

**RESEARCH PAPER****Dynamic Nexus between Ownership Structures and Commercial Bank Performance: A Study of Commercial Banks of Pakistan****¹Muhammad Ehsan Javaid*, ² Moazzam Ali and ³ Dr. Ahmad Hasan Jamal**

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***Corresponding Author:** ehsan.javaid@aiou.edu.pk**ABSTRACT**

The study's objective is to explore the impact of ownership structures (OS) on firm performance and, consequently, the country's overall economic prosperity. The role of well-performing commercial banking in fostering economic growth is undeniable. A firm's ownership Structure (OS) is responsible for designing and allocating power to management. The relationship between OS and commercial bank performance has not yet been explored in Pakistan. This study addresses this gap by examining 20 banks listed on the Pakistan Stock Exchange from 2010 to 2021. Fixed effect panel regression is performed. Results confirmed that OS has a significant positive impact on performance. This study emphasizes prioritizing and achieving the desirable OS to achieve banks' strategic objectives and develop their flexibility for sustainability by improving governance practices.

KEYWORDS: Ownership Structure (OS), Concentrated Ownership (OC), Institutional Ownership (IO), Managerial Ownership (MO), Foreign Ownership (FO)**Introduction**

In the current era of globalization and economic competition, the performance of financial institutions, especially commercial banks, is of primary significance (Hsieh et al., 2023). It plays essential roles in value creation, employment, technological progressions, and mutually nurturing the country's overall financial and economic well-being (Boachie, 2023; Oudat et al., 2021). Prior literature indicates that the firm's financial performance, especially the banks, depends on factors like shareholder characteristics, regulatory structures, and supervisors control (Barry et al., 2011; John et al., 2008) as these features improve firm performance along with mitigating various risks (Hsieh et al., 2023; Samet et al., 2018). Different mechanisms and tools are used to enhance the bank's performance. Out of all those, the business's ownership structure plays an important role. However, it has not been given the required consideration in the research but neglected factor considered for investigation (Dong et al., 2014; Hsieh et al., 2023).

OS of the firm means how ownership is divided among the equity holders. The division of ownership covers the managerial staff of the firm, other institutions, investors across the countries, and block or majority shareholders within a country (Hsieh et al., 2023). OS of the firm is very important as complete decision-making, governance, cost control, and operational supervision of a firm depends on it (Kiriimi et al., 2022). Mateev et al. (2023) also confirmed that the firm's financial planning depends on its OS. It helps the firm to diversify risks and improve performance (Hussain et al., 2018).

The above discussion confirmed that the firm OS is responsible for designing and allocating power to management (Oudat et al., 2021) and reduces agency issues among stakeholders and management (Boachie, 2023). However, this aspect is not given the required attention in the existing literature, especially in developing economies like Pakistan. This study will fill this gap by examining the relationship between OS and commercial bank performance. The main reason for focusing on Pakistan is its severely vulnerable economic conditions, and improving the commercial bank performance has a spillover effect leading to economic prosperity (Boachie, 2023; Hsieh et al., 2023).

The study contributes to the existing literature by reducing the unbalanced preferences of existing studies on the said topic of developed economies. Additionally, mixed results confirmed in available scant literature further create confusion for policymakers. This study will remove that confusion and inform policymakers of bank management to optimize financial performance through strategic modifications in its OS that influence governance decisions and investor protection policies.

Banking Sector of Pakistan

At the time of its inception, Pakistan's banking sector was relatively underdeveloped. The services of the banking sector were immature, and there were limited commercial banking institutions with services limited to certain specific geographic areas. In 1948, the State Bank of Pakistan was established as the apex bank to look after and control the different monetary, commercial banking and allied financial matters, resulting in stable growth and development of the banking sector, especially in the commercial banking domain. However, during the 1970s, the government's nationalization policy proved a serious setback for private and foreign ownership. Commercial banks like Habib Bank Limited (HBL) and United Bank Limited (UBL) were nationalized, which ultimately reduced the overall progress of the banks. Later, the government brought several economic reforms to liberalize the economy and introduce private OS culture in Pakistan. It opens doors for various private banks in Pakistan. However, due to previous nationalization experiences, the outcome of liberalization and privatization took time to prove its impact in the form of the inception of different foreign and private commercial banks.

