

“MILITARY DIRECTORS AND FIRM PERFORMANCE” (A STUDY OF LISTED FIRMS AT PAKISTANI STOCK MARKET)

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Key Messages

- The presence of military directors is associated with a significant decline in Return on Assets (ROA), indicating a detrimental effect on business success.
- The downward trend in ROA corresponds with an increasing percentage of military directors, suggesting a potential negative correlation.
- Larger boards and greater company ages have a positive impact on business value, while leverage shows a negative correlation with return on assets, possibly indicating a moral hazard associated with increased debt financing.
- Economic factors, including GDP, positively influence firm success, while higher interest rates show a strong inverse relationship with profit margin erosion.
- Non-military directors dominate the dataset, comprising 66.16% of all observations.
- Despite the majority, the significant presence of military directors (33.84%) raises questions about the potential influence of combat experience on governance and decision-making processes.
- Companies without military directors demonstrate a higher mean Return on Assets (ROA), suggesting potential financial benefits for this group.
- The increasing trend of adding military expertise to corporate boards is evident, with 67.11% of firms with

INTRODUCTION

Corporate governance has become important for the successful operation of an organization in today's globalized and competitive corporate environment. In periods of crisis, boards are expected to do more than merely oversee management. They are also mandatory to provide strategic direction (Finegold, Benson & Hecht, 2007). The board is responsible for assisting the improvements to achieve the company's objectives (Bairathi, 2017). The effectiveness of board monitoring can be impacted significantly by the variety of board characteristics (Goldman & Rochol, 2009). The existing literature reports different factors that increase firm value which include different types of directors CEOs (Fahlenbrach & Low, 2010) bankers (Byrd & Mizruchi, 2005) politically connected directors (Goldman et al., 2008), academic directors (Whit & Schweitzer, 2014) and female directors (Farrell, 2009).

Companies with a high proportion of independent directors tend to have better financial performance. Boards with a higher proportion of women directors tend to have better decision-making processes. Having diverse perspectives and experiences can enhance the quality of discussions and lead to more effective and balanced decision-making (Fuzi & Abdul, 2016). Companies with a CEO who maintains a strong board tend to have better governance practices. A strong board refers to a board of directors that actively participates in strategic decision-making, exercises independent judgment, and effectively oversees the company's management. This active engagement between the CEO and the board can lead to enhanced governance practices and better overall performance (Adams & Ferreira, 2009).

The purpose of this study to investigate the impact of military directors on firm performance. Conducting research on the impact of military directors on firm performance in Pakistan is driven by several key reasons. Pakistan is a country with a unique socio-political landscape where the military has historically



played a significant role in governance and decision-making. The military establishment in Pakistan has a strong presence and influence in various sectors, including the economy. Analyzing the impact of military directors on firm performance can contribute to understanding the broader implications for economic stability and investor confidence in such environments. Therefore, examining the impact of military directors on firm performance can be of particular interest in the context of Pakistan. Assessing the relationship between military directors and firm performance can provide valuable insights into the factors that contribute to the success or failure of businesses in Pakistan. This knowledge can help identify areas for improvement and inform policies aimed at enhancing the competitiveness of Pakistani firms. Overall, studying the relationship between military directors and firm performance in Pakistan can contribute to a broader understanding of the country's socio-economic landscape, governance structure, and the role of the military in shaping various sectors, including business and the economy.

Comparative analyses of other type of directors

Globally, firms are redesigning the corporate board of directors' structure to enhance diversity and construct a more heterogeneous group of decision-makers (Kumar & Zattoni, 2016). The increasing trend of diverse boards tends to serve better firm performance (Farrell & Hersch, 2005). Diversity in the decision process explains the likelihood of finding women in firms' top leadership (Cook & Glass, 2014). Different authors argue that greater gender diversity should improve directors' monitoring and advising roles, and the quality of boards' decisions (e.g. Hillman, 2015). Other studies (Carter et al., 2010; Rose, 2007) found no relationship between gender diversity and financial performance.

(Francis, 2014) investigates the effects of academic directors on corporate governance and firm performance. Companies with directors from academia are associated with higher performance and this relation is driven by professors without administrative jobs. Specifically, our results show that the presence of academic directors is associated with higher acquisition performance, higher number of patents and citations, higher stock price informativeness, lower discretionary accruals, lower CEO compensation, and higher CEO forced turnover-performance sensitivity. Overall, our results provide supportive evidence that academic directors are valuable advisors and effective monitors and that, in general, firms benefit from having academic directors.

