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Do Board Characteristics Affect the Interplay between Managerial Ownership and Firm Performance? Evidence from South African Banks

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Abstract

Managerial ownership has been identified as a mechanism to align the interests of the principal and agent and to guarantee superior returns to the principal. This study aims to explore the moderating role of board characteristics on the relationship between managerial ownership and the firm performance of the listed commercial banks in South Africa between 2017 and 2022. To ensure the consistency and robustness of the outcomes, the study applies the pool OLS, fixed effect, robust standard error approach, and fully modified OLS to control for serial correlation, cross-sectional dependence and endogeneity issues. The results show that managerial ownership has a significant and negative effect on the return of equity while its effect on Tobin's Q is negative but not significant. This outcome supports the existence of the entrenchment hypothesis in the South African banking sector where the impact of managerial ownership is found to hurt firm performance. However, additional findings from the study reveal that board size, independence and diversity mitigate and reduce the detrimental effect of managerial ownership on firm performance. This study

provides fresh insight into the importance of board characteristics as vital governance instruments that can be employed to align the interests of owners and managers toward optimal performance.

Keywords: *Managerial ownership, ROE, Tobin's Q, Board characteristics, Cross-sectional dependence.*

1. Introduction

The influence of corporate governance measures on firm performance is an ongoing issue in the accounting and finance literature (Matemane, Msomi, & Ngundu, 2024). The importance of corporate governance in firm management is premised on the potential conflict between the principal (shareholders) and agent (managers) due to the separation of ownership and control. One major internal governance mechanism extensively discussed in the literature to manage and address the principal-agent conflict is ownership structure (Al-Ahdal, Hashim, Almaqtari & Saudagaran, 2023; Yuan, Hussain, Khalid & Li, 2023). In this regard, Kao, Hodgkinson and Jaafar (2019) submit that ownership control helps to minimise the conflict of interest between firm owners and managers. Managerial or insider ownership is described as the percentage of shares owned by the board of directors in the firm's total shareholdings. This paper is built on the argument that when board members are allowed to own some portions of the company's shares, they tend to align their interests to that of the principal (owners), and this will, in turn, minimise the monitoring and agency costs and hence improve the firm's corporate performance (Irawati Maksum, Sadalla & Muda, 2019; Karim, Manab & Ismail, 2020). In this sense, managerial ownership can be conceived as a crucial governance mechanism to drive organisational performance (Ali et al., 2022).

The argument on the managerial ownership and performance nexus is deeply rooted in the contention between the interest alignment theory/convergence of interest theory and the entrenchment hypothesis (Jensen & Meckling, 1976; Morck, Shleifer & Vishny, 1988). The proponents of the convergence of interest theory contend that managerial ownership confers ownership spirit on the board, and as such, motivates them to act in the interest of the shareholders, which consequently improves firm value (Karim et al., 2020; Rashid, 2020; Al-Ahdal et al., 2023). Thus, the convergence of interest hypothesis predicts a positive association between insider ownership and firm performance.

This assertion has been confirmed in the empirical studies. For instance, Fauzi and Musallam (2015), Rashid (2020) and Al-Ahdal et al. (2023) argue that insider ownership promotes the firm value and corporate performance among listed companies in Malaysia, Bangladesh and Oman/UAE, respectively. On the other hand, the entrenchment hypothesis asserts that an increase in managerial ownership leads to entrenchment and lowers firm value. This strand of theory predicts that performance and firm value decline as management stake increases. Based on this argument, Shan (2019), Sani (2020) and Ali et al. (2022) observe that managerial ownership hurts firm performance in Australia, Nigeria and Pakistan, respectively. Despite this, scholars such as Napitupulu, Situngkir, Basuki and Nugroho (2020) observe no association between managerial ownership and firm performance for listed non-financial firms. Lack of consistency in the outcomes of the prior studies may be related to several factors, including the measure(s) of financial performance employed, the countries of study, as well as the methodology adopted. For instance, some of these studies employ the three-stage least square, generalized method of moment and fixed/random effects estimation techniques that fail to account for cross-sectional dependence among the panel units. Also, none of these studies focuses on South Africa. Again, while some of the studies adopt ROA and ROE, others employ Tobin's Q as a measure of firm performance. The present study employs the market-based performance measure (Tobin's Q) and accounting-based performance indicator (ROE), a novel estimation technique that accounts for cross-sectional dependence (Matemane, Denhere, Mokabane & Ojeyinka, 2024) among the sample firms which has been overtly neglected in the prior studies.

Besides, prior studies have concentrated on the direct effect of managerial ownership on corporate performance (Fauzi & Musallam, 2015; Smulowitz, Becera & Mayo, 2019; Sani, 2020; Waheed & Malik, 2021). However, these studies fail to examine the moderating role of board characteristics in the managerial ownership and performance nexus. In this study, it is argued that managerial ownership can have both direct and indirect effects, through the board characteristics, on firm performance. Evidence from the prior studies discloses the importance of corporate governance, viz board characteristics, in the alignment of the interests of firm management and owners (Karim et al., 2020; Al Amosh & Khatib, 2021). In addition, corporate governance mechanisms with ideal board characteristics can provide an incentive to influence the behaviours of the managers to make decisions that would support and

maximise shareholder wealth. Similarly, effective board structures can provide an oversight function to discourage selfish ambitions and opportunistic behaviours of the managers in the management of firm resources (Shan, 2019).

