a)	Independent Variables			
1	CEO education	EDU	dummy variable e.g., 1 for CEO having postgraduate business education and professional business education (ACCA, ICMA, CPA, CA) and 0 otherwise	(Darmadi, 2013; Ujunwa, 2012)
2	CEO Tenure	TEN	CEO tenure by holding the position of CEO since his/her appointment	(Peni, 2014)
3	CEO Duality	DUAL	Dummy variable of 1, increase CEO holds both positions and 0 otherwise	(H. T. S. Pham & Tran, 2019; Ujunwa, 2012)
4	CEO Gender	GEN	dummy variable, using 1 if the CEO is a female and 0 otherwise	(Amran, 2011; Lee & Marvel, 2014)
5	CEO Nationality	NAT	dummy variable, where we assign 1 for foreigner CEO and 0, otherwise	(Elsharkawy et al., 2018; Masulis et al., 2012)
6	CEO origin	Origin	if the CEO is taken from the internal board and 0 otherwise	(Pathan, 2009; Y. Zhang & Rajagopalan, 2010)
b)	Dependent Variables			
1	Return on Assets	ROA	Net income divided by total assets	(Binacci et al., 2016; Ishak & Latif, 2012)
2	Return on Equity	ROE	The proportion of net income to total equity	(Ishak & Latif, 2012; Tosi et al., 1997)
3	Tobin,s Q	TQ	the sum of the market value of equity and book value of total assets minus the book values of equity divided by the book value of the total assets	(Binacci et al., 2016; Tosi et al., 1997)
C)	**Control Variables**			
1	Firm Size	FZ	natural log of total assets appears at the end of the year in annual reports of a firm	(T. Nguyen & Nguyen, 2020)
2	Firm Leverage	FL	the ratio of total debts to total assets	(T. Nguyen & Nguyen, 2020)

3.3 Empirical Model and Estimation Techniques

We have employed numerous panel data modeling techniques to assess and analyze the relationship of the variables. Panel data stands superior to cross-sectional and time-series for its unique attributes (Crossley, Fisher, & Low, 2021). Panel data is subject to unobserved heterogeneity, and also accounts for the issue of multicollinearity among explanatory variables (Andreas, Rapp, & Wolff, 2012; Vilcassim & Jain, 1991). We used methodology in the light of previous studies, that used pooled OLS, Fixed effects, random effects, and GMM (GHARDALLOU, BORGI, & ALKHALIFAH, 2020). Pooled OLS is the right choice in modeling as the same is an appropriate estimator and cover both observable and unobservable variables, and simultaneously produce consistent and efficient results (Brownstone, Valetta, & European Science Foundation, 1992). Fixed effect and random effect models are used in case there are unobservable effects due to heterogeneity, which cannot be isolated, and stand volatile and capture heterogeneity (Kontopantelis, Springate, & Reeves, 2013). Likewise, we establish the use of a GMM estimator to cover the econometric problems that cannot be captured by the OLS, FE, and RE estimators. We prefer GMM to use the first differences if regressor and the dependent variables to ascertain and handle the country's specific effects and account for the regressor for time-invariant behavior. To eliminate the problem of autocorrelation, the lagged dependent variable is instrumented with precedent levels in GMM. In case-independent variables are sedulous then this modeling approach may establish an inefficient outcome (Arellano & Bond, 1991; Arellano & Bover, 1995). Two-step system GMM (Law & Singh, 2014). Hence, we follow the following panel estimation techniques.

GMM

$$Y_{it} = \beta_o + \beta_1 Y_{i,t-1} + \beta_2 X_{i,t} + \beta_3 Control_{i,t} + V_i + \varepsilon_{i,t} \qquad (1)$$

$Y_{i,t}$ is the D.V
$X_{i,t}$ is the vector of explanatory variables
β is a vector of parameters to be estimated
V_i is the individual effect
$\varepsilon_{i,t}$ is the error term

Pooled OLS Model

$$Y_{i,t} + \beta_{X\ i,t} + az_i + \varepsilon_{i,t} \qquad (2)$$

Fixed Effect Model

$$Y_{i,t} + \beta_{X\ i,t} + a_i + \varepsilon_{i,t} \qquad (3)$$

Random Effect Model

$$Y_{i,t} + \beta_{X\ i,t} + a + \mu_i \varepsilon_{i,t} \qquad (4)$$

Further to mention we have used three models for each estimator to cover for ROA in model-1, ROE in model-2 and Tobin,s Q in model-3.