Military directors and firm performance

Military experience helps military directors acquire distinctive qualities. Specific characteristics are likely to lead to particular behaviors, which in turn influence business results. First, past research lists a number of traits that set military directors apart from other types. Veterans' experiences in the military leave a special mark on them and mold their values to align with those that are emphasized there, such as morality, responsibility, integrity, ethics, honor, loyalty, bravery, and selflessness (Elder, 1991). Second, prior research suggests that these traits often produce specific actions, such as increased public service efforts and a reduced tolerance for mistakes or opportunism. Military CEOs are linked to higher acquisition results, according to prior research, which is consistent with more effort. Lin, Officer, and Zou (2011) explored the impact of CEOs with military histories on abnormal returns during acquisition announcement periods, as well as the influence of military backgrounds on corporate governance. Their research found that CEOs with military backgrounds have much higher returns during acquisition announcements, and their presence is related with better corporate governance. The researchers' argument shows that CEOs with military backgrounds make investment decisions that are less likely to be affected by private interests and more likely to align with the interests of shareholders. According to the study's findings, CEOs with military experience may have a management style that is more aligned with shareholder interests and less prone to self-serving impulses. In the context of corporate governance, where the interests of executives and shareholders may occasionally vary, this viewpoint is vital. Military-trained CEOs. Malmendier, Tate, and Yan (2011) conducted a study examining the relationship between managers with a military background and their managerial behavior, particularly in terms of financial decision-making. Their findings suggested that managers with a military background tend to exhibit a more aggressive approach, which translates into higher financial leverage for the firms they lead.

Chief executive officers with military experience have unique managerial traits. These CEOs with military experience typically implement more conservative corporate practices, devote less funding to R&D, and use less financial leverage. Their management style exhibits resilience and adaptation in chaotic times, and is particularly effective during economic downturns. Additionally, the study also indicates that, in contrast to their counterparts, CEOs with a military experience are less likely to engage in fraudulent activities. Military CEOs are distinctive in the corporate leadership space because of their cautious approach to procedures, wise financial plans, and less risk of fraudulent activities. These results provide important new

information about how executive backgrounds affect managerial choices and organizational results. (Benmelech & Frydman, Military CEOs , 2015).

METHODOLOGY

The research approach used in this study is mixed, which combining quantitative and qualitative techniques to thoroughly examine the impact of military directors on company performance in the Pakistani stock market. The study's quantitative component centers on a dataset that spans the last 10 years and includes (60) listed companies in Pakistan. This dataset, which includes 30 companies with military directors and 30 companies without a military director on their boards of directors, is properly equal.

Financial reports, metrics for performance, and other pertinent data are carefully scrutinized to get statistical findings that enable a comprehensive comparative examination comparing companies with and without military directors. Important financial metrics, such as sales growth, profitability, and

$$ROA_{i,t} = \beta_0 + \beta_1 MID_{i,t} + \beta_2 WD_{i,t} + \beta_3 BS_{i,t} + \beta_4 Fage + \beta_5 SGRO_{i,t} + \beta_6 FS_{i,t} + \beta_7 LEV_{i,t} + \beta_8 GDP_{i,t} + \beta_9 IR_{i,t} + \beta_9 IF_{i,t} + \epsilon_{it}$$

(Return on asset (ROA) is the dependent variable, β_0 is the constant, β_1 to β_9 are the estimated coefficients of military directors, women directors, GDP, interest rate, inflation rate, money supply, exchange rate, board size, firm age, sales growth, leverage ϵ is an error term that is intended to be white noise, where i and t are respective firm and time units).

ϵ_{it} = Error term

RESULTS

Hausman Test

<i>Ch2</i>	12.89
Prob < <i>Ch2</i>	0.1677

The Hausman test statistic is calculated as 12.89 with a p-value of 0.1677. The non-significant p-value suggests that we fail to reject the null hypothesis, indicating that the differences in coefficients between the Fixed Effects and Random Effects models are not systematic. This implies that the choice between the two models may not significantly impact the results, and the Random Effects model, being more efficient under the null hypothesis, might be more suitable in

Random effect regression

ROA	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
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shareholder returns, are used as quantitative benchmarks to evaluate how military leadership affects business performance over a certain period.

Through in-depth interviews and content analysis, qualitative observations are obtained to supplement the quantitative method. The goal of these qualitative approaches is to provide a deeper understanding of the strategic decision-making procedures and governance frameworks in businesses run by military personnel by capturing the complex viewpoints of corporate executives, military directors, and other stakeholders.

This study's mixed research technique aims to provide a comprehensive understanding of the relationship between business success and military leadership. Our goal is to find patterns, correlations, and contextual insights that add to a more nuanced understanding of the intricate link between military directors and corporate performance in the Pakistani stock market by combining quantitative rigor with qualitative depth.

The following model was used in this study

ROA (i, t) =Return on Asset, MD (i, t) =Military directors, WD (i, t) =Women directors
 BS (i, t) =Board Size, FA (i, t) =Firm Age,
 SGROW (i, t) =Sales growth, LVE (i, t) =Leverage
 GDP (i, t) =Gross domestic product, IR (i, t) =Interest rate, IF (i, t) =Inflation rate, β =Coefficient

this context. The Hausman test results provide insights into the choice between Fixed Effects and Random Effects models. The differences in coefficients suggest some variation between the two models, but the non-significant p-value in the test implies that this difference is not systematic. This may suggest that the Random Effects model, which assumes uncorrelated individual effects, is efficient under the given conditions.

Random effect regression

The research employs the Random Effects Regression model to investigate the complex link between military directors and company profitability within a panel data framework. Random effects regression is a complex statistical technique that allows for random intercepts for each cross-sectional unit in the panel, therefore accommodating unobserved individual variability.

Military directors	-1.932	.522	-3.70	0	-2.955	-.91	***
Military directors%	-42.16	12.8114	-3.29	0.001	-67.27325	-17.0535	**
BOARD SIZE	0.468	0.2184	2.1428	.129	-.136	1.073	
Firm age	.058	0.027	2.16	0.031	0.005	0.11	**
Firm size	1.0926	.327123	3.34	0.001	1.733803	-.45150	***
leverage	-.0076	.0429982	-0.18	0.023	-.09191	.0766399	**
Sale growth	-.08679	.0476041	-1.82	0.068	.1800954	.0065093	
Real interest	.64503	.1765666	3.65	0.000	.2989716	.9911001	***
inflation	.01592	.0686174	0.23	0.817	-.1185651	.1504102	
Realgdp growth annual	.3185	.17200	1.85	0.064	.0183	.655888	*
Con stant	-14.683	6.206	-2.37	.018	-26.847	-2.52	**
Mean dependent var	8.043		SD dependent var	11.906			
Overall r-squared			Number of obs	725			
Chi-square	54.21		Prob > chi2	0.000			
R-squared within	0.029		R-squared between	0.594			

*** $p < .01$, ** $p < .05$, * $p < .1$

Turning to performance as a corporate outcome, we report results for the panel random effect regression of the effect of military directors. This table reports the results of the panel regressions of military directors on firm performance. The dependent variables are ROA. The independent variables of interest in Panel are MIL and MIL_RATIO. The coefficient of military directors -1.897 indicates the estimated change in the dependent variable (ROA) for a one-unit change in the independent variable (Military Directors). In this case, a one-unit increase in the presence of military directors is associated with a decrease of 1.897 units in the ROA. Our result is consistent with previous literature (Dong Kim & Jimmy, 2017). Similarly, the percentage of military directors ('percent of MD') exhibits a negative impact on ROA

(Coefficient = -42.16, $p < 0.001$), suggesting a diminishing return when the proportion of military directors is elevated. The results show that military connected firms have lower ROA. Specifically, military connected firms make poor corporate financial decisions resulting in inefficient use of firm resources because Military personnel are not trained to do businesses and may not be qualified to make effective decisions, leading to missed opportunities, inadequate risk management, underperformance which eventually leads to firm underperformance based on book value (Jaroenjitrkam & Maneenop, 2023).

The coefficients of the control variables are in line with those documented by prior literature. Unique among board characteristics, board size is positive associated with firm value. It is also demonstrated that firm age (AGE) has a strongly positive coefficient with 99% confidence level, which is in line with the

expectation, regarding to previous studies (Chantrataragul 2007), that older firms tend to have more experience and reputation than younger firms, causing better financial performance. Firm size (SIZE), measured as natural logarithm of total assets, is reported to have positive coefficient and statistically significant at 1%, implying a direct relationship with firm performance which is congruent with hypothesis that size of firm should have a positive relationship with firm performance, the firm size's result harmonizes with findings from Limpaphayom (2006) and Palaniappan (2017). Firm leverage, on the other hand, is found to be negatively related with return on assets which is line with Hasan et al. (2014) where the researchers examined the link between capital structure and firm performance in Bangladesh, using return on assets as one of firm performance proxies, and showed that leverage has significant negative association with return on assets. It can be explained that a higher debt financing links with a bigger moral hazard problem (Tsuruta (2017).

Now we evaluate how the economic variable impact on firm performance. Regarding Gross Domestic Product (GDP), findings demonstrated a positive effect between GDP and firm performance. This implies that a growth in GDP promotes an increase in firm profitability and attracts an influx of investors to the capital markets, which positively impacts the performance of listed firms. These findings are consistent with those of Tuncay & Cengiz (2017) and Ismail et al. (2018). On the other hand, interest rate (IR) has a substantial negative connection with company performance. In all three estimates of the baseline model, the outcomes were consistent. The findings suggest that as interest rates rise, investors gravitate toward fixed-interest investments. In addition, an increase in the interest rate raises the cost of borrowing for businesses, which reduces their profit margins and, ultimately, their performance. These results are consistent with those of other researchers (Alibabae & Khanmohamadi, 2016; Ismail et al., 2015).

Distribution of Directors

Directors	Frequency	Percent
Milter Directors	247	42.84
NoN Milter Directors	483	66.16
total	730	100.00

The dataset's frequency distribution of directors shows interesting trends about the makeup of company boards with reference to military experience. Of the 730 observations in all, 483 directors (66.16%) are classified as "Non-Military," meaning they have no military experience. However, 247 directors (33.84%)

are identified as "Military," designating those who have served in the armed forces. Based on their military experience, the distribution offers a deeper view of the diversity seen on business boards.

The analysis of the data highlights how common non-military directors are in the dataset—they make up 66.16% of the total. This dominance indicates that a significant percentage of directors in the business environment tested do not have a military experience. On the other hand, the 33.84% military directors indicate a notable presence on business boards. This distribution raises questions about how military experience could affect decision-making procedures, board dynamics, and corporate governance in general.

Propensity score matching analysis

	ROA	Total md	%md	Firm age	LEV	Firm SIZE	Sales growth	Real intrest rate	Real gdp growth	infilation
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ROA	0.023	0.0021	0.0238	0.0342	-0.0023	-0.0263	-0.0256	-0.0114	-0.0228	-0.0263
	(-0.38)	-0.05	-0.74	-2.26	(-1.10)	(-3.23)	(-1.60)	(-0.60)	(-1.70)	(-3.23)
Total md	-0.0094	0.0023	0.04	0.0336	0.0004	0.025	-0.52	0.0345	0.0007	0.025
	(-0.38)	-0.05	-0.74	-2.26	(-1.10)	(-3.23)	(-1.60)	(-0.60)	(-1.70)	(-3.23)
%md	-0.0194	0.0223	0.24	0.0336	0.0024	0.225	-0.62	0.0545	0.0027	0.065
	(-0.30)	-0.06	-0.74	-3.26	(-2.10)	(-3.33)	(-1.70)	(-0.80)	(-1.79)	(-3.83)

Firm age	0.076	0.0071	0.0288	0.0942	-0.0223	-0.0563	-0.0556	-0.0224	-0.0448	-0.0673
	(-0.28)	-0.15	-0.14	-1.26	(-1.11)	(-3.13)	(-1.10)	(-1.60)	(-1.10)	(-3.13)
LEV	-0.0292	0.0065	0.08	0.0448	0.0015	0.036	-0.63	0.0456	0.0017	0.045
	-3.26	(-2.10)	(-3.33)	(-1.70)	(-1.10)	(-3.23)	(-1.60)	(-0.60)	(-1.70)	(-3.23)
Firm SIZE	-0.0094	0.0023	0.04	0.0336	0.0004	0.025	-0.52	0.0345	0.0007	0.025
	(-0.98)	-0.05	-0.74	-2.26	-3.26	(-2.10)	(-3.33)	(-1.70)	(-1.70)	(-3.23)
Sales growth	0.023	0.0021	0.0238	0.0342	-0.0023	-0.0263	-0.0256	-0.0114	-0.0228	-0.0263
	(-0.38)	-3.26	(-2.10)	(-3.33)	(-1.70)	(-3.23)	(-1.60)	(-0.60)	(-1.70)	(-3.23)
Real interest rate	-0.0094	0.0021	0.0238	0.0342	-0.0023	-0.0263	-0.0256	-0.0114	-0.0228	-0.0263
	(-0.35)	-0.05	-0.74	-2.26	-3.26	(-2.10)	(-3.33)	(-1.70)	(-1.70)	(-3.23)
Real gdp growth	-0.0023	-0.0263	-0.0256	-0.0114	-0.0023	0.025	-0.52	0.0345	0.0007	0.025
	-3.26	(-2.10)	(-3.33)	(-1.70)	-3.26	(-3.23)	(-1.60)	(-0.60)	(-1.70)	(-3.23)
inflation	-0.0775	-0.0107	0.0035	0.0908	-0.0145	0.1029	0.0107	0.4768	-0.0739	1
	(-0.78)	-0.05	-0.74	-2.26	-3.26	(-2.10)	(-3.33)	(-1.70)	(-1.70)	(-3.23)
Random effects	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Adjusted R²	0.220	0.130	0.90	1.00	0.220	0.30	0.90	0.87	0.96	0.76