Hence, this study argues that the interaction between managerial ownership and financial performance can be moderated with the right mix of board characteristics. For instance, the inclusion of more independent directors in the board can strengthen board independence, reduce managerial entrenchment and ultimately protect minority shareholders' interests (Karim et al., 2020; Al Amosh & Khatib, 2021). In the same way, the adherents of the large board size opine that an increase in board size is associated with proper monitoring and supervision of management activities toward shareholders' value maximization (Rashid, 2020). In line with this, scholars such as Wu, Sorensen and Sun (2019) and Sani (2020) hint that board characteristics can be utilised as an effective internal corporate mechanism to shape and reshape the focus of managers toward shareholder wealth maximization. Due to the peculiarity and specificity of emerging economies such as South Africa, gender and ethnic diversities are also incorporated as other dimensions of board characteristics, and their moderating effects on the nexus between managerial ownership and firm performance of the sampled banks are gauged. Given the historical setting of South Africa, there has been increased agitation for the mainstreaming of blacks and women in the management and control of South African companies since the collapse of the apartheid policy in 1994 (Matemane, Moloi, Adelowotan & Biswas, 2023). Besides, the corporate governance workhorse in South Africa, the various King reports, and other policies, including the broad-based black empowerment act (2003) and Employment Equity Act (1998), have been implemented with the main purpose of promoting ethnic and gender diversity in the boardroom (Muniandy, 2022). Hence, this study argues for the critical role of board characteristics as potential intervening variables in the relationship between managerial ownership and firm performance which has not been explored in the prior studies, most especially in the South African context.

This study extends the frontier of knowledge on the performance literature in the following ways. First, the paper explores the moderating role of board characteristics on managerial ownership-financial performance with a focus on deposit-taking banks listed in South Africa. Second, the present study considers the probability of cross-sectional dependence among the banks. This constitutes another novelty of this

paper compared to the previous studies. The issue of corporate governance among South African banks has become a burning issue, especially considering the magnitude of bank crises experienced in the sector despite the sound legal and financial frameworks in South Africa (Matemane & Wentzel, 2019) . For instance, the African Bank, which was one of the major banks in the country, collapsed due to the crisis experienced between 2012 and 2014. Similarly, the VBS Mutual Bank collapsed in 2018 (Mupangavanhu, 2021). Among several factors identified as responsible for the financial failure of the two banks are financial recklessness on the part of the management, corporate governance failure, ineffective and inefficient board structure, poor internal control and weak governance systems (Mittner, 2016; African Bank, 2016; Mupangavanhu, 2021). Thus, it is important to assess the effectiveness of board composition as a corporate governance mechanism in the financial sector.

Second, the banking sector in South Africa has been described as an oligopolistic market characterised by substantial interdependence, and where a small number of firms control a larger proportion of the market size (van Heerden & van Heerden, 2022). Scholars such as Rakshit and Bardhan (2022) hint that banks are always in competition with one another, and this implies that the decision of one bank would greatly influence the behaviour of others (Olaniyi, Ojeyinka, Vo & Al-faryan, 2023). In addition, due to the nature of services provided by banks, there is increased evidence of interaction among them, especially in the interbank market where banks interact to exchange financial instruments. Besides, because firms in this study are interdependent, they are exposed to common shocks, which also signals the extent of interconnectivity among them (Olaniyi, Young, Vo & Al-faryan, 2022). Hence, it is important to take into consideration the issue of cross-sectional dependence in any empirical study on the South African banking sector. Lastly, in terms of the scope of the study, the paper focuses on listed commercial banks in South Africa. The financial sector in South Africa has been identified as one of the best in Africa. Besides, the performance of the economy is conditioned on the health of the financial sector due to its role in financial intermediation (Irawati et al., 2019). To the best of the authors' knowledge, this study is the first to unravel the moderating effect of board characteristics on the relationship between ownership and financial performance in the context of the South African banking sector.