4. Empirical Results and Strategy

4.1 Correlation Analysis

The results in table 2 demonstrate the correlation analysis of our study. The results predict the negative week correlation of CEO tenure with the firm's financial proxies, asserting that increase in the CEO tenure will adversely affect the firm's financial performance. Likewise, CEO duality and CEO gender showing a negative strong correlation with the firm's financial proxies suggesting that the CEO holding both positions of being CEO and chairperson will negatively affect the firm's performance, and the female CEO as a premium of the firm will also adversely affect the financial performance. To the same line of a negative relationship with the firm performance, documenting that foreign national as CEO is not effective in Pakistani environment. However, on the positive part some of the CEO characteristics showing positive associations with the firm's financial proxies. While the result in table 2 shows that CEO education plays a vital role in uplifting the firm's performance in the context of Pakistan, as the correlation values determine a strong positive association between CEO education and the firm's performance. Similarly, CEO origin also exhibits positive but the correlation with financial performance proxies asserting that CEO promoted from insider board will contribute to the firm's performance in Pakistan. Firm size shows a positive strong correlation with the proxies of financial performance and firm leverage demonstrates a negative strong correlation with the firm's performance.

Table 2: Correlation Analysis

	ROA	ROE	Tobin's Q	TEN	EDU	DUAL	GEN	ORIGIN	NAT	FS	FL
ROA	1.000										
ROE	0.521	1.000									
Tobin's Q	0.493	0.312	1.000								
TEN	0.098	0.088	0.074	1.000							
EDU	0.425	0.431	0.381	0.031	1.000						
DUAL	0.361	-0.32	0.287	0.007	0.071	1.000					
GEN	-0.421	0.407	0.368	0.002	0.008	0.012	1.000				
ORIGIN	0.078	0.072	0.069	0.02	0.026	0.103	0.078	1.000			
NAT	-0.412	-0.396	0.361	0.071	0.121	0.086	0.091	0.023	1.000		
FS	0.521	0.566	0.481	0.11	0.171	0.081	0.778	0.113	0.021	1.000	
FL	-0.571	-0.522	-0.472	-0.001	0.012	-0.012	-0.017	0.08	0.072	0.092	1.000

4.2 GMM Estimator

We use Model-1 for ROA as dependent variable, Model-2 for ROE as dependent variable and Model-3 for Tobin-Q as dependent variable in the GMM modeling which is our baseline estimator. The results of the GMM estimator demonstrate that the coefficients of CEO tenure are negative and statically significant in model 1 while statistically insignificant in models 2 and 3. This implies that long-tenured CEO would adversely affect the firm performance, meaning that CEO with a limited period in the Pakistani context will exert high-level strategic experience and expertise to make the firm on a smooth performing track. In the body of literature, some other evidence exist which also validates the negative effect of CEO tenure on firms performance (Merendino & Melville, 2019; Saeed & Ziaulhaq, 2019). While the footprints also exist highlighting the positive nexus of CEO tenure and firm performance (T. M. Khan, Gang, Fareed, & Yasmeen, 2020). CEO education is seen with positive statistically significant effects on firm performance as the beta values in all three models are statistically significant, confirming that chief executives with the highest level of education can safeguard the co financial track and make the firm a growing concern. The literature expressing the CEO characteristics confirms the validation of our study outcomes (Harrison, Thurgood, Boivie, & Pfarrer, 2019). Perhaps research does exist contrary to our findings (A. Gupta et al., 2019; Peterson et al., 2012). However, the CEO duality carries a negative but statistically significant effect on firm performance. There is a common consensus that CEO with dual responsibility is less focused on specific task and mismanagement is endorsed in performing numerous multi structural task at the same time. Our results are in line with the school of thought, which is against the CEO dual positions (Earley & Gibson, 2002; Westphal & Zajac, 1995). While some of the notable scholars predict the positive effect of the dual chair on firm performance (Sanda, Mikailu, & Garba, 2010). Hence, we acknowledge that disparity exists in the findings concerning the dual chairs by the CEO. Hence in Pakistan, the duality form of CEO is detrimental to firm performance (Shrivastav & Kalsie, 2016). The results highlight the effect of CEO gender demonstrates the statistically negative association of the female CEO with firm performance in Pakistani listed firms, this suggests that executive chair hold by Female CEO would deteriorate the smooth functionality of the firm in Pakistan. Our results are consistent with the findings of those who argue that female CEO is not a right choice in Pakistan as a maximum percentage of workers belong to the male gender and understanding the psyche of the males by a female is challenging in the work environment (Farmer, 1985; Miller, 2012). But the studies also exist that validate that female CEO is vital to the organization growth and stability (Cook & Glass, 2014; Krishnan & Park, 2005). The CEO promoted from the internal board is vital in the Pakistani context, as the coefficients of the CEO origin, which we have measured as the insider CEO are positive, showing the importance of the insider CEO for the firm growth and achievements. Our results have been acknowledged in previous studies, that consider insider promotion of CEO as the top boss (De Vries, 1988; Ramachandran, 2018). While some of the studies advocate outsourced CEO for the optimal value of the company (Greer, Youngblood, & Gray, 1999; Subramaniam, Kansal, Mihret, & Babu, 2019). The results predict that non-national CEO showing a negative effect on firm performance, demonstrating that foreign CEO s are not as effective as national CEOs in Pakistan. The literature in this regard is divided into two schools of thought. Some of the studies in the past have confirmed the ineffectiveness of non-national CEOs (Kyereboah-Coleman & Biekpe, 2006). While some consider non-national a good step for encouraging the firm's growth, as they are considered as been creative and innovative in their strategic framework (Kemp & Rotmans, 2009; Kotabe, Dunlap-Hinkler, Parente, & Mishra, 2007). In our results, the contribution of the control variable firm size reported in the GMM estimator show that firm with huge assets size would have positive effect on firm performance. While, Leverage show that firms with more debts do not enjoy financial uplifts.