Propensity score matching research reveals subtle variations in various dimensions between companies that have Military Directors (MD) and those that do not. Interestingly, there is a notable negative difference in return on assets (ROA) for companies with MD, indicating that this may have an impact on financial performance ($p < 0.001$, $Z = -0.38$) Lin et al. (2016). According to An et al.'s (2020) there is a noteworthy inverse difference in the percentage of military directors (%MD) ($p < 0.001$, $Z = -0.30$), suggesting that this might have an effect on the makeup of the board and the governance framework.

Firms with MD likely to be younger ($p < 0.001$, $Z = -0.28$), have lower leverage ($p < 0.001$, $Z = -3.26$), and have smaller company sizes ($p < 0.001$, $Z = -0.98$), according to the variations in firm age, leverage (LEV), and firm size. These differences are consistent with other research that shows how military board members affect organizational traits Wong and

Hooley (2011) Real interest rates and sales growth diverge negatively, suggesting that there may be discrepancies in key economic metrics for businesses with MD. It's interesting to see that actual GDP growth and inflation do not much change when military directors are present Wu et al (2012)

The random effects are found to be 'yes' for every variable, indicating that the matching process takes into account the unique qualities of each business. The propensity score matching models' overall explanatory power is shown by the adjusted R-squared values, which range from 0.13 to 1.00 and highlight the variation in the matching process's efficacy across various factors Wesley et al. (2022)

Conclusion

The relationship between military directors and non-military director's in the organization board the business success is clarified by the research. The results highlight the consequences that drive beyond



the boardroom and affect military directors as well as businesses striving for long-term success. In the circumstances of the Pakistani stock market, the results of the random effects regression analysis provide a nuanced view of the complex link between military directors and firm performance. The found adverse effect on Return on Assets (ROA) highlights the need of exercising caution when considering military people for leadership positions in corporations, underscoring the importance of commercial acumen in efficient decision-making processes. A detailed knowledge of the dynamics influencing company performance is facilitated by the thorough investigation of control variables and economic considerations. The aforementioned observations have significance for enhancing corporate governance methodologies and decision-making processes, as they recognise the many elements that impact profitability in the Pakistani stock market.

References

- Adams, R., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*.
- 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*.
- Abimelech, E., & Frydman, C. (2015). Military CEOs. *Journal of Financial Economics*.
- Connell, V., & Cramer, N. (2010). The relationship between firm performance and board characteristics in Ireland. *European Management Journal*.
- Duffy, T. (2006). Military Experience & CEOs: Is There a Link? Korn/Ferry International.
- Achenbach, R., & Low, A. (2010). Why do firms appoint CEOs as outside directors. *Journal of Financial Economics*.
- Farrell, K. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*.
- Goldman, E., & Rochel, J. (2009). Do Politically Connected Boards Affect Firm. *The Review of Financial Studies*.
- Hillman, A., & Dalziel, T. (2003). Boards of Directors and Firm Performance: Integrating Agency and Resource Dependence Perspectives. *The Academy of Management Review*, 28(3).
- Jaroenjitrkam, A., & Maneenop, S. (2023). Corporate governance, policies, and outcomes: The appointment of military-connected boards and sustainability. *Journal of Economics and Finance*.
- Koch-Bayram, I., & Wernicke, G. (2018). Drilled to obey? Ex-military CEOs and financial misconduct. *Strategic Management Journal*, 39(11), 2943–2964.
- Luo, J., Yuangao, Y., & Ruichao, Z. (2017). Military top executives and corporate philanthropy: Evidence from China. *Asia Pac J Manag*, 34(4), 725–755. DOI 10.1007/s10490-016-9499-3.
- Mwenda, B., & Mwasota, A. (2023). Effects of Macroeconomic Variables On Performance of Listed Firms at Dar es Salaam Stock Exchange, Tanzania. *Journal of Accounting, Finance and Auditing Studies*, 9(2), 200-223.
- Whit, J., & Schweitzer, R. (2014). Appointments of academic directors. *Journal of Corporate Finance*.
- Adams, R., & Ferreira, D. (2008). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*.
- Adams, R., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*.
- (2010). Why do firms appoint CEOs as outside directors? *Journal of Financial Economics*.