CORPORATE GOVERNANCE AND PERFORMANCE OF LISTED COMMERCIAL BANKS IN SOUTH AFRICA

Sam Ngwenya*

Abstract

The global financial crisis of 2008 that resulted in the collapse of many financial institutions in the United States (US) and Europe have resulted in debates over the failures of corporate governance structures to properly protect investors. The main objective of the study was to determine the relationship between corporate governance and performance of listed commercial banks in South Africa. The results of the study indicated a statistically positive significant relationship between board size, proportion of non-independent and non-executive directors and bank performance. The results of the rest of the corporate governance indicators are mixed when using different performance measurement variables.

Keywords: Corporate Governance, Performance, Listed Commercial Banks

* Department of Finance, Risk Management and Banking, School of Management Sciences, PO Box 392, UNISA, 0003, Preller Street, Muckleneuk Ridge, Pretoria
Tel: +27 12 429 4937
Fax: +27 86 641 5379
Email: ngwenms@unisa.ac.za

1. Introduction

The last decade has seen considerable research on corporate governance and company performance. Companies have long recognised that good corporate governance generates positive returns and boosts the confidence of stakeholders. Poorly governed companies are expected to be less profitable, have the most bankruptcy risks, lower valuations and pay out less to their shareholders, while well-governed companies are expected to have higher profits, less bankruptcy risks, higher valuations and pay out more cash to their shareholders (Kyereboah-Coleman and Biekpe, 2006).

It is generally accepted that boards of directors play a fundamental role in corporate governance and the structure of the board plays a significant role in the functioning of a company (Jensen, 1993). Without proper governance control, managers are more likely to deviate from the interest of shareholders. The board, however, with its legal authority to hire, fire, and compensate top management teams, can set the premises of managerial decision-making, monitor managerial behaviour, and safeguard invested capital (Liang and Li, 1999; Fama and Jensen, 1983).

Many empirical studies on corporate governance have indicated mixed results regarding corporate governance and various performance measures among listed firms (Kyereboah-Coleman and Biekpe, 2006). Liang and Li (1999) concur with Kyereboah-Coleman

and Biekpe (2006) and state that the available evidence of studies on the impact of board composition on company performance remain ambiguous, and the reason for the ambiguity is that most of the board composition studies were conducted using a sample of large public companies where the linkage between board composition and company performance is long and the observations are "noisy". To minimise the noise they propose that the board composition and company performance relationship is best observed in small privately owned companies.

Most studies on the relationship between corporate governance and performance were conducted internationally and focused on both non-financial institutions (see Liang and Li, 1999; Guest, 2009; El-Masry 2010; Gill and Mathur, 2011; Nicholson and Kiel, 2007; Kyereboah-Coleman and Biekpe, 2006; Jensen, 1993; Fama and Jensen, 1983), and financial institutions (see Hoque, Islam and Ahmed, 2013; Muttakin and Ullah, 2012; Avouri, Hossain and Muttakin, 2011). Studies conducted in South Africa on corporate governance focus mainly on non- financial institutions (see Rossouw, van der Watt and Malan, 2002; Vaughn and Ryan, 2006; Wameru, 2012), and studies on corporate governance that focus on financial institution are scanty, the only study that the researcher could find is that of Young (2010), which focuses on corporate governance and risk management. The main objective of this paper is therefore to narrow the gap and to contribute to the

existing body of literature by investigating the relationship between corporate governance and bank performance of the top four listed commercial banks in South Africa.

John and Qian (2003) argue that it is important to understand corporate governance and the degree of managerial alignment in banks because banks differ from manufacturing firms in that they are regulated to a higher degree than manufacturing firms. Hoque, Islam and Ahmed (2013) concur with John and Qian (2003) by stating that unlike non-financial institutions, banks are subject to dual monitoring, by the regulatory bodies and also by the bank board. The monitoring and oversight of the regulators and the compliance of banks with regulatory requirements provide an alternative governance mechanism which is absent in a non-financial industry. The remainder of this paper is structured as follows: Firstly, a literature study presents the theoretical foundation of the study related to corporate governance and company performance. Secondly, the sample, variables and methodology employed are outlined. Thirdly, the analysis is carried out, and lastly the results of the analysis and the recommendations are outlined.

2. Literature review

The global financial crisis of 2008 that resulted in the collapse of many financial institutions in the United States (US) and Europe have resