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MILITARY CONNECTIONS, INVESTMENT EFFICIENCY AND POLITICAL UNCERTAINTY: EVIDENCE FROM PAKISTAN

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ABSTRACT

This study examined the impact of military connections on a firm's investment efficiency in Pakistan during the period from 2011 to 2019. Fixed effect regression results revealed that military connections exert a positive and significant effect on the firm's investment efficiency, supporting the resource dependence theory's prediction. This result remains robust when using alternative measurements of investment efficiency, considering periods of political uncertainty proxied by election years, and controlling for endogeneity issues related to the military connection variable. However, a breakdown of military connections revealed that the presence of a military-connected Chairman reduces firms' investment efficiency. Our paper contributes to the growing attention on the impact of military-connected key individuals on corporate decision-making.

Keywords: Military connections, Firm investment efficiency, Political uncertainty election years, Pakistan, Connected CEO, Connected chairman

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INTRODUCTION

The presence of militarily connected directors as board members has been shown to affect firms' decision making and outcomes (Benmelech & Frydman, 2015; Lin et al., 2011). An investigation into the value of military connections in businesses in emerging countries is worthwhile because many developing countries such as Thailand, Egypt, Nigeria and Indonesia have a strong military influence in the political decision-making process. However, whether and how military connections affect the decision of corporate firms in developing countries has not been widely studied.

On the one hand, studies argue that the value system in the military causes a person to be more devoted, loyal, self-sacrificing and care about the group's interests rather than his or her own private interests (Benmelech & Frydman, 2015; Lin et al., 2011). In addition, they have greater self-control, particularly in high-pressure situations. These values acquired in the military could contribute to more ethical decision-making, adoption of conservative policies and better overall decisions, thereby improving firm value (Cai et al., 2021; Ullah et al., 2021). On the other hand, military personnel's involvement in political decision-making may lead to an abuse of power. They could exploit their military influence to serve third-party interests, particularly in business sectors with limited transparency and inefficient government structures in most developing countries (Leuz et al., 2003; Porta et al., 1998).

Conducting an inquiry into the significance of military connections in enterprises within emerging nations is a meritorious endeavour due to the prevalent military influence on the political decision-making mechanisms in numerous developing countries, such as Thailand, Egypt, Nigeria, Indonesia, among others. Nevertheless, the impact of military connections on the decision-making processes of corporate entities in developing nations remains a relatively understudied area of research. In particular, the role of military connections on firm's investment efficiency has not been extensively examined in prior studies as military institutions in most countries are not permitted to undertake commercial business ventures.

The situation is however different in Pakistan where numerous large public-listed firms are directly owned by military institutions (e.g., Fauji Fertilizer Company Limited and Fauji Fertilizer Bin Qasim Limited), and managed by ex-military personnel (e.g., Ghandara Industries Limited and General Tyre Rubber Limited) (Ahmad et al., 2022; Siddiqa, 2007). All three major military institutions in Pakistan, namely the Pakistan Army, Pakistan Air Force and the Pakistan Navy, are involved in commercial business activities (Siddiqa, 2017). Quite apart from

the restricted constitutional mandate that confine the roles of military to defending the state from external aggression and supporting the civilian administration if required (see Articles 244 and 245 of the Constitution of Pakistan), the Pakistani army has emerged as a major power player in the country. The armed forces control the country either by a military dictator or indirectly through a poor democratic and political administration (Zaidi, 2005). Hence, Pakistan offers a unique environment for exploring the association between military connections on investment efficiency.

In addition, political instability has been an invariable phenomenon in Pakistan since its independence in 1947. Many of the previously elected governments were not able to complete their tenure; however, the exception were political governments supported by military dictators. The political regimes were either dismissed or overthrown by the president of Pakistan and military rulers on the purported grounds of incompetence, wrongdoing, favouritism or corruption. However, the effects of this political uncertainty on military connections are unknown at the firm level.

Our article is closely related to Ullah et al. (2021) study, which examined the impact of CEOs with a military background on investment efficiency in Pakistan. We add to their paper by considering not only the CEO but also other key individuals in a firm, including members of the board of directors and large shareholders that are related to the military in Pakistan. In other words, our measurement of military connections is broader than that of Ullah et al. (2021). Second, we examine the moderating effect of political uncertainty (proxied by election years) on the relationship between military connection and investment efficiency.

To preview our results, we find that military connections are positive and significantly related to firms' investment efficiency. This finding of value enhancing military connections is consistent with the literature on the positive impact of CEOs with military background on corporate decisions (Benmelech & Frydman, 2015; Law & Mills, 2017; Ullah et al., 2021). The positive impact of military connections aligns with the resource dependence theory's prediction. This is because military backgrounds often instill discipline, strategic thinking and a structured approach to problem-solving. These attributes can translate into effective decision-making in the complex and dynamic landscape of investments, potentially leading to more efficient investment strategies. For instance, Ullah et al., (2021) contended that military training accentuates qualities such as loyalty, reliability, integrity and dedication. These attributes are anticipated to shape the behaviour of military CEOs (MCEOs), imprinting moral values upon them.

Consequently, MCEOs are inclined to exhibit heightened dedication, reliability and loyalty towards a diverse range of stakeholders and their respective firms. It is likely that they will prioritise ethical considerations, such as investing solely in profitable projects, rather than pursuing self-interest. This enhanced ethical orientation among MCEOs is anticipated to positively influence their firms' investment efficiency. To support this claim, they further found that CEOs with military experience have a positive and significant effects on the firm's investment efficiency. Benmelech and Frydman (2015) also found that CEOs with military experience do not employ excessive leverage, and their firms are less likely to be involved in fraud. Additionally, military CEOs appear to perform better during times of industry distress.

Furthermore, military personnel are frequently trained in assessing and mitigating risks (Benmelech & Frydman, 2015; Franke, 2001). This skill set can be valuable in the financial realm, aiding in the identification of potential risks associated with investments and enabling more prudent and optimal investment decision-making to enhance overall efficiency. which leads to better investment efficiency. Therefore, military connected individuals tend to reduce agency conflicts, are highly concerned about reputation, are less likely to be self-interested, and have a tendency to make efficient investment decisions. For instance, Ullah et al. (2021) argue that CEOs with military experience typically mitigate agency conflicts, exhibit a lower likelihood of self-interest and demonstrate a greater inclination to pursue projects that enhance value, ultimately resulting in increased investment efficiency. Hence, managers can be closely monitored and disciplined, offering them a framework to prioritise shareholder interests by engaging in profitable investment projects. These measures enhance the company's reputation and foster employee loyalty, contributing to overall improvement.