Furthermore, in the early 1990s, the banking sector experienced a rapid influx of information and technology in ATMs, online banking, point-of-sales transactions, etc. The apex bank of Pakistan also introduced new e-banking regulations for effectiveness and efficiency. It increases commercial banking operations by extending the e-banking moves. In comparison, the early 2000s opens the doors for Islamic commercial banking operations and even dedicated Islamic commercial banking setups in Pakistan. The recent developments in the commercial banking sector after different financial crises are to improve regulatory supervision by providing financial literacy, leading to increased financial inclusion using digital banking channels extending to rural areas. All this resulted in improved banking performance.

Theoretical Underpinning

The literature highlighted that agency theory is paramount in corporate governance studies (Ross, 1973). Jensen and Meckling (1976) presented this theory, which explains the relationship between the principal and agent when they have a clash of interests, resulting in increased agency cost and decreased firm performance. The conflict of interest arises when the management, which serves as a shareholder's agent, prefers their gains over the shareholders' wealth maximization objective (Panda & Leepsa, 2017; Vu et al., 2018). To gain their objectivity, the agents involved in different tunnelling activities drastically affect the firm's short and long-term performance by increasing agency costs (Hernández & Cruz, 2018).

Effective OS design helps the firm to overcome agency costs by eradicating agency conflict with an improved supervisory framework (Boachie, 2023; Hsieh et al., 2023; Mateev et al., 2023). Hartzell et al. (2014) confirmed that using institutional investors as monitors helps reduce agency costs and improve firm performance. Moreover, using other types of OS types like OC, FO, IO, and MO also reduces agency conflict and cost, leading to improved performance (Siregar & Utama, 2008; Vu et al., 2018).

Literature Review

Adams et al. (2009) confirmed that commercial banks hold a central and pivotal role within the financial system, subject to scrutiny from various internal and external regulators. Commercial bank operations are under strict governance control, while OS is a major corporate governance tool (Dong et al., 2014; Hsieh et al., 2023). Krivogorsky (2006) examined 87 different European firms to verify the claim that the board of directors (BOD) and OS affect firm performance. The firm performance is proxied by different profitability ratios. Results confirmed that IO played a more significant role in improving the overall performance of the companies. Moreover, the US financial crisis highlighted the existing corporate governance framework loophole, which required a detailed relooking of the relationship between OS and firm performance, especially in the financial sector (Yang & Shyu, 2019).

Westman (2011) examined the European banks and rejected the notion that increasing MO reduces firm performance because increased voting power to management compromises the overall supervisory rule of owners. Results confirmed that increasing the MO increases the overall performance of European banks. Hoang et al. (2017) studied Vietnam's manufacturing firms. They confirmed that MO has a competitive advantage over external shareholders due to in-depth knowledge of the activities of overall business affairs. Therefore, an increase in firm performance will be observed with an increase in MO. Alabdullah (2018) examined the Jordanian firms, confirming that MO has positively increased firm performance while FO, FS and industry type have no impact on the firm performance. Overall results confirmed that different OS varieties impact the firm's performance differently. It helps policymakers prioritize the most relevant factors while developing policies related to OS-related corporate governance (Alabdullah, 2018). Al-Sa'eed (2018) studied manufacturing firms listed on the Amman stock market from 2010 to 2015. Results confirmed that MO and OC significantly impact manufacturing firm performance. The result of the relationship varies with change in a proxy measure of the firm performance. It is also discussed that return on asset and Tobin's Q are two efficient and representative performance proxies. Al Farooque et al. (2020) analyzed 452 Thai firms using the GMM approach and confirmed managerial ownership's positive influence on financial performance. Shan et al. (2023) examined the Chinese-listed firms from 2010 to 2020 to check the relationship between MO and financial distress. Results confirmed that a negative relationship exists between the MO and financial distress, which means that an increase in the MO reduces financial distress while increasing the firm's financial status. Meanwhile, a positive relationship between MO and financial distress is also confirmed if the firms are in the entrenchment region. Whereas a negative relationship between MO and bank financial performance is confirmed in Griffith et al. (2002) and Khan et al. (2014) supporting the stance of entrenchment.

Furthermore, another aspect of OS is IO, which helps reduce agency issues when block equity shareholders prioritize their self-interest over marginal shareholders (Cornett et al., 2008). In this study, it is confirmed that out of all governance tools, IO confirms the positive relationship with firm performance. At the same time, it acts as a process which ensures the application of governance in a company (Cornett et al., 2008). In another study, Lin and Fu (2017) confirmed that IO played a significant role in the Chinese stock market after the different market liberalization tactics. Studying various

Chinese listed firms for 11 years using simultaneous equation models shows that IO positively increases firm performance. Similar results were also reported in the studies conducted by researchers like Haija and Alrabba (2017), who studied 114 Jordanian firms for seven years. After examining Japanese firms, Koji et al. (2020) with Sakawa and Watanabel (2020). Alexiou et al. (2021) studied UK firms and confirmed the direction of positive impact flowing from IO to firm performance.

However, after studying French financial sector firms using a simultaneous equation model, certain studies show contradictory results confirming a negative relationship between IO and firm performance, like Charfeddine and Elmarzougui (2010). Saleh et al. (2017) studied Australian firms using GMM and confirmed a negative relation between IO and firm performance. The above discussion confirms mixed results between these two variables in the existing literature.

Furthermore, OS in the form of FO plays a significant role in devising and implementing corporate governance mechanisms in the firm (Kirimi et al., 2022). The entry of FO in the economy improves the firm's overall strategic management by improving its overall monitoring role due to international exposure (Claessens & Jansen, 2000). However, FO also opens the doors to various risks in different conditions by increasing market integration (Leghari & Ishfaq, 2016). According to Kenya's Central Bank Report 2001, FO is the leading factor in transferring the financial crisis to emerging markets. Boateng et al. (2015) examined over 100 Chinese commercial banks for 13 years. They confirmed that FO increases the overall bank performance and improves the quality of the asset under bank possession. However, profitability was reported low in the meantime, and the basic reason behind that is the US global financial crisis, which affects the performance of commercial banks having FO. In another study, Meng et al. (2018) also confirmed that FO improves overall performance due to knowledge of international best practices and extended experience with different regulatory protections. Al-Jaifi (2017) examined Malaysian listed firms. It confirms that FO improves performance because of their extraordinary supervising mechanism, which reduces risks and wastage and maximizes profits, leading to increased overall performance. However, Liu et al. (2018) state that various FO firms are also involved in earning management activities, including their improved effectiveness and efficiency to attract more investment.

Similarly, OC also affects the firm performance and market value of the business. Busta et al. (2014) studied European banks for 13 years and concluded that OC has a different impact on the value of the banks. The reported results showed that OC negatively impacts German banks' value while positively impacting Scandinavian banks' value. The basic reason behind this mixed relationship lies in the legal protections provided to the minority shareholders and the country's social norms. These results partially align with Bai et al. (2004), who confirmed that high OC improves the overall corporate governance practices in Chinese firms, leading to improved overall value of the firms in the market. Agusman et al. (2014) examined 52 Indonesian banks and confirmed that OC reduces overall risks faced by the bank due to better supervision and monitoring. Iwasaki and Mizobata (2020) performed a meta-analysis of 69 studies and confirmed that a significant positive impact of OC on firm performance is reported. Nashier and Gupta (2023) confirmed the positive relationship between OC and the firm performance of Indian organizations. It is explained that developing economies have different market conditions and must investigate independently for detailed output.

Material and Methods

The study is empirical in nature and focused on 20 commercial banks in Pakistan from 2010 to 2021. The selection criteria of the banks are that they should remain in the

active market and never qualify in the default section of the PSX during the study period (Javaid & Afridi, 2015). Data is collected from their annual reports.

Table 1
Variables

Nature of Variable	Variable	Proxy	Reference
Dependent	Bank Profitability (ROA)	The ratio of Net Income to Total Assets	Krivogorsky (2006)
	Ownership Concentration (OC)	Herfindahl's index	Nashier and Gupta (2023)
Independent Variable	Foreign Ownership (FO)	The ratio of the number of shares held by foreign investors to total outstanding shares	Alabdullah (2018)
	Managerial Ownership (MO)	The ratio of the number of shares held by managers to total outstanding shares	Alabdullah (2018)
	Institutional Ownership (IO)	The ratio of the number of shares held by Institutional investors to total outstanding shares	Krivogorsky (2006)
Control Variable	Firm Size (FS)	Natural log of market capitalization	Alabdullah (2018)
	Firm Leverage (FL)	The ratio of interest-bearing loan to total market value of equity.	

$$ROA_{i,t} = \beta_0 + \beta_1 IO_{i,t} + \beta_2 OC_{i,t} + \beta_3 FO_{i,t} + \beta_4 MO_{i,t} + \gamma_1 FS_{i,t} + \gamma_2 LEV_{i,t} + \epsilon_{i,t} \tag{1}$$

In the equation mentioned above, β represents the slope of the independent variables, which explains the rate of change the individual independent variable brings in the bank's profitability. In contrast, β_0 represents the intercept value when all other independent variables get zero.

Table 2
Descriptive Statistics

	ROA	IO	OC	MO	FO	FS	FL
Mean	0.221	0.022	0.155	0.156	0.223	11.79	0.812
Median	0.210	0.020	0.1340	0.143	0.230	11.200	0.912
Std. Dev.	0.0042	0.0123	0.234	0.082	0.113	1.520	0.203
Skewness	0.221	0.543	1.101	0.071	1.043	0.061	0.161
Kurtosis	4.343	3.322	3.152	3.213	4.121	3.975	2.845
Observations	240	240	240	240	240	240	240

The presented descriptive statistics offer a comprehensive insight into key financial and ownership-related variables across commercial banks. Regarding bank profitability, the mean profitability, calculated as 0.221, represents the average level of profitability across the sample. The low standard deviation of 0.0042 indicates minimal variability in profitability, suggesting that individual observations closely cluster around the mean. Meanwhile, the skewness of 0.221 indicates that the distribution of bank profitability is slightly skewed to the right. In practical terms, this suggests that there may be a tail of slightly higher profitability values, pulling the overall distribution toward higher profits. A kurtosis value of 4.343 suggests a leptokurtic distribution, indicating that the distribution has relatively heavier tails than a normal distribution. In the context

of bank profitability, this implies that there may be a concentration of observations in the tails, signifying the presence of extreme values, either higher or lower than the mean.

Similarly, IO exhibits a low mean of 0.022 with a rightward skew (0.543). OC reveals a higher mean of 0.155, a positively skewed distribution (1.101), and notable variability (0.234). MO, with a mean of 0.156, shows moderate variability (0.082) and positive skewness (0.071). FO, characterized by a mean of 0.223, demonstrates a positively skewed distribution (1.143). FS, with an average of 11.79, exhibits a nearly symmetric distribution (skewness 0.061), and firm leverage, with a mean of 0.812, displays relatively low variability (0.203) and a nearly symmetric distribution (skewness 0.161).

Table 3
Correlation Matrix

	IO	OC	MO	FO	FS	FL	ROA
IO	1						
OC	.12	1					
MO	.28	.20	1				
FO	.15	.10	.25	1			
FS	.15	.30	.18	.20	1		
FL	-.10	.08	-.12	.15	-.35	1	
ROA	.30	.25	.35	.20	.15	.12	1

Starting with IO, it exhibits a weak positive correlation with OC at 0.12, while there is a moderate positive correlation of 0.28 with MO. Meanwhile, the association between FO and IO is around 0.15. Similarly, the association between OC and MO is 0.20, while OC and FO is 0.10. Moreover, the correlation between MO and FO is 0.25. FS shows a comparatively more positive association with OC and FO.

In comparison, FL shows a moderate but negative association with FS while a weak but mixed association with ownership-related variables. Finally, ROA establishes a moderate positive correlation with IO, OC, MO and FO. These correlations provide insights into the interrelationships between IO, OC, MO and FO. The positive correlations suggest that as one variable increases, there is a tendency for the other variable to increase. However, the strength of these associations varies from weak to moderate. These findings contribute to a better understanding of the dynamics among key ownership-related variables.

Table 4
Fixed Effect Panel Regression

C	0.0785 (0.0154)
IO	0.0124** (0.0246)
OC	0.0115** (0.036)
MO	0.0081** (0.0227)
FO	0.0006*** (0.0013)
FS	0.0023*** (0.0053)
FL	-0.0012*** (0.0025)
R-Square	0.3538
Adj. R-Square	0.3380
Observations	240
Hausman Test	90.714***
F-Stat	40.20***
Durbin Watson	2.19

Pesaran	1.725 (0.1143)
Wald Test	4.014 (0.4210)

The results of the fixed-effects panel regression model, employing panel-corrected standard errors to address potential heteroskedasticity, focus on Bank Profitability as the dependent variable measured by Return on Assets (ROA). Results confirmed that this model is 35% capable of explaining the bank profitability variation due to different OS dimensions. The value of adjusted r-square and significant F-statistics confirm the goodness of fit of the selected model. The Durbin and Watson value is 2.19, confirming no autocorrelation problem. Low correlation values confirm no multicollinearity issue as well. At the same time, the Hausman test confirms that the fixed effect panel regression model is more appropriate. Moreover, the Pesaran CD test also confirmed no issue of cross-sectional dependence, while the Wald test negates the existence of endogeneity in the problem. In this model, it is important to mention that FS and FL are the control variables.

Table 4 confirmed that IO, OC, MO, and FO confirmed a significant positive relationship with bank profitability. It shows that OS has a positive impact on commercial bank performance. However, the individual OS aspects have varying impacts on bank performance. IO confirmed a positively significant impact at a 5% level. One unit increase in IO leads to an increase of 0.0124 in bank performance. The results align with the existing body of literature and reject the entrenchment hypothesis. IO, such as mutual and pension funds, often bring substantial financial resources and expertise to their companies (Alexiou et al., 2021; Cornett et al., 2008; Lin & Fu, 2017). Higher institutional ownership may signal confidence in the bank's management and strategic direction. Institutions may actively engage with the bank, advocating for sound corporate governance practices and strategies that enhance profitability, thereby contributing positively to the bank's financial performance (Koji et al., 2020; Sakawa & Watanabel, 2020).

Similarly, OC also has a significant positive impact at 5%. A unit increase in OC leads to an increase of 0.0115 units in bank performance. A higher level of OC indicates that block holders exist which are more effectively perform the monitory duty (Agusman et al., 2014; Bai et al., 2004; Busta et al., 2014; Iwasaki & Mizobata, 2020; Nashier & Gupta, 2023). It helps to align the interest among the principal and agents, reducing the risks the banks face and maximizing the returns with proper resource allocation due to low tunnelling activities. All this leads to improved overall performance in the case of Pakistani commercial banks. Besides that, when managers share the ownership status in the commercial bank, they are motivated to outperform, which increases overall performance by reducing agency costs and tunnelling activities while improving overall monitoring and long-term value creation. It is confirmed that one unit increase in MO leads to an increase of 0.0081 units in the firm overall performance (Al Farooque et al., 2020; Alabdullah, 2018; Hoang et al., 2017).

Furthermore, FO has a positive significant impact at 1%. Still, the value of the coefficient is 0.0006, which is quite low and confirms that one unit increase in FO leads to an increase of 0.0006 units in the overall performance (Al-Jaifi, 2017; Boateng et al., 2015; Kirimi et al., 2022; Meng et al., 2018). It highlights the need for policymakers to devise certain policies and reforms to increase FO proportion in Pakistan's commercial banking sector.

Overall results confirmed that higher IO, OC, MO, and FO improve commercial bank performance in the case of Pakistan by reducing/eradicating agency conflicts and costs with an improved supervisory framework (Boachie, 2023; Hsieh et al., 2023;

Mateev et al., 2023), also by creating an environment where stakeholders are incentivized to work collectively towards financial success.

Conclusion

In the current era of globalization and economic competition, commercial banks' performance takes on principal worth as it promotes value creation, employment, technological development, mutually nurturing the country's overall financial and economic well-being. There are various instruments or tools used to enhance the performance of banks. Of all those, the OS of the business is a very important but neglected tool. This study aims to investigate the impact of OS on Pakistani commercial bank performance. The fixed-effects panel regression, addressing heteroskedasticity issues through panel-corrected standard errors, establishes a robust foundation for understanding the relationships between key ownership-related variables and bank profitability measured by ROA. The findings affirm the theoretical expectations, demonstrating that higher IO, OC, MO, and FO positively correlate with enhanced bank profitability. These relationships align with agency theory, emphasizing the role of OS in fostering a conducive environment for financial success. Descriptive statistics provide an understanding of the distributional characteristics of the variables, while correlation analysis reveals the relationship among ownership-related factors.

Limitations

The main limitation of this study is that factors like board size, duality, and female participation on the board are completely ignored, which should be considered in future studies for more profound results and understanding of the topic.

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