2. Literature Review and Hypothesis Development

2.1 Managerial ownership and firm performance

The evidence from the theoretical literature and empirical studies on the nexus between managerial ownership and firm performance is fraught with inconclusive and mixed outcomes. On the theoretical front, the convergence of interest hypothesis vs entrenchment hypothesis debate originated from the pioneer works of Jensen and Meckling (1976), Demsetz (1983), and Fama and Jensen (1983). The major tenet of the convergence of interest hypothesis is that a substantial management stake in firm equity reduces agency costs and promotes corporate values. The convergent interest hypothesis has been confirmed in prior empirical studies including Rashid (2020), Kanapriya (2021) and Al-Ahdal et al. (2023). All these studies argue that managerial ownership enhances firm performance measured by ROA and ROE for listed firms in Malaysia, Bangladesh, Jordan and Oman respectively. Similarly, Ntim (2013) opines that director ownership promotes the firm performance of 169 listed firms in South Africa. Conversely, the entrenchment theorists challenge contend that managers with a substantial percentage of equity enjoy undue voting power, which makes them embark on policies that promote their selfish ambition, especially in the determination of their compensation (Morck et al., 1988; Moudud-Ul-Huq, Biswas & Proshad Dola, 2020) Matemane et al., 2023) for banks in Bangladesh. In line with this strand, Shan (2019) and Ali et al. (2022) confirm the entrenchment effect of managers and argue that managerial ownership erodes firm value and firm performance in nonfinancial firms in Australia and Pakistan. Following this strand, Mugodo, Mutize and Aspeling (2016) confirm that insider ownership hurts firm performance in South Africa. Aside from these arguments, scholars such as Demsetz and Villalonga (2001), Olaniyi et al. (2016) and Napitupulu et al. (2020) fail to document any significant association between managerial ownership and the firm performance of listed nonfinancial firms in Nigeria and Indonesia respectively. Following these arguments, this study hypothesises a positive relationship between managerial ownership and bank performance.

H1: *Managerial ownership has a positive and significant effect on bank performance.*

2.2 Corporate governance as a moderator in the managerial ownership and financial performance nexus

Adherents of the agency theory argue that board independence can be employed as a strong internal mechanism to minimise agency costs between firm owners and managers (Jensen & Meckling, 1976; Fama & Jensen, 1983). On the other hand, stewardship theorists suggest that managers will always act in the best interest of their principal (shareholders) and will not take any action that is detrimental to the corporate goal of an enterprise (Napitupulu et al., 2020). The pro-board independence scholars support their assertions on the argument that the independent non-executive directors have no covert financial interest in a company, and as such, will seek to defend and promote the interest of the shareholders who appointed them. In line with this, scholars such as Buachoom and Sun (2020) and Al Amosh and Khatib (2021) argue that board oversight function is enhanced in firms dominated by independent non-executive directors. Thus, having a substantial number of independent directors in the firm's echelon level will help to curtail managerial opportunistic and selfish behaviours and influence the board's decision to shareholders-oriented policies that will enhance firm performance. Based on this argument, our next hypothesis is presented below

H2a: *Board independence has a positive and significant moderating effect on managerial ownership and financial performance*

Another governance characteristic that has attracted the attention of academic scholars, investors and corporate practitioners in the empirical literature is board size. However, the argument around board size and financial performance is an ongoing debate in the literature. On one hand, studies such as (Muchemwa, Padia and Callaghan (2016), Tulung and Ramdani (2018), Garcia-Ramos and Diaz (2021) and Kahloul, Sbai and Grira (2022) argue that large board size stimulates the firm performance of firms in South Africa, Southern Europe and France. This is based on the notion that companies with large board sizes are characterised by coordination challenges and a slow decision-making process which in turn reduces firm performance (Kao et al., 2019; Altass, 2022). Meanwhile, large board size is associated with effective

monitoring and supervision of firm management to act per shareholders wealth maximisation (Ntim 2015). In the same way, firms with large board size cannot be easily influenced and manipulated by managers to make decisions that will damage the company's image and reputation. In line with this, we develop our next hypothesis as

H2b: *Board size has a positive and significant effect on the nexus between managerial ownership and financial performance*

In recent times, there has been a rising interest in the need for more female representation in the corporations' boardroom. This is because female board members can use their human relations and concern for stakeholders to influence board decisions in promoting stakeholder-friendly activities to enhance firm outcomes (Hague and Jone, 2020). Besides, the issue of board gender diversity is at the heart of various King reports on corporate governance guidelines in South Africa (Muniandy, 2022). In the same way, the resource dependency theory alluded to the critical role of women directors as their presence on the board is associated with unique resources that can shape and reshape the board's decision towards achieving shareholders' objectives (Chatterjee and Nag, 2023). Thus, the inclusion of more women on the corporate board can serve as an effective monitoring mechanism to discourage managers from embarking on self-oriented policies and decisions that are detrimental to shareholders' interests. Based on this, some scholars such as Sarhan, Ntim and Al-Najjar (2019) and Chatterjee and Nag (2023) prove that female directors enhance board decisions to achieve organizational objectives. Hence, we expect gender diversity to positively moderate the nexus between MO and FP.

H2c: *Board gender diversity positively moderates the link between managerial ownership and financial performance*

Ethnic diversity is another governance mechanism that is particularly relevant in the empirical investigation of South African banks. Before 1994, the country was under the defunct apartheid policy that favoured the domination of whites at the upper level of company management (Gyapong, Monem & Hu, 2016; Dreyer, Viviers & Mans-Kemp, 2021). With the implementation of the corporate governance code in 1994 and subsequent corporate reforms such as King's reports, there has been increased concern about ethnic diversity in the board composition of

South African companies (Muniandy, 2022). On the importance of board ethnic diversity, Gyapong et al (2016) find that ethnicity enhances firm value in South Africa while Scholtz and Kievet (2018) argue that an ethnically diversified board promotes heterogeneity in the boardroom which may in turn mitigate information asymmetry between the management and other stakeholders. Similarly, Toriana (2019) asserts that ethnic diversity promotes the effectiveness of the corporate board, creativity, innovation and firm reputation which consequently impact positively on firm value. This implies that ethnic diversity can be employed as a governance apparatus to reconcile the conflict between managers and shareholders. The presence of black directors on the board will force the management to act in favour of shareholders' utility maximisation. Thus, the last hypothesis is provided below

H2c: *Board ethnic diversity has a positive and significant effect on MO – FP nexus*

3. Data and Methodology

3.1 Data

This study concentrates on the effect of managerial ownership and board characteristics on the financial performance of locally controlled commercial banks in South Africa. Based on the statistics from the South African Reserve Bank (SARB, 2023), there are 14 locally controlled banks in South Africa. The study initially attempts to cover the entire 14 local banks. However, some of them did not submit their annual reports and were not listed on the JSE within the period of study, and as such, they were excluded (Moyo, 2018). Based on data availability, the study focuses on seven banks that submitted their annual reports to the JSE between the 2017 and 2022 financial years. These banks include ABSA Bank Ltd, Capitec Bank, Finbond Bank, FirstRand Bank, Investec Bank Ltd, Nedbank and Standard Bank. The sample includes the South African banks popularly called the 'Big Four' (PricewaterhouseCoopers, 2016; Moyo & Tursoy, 2020).

Data on variables in the study are sourced manually from the annual reports of the selected banks, the IRESS database and who owns whom database. The study uses balanced panel data based on 42 yearly observations. The data were scrutinized for missing value(s) and possible outliers which could influence the results of the study. The SARB documents that the top five banks (with the addition of Capitec Bank) in

South Africa control more than 90% of the assets in the banking sector (SARB, 2022). Hence, selection bias is not envisaged in this study as the sample banks can be taken to represent the entire banking sector based on their market share in the entire banking sector.

In line with prior studies in performance literature, ROE and Tobin's Q are employed as dependent variables to reflect accounting and market-based performances, respectively (see Matemane & Wentzel, 2019; Rashid, 2020; Kanapriya, 2021; AlAhdal et al., 2023). The two proxies have been adopted to ensure the robustness of the results to alternative indicators of firm performance. The main independent variable is managerial ownership, while board characteristics such as board size, percentage of independent non-executive board members, and gender and ethnic diversities are used as moderating variables. The control variables in the study (leverage ratio and bank size) were carefully selected in line with the prior study on firm performance (Sani, 2020; Chatterjee & Nag (2023). The full description and measurement of the variables are presented in Table 1.

Table 1: Description and measurement of variables

Variables	Symbol	Measurement
Dependent variables		
Return on equity	ROE	Profit after tax to total equity
Tobin's Q	TOB_Q	Market value of equity and book value of long-term debt to total asset
Independent variable		
Managerial ownership	MOWN	Proportion of shares held by managers to total outstanding shares
Moderating variables		
Board size	BSIZE	Total number of board members
Board independence	BIND	Ratio of independent non-executive directors to board members

Gender diversity	GEND	Ratio of female directors to board members
Ethnic diversity	ETHD	Ratio of black directors to board members
Control variables		
Firm size	FSIZE	Natural logarithm of total asset
Leverage	LEV	Total debt to total equity

Source: Authors' compilation

3.2 Model specification

This study is built on prior studies on the ownership structure and financial performance nexus in presenting the estimated models to achieve its objectives. Following the study by Shan (2019), the baseline model to achieve the primary objective of this study is presented below:

$$PERF_{it} = \alpha_0 + \alpha_1 MOWN_{it} + \alpha_2 FSIZE_{it} + \alpha_3 LEV_{it} + \varepsilon_{it} \quad (1)$$

Where PERF captures performance indicators (ROE and Tobin's Q), MOWN is managerial ownership, FSIZE represents firm size proxy with the logarithm of the firm's total asset, while LEV is the leverage ratio measured by the proportion of debt to equity. Again, ε_{it} is the residual term that captures the effects of other variables that may influence financial performance. Similarly, *i* is the cross-sectional units (banks) which is 7 in this study, and *t* captures the years which is 6 in this case. In line with the first hypothesis of the study, the magnitude of managerial ownership (α_1) is expected to be positive. In the same way, following the outcomes from the empirical study, firm size is expected to enhance performance, and as such, α_2 is presumed to be positive. However, the coefficient of leverage ratio is expected to be negative ($\alpha_3 < 0$).
To examine the moderating role of board characteristics in MO – FP nexus, we augment the baseline equation (equation 1) with the interaction term as specified below

$$PERF_{it} = \beta_0 + \beta_1 MOWN_{it} + \beta_2 BDC_{it} + \beta_3 (BDC * MOWN)_{it} + \beta_4 FSIZE_{it} + \beta_5 LEV_{it} + \varepsilon_{it} \quad \ldots(2)$$

In equation (2), BDC represents the measure of board characteristics, while $BDC * MOWN$ captures the interaction terms of each of the dimensions of board characteristics and managerial ownership.

3.3 Analytical techniques

One major weakness of the traditional panel estimation techniques (POLS, RE and FE) is their failure to consider the possibility of cross-sectional dependence (CD) among the cross-sectional units in the panel. Thus, these first generational techniques assume that cross-sectional units are independent of one another and that the decision of one firm does not influence that of other firms. To address the issue of CD discussed above, this paper applies the robust standard errors technique of Driscoll and Kraay (DK, 1998) to examine the interplay of managerial ownership and board characteristics on the financial performance of the sampled South African banks. The major strength of the DK approach is that it corrects for cross-sectional dependence. Lastly, for the robustness of the estimates, the study also corrects for heteroscedaticity and endogeneity issues with the application of the panel fully modified ordinary least square (FMOLS) technique proposed by Phillips and Hansen (1990).

4. Results

4.1 Descriptive statistics

Table 2 provides a summary of the descriptive statistics of the series in the study. The average values of the ROE of the seven sampled banks stand at 13%, with the minimum and maximum values estimated to be -29.2% and 27% respectively. The average (mean) of Tobin's Q is 1.156 with the lowest and highest value estimated to be 0.70 and 2.870 respectively. As regards board characteristics, the average board size 14 members, with a minimum and maximum board size of 8 and 20 respectively while the percentage of independent non-executive directors, female directors and black directors are found to be 60%, 24% and 41% respectively. The average firm size (total assets) of the seven banks stands at approximately R950 million, with minimum and maximum values of R3.2 million and R2.884 billion respectively while the sample banks collectively record 8.542 as the average value of leverage ratio measured by the ratio of debt to equity, suggesting that banks in South Africa use more of debt than equity to finance their business activities.

Table 2: Descriptive statistics

Variables	Mean	Min	Max	Std. Dev.	Obs
ROE (%)	13.004	-29.180	27.040	11.337	42
TOB_Q	1.159	0.720	2.870	0.502	42
MOWN (%)	5.874	0.030	24.460	8.775	42
ETHN (%)	41.281	11.111	73.333	16.222	42
GEND (%)	24.086	10.000	40.000	7.232	42
BIND (%)	60.201	33.333	88.235	11.862	42
BSIZE	14.357	8.000	20.000	3.043	42
FSIZE (R"M)	949.628	3.178	2883.841	907.445	42
LEV	8.543	0.764	12.773	3.664	42

Source: Authors' compilation

4.2 Correlation matrix

In this study, Pearson pairwise correlation coefficient and variance inflation factors are employed to explore the degree of association among the explanatory variables. Correlation analysis is imperative to rule out the possibility of multicollinearity from the estimated models. According to Kennedy (2008), there is evidence of multicollinearity between two explanatory variables when the correlation coefficient exceeds the threshold of 0.80. Considering the output of the correlation matrix in Table 3, the highest correlation coefficient is 0.789 (LEV and BSIZE). It is evident from the outcome in Table 3 that none of the coefficients exceeds 0.80, which implies the absence of multicollinearity among the independent variables. To validate the outcome from the correlation matrix, variance inflation factors (VIF) are also employed to prevent the existence of multicollinearity in the study. The results of the VIF are presented in Table 4. Again, the highest VIF score in Table 4 is 8.8, which is below the 10.0 criteria advised by Lemma, Muttakin and Mihret (2022). Thus, the models estimated do not suffer from multicollinearity.

Table 3: Correlation matrix

	ROE	TOB_Q	MOWN	BSIZE	ETHN	GEND	IND	FSIZE	LEV
ROE	1.000								
TOB_Q	0.124	1.000							
MOWN	-0.122	0.738	1.000						
BSIZE	0.310	-0.561	-0.707	1.000					
ETHD	0.273	-0.498	-0.702	0.646	1.000				
GEND	0.200	-0.533	-0.759	0.749	0.723	1.000			
BIND	-0.001	-0.487	-0.750	0.337	0.559	0.604	1.000		
FSIZE	0.136	-0.510	-0.761	0.677	0.691	0.750	0.539	1.000	
LEV	0.133	-0.758	-0.789	0.734	0.717	0.642	0.440	0.565	1.000

Source: Authors' compilation

Table 4: Variance inflation factors

	VIF
MOWN	8.88
LEV	5.55
GEND	3.93
BSIZE	3.78
BIND	3.59
FSIZE	3.48
ETHD	3.22
Mean VIF	4.49

Source: Authors' Compilation

4.3 Direct effect of managerial ownership on financial performance

The analysis of the direct effect of insider ownership on the financial performance of the selected banks is commenced by estimating the pooled ordinary least square (POLS) model. The POLS outcome is reported in Table 5 as Models 1 and 4 for ROE and Tobin's Q specifications respectively. It is evident from the results that managerial ownership is negatively and significantly related to ROE (Model 1), while its impact on Tobin's Q is negative but not significant. This suggests that

an increase in the shareholdings ratio of the companies' management deteriorates the financial performance of the sampled banks.