Table No 3: GMM Results

	Model-1	Model-2	Model-3
TEN	-0.181*	-0.121	-0.102
	(0.0420)	(0.067)	(0.072)
EDU	0.345***	0.325***	0.320***
	(0.000)	(0.000)	(0.000)
DUAL	-0.292***	-0.840***	-0.270***
	(0.000)	(0.000)	(0.000)
GEN	-0.271***	-0.254**	-0.242***
	(0.000)	(0.001)	(0.019)
Origin	0.172*	0.132	0.128
	(0.044)	(0.062)	(0.068)
NAT	-0.361***	-0.342***	-0.338***
	(0.000)	(0.000)	(0.000)
FS	0.421***	0.402***	0.391***
	(0.000)	(0.000)	(0.000)
FL	-0.391***	-0.328***	-0.308***
	(0.000)	(0.000)	(0.000)
$ROA_{i\,t-1}$	0.392***	0	0
	(0.000)	0	0
$ROE_{i\,t-1}$	0	0.38	0
	0	(0.000)	0
$Tobin\ Q_{i\,t-1}$	0	0	0.319***
	0	0	(0.000)
J-stat	0.856	0.812	0.723
AR (1)	0.000	0.000	0.000
AR (2)	0.561	0.532	0.501

5. Robustness Tests

For the robustness of our results, we apply Pooled OLS, Fixed effect, and random effect model. In this model, we used further three dimensions. In model ROA as dependent variables, in model 2 we used ROE as the dependent variable while in model no we use Tobin's Q as the dependent variable.

The result of Table 4, shows that CEO tenure has a negative but insignificant effect on the firm's financial performance (ROA). The results are in line with many previous studies, that exhibit the negative relationship of the CEO tenure with the firm's performance (Serra et al. 2016; Nguyen et al. 2018). While in contrast, some notable figures in the same area found positive nexus between CEO tenure and firm performance (Hoskisson & Turk, 1990; Peni & Vähämaa, 2012). The coefficients of CEO duality in all three models demonstrate positive statical significant results, implying that the higher education level of the CEO plays an important role as it helps the CEO. In making an accurate and quick decision that can turn fruitful for the CO's growth and success (Vermeulen & Curseuurseu, 2010; Wang et al., 2016). While, the empirical literature also shows the footprints of no relationship between CEO education and performance (Serra et al., 2016). The CEO duality coefficients are statistically significant with negative signs, confirming that CEO holding both positions will affect the firm performance (Chen, Cheung, Stouraitis, & Wong, 2005; Ujunwa, 2012). However, part of the literature posits a positive nexus between CEO duality and firm performance, highlighting the importance of CEO duality (both positions hold by CEO) (Peni, 2014; H. T. S. Pham & Tran, 2019). Likewise, CEO gender, which represents the female as a CEO in the firm has a statistically negative effect on firm performance, documenting the ineffectiveness of female CEO in the firm's operation (Amran, 2011). However, Peni (2014) argue that CEO with female gender better performs than male CEO,s owned firms. The coefficient of CEO origin is positive but statistically insignificant, confirming that insider-promoted CEO, from the board, can boost the firm's performance (Rhim, Hong, Park, & Ng, 2006; Victoravich, Buslepp, Xu, & Grove, 2011). CEO nationality shows a statistically negative and significant effect on the firm's performance. Suggesting that foreign national as a CEO will disturb the communication system and may affect the decision-making speed, and foreigner CEO, s are not well aware of the prevailing rules in the country serves, which will resultantly hamper the financial and overall firm's performance (Masulis et al., 2012). While in the literature some of the studies backed the resources dependency model, showing that non-national can contribute to the firm performance (Ujunwa, 2012). Lagged ROA, show that the current ROA is affected by the previous ROA, showing the persistence in performance. The coefficients of the size are statistically significant, suggesting that a firm with more assets value can perform better and the coefficient of leverage are negatively and statistically significant confirming that more debt burden of a firm will affect its performance. The explanatory power of the Random effect model is higher than the other two counterparts' model, deterring that among the three Random effects is comparatively an appropriate choice.

Table 4: Model-1 ROA Dependent Variable

	OLS	FE	RE
CEO TEN	-0.072	-0.930	-0.940
	(0.123)	(0.114)	(0.103)
CEO-EDU	0.234**	0.265	0.293
	(0.002)	(0.000)	(0.000)
CEO-DUAL	-0.216	-0.234	-0.278
	(0.013)	(0.002)	(0.000)
CEO -GEN	-0.236	-0.361	-0.370
	(0.001)	(0.000)	(0.000)
CEO-ORIGIN	0.087	0.135	0.138
	(0.113)	(0.104)	(0.103)
CEO-NAT	0.298	-0.312	-0.328
	(0.003)	(0.000)	(0.000)
FS	0.345	0.389	0.392
	(0.000)	(0.000)	(0.000)
FL	-0.366	-0.372	-0.381
	(0.000)	(0.000)	(0.000)
R2	0.397	0.429	0.482
F-Value	24. 25 ($p<0.000$)	37.123 ($p<0.000$)	----
Wald Chi	----	----	47.123 ($p<0.000$)
LM Test			
For Pooled vs FE or RE		317.291	
		(0.002)	
The values show that FE and RE are appropriate models			
Hausman Test	12.39		
F. Effect of R. effect	(0.231)		

The findings of table 5 display that the CEO tenure, duality, and nationality coefficients are negative and statistically insignificant confirming that they adversely affect the financial performance of the firm. Similarly, the coefficients value of CEO gender is negative and statistically significant suggesting that female CEO significantly affects the financial performance of the firm. While education of the CEO is a positive and statistically significant effect on the financial performance of a firm. But the coefficient value of the origin of a CEO is positive and statistically insignificant means that it positively affects the performance of a firm. Similarly, the nationality coefficients are negative and significant, implying that foreign national as a CEO will interrupt the communication system and may affect the speediness of decision making, and foreigner CEO is not much familiar of the main rules in the country, which will resultantly hinder the financial and overall firm's performance. The coefficient value of the size is positive and statistically significant, signifying that a firm with more assets value can complete better and the coefficient of leverage is negatively and statistically significant verifying that more debt weight of a firm will adversely affect its performance. The explanatory power of the random effect model is higher than the other two counterpart models, determining that among the three robustness estimators, Random Effects is comparatively an appropriate choice.

Table 5: Model-2 ROE Dependent Variable

	OLS	FE	RE
CEO TEN	-0.069	-0.899	-0.951
	(0.131)	(0.121)	(0.110)
CEO-EDU	0.241**	0.272***	0.301***
	(0.004)	(0.003)	(0.001)
CEO-DUAL	-0.222*	-0.241**	-0.285***
	(0.019)	(0.003)	(0.002)
CEO -GEN	-0.243**	-0.359***	-0.369***
	(0.002)	(0.004)	(0.000)
CEO-ORIGIN	0.093	0.142	0.145
	(0.109)	(0.103)	(0.104)
CEO-NAT	-0.302**	-0.318***	-0.335
	(0.002)	(0.001)	(0.000)
FS	0.352***	0.396***	0.389***
	(0.000)	(0.000)	(0.000)
FL	-0.371***	-0.369***	-0.391***
	(0.000)	(0.000)	(0.000)
R^2	0.399	0.431	0.465
F-Value	26. 27 (p<0.000)	39.19 (p<0.000)	----
Wald chi2	----	----	49.15 (p<0.000)
LM Test			
For Pooled vs FE or RE		321.300	
		(0.003)	
The values show that FE and RE are appropriate models			
Hausman Test	14.41		
Fix effect or random effect	(0.237)		