The decomposition of the connection variable into connections that arise from a military connected CEO and Chairman is revealing. The presence of a connected Chairman leads to a decrease in investment efficiency, whereas the presence of a connected CEO has no impact on investment efficiency. These findings contrast with Ullah et al.'s (2021) finding of a strong positive impact of a military-connected CEO on investment efficiency. In addition, the military connections remain positive and significant even during election years, implying that the positive impact of military connections is not affected by political uncertainty proxied by election years.

DEVELOPMENT OF HYPOTHESES

Competing views exists on the effect of military connection at organisational level. On the one hand, studies have shown that military attributes, such as effective communication and decision-making skills, efficient monitoring, tenacity in pursuing goals and strong ethical values, can significantly contribute to making efficient corporate decisions. (e.g., Benmelech & Frydman 2015; Lin et al. 2011). Moreover, scholarly literature suggests that military service plays a significant role in cultivating principles of duty and morality (Li & Rainville, 2021). The inclusion of military officers on the board of directors may engender a value system that prioritises morality, integrity and commitment, as military training places significant emphasis on loyalty, reliability, integrity, dignity, duty and self-sacrifice (Duffy, 2006; Griffith, 2002). Therefore, it is suggested that board members should exhibit greater dedication, reliability, and loyalty towards their company, prioritising the collective interests over their personal pursuits (Franke, 2001).

The presence of moral and ethical values among directors may incentivise them to engage in rigorous monitoring and advisory activities towards management. This, in turn, can reduce agency costs for firms with board members with military affiliations, ultimately enhancing investment efficiency. Additionally, Law and Mills (2017) assert that directors with military experience are less inclined to engage in tax avoidance. This is attributed to the fact that individuals with military backgrounds tend to exhibit a greater inclination to adhere to laws and regulations.

Therefore, military-connected individuals are less likely to invest in nonprofitable initiatives for empire-building purposes, resulting in less expropriation of stakeholders (Lin et al., 2011; Ullah et al., 2021). Thus, it is anticipated that directors with military connections possess the ability to make more effective investment decisions, thereby enhancing investment efficiency, which leads to the following hypothesis.

H1: Military connections are positively related to investment efficiency.

On the other hand, a substantial body of literature exists within the field of psychology which suggests that military service is associated with heightened levels of aggressiveness, overconfidence and an increased propensity towards risk-taking (Benmelech & Frydman, 2015; Elder et al., 1991). Therefore, companies with military connections may overuse their military power in business activities. An et al. (2020) argued that the presence of military-connected directors may have a negative impact on firm performance due to the disruption of human

capital accumulation and work experience during military service. Lack of corporate training and experience can lead to poor corporate governance and weak performance and investment efficiency of military-connected firms. As, Li and Rainville (2021) found that firms with military connections tend to have poor firm performance which impedes investment efficiency, which leads to the following hypothesis.

H2: Military connections are negatively related to investment efficiency.

Economists contend that political instability poses a significant challenge and detriment to economic performance. The presence of political uncertainty tends to limit the foresight of policymakers (Aisen & Veiga, 2013). At the firm level, political uncertainty results in heightened costs associated with equity trading, increased propensity for corporate risk-taking, and heightened likelihood of default due to policy reversals (Boubakri et al., 2013; Eleswarapu & Venkataraman, 2006; Gilchrist et al., 2014). Furthermore, political uncertainty diminishes firms' motivations to invest in projects that generate value (Julio & Yook, 2012).

The general elections are one of the causes to political uncertainty. The possibility of a change in government or a shift in the balance of power can create uncertainty about future policies and regulations. This uncertainty can affect investment decisions and economic growth (Hassan et al., 2019). Political uncertainty caused by elections results in dampened asset prices and reduced corporate investments (Jens, 2017; Pástor & Veronesi, 2012). Political uncertainty has a heightened impact in countries characterised by elevated levels of corruption, limited transparency and significant state intervention in the economy. Moreover, the harmful effects of political uncertainty can be observed in both the election year and the year preceding the general elections (Boutchkova et al., 2012). According to the findings of Kelly et al. (2016) and Pástor and Veronesi (2013), it can be inferred that the presence of political uncertainty resulting from electoral processes leads to an elevation in business risk.

However, the military's ability to financially assist its allied organisations, on the other hand, is less vulnerable to political uncertainty. Contract enforcement is weakened in nations with high political instability (Bhattacharyya & Hodler, 2014). The military can pressure politicians to finance their enterprises if contracts are not strictly enforced. During periods of weak and unstable civil governments in Pakistan, the military's commercial empire expanded rapidly (Siddiqa, 2017). Because the military has always retained power, either directly under a dictator or indirectly through a weak democratic administration, enterprises with military

ties are less vulnerable to political instability (Zaidi, 2005). As a result, companies with ties to the military are able to reap political rents reliably.

H3: The relationship between military connections and investment efficiency is less affected by political uncertainty.

DATA AND METHODOLOGY

Sample and Data Sources

This study utilised secondary data obtained from annual reports and the Datastream database. The study sample consisted of all non-financial firms listed on the Pakistan Stock Exchange (PSX) from 2011 to 2019. The financial sector was excluded due to its regulatory framework which is different from other non-financial sectors. The final sample consisted of 257 firms from 24 sectors as shown in Table 1. Most of the firms are in four sectors, i.e., Textile, Allied Industries & Sugar, Chemical and Cement sectors, which made up 49% of the total number of listed firms in this study.

Military connection variables were constructed by identifying the firm's association with the military institutions in Pakistan through audited annual reports. This study defines military connections as a firm with connections if at least one of its top management officers (Chairman, CEO, board of director and/or company secretary) or a large shareholder (with at least 10% equity stake in the firm) is currently or previously related to any of the four military institutions of Pakistan (Hashmi, 2018). These military institutions include the Pakistan Air Force Academy, Pakistan Marine Academy, Pakistan Naval Academy and Pakistan Military Academy. This information is available in the annual reports from the profiles of the board members. The information for ownership structure was taken from the listed firms' annual reports, while firm-level financial data was collected from the Datastream database.

Table 1
Distribution of final sample of firms by sector

Sector	Number of firms	Firm-year observation	Percentage (%)
Textile	61	528	23.77
Allied Industries and Sugar	26	220	9.92
Chemical	21	188	8.47
Cement	17	152	6.86

(*Continued on next page*)

Table 1 (*Continued*)

Sector	Number of firms	Firm-year observation	Percentage (%)
Automobile	16	144	6.46
Personal Care Products and Food	11	99	4.44
Power Generation and Distribution	11	92	4.15
Oil and Gas Companies	10	86	3.87
Engineering	10	86	3.87
Miscellaneous	9	76	3.47
Technology and Communication	10	74	3.31
Pharmaceuticals	8	68	3.07
Glass and Ceramics	7	63	2.82
Rayon and Synthetic	7	61	2.74
Paper and Board	6	54	2.42
Fertilizer	7	53	2.38
Electrical – Goods and Cable	5	45	2.02
Refinery	4	36	1.61
Transport	4	34	1.53
Leather and Tanneries	2	18	0.81
Tobacco	2	18	0.81
Jute	1	9	0.40
Vanaspati	1	9	0.40
Woolen	1	9	0.40
Total	257	2,222	100.00

Table 2 shows the breakdown of firms based on different sorts of military connections. The table shows that there are 72 firms with military affiliations. It also goes into greater detail, giving the number of firms where the CEO has military connections (17 firms) and the number of firms where the Chairman has military connections (18 firms). This breakdown sheds light on the prevalence of military connections among these firms, illustrating the scope of military influence in the business sector.

Table 2
Number of firms by different types of military connections

Types of connections	Number of firms
Military connection	72
Military-connected CEO	17
Military-connected Chairman	18

Operationalisation of Variables

Dependent variable

The dependent variable for this study, investment efficiency, measures how efficiently a firm allocates its resources. A high investment efficiency suggests that the organisation uses its assets more efficiently and has a greater impact on performance (Chen, J., et al., 2017). Numerous studies including Mirza et al. (2020), Majeed et al. (2018) and Hu et al. (2019) utilised Biddle et al. (2009)'s model to measure investment efficiency using the following empirical specification.

$$Inv_{it} = \alpha_{\theta} + \alpha_{2} SalesGrowth_{i,t-1} + \varepsilon_{it}$$

where Inv_{it} is the sum of all capital expenditures (CAPEX), research and development (RD) and acquisitions (ACQ), minus revenues from the sale of Property, Plant and Equipment (Sales PPE) and scaled by total assets as at the beginning of the year; and *SalesGrowth* represents the percentage change rate in sales.

In Biddle et al.'s (2009) model, efficiency of investment is calculated on a cross-section basis for each year and industry (Majeed et al., 2018)2004. The error term, ε_{it} thus indicates a deviation from the expected level of investment. Therefore, investment efficiency is the residual's absolute value which shows inefficient investment. The higher the residual value, the higher the degree of inefficiency.

Independent variables

The key explanatory variable of interest is military connection, while firm characteristic variables are used as the control variables. The following section provide details of the independent variables.

Military connections

Military connection is a dummy variable that takes the value of 1 for connected firms and 0 for non-connected firms. This study further divides military connections into the following three categories:

1. The CEO dummy when the CEO is military-connected.
2. The Chairman dummy when the Chairman of the board is military-connected.
3. The CEO_Chairman dummy when both the CEO and Chairman are military connected.

Control variables

Five control variables that include leverage, firm size, cash flow, Tobin's Q and firm age are included in this study. Financial leverage is the loan amount used to fund a company's assets and ventures. The association between leverage and firm investment is a significant topic in finance (Vo, 2019a). Previous studies such as Chen, S. et al. (2009) and Phan et al. (2020) found that leverage negatively affects a firm's investment efficiency, indicating that higher leverage in a firm leads to investment inefficiency. This is because over-reliance on leverage can raise interest expenses and increase financial risk, putting a burden on the company's cash flow. Because of the limited capacity to finance projects with suitable capital structures, rising financial strain may have a negative impact on investment efficiency and lead to less-than-optimal investment decisions. However, others, such as Ullah et al. (2021) shows positive effects of investment efficiency. This is because using leverage, or debt, can enhance the amount of money available for investment, allowing for more ambitious and large-scale initiatives. This increased financial power may allow organisations to capitalise on profitable opportunities that they would not have had otherwise, perhaps leading to enhanced investment efficiency.

Firm size can positively and significantly influence the company's investment decision positively and significantly. This is because larger companies can grab the opportunity to work in these areas where generally high rates of capital are needed because these companies can do this due to significant resources. Previous studies suggest that larger firms are expected to have a higher level of investment efficiency because larger firms have more capacity and capability to assess their investment projects (Al'Alam & Firmansyah, 2019; Chen, S. et al., 2011; Chen, N. et al., 2017; Myers & Turnbull, 1977). The effect of cash flow on capital investment has been extensively studied. Previous studies show that cash flow significantly positively affects a firm's investment efficiency (Chen, R. et al., 2017; Chen, S. et al., 2011; Deng et al., 2020), suggesting that market

imperfections make firms dependent on internal funds to finance investments. This is because a having cash flow enables companies to capitalise on strategic opportunities promptly, reducing dependence on debt and mitigating associated interest costs.

Previous studies show that Tobin's Q has a positive and significant effect on firm's investment efficiency (see, for instance, Chen, R. et al., 2017; Chen, S. et al., 2011; Vo, 2019b). These positive effects of Tobin's Q are consistent with the Modigliani and Miller (1958) paradigm, which suggests that a firm's investment should solely rely on its investment opportunities measured by Tobin's Q. In contrast, some shows adverse effects Tobin's Q on firms investment efficiency (see, for instance, Ullah et al., 2021). Firms that have been in operation for a long time would have more experience (Waluyo, 2017) and all else equal. As firms get older and the industry matures, less investment opportunities arise, which could lead to a higher level of investment inefficiency. However, older firms are also usually larger firms with more capacity and capability to assess investment projects, which leads to a lower level of investment inefficiency (Chen, S. et al., 2011; Chen, N. et al., 2017). Table 3 shows the definitions of dependent and control variables.

Table 3
Dependent variable and measurement

Variable	Measurement
Investment efficiency	The residual value obtained from investment models multiplied by −1.
1. Military Connections 2. Connected CEO 3. Connected Chairman	1. Military_Connections = 1 if the firm is connected to a military institution, 0 otherwise. 2. Military_Connections = 1 if the firm's CEO is connected to a military institution, 0 otherwise. 3. Military_Connections = 1 if the firm's Chairman is connected to a military institution, 0 otherwise.
Leverage	Total debt to total assets.
Firm Size	The natural log of total assets.
Cash Flow	Net income plus depreciation and amortisation divided by beginning total assets.
Tobin's Q	The market value of equity plus the book value of debt divided by the book value of assets.
Firm Age	The natural log of the number of years when the firm started its operation.

Models Design

To examine the relationship of military connections on investment efficiency, a panel regression analysis was conducted using Equation (1).

$$InvEff_{it} = \beta_{0it} + \beta_1 MC_{it} + \beta_2 Control\ variables_{it} + \mu_{it} \quad (1)$$

where $InvE_{i,t}$ = investment efficiency for firm i at year t; $MC_{i,t}$ = military connections for firm i at year t.

Positive coefficient values for military connections will support the resource dependence theory while negative coefficient values support the agency theory. The control variables include leverage, Tobin's Q, cash flow, firm size and firm age.

The base regression model further decomposed the military connections variables taking into consideration the existence of a connected CEO or Chairman, namely, military-connected CEO (MC_CEO), and military-connected Chairman (MC_Chairman). These are dummy variables with a value of 1 for political and military connections and 0 otherwise. Controlling for military connections dummies, military-connected CEO, and military-connected Chairman dummies essentially measure the incremental effects of connected Chairman and CEO on the firms' investment efficiency.

$$InvEff_{it} = \beta_{it} + \beta_1 MC_{it} + \beta_2 MC\_CEO_{it} + \beta_3 Control\ variables_{it+} \mu_{it} \quad (2)$$

$$InvEff_{it} = \beta_{0it} + \beta_1 MC_{it} + \beta_2 MC\_Chairman_{t} + \beta_3 Control\ variables_{it+} \mu_{it} \quad (3)$$

where $InvEff_{i,t}$ = investment efficiency for firm i at year t; $MC_{i,t}$ = military connections for firm i at year t; $MC\_CEO_{i,t}$ = military-connected CEO for firm i at year t; $MC\_Chairman_{i,t}$ = military-connected Chairman for firm i at year t.

The final stage of the empirical strategy is to examine the impact of general election on the relationship between military connections and investment efficiency. This is achieved by regressing Equation (1) on the subsamples of observations during the election years (2013 and 2018) and non-election years (2011, 2012, 2014, 2015, 2016, 2017 and 2019). During the election years, corporate resources may have been used by the connected parties to fund political campaigns, hence increasing the agency costs of the connection. However, the military has a dominant position in Pakistan, so we expect that military connections be less affected during election years.

EMPIRICAL RESULTS AND ANALYSIS

Descriptive Statistics

Table 4 shows the descriptive statistics for the variables used in the regression models. Investment efficiency refers to the magnitude of the absolute residuals derived from Biddle et al.'s (2009)'s model, indicating the extent to which the actual investment level deviates from the expected level. Higher values of this absolute value denote lower investment efficiency. The average value of the investment efficiency variable of 0.181 implies, on average, the listed firms' actual investment is 18.1% deviated from their optimal investment value. This is higher when compared to the UK's value of 10.3% (Farooq et al., 2022), Australia of 9.8% (Chen, J. et al., 2017), the U.S. of 0.2% (Chen, S. et al., 2011), Spain of 8.6% (Gomariz & Ballesta, 2014), and China of 4.66% (Cao et al., 2018) but lower as compared to Canada at 55% (Hammami & Zadeh, 2019).

The mean value of military-connected firms is 15.7% is higher than countries such as China at 3.12% but lower than Indonesia at 32% (Fanani, 2020) and the U.S. at 55% (Li & Rainville, 2021). However, this is consistent with the findings from previous studies that showed developing countries like Pakistan are military-connected (see, for instance, Ahmad et al., 2022). Of this, CEOs with military connections (MC_CEO) and Chairman with military connections (MC_Chairman) made up 4.3% and 5.0% of total sample firms, respectively. The remaining 6.4% were contributed by other top officers on the board of directors other than the CEO and Chairman. Overall, about 2.1% of the firms in the sample had both the CEO and Chairman with connections to military institutions (MC_CEO_Chairman).

Table 4
Descriptive statistics

Variable	Mean	SD	Min	Max
Dependent variable				
Investment efficiency	18.100	0.144	0.000	1.223
Independent variables				
Connection variables				
Military connections	15.900	0.366	0.000	1.000
MC_CEO	4.300	0.203	0.000	1.000
MC_Chairman	5.000	0.219	0.000	1.000
Control variables				
Firm_Age	36.301	16.927	2.000	106.000

(*Continued on next page*)

Table 4 (*Continued*)

Variable	Mean	SD	Min	Max
Firm_Size (billions)	14.302	17.468	0.955	54.992
Tobin's_Q	1.099	0.443	0.609	2.022
Leverage	56.300	0.190	0.266	0.860
Cash_Flow	9.100	0.088	0.065	0.281

Notes: Investment efficiency = The absolute residual term derived from Biddle et al.'s (2009) model multiplied by negative 1. MC_CEO_Chairman = military-connected CEO and Chairman, MC CEO = military-connected CEO, MC Chairman = military-connected Chairman.

Figure 1 shows the percentage of military connections among firms by sector. All four firms in the transport sector are connected to the military. This is followed by miscellaneous (over 40%), automobile and electrical goods (28%), and cement and fertilizer (21%) sectors.

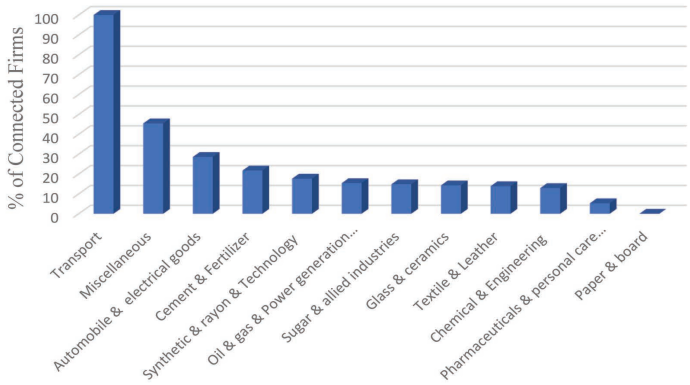

Figure 1: Percentage of military connected firms by sector

The Pearson correlation matrix, as depicted in Table 5 indicates that there is no high correlation among the regression variables. This observation suggests that the presence of multicollinearity is not a substantial concern.

Table 5
Pearson correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Investment efficiency	1								
(2) Military connections (MC)	–0.019	1							
(3) MC_CEO	0.008	0.489**	1						

(*Continued on next page*)

Table 5 (*Continued*)

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(4) MC_ Chairman	–0.076**	0.529**	0.438**	1					
(5) Firm Age	0.029	0.006	0.040*	–0.081**	1				
(6) Firm Size	0.017	0.015	0.081**	0.060**	–0.010	1			
(7) Tobin's Q	–0.118**	0.053**	0.049*	0.056**	0.048*	0.110**	1		
(8) Leverage	–0.005	–0.040*	–0.012	–0.020	–0.088**	0.057**	0.072**	1	
(9) Cashflow	0.073**	0.022	–0.012	0.064**	–0.025	0.151**	0.343**	–0.457**	1

Regression Analysis

The Influence of Military Connections on Investment Efficiency

Table 6 shows the estimations result for the effect of military connections on investment efficiency using a panel fixed effect estimator. Biddle et al. (2009)'s residual model was used to measure investment efficiency. For ease of interpretation, the absolute value of the residuals which were derived from these investment models were multiplied by –1 where higher residual values indicate higher investment efficiency. Column 1 in Table 5 shows the baseline result when military-connected firms were examined in a single regression equation. Columns 2 to 4 divided the connection variables into two different categories: (1) if the CEO is military-connected (MC_CEO); and (2) if the Chairman is military-connected (MC_Chairman). This division was important to establish whether the base results were sensitive to different types of connections.

The coefficients of military connections exert a positive and significant effect on investment efficiency at the 10% level supporting the hypothesis that military connections have a significant effect of firm investment efficiency. The positive coefficient values suggested that investments made by military-connected were 3.4% more efficient than their non-connected counterparts. The positive impact of military connection is also consistent with Ullah et al. (2021) findings of the positive impact of a CEO with the military background on investment efficiency of Pakistani firms. One plausible rationale for the observed positive outcomes associated with military connections is that engagement in military service fosters the development of values pertaining to duty and morality. The inclusion of military officers on the board of directors has the potential to establish a value system that prioritises morality, integrity and commitment, as military training places significant emphasis on these qualities (Duffy, 2006; Griffith, 2002). The presence of moral and ethical values among directors may motivate them to engage in rigorous monitoring and advisory activities towards management,

thereby mitigating agency costs for firms that have board members with military affiliations. Consequently, this can lead to enhanced investment efficiency. The establishment of a value system within the military context facilitates could have improved the decision-making and the attainment of superior outcomes for military connected firms.

The positive coefficient values of connection variables are also consistent with the resource dependence theory which hypothesised that connection is valuable. Military connections can help mitigate the problems caused by financial constraints, thus increasing the internal capital available for the firms' investment activities. Connected firms could also benefit from access to larger bank loans, higher market value and lower taxation (Faccio, 2010; Khwaja & Mian, 2005; Faccio et al., 2006). In this regard, these connections strengthen a firm's external linkages, providing it a competitive edge over other firms. Previous studies also showed the positive effects of these connections on firm value in developing and emerging countries like Indonesia, Malaysia and Pakistan (see, Ullah et al., 2021; Phan et al., 2020).

Column 2 shows that the coefficient values of CEOs with military connections (MC_CEO) has an insignificant relationship with investment efficiency, suggesting that there was no incremental effect of connected CEOs on investment efficiency. This finding is inconsistent with Ullah et al.'s (2021) finding of a positive impact of military CEOs on investment efficiency in Pakistan. There are two plausible explanations for this discrepancy. First, our measurement of military connections is different from that of Ullah et al. (2021). We took a broader measure of connection that considers individuals beyond the CEO, that include non-CEO/Chairman directors or the main shareholders. Our interactive results imply that the positive impact is mainly driven by these non-CEO/Chairman directors or main shareholders. Second, our definition of military "connection" goes beyond individuals' military experiences. Ullah et al. (2021) only considered CEOs who held top positions in the military that include Wing Commander, Lieutenant, General and Brigadier.

The presence of Chairman (MC_Chairman) with military connections leads to a negative and significant effect on investment efficiency at a 5% level as shown in Column 3. This showed that the existence of a military-connected chairman reduced the overall value creation of military connection. The plausible explanation for the negative effects of military-connected chairman because the provision of welfare and rehabilitation services to ex-military personnel distracts military connected firms from the maximisation of shareholder wealth and the protection of minority shareholders. Therefore, the misalignment of interests in military-connected firms is likely to have an adverse effect on investment

efficiency. Chairman in developing nations, such as Pakistan wields significant decision-making authority. The substantial influence of a Chairman on firm performance has been substantiated by prior research, as exemplified by studies conducted by Amran et al. (2014), Chandren et al. (2021), and Wong and Hooy (2018).

Table 6
The influence of military connections on investment efficiency

Regressions applied on =>	MC	CEO	Chairman
Variables	(1) Investment efficiency	(2) Investment efficiency	(3) Investment efficiency
Military connections (MC)	0.034* (0.019)	0.035* (0.018)	0.041** (0.019)
MC_CEO	–	–0.016 (0.027)	–
MC_Chairman	–	–	–0.070** (0.029)
Firm age	0.082 (0.151)	0.082 (0.151)	0.080 (0.150)
Firm size	–0.025 (0.046)	–0.025 (0.046)	–0.022 (0.046)
Tobin's Q	–0.006 (0.014)	–0.006 (0.014)	–0.006 (0.014)
Leverage	–0.122*** (0.037)	–0.122*** (0.037)	–0.122*** (0.037)
Cash flow	–0.096** (0.046)	–0.097** (0.046)	–0.095** (0.046)
Constant	0.014 (0.518)	0.012 (0.517)	–0.011 (0.516)
Observations	2,222	2,222	2,222
R^2	0.033	0.033	0.037
Year effects	Yes	Yes	Yes
F-value	2.630***	2.580***	3.050***

Note: The standard errors are presented in parentheses to account for potential heteroscedasticity and provide more reliable estimates. The symbols ***, **, and * are used to indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Investment Efficiency: The Absolute residual values derived from the Biddle et al.'s (2009) model multiplied by –1, MC_CEO = CEO is military-connected, MC_Chairman = Chairman is military-connected.

The impact of political uncertainty

This section compares the impact of military connections on investment efficiency during the election years (2013 and 2018) and non-election years (2011, 2012, 2014, 2015, 2016, 2017 and 2019) in Pakistan. The general elections are one of the reasons for political uncertainty. The election years could intensify the agency costs of military-connected firms as corporate resources could have been used to fund election campaigns. This is supported by studies documenting the spike in uncertainty during political elections to harm firms' investment (Amore & Corina, 2021; Pástor & Veronesi, 2012).

Findings reported in Columns 1 and 2 of Table 7 show that the military connection is positive and significant in both election years and non-election years periods. This finding provides evidence to substantiate the claim that the military's capacity to provide financial support to its affiliated companies is relatively unaffected by political instability. The presence of weak political institutions in countries is associated with a heightened level of political uncertainty, which in turn has a negative impact on the enforcement of contracts. The lack of stringent contract enforcement may facilitate the military's ability to exert influence on politicians, thereby enabling the diversion of resources toward their own commercial endeavours (Bhattacharyya & Hodler, 2014). This phenomenon becomes apparent when considering the substantial expansion of the business empire of the Pakistan military during periods characterised by weak and unstable civil regimes (Ahmad et al., 2022; Siddiqa, 2007).