The potency of the POLS is assessed by conducting the Breusch-Pagan (BP) LM tests on the outcomes in Models 1 and 4. The purpose of the BP LM test is to confirm the presence of panel effects in the model. The result of the BP LM test is displayed in the lower part of Table 5, where it is found that the null hypothesis of no panel effect cannot be rejected at 1% and 5% significance levels for ROE (Model 1) and Tobin's Q (Model 4) respectively. The rejection of the null hypothesis leads to the consideration of the use of fixed/random effects as alternative techniques instead of the POLS. Also, the results of the Hausman test are presented in the lower part of Table 3, under specifications 2 and 5 for the ROE and Tobin's Q models respectively. Again, the outcomes of the Hausman test confirm the suitability of the random effect over the fixed effect, based on the probability value which is greater than 0.05. The results of the Hausman test are consistent with the specifications (2 and 5). Hence, the random effect model is preferred and the outcomes from the RE are presented under Models 3 and 6 for the ROE and Tobin's Q specifications respectively. However, inferences from Models 3 and 6 confirm and reiterate the results of the POLS, where managerial ownership is found to erode the accounting-based performance indicator (ROE). In the same way, the impact of MOWN on Tobin's Q is negative but not significant (model 6), and this in turn supports the initial outcome from the POLS in Model 4. Again, the two control variables maintain their impact both in terms of direction and significance.

Table 5: Effect of managerial ownership on bank performance

	(1)	(2)	(3)	(4)	(5)	(6)
	POLS	**FE**	**RE**	**POLS**	**FE**	**RE**
VARIABLES	**ROE**	**ROE**	**ROE**	**TOB_Q**	**TOB_Q**	**TOB_Q**
MOWN	-2.015***	-1.914*	-2.015***	-0.00420	-0.0819**	-0.00420
	(0.628)	(1.121)	(0.628)	(0.0191)	(0.0323)	(0.0191)
FSIZE	1.680	0.579	1.680	0.0396	0.0938	0.0396
	(1.893)	(3.986)	(1.893)	(0.0461)	(0.115)	(0.0461)
LEV	-5.059***	-5.456***	-5.059***	-0.135***	-0.0980*	-0.135***
	(1.446)	(1.810)	(1.446)	(0.0437)	(0.0522)	(0.0437)
C	58.65***	67.61***	58.65***	2.115***	1.952***	2.115***
	(17.04)	(22.62)	(17.04)	(0.520)	(0.653)	(0.520)
BP LM	9.21***			2.77**		
	[0.001]			[0.048]		
Hausman test		0.97			1.86	
		[0.806]			[0.602]	
Observations	42	42	42	42	42	42
R-squared		0.292			0.234	

Note: () Standard errors

[] probability values

*** p<0.01, ** p<0.05, * p<0.1

B-P represents Breusch-Pagan Lagrange Multiplier (LM) for Inquiring Panel Effects

4.4 Additional analysis: Driscoll and Kraay's (1998) robust standard error approach

The outcomes from the DK approach are presented in Table 6. Again, the coefficients of managerial ownership are predominantly negative under the ROE specification, while its impact on Tobin's Q is inconsequential. The finding aligns with the outcomes of the POLS, FE and RE effects. Consequently, the study rejects the proposition of the first hypothesis that managerial ownership stimulates the financial performance of South African banks. This implies that the managerial ownership-performance linkage in the South African banking industry confirms the entrenchment hypothesis, which asserts that firm

performance declines as director stakes in the company increase. This is an antithesis to the proposition of the convergence of interest theory that an increase in managerial shareholding is associated with larger firm value. The outcome further implies that higher insider ownership is unhealthy for the performance of South African banks. The finding aligns with earlier studies conducted on listed firms in Australia (Shan, 2017), Oman (Al-Ahda et al., 2023) and Pakistan (Ali et al., 2022). All of these papers assert that insider ownership promotes entrenchment effects on the financial performance of firms. Similarly, this study validates the conclusion of Shan (2019) and Sani (2020) that managerial ownership promotes information asymmetry and increases agency cost, which consequently hurts firm performance. In the same way, the result corroborates the finding of Meyer and de Wet (2013), who conclude that board ownership has a negative influence on corporate performance in South African listed firms. Overall, after controlling for the effect of CD, our finding aligns with that of the prior studies which confirm the evidence of the entrenchment hypothesis that managerial ownership impedes firm performance among the listed banks in South Africa.

The effect of bank size on both measures of performance is insignificant, suggesting that firm size plays no role in the determination of bank performance in South Africa. A similar outcome is documented by Al-Ahda et al. (2023) for listed firms in Oman. However, an increase in leverage ratio reduces the financial performance of the sampled banks. This aligns with previous studies (Sani, 2020; Lemma et al., 2022), which could be interpreted to mean that managers prefer to raise funds through equity holders rather than using debt financing due to the huge cost associated with external financing.

Table 6: Managerial ownership and performance nexus Evidence from Driscoll and Kraay's approach

	(1)	(2)
VARIABLES	ROE	Tob_q
MOWN	-2.015**	-0.00420
	(0.577)	(0.0155)
FSIZE	1.680	0.0396
	(2.199)	(0.0197)
LEV	-5.059**	-0.135**
	(1.409)	(0.0470)
C	58.65***	2.115**
	(4.907)	(0.637)
Observations	42	42

Note: () Standard errors
*** p<0.01, ** p<0.05, * p<0.1

4.4 Moderating effects of board characteristics on the Managerial ownership-financial performance nexus

Table 7 contains the outcomes of the moderating effects of board characteristics on South African banks' financial performance. Again, managerial ownership has a substantial and overwhelming negative impact on ROE and Tobin's Q across different specifications. This reinstates the earlier outcome in the preceding sections, which suggests that more insider shareholding is inimical to the corporate performance of the selected banks.

Given the entrenchment effect of management observed earlier, a fundamental question is whether board characteristics can be employed to mutilate or reverse the negative influence of managerial ownership on firm performance. The outcomes from Table 7 provide an answer to this question. Evidence from the table reveals that board characteristics play a positive and significant moderating role in the connection between insider ownership and financial performance, except for gender diversity specification (Model 2) under the ROE model. This implies that corporate boards can be structured to control and reduce the selfish activities of managers to enhance firm performance, as earlier

documented by Al Amosh and Khatib (2021). The coefficients of the interaction terms between managerial ownership and board characteristics are all positive and statistically significant. The finding agrees with the earlier proposition of Sani (2020) and underscores the importance of sound corporate governance in reducing and mitigating the entrenchment effects of management in achieving organisational performance. The implication of this is that effective board composition moderates the adverse effect of managerial ownership on firm value. Precisely, the negative and detrimental impact of managerial ownership on corporate performance is found to decline in firms with large board sizes, increased presence of independent non-executive directors, female directors and black directors. Thus, board composition constitutes a strong internal governance mechanism to ensure the convergence of owners' and managers' interests to achieve better and improved organisational performance.

Table 8: Driscoll and Kraay approach-interactions of board characteristics and managerial ownership on financial performance

VARIABLES	(1) ROE	(2) ROE	(3) ROE	(4) ROE	(5) TOB_Q	(6) TOB_Q	(7) TOB_Q	(8) TOB_Q
MOWN	-6.137**	-3.543	-3.997***	-5.510**	-0.198**	-0.201**	-0.145**	-0.238**
	(1.719)	(1.957)	(0.799)	(1.843)	(0.057)	(0.067)	(0.051)	(0.081)
BIND	0.014				-0.005			
	(0.187)				(0.005)			
BIND*MOWN	0.062**				0.002***			
	(0.023)				(0.000)			
GEND		0.139				0.001		
		(0.074)				(0.003)		
GEND*MOWN		0.041				0.003*		
		(0.053)				(0.001)		
ETHD			0.086				0.001	
			(0.097)				(0.004)	
ETHD*MOWN			0.080**				0.002**	
			(0.026)				(0.001)	
BSIZE				-1.069**				-0.006
				(0.361)				(0.010)
BSIZE*MOWN				0.286*				0.012**
				(0.125)				(0.004)
FSIZE	-0.551	-0.449	-1.024	0.286	0.066	0.047	0.050	0.035
	(1.951)	(1.316)	(1.960)	(2.163)	(0.072)	(0.083)	(0.069)	(0.040)
LEV	-3.906**	-4.584***	-3.836***	-4.246**	-0.047	-0.030	-0.0428	-0.020
	(1.229)	(0.490)	(0.892)	(1.462)	(0.063)	(0.028)	(0.060)	(0.049)
Constant	66.22***	68.18***	60.49***	77.08***	2.138**	2.013**	1.751**	1.877**
	(11.32)	(5.392)	(9.254)	(8.868)	(0.659)	(0.630)	(0.535)	(0.645)
Observations	42	42	42	42	42	42	42	42

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

4.5 Robustness check

To assess the validity, credibility and consistency of the main results, FMOLS is utilised as an alternative technique of estimation. As argued by Phillips and Hansen (1990), the FMOLS approach is robust for correcting the challenges of endogeneity and serial correlation, as well as omitted variable bias, in heterogeneous panels. Besides, the technique is discovered to be efficient when the sample size is small. The FMOLS outcomes are reported in Table 9. Evidence from the FMOLS results agrees with the outcomes of the main analysis. Thus, the negative impact of managerial ownership on the financial performance of South African banks is confirmed. Again, all the proxies of board characteristics have strong and positive moderating roles in the association between managerial ownership and financial performance. This authenticates the inference from the main analysis.