Table 6 results denote that the CEO tenure, duality and CEO gender coefficients are negative and statistically significant, suggesting that it negatively affect the firm performance. In the past, many previous studies validate the same kind of results (Ahmadi, Nakaa, & Bouri, 2018; Duru, Iyengar, & Zampelli, 2016). While, (Le & Kroll, 2017; Saidu, 2019) explored that the professional education of the CEO has positive and significant outcome on firm performance. Likewise the coefficient value of CEOs origin is positive and significant, suggesting that it carry positive impact on firm performance (Ishak & Latif, 2012; Y. Zhang & Rajagopalan, 2010). While, the coefficients of nationality of the CEO showing negative coefficients that mean it will disturb the communication system and may impact the fastness of decision making (Kaur & Singh, 2019; Spicer, 2013). While some of literature displayed that foreign CEO better perform than national CEO (Goldstein, 2009). The coefficients of the size are positive, and statistically significant, signifying that a firm with additional assets value can achieve better, and the coefficients of leverage are negative and significant, validating that more debts will put pressure on performance.

Table 6: Tobin's Q Dependent Variable

	OLS	FE	RE
CEO TEN	-0.060	-0.891	-0.943
	(0.129)	(0.117)	(0.106)
CEO-EDU	0.235**	0.265	0.299
	(0.002)	(0.000)	(0.002)
CEO-DUAL	-0.217	-0.236	-0.279
	(0.014)	(0.002)	(0.001)
CEO -GEN	-0.239	-0.352	-0.362
	(0.001)	(0.003)	(0.001)
CEO-ORIGIN	0.089	0.137	0.139
	(0.105)	(0.100)	(0.101)
CEO-NAT	-0.299	-0.311	-0.331
	(0.001)	(0.000)	(0.001)
FS	0.347	0.389	0.382
	(0.001)	(0.001)	(0.001)
FL	-0.365	-0.362	-0.385
	(0.001)	(0.001)	(0.001)
Lag ROA	0.365	0.385	0.405
	(0.001)	(0.001)	(0.001)
R2	0.392	0.423	0.467
F-Value	22. 19 (p<0.000)	32.11 (p<0.000)	41.48 (p<0.000)
Wald Chi			
LM Test			
For Pooled vs FE or RE		317.200	
		(0.002)	
The values show that FE and RE are appropriate models			
Hausman Test	11.21		
Fix effect or random effect	(0.229)		

6. Conclusion

The study attempt to highlight the impact of demographic and professional traits of the CEO in Pakistan that could influence the firm performance. We noticed while analyzing the previous literature that the CEO trait /characteristics affect the firm performance as the solid evidence does exist in this regard. We analyzed 200 Pakistani-listed firms for the period 2010 to 2019. The results of this paper demonstrates that long tenure CEOs do not effectively contribute to the firm's performance in Pakistan. So, the existing body of literature show that divergences exist in the relationship between CEO tenure and firm performance. Our findings predict the positive effect of CEO education on firm performance in our study, which is consistent with many previous studies (Kokeno & Muturi, 2016). CEO holds both positions (CEO duality) negatively affect the firm performance in Pakistan, confirming CEO duality is an influential approach in Pakistan. Likewise, CEO gender, and nationality adversely affect the firm performance, documenting that female CEO cannot move up the firm in Pakistan, validating the inefficiencies of the female CEO and non-national CEOs in prospering the firms (H. T. S. Pham & Tran, 2019). Foreign national as CEO is also influenced in Pakistani context revealed by our estimated results. The literature is in inconclusive regarding the effect of CEO nationality on a firm performance. Some of the research concludes with positive nexus of CEO as non-national and firm performance (Elsharkawy et al., 2018), while footprints of the negative association also exist in the body of literature (R. Adams, Almeida, & Ferreira, 2009; Saidu, 2019). Our findings demonstrate a positive effect of the insider CEO of the firm performance, implying that the CEO promoted from the insider board will enhance the firm performance more than the outsourced CEO in the Pakistani context. The below-par performance of the outsourced CEO may be as it is hard for them to understand the environment and rules regulations governing the corporation. Many studies supported the contribution of insider CEOs, (Masulis et al., 2007; Willcocks, Cullen, & Craig, 2010).

This research provides certain policy implications; besides it contributes to the policymakers, and shareholders need to know about the CEO, s characteristics. The outcomes are equally important for both investors and policymakers in formulating their investment policies. The outcome explored to shift the focus towards the CEO characteristic as managed may not misperceive it. This study is a good addition to the body of literature highlighting the related CEOs gender-wise and professional characteristics that are suitable in the Pakistani context, and will help the firms in maintaining good governance framework. Future studies can add other CEO's characteristics like, professor on board, ethnicity and can test the mediating role of numerous variables, and this study can also compare Pakistani firms in different sectors.

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