Table 7
Election period vs. non-election period – Effect on military connections and firm's investment efficiency

Regressions applied on =>	Election	Non-election
	(1)	(2)
Variables	Investment efficiency	Investment efficiency
Military connections (MC)	0.069*	0.034*
	(0.039)	(0.019)
Firm age	0.350	–0.004
	(0.401)	(0.114)
Firm size	0.000	–0.0281
	(0.076)	(0.047)
Tobin's Q	0.020	–0.011
	(0.028)	(0.017)
Leverage	–0.210**	–0.110***
	(0.082)	(0.041)

(*Continued on next page*)

Table 7 (*Continued*)

Regressions applied on =>	Election	Non-election
Cash flow	–0.140	–0.0826*
	(0.135)	(0.049)
Constant	–0.588	0.163
	(1.183)	(0.495)
Observations	493	1,729
R^2	0.102	0.030
Year effects	Yes	Yes
F-value	2.560**	2.420***

Note: ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Robustness Checks

Alternative measures of investment efficiency

This study re-estimates investment efficiency by following (Chen, S. et al., 2011) model of investment efficiency. Chen, S. et al. (2011) calculated investment efficiency as a function of sales growth. As the relationship between sales growth and investment could increase or decrease, linear regression is used to allow for differential predictability for the fluctuation in sales.

$$Inv_{it} = \alpha_\theta + \beta_1 NEG_{i,t-1} + \alpha_2 SalesGrowth_{i,t-1} + \alpha_3 NEG*SalesGrowth_{i,t-1} + \varepsilon_{it}$$

where Inv_{it}, is the sum of investment in machinery, equipment, vehicles, land, buildings, and research and development expenditures, less the sale of fixed assets, and scaled by lagged total assets for firm I in year t; *SalesGrowth* represents the percentage change rate in sales; *NEG* is a dummy variable that takes the value of 1 for negative growth in sales and zero otherwise (Gomariz & Ballesta, 2014).

Similar to Equation (1), the error term, ε_{it} indicates a deviation from the expected investment level where a higher residual value implies a higher degree of investment inefficiency. The results are shown in Table 8. The military connection variables remain positive and significantly related to investment efficiency. Similar to Table 6, the impact is negative and significant for firms with Chairman are that connected to military institutions. Furthermore, the findings showed that the only significant control variables are leverage and cash flow.

Table 8
Regression analysis on the relationship between military connections and investment efficiency (Chen, S. et al., 2011)

Regressions applied on =>	MC	CEO	Chairman
	(1)	(2)	(3)
Variables	Investment efficiency	Investment efficiency	Investment efficiency
Military connections (MC)	0.035* (0.019)	0.036* (0.018)	0.042** (0.019)
MC_CEO	-	–0.015 (0.026)	-
MC_Chairman	-	-	–0.069** (0.029)
Firm age	0.079 (0.151)	0.079 (0.151)	0.077 (0.150)
Firm size	–0.026 (0.047)	–0.026 (0.047)	–0.023 (0.046)
Tobin's Q	–0.006 (0.014)	–0.005 (0.014)	–0.006 (0.014)
Leverage	–0.123*** (0.037)	–0.123*** (0.037)	–0.123*** (0.037)
Cash flow	–0.098** (0.046)	–0.099** (0.046)	–0.097** (0.046)
Constant	0.029 (0.519)	0.028 (0.519)	0.005 (0.518)
Observations	2,222	2,222	2,222
R^2	0.033	0.034	0.037
Year effects	Yes	Yes	Yes
F-value	2.630***	2.580***	3.030***

Note: ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Two-stage Heckman selection technique: Effect of military connections on firm's investment efficiency in Pakistan

Next, the regressions are re-estimated using Heckman's (1979) two-stage model in Table 9 to account for the potential endogeneity of military connection variable. Both models begin with probit estimation, where the dummy variable representing the military connections (MC) is regressed on the same set of independent variables in Equation (1). In the second stage of analysis, the inverse Mills ratio derived from the first stage probit model is inserted into the investment efficiency equation.

The results are presented in Table 9. The coefficients representing the military connections continue to exhibit positive and significant values after controlling for the potential endogeneity of military connection variable. The inverse Mills ratio (k) exhibits a positive value, albeit lacking statistical significance. This finding suggests that self-selection bias does not pose a significant concern within our sample.

Table 9
Effect of military connections on firm's investment efficiency in Pakistan

Two-stage estimation	First-stage regression results (1)	Second-stage regression results (2)
Variables	Military connections (MC)	Investment efficiency
Military connections (MC)	-	0.034*
		(0.019)
Firm age	–0.044	0.064
	(0.147)	(0.181)
Firm size	0.028	–0.014
	(0.047)	(0.062)
Tobin's Q	0.254***	0.096
	(0.081)	(0.374)
Leverage	–0.413*	–0.289
	(0.211)	(0.610)
Cash flow	–0.565	–0.325
	(0.494)	(0.837)
Inverse Mills ratio	-	0.507
		(1.851)
Constant	–1.249**	–0.859
	(0.521)	(3.163)
Observations	2,222	2,222
R^2	0.010	0.033
Year effects	Yes	Yes
F-value	20.310**	2.460***

Note: ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

CONCLUSION

The findings revealed that military connections positively and significantly affect firms' investment efficiency in Pakistan. The positive impact of military connections is consistent with the resource dependence theory's prediction. The presence of military connections provides these firms with access to resources,

networks, and expertise that enhance their ability to make effective investment decisions and allocate capital efficiently. The findings presented in this study align with the assertions made by Benmelech and Frydman (2015), Koch-Bayram and Wernicke (2018), and Law and Mills (2017) regarding the increased loyalty, dedication and honesty exhibited by individuals with military connections. These individuals are also more likely to uphold shareholder interests and enforce disciplinary measures to mitigate managerial opportunism. We contribute to the body of knowledge by highlighting the positive and significant influence of military connections on the investment efficiency of Pakistani firms.

The decomposition of the connection variables into connected CEO and Chairman revealed that the presence of military-connected Chairman exerts an adverse effect on firm's investment efficiency in Pakistan. This finding supports the agency theory, which suggests that a company's top management may focus on pursuing personal goals and obtaining additional benefits. This supports the assertion that there is a conflict of interest between the firm's managers (military personnel in military-connected businesses) and the stockholders. However, this paper does not find such evidence in military-connected CEO. This paper further provide evidence on the relationship between military connections and investment efficiency surrounding general elections in Pakistan. During election years, connected parties may have utilised corporate resources to support political campaigns, hence increasing the agency costs of connection. The findings suggest that military connection is not affected by political uncertainty in Pakistan as military where the positive impact of connection is intact during the election and non-election periods.