Table 9: FMOLS Approach-Interactions of Board Characteristics and managerial ownership on financial performance

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	ROE	ROE	ROE	ROE	TOB_Q	TOB_Q	TOB_Q	TOB_Q
MOWN	-6.640***	-4.058**	-4.132***	-6.051***	-0.198***	-0.215***	-0.133***	-0.248***
	(1.394)	(1.688)	(1.168)	(1.858)	(0.043)	(0.041)	(0.03)	(0.044)
BIND	-0.011				-0.005			
	(1.166)				(0,001)			
BIND*MOWN	0.064***				0.002***			
	(0.017)				(0.001)			
GEND		0.121				0.002		
		(0.357)				(0.009)		
GEND*MOWN		0.074*				0.004***		
		(0.042)				(0.001)		
ETHN			0.049				0.002	
			(0.181)				(0.004)	
ETHN*MOWN			0.108***				0.002***	
			(0.033)				(0.001)	
BSIZE				-1.025				-0.005
				(0.925)				(0.022)
BSIZE*MOWN				0.368**				0.014***
				(0.134)				(0.003)
FSIZE	-0.51	-0.395	-0.627	0.382	0.069	0.039	0,055	0.037
	(2.327)	(3.308)	(2.667)	(3.04)	(0.071)	(0.081)	(0.069)	(0.071)
LEV	-3.519**	-4.989**	-3.602*	-3.811*	-0.067	-0.04	-0,075	-0,037
	(1.583)	(2.214)	(2.049)	(2.041)	(0.049)	(0.054)	(0.053)	(0.048)

Standard errors in parentheses

5. Conclusion

This study investigates the impact of managerial ownership on the performance of South African banks between 2017 and 2022. The study also explores the moderating effects of board characteristics on the link between managerial ownership and firm performance, which has not been investigated in the context of the South African banking sector. To ensure the robustness of the results, accounting-based (ROE) and

market-based (Tobin's Q) measures are used as performance indicators. The findings of the study vehemently suggest that an increase in managerial ownership deteriorates the financial performance of South African banks. This outcome is consistent for the two measures of performance, as well as across different methodologies. Therefore, the study rejects the first hypothesis that managerial ownership enhances financial performance, as predicted by the convergence of interest theory. Instead, the paper confirms the existence of the entrenchment hypothesis in the South African banking industry. However, additional outcomes from the study show that board characteristics, viz board size, board independence, and gender and ethnic diversities positively and significantly moderate the relationship between insider ownership and firm performance in the South African banking sector. This implies that corporate governance mechanisms can be employed to reconcile principal-agent conflict and to ameliorate the negative impact of insider ownership on financial performance. This leads to the acceptance of the second hypothesis that board characteristics play a strong moderating role in the nexus between managerial ownership and the firm performance of South African banks.

The findings imply that when managers are allowed to have a substantial stake of equity in their firms, they tend to use their voting power to influence crucial decisions that will promote their selfish interests at the expense of shareholder wealth maximisation. However, with a large board size and a higher number of independent non-executive directors on the board, such opportunistic behaviour can be condensed since non-executive directors are appointed to protect the interests of other shareholders, especially the minority shareholders. Similarly, the influence of board diversity is found to be instrumental to firm performance, as both gender and ethnic diversities positively moderate the interplay between managerial ownership and firm performance. This implies that an increase in gender and ethnic diversity in the boardroom mitigates the negative effects of managerial ownership to achieve better financial outcomes. This again validates the need to ensure more inclusive gender and ethnic diversities at the echelon of South African banks to improve their bottom line and consequently deliver superior returns to the shareholders.

The outcomes of the study offer some important policy implications for stakeholders in the banking sector, academicians, corporate investors, regulators and policymakers, especially within the South African economy. First, the policymakers and regulators in the South African

banking sector should consider restricting the number of shares that can be owned by the executive management to limit their voting power, especially on critical matters that concern shareholders' wellbeing. Second, the board of the sampled firm must ensure strict compliance with the corporate governance guidelines on board composition to ensure the right mix of independent non-executive directors, as well as female and black directors as provided in the King IV report. Sequel to this, the board should consider the knowledge, technical skills and expertise of the individuals selected as directors. This will guarantee effective board structures that will provide proper oversight functions and safeguard firm resources, improve financial performance, and consequently, enhance firm value and shareholders' wealth. Also, corporate investors are advised to consider the effectiveness of the board structure in choosing the bank to invest in to achieve maximum return on their investment. The study has extended the frontier of knowledge on managerial ownership-firm performance nexus by focusing on the importance of board characteristics on the target variables for listed commercial banks in South Africa. However, the findings from this study may not be generalized for the entire banking sector in South Africa due to its limited scope on the large banks. Thus, it is important to exercise caution in the implementation of the research outcomes especially in the context of the small banks who are excluded in the study due to non-availability of data over the study period. In addition, the study focuses on managerial ownership, which is one form of ownership structure. Further studies might investigate the effects of other dimensions of ownership structure, such as institutional ownership and foreign ownership, on the performance of South African banks.

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