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REFERENCES

Ahmad, F., Bradbury, M., & Habib, A. (2022). Political connections, political uncertainty and audit fees: Evidence from Pakistan. *Managerial Auditing Journal*, *37*(2), 255–282. https://doi.org/10.1108/MAJ-06-2020-2715

Aisen, A., & Veiga, F. J. (2013). How does political instability affect economic growth? *European Journal of Political Economy*, *29*, 151–167. https://doi.org/10.1016/j.ejpoleco.2012.11.001

Al'Alam, M. P. A., & Firmansyah, A. (2019). The effect of financial reporting quality, debt maturity, political connection, and corporate governance on investment efficiency: Evidence from Indonesia. *International Journal of Innovation, Creativity and Change*, *7*(6), 39–56.

Amore, M. D., & Corina, M. (2021). Political elections and corporate investment: International evidence. *Journal of International Business Studies*, *52*(9), 1775–1796. https://doi.org/10.1057/s41267-021-00421-6

Amran, N. A., Yusof, M. 'Atef M., Ishak, R., & Aripin, N. (2014). Do characteristics of CEO and chairman influence government-linked companies performance? *Procedia – Social and Behavioral Sciences*, *109*, 799–803. https://doi.org/10.1016/j.sbspro.2013.12.546

An, J., Duan, T., Hou, W., & Liu, X. (2020). The legacy of wars around the world: Evidence from military directors. *Journal of International Financial Markets, Institutions and Money*, *64*, 101172. https://doi.org/10.1016/j.intfin.2019.101172

Benmelech, E., & Frydman, C. (2015). Military CEOs. *Journal of Financial Economics*, *117*(1), 43–59. https://doi.org/10.1016/j.jfineco.2014.04.009

Bhattacharyya, S., & Hodler, R. (2014). Do natural resource revenues hinder financial development? The role of political institutions. *World Development, 57*, 101–113.

Biddle, G. C., Hilary, G., & Verdi, R. S. (2009). How does financial reporting quality relate to investment efficiency? *Journal of Accounting and Economics*, *48*(2–3), 112–131. https://doi.org/10.1016/j.jacceco.2009.09.001

Boubakri, N., Mansi, S. A., & Saffar, W. (2013). Political institutions, connectedness, and corporate risk-taking. *Journal of International Business Studies, 44*(3), 195–215.

Boutchkova, M., Doshi, H., Durnev, A., & Molchanov, A. (2012). Precarious politics and return volatility. *Review of Financial Studies*, *25*(4), 1111–1154. https://doi.org/10.1093/rfs/hhr100

Cai, C., Hasan, I., Shen, Y., & Wang, S. (2021). Military directors, governance and firm behavior. *Advances in Accounting*, *55*, 100563. https://doi.org/10.1016/j.adiac.2021.100563

Cao, Y., Dong, Y., Lu, Y., & Ma, D. (2018). Does institutional ownership improve firm investment efficiency? *Emerging Markets Finance and Trade*, *56*(12), 2772–2792. https://doi.org/10.1080/1540496X.2018.1486705

Chandren, S., Qaderi, S. A., & Ghaleb, B. A. A. (2021). The influence of the chairman and CEO effectiveness on operating performance: Evidence from Malaysia. *Cogent Business and Management*, *8*(1), 1935189. https://doi.org/10.1080/23311975.2021.1935189

Chen, F., Hope, O.-K., Li, Q., & Wang, X. (2011). Financial reporting quality and investment efficiency of private firms in emerging markets. *The Accounting Review*, *86*(4), 1255–1288. https://doi.org/10.2308/accr-10040

Chen, J., Smith, D. J., & Wirth, C. G. (2017). How is investment efficiency related to investment transparency? *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3005686

Chen, N., Sung, H.-C., & Yang, J. (2017). Ownership structure, corporate governance and investment efficiency of Chinese listed firms. *Pacific Accounting Review*, *29*(3), 266–282. https://doi.org/10.1108/par-12-2015-0046

Chen, R., El Ghoul, S., Guedhami, O., & Wang, H. (2017). Do state and foreign ownership affect investment efficiency? Evidence from privatizations. *Journal of Corporate Finance*, *42*, 408–421. https://doi.org/10.1016/j.jcorpfin.2014.09.001

Chen, S., Sun, Z., Tang, S., & Wu, D. (2009). Political connections and investment efficiency: Evidence from SOEs and private enterprises in China. *SSRN Electronic Journal*.

Chen, S., Sun, Z., Tang, S., & Wu, D. (2011). Government intervention and investment efficiency: Evidence from China. *Journal of Corporate Finance*, *17*(2), 259–271. https://doi.org/10.1016/j.jcorpfin.2010.08.004

Deng, L., Jiang, P., Li, S., & Liao, M. (2020). Government intervention and firm investment. *Journal of Corporate Finance*, *63,* 101231. https://doi.org/10.1016/j.jcorpfin.2017.07.002

Duffy, T. (2006). *Military experience & CEOs: Is there a link?* Korn/Ferry International and Economist Intelligence Unit. https://www.kornferry.com/insights/this-week-in-leadership/190-military-experience-and-ceos-is-there-a-link

Elder, G. H., Gimbel, C., & Ivie, R. (1991). Turning points in life: The case of military service and war. *Military Psychology 3*(4), 215–231.

Eleswarapu, V. R., & Venkataraman, K. (2006). The impact of legal and political institutions on equity trading costs: A cross-country analysis. *Review of Financial Studies*, *19*(3), 1081–1111. https://doi.org/10.1093/rfs/hhj026

Faccio, M. (2010). Differences between politically connected and nonconnected firms: A cross-country analysis. *Financial Management*, *39*(3), 905–928. https://doi.org/10.1111/j.1755-053X.2010.01099.x

Faccio, M., Masulis, R. W., Mcconnell, J. J., Faccio, M., Masulis, R. W., & Mcconnell, J. J. (2006). Political connections and corporate bailouts. *The Journal of Finance*, *61*(6), 2597–2635.

Fanani, A. W. Z. (2020). Military background, political connection, audit quality and earning quality. *Jurnal Akuntansi*, *24*(1), 79. https://doi.org/10.24912/ja.v24i1.658

Farooq, S., Gan, C., & Nadeem, M. (2022). Boardroom gender diversity and investment inefficiency: New evidence from the United Kingdom. *Corporate Governance: An International Review, 31*(1), 2–42. https://doi.org/10.1111/corg.12443

Franke, V. C. (2001). Generation X and the military: A comparison of attitudes and values between West Point cadets and college students. *Journal of Political and Military Sociology*, *29*(1), 92–119.

Gilchrist, S., Sim, J., & Zakrajšek, E. (2014). *Uncertainty, financial frictions, and investment dynamics*. NBER Working Paper 20038, National Bureau of Economic Research. https://doi.org/10.3386/w20038

Gomariz, M. F. C., & Ballesta, J. P. S. (2014). Financial reporting quality, debt maturity and investment efficiency. *Journal of Banking and Finance*, *40*(1), 494–506. https://doi.org/10.1016/j.jbankfin.2013.07.013

Griffith, J. (2002). Multilevel analysis of cohesion's relation to stress, well-being, identification, disintegration, and perceived combat readiness. *Military Psychology*, *14*(3), 217–239. https://doi.org/10.1207/S15327876MP1403_3

Hammami, A., & Zadeh, M. H. (2020). Audit quality, media coverage, environmental, social, and governance disclosure and firm investment efficiency: Evidence from Canada. *International Journal of Accounting and Information Management*, *28*(1), 45–72. https://doi.org/10.1108/IJAIM-03-2019-0041

Hashmi, M. A. (2018). The influence of political and military connections, corporate governance and ownership concentration on earnings quality [Doctoral dissertation, Universiti Malaysia Sarawak].

Hassan, T. A., Hollander, S., van Lent, L., & Tahoun, A. (2019). Firm-level political risk: Measurement and effects. *The Quarterly Journal of Economics*, *134*(4), 2135–2202. https://doi.org/10.1093/qje/qjz021

Heckman, J. J. (1979). Sample selection bias as a specification error. *Econometrica, 47*(1), 153–161. https://doi.org/10.2307/1912352

Hu, J., Jiang, H., & Holmes, M. (2019). Government subsidies and corporate investment efficiency: Evidence from China. *Emerging Markets Review*, *41*, 100658. https://doi.org/10.1016/j.ememar.2019.100658

Jens, C. E. (2017). Political uncertainty and investment: Causal evidence from U.S. gubernatorial elections. *Journal of Financial Economics*, *124*(3), 563–579. https://doi.org/10.1016/j.jfineco.2016.01.034

Julio, B., & Yook, Y. (2012). Political uncertainty and corporate investment cycles. *Journal of Finance*, *67*(1), 45–83. https://doi.org/10.1111/j.1540-6261.2011.01707.x

Kelly, B., Pástor, Ľ., & Veronesi, P. (2016). The price of political uncertainty: Theory and evidence from the option market. *The Journal of Finance*, *71*(5), 2417–2480. https://doi.org/10.1111/jofi.12406

Khwaja, A. I., & Mian, A. (2005). Do lenders favor politically connected firms? Rent provision in an emerging financial market. *The Quarterly Journal of Economics*, *120*(4), 1371–1411. https://doi.org/10.1162/003355305775097524

Koch-Bayram, I. F., & Wernicke, G. (2018). Drilled to obey? Ex-military CEOs and financial misconduct. *Strategic Management Journal*, *39*(11), 2943–2964. https://doi.org/10.1002/smj.2946

Law, K. K. F., & Mills, L. F. (2017). Military experience and corporate tax avoidance. *Review of Accounting Studies, 22*(1), 141–184. https://doi.org/10.1007/s11142-016-9373-z

Leuz, C., Nanda, D., & Wysocki, P. D. (2003). Earnings management and investor protection: An international comparison. *Journal of Financial Economics*, *69*(3), 505–527. https://doi.org/10.1016/S0304-405X(03)00121-1

Li, Z., & Rainville, M. (2021). Do military independent directors improve firm performance? *Finance Research Letters*, *43*, 101988. https://doi.org/10.1016/j.frl.2021.101988

Lin, C., Ma, Y., Officer, M. S., & Zou, H. (2011). CEOs' military experience and acquisition decisions. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1932623

Majeed, M. A., Zhang, X., & Umar, M. (2018). Impact of investment efficiency on cost of equity: Evidence from China. *Journal of Asia Business Studies*, *12*(1), 44–59. https://doi.org/10.1108/JABS-09-2015-0163

Mirza, S. S., Majeed, M. A., & Ahsan, T. (2020). Board gender diversity, competitive pressure and investment efficiency in Chinese private firms. *Eurasian Business Review*, *10*(3), 417–440. https://doi.org/10.1007/s40821-019-00138-5

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, *48*(3), 261–297.

Myers, S. C., & Turnbull, S. M. (1977). Capital budgeting and the capital asset pricing model: Good news and bad news. *The Journal of Finance*, *32*(2), 321–333. https://doi.org/10.1111/j.1540-6261.1977.tb03272.x

Pástor, Ľ., & Veronesi, P. (2012). Uncertainty about government policy and stock prices. *Journal of Finance*, *67*(4), 1219–1264. https://doi.org/10.1111/j.1540-6261.2012.01746.x

Pástor, Ľ., & Veronesi, P. (2013). Political uncertainty and risk premia. *Journal of Financial Economics*, *110*(3), 520–545. https://doi.org/10.1016/j.jfineco.2013.08.007

Phan, D. H. B., Tee, C. M., & Tran, V. T. (2020). Do different types of political connections affect corporate investments? Evidence from Malaysia. *Emerging Markets Review*, *42*, 100667. https://doi.org/10.1016/j.ememar.2019.100667

Porta, R. L., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and finance. *Journal of Political Economy, 106*((6)), 1113–1155.

Siddiqa, A. (2007). *Military Inc: Inside Pakistan's military economy*. Oxford University Press.

Siddiqa, A. (2017). *Military Inc: Inside Pakistan's military economy* (2nd ed.). London: Pluto Press.

Ullah, I., Fang, H. X., Ur Rahman, M., & Iqbal, A. (2021). CEO military background and investment efficiency. *Emerging Markets Finance and Trade, 58*(4), 1089–1102. https://doi.org/10.1080/1540496X.2021.1937115

Vo, X. V. (2019a). Leverage and corporate investment: Evidence from Vietnam. *Finance Research Letters*, *28*, 1–5. https://doi.org/10.1016/j.frl.2018.03.005

Vo, X. V. (2019b). Residual government ownership and corporate investment efficiency in privatised firms: Evidence from a transition country. *Asian-Pacific Economic Literature*, *33*(2), 121–127. https://doi.org/10.1111/apel.12270

Wong, W. Y., & Hooy, C. W. (2018). Do types of political connection affect firm performance differently? *Pacific Basin Finance Journal*, *51*(August), 297–317. https://doi.org/10.1016/j.pacfin.2018.08.009

Waluyo, W. (2017). Firm size, firm age, and firm growth on corporate social responsibility in Indonesia: The case of real estate companies. *European Research Studies Journal*, *20*(4), 360–369. https://doi.org/10.35808/ersj/840

Zaidi, S. A. (2005). *Issues in Pakistan's economy*. Oxford University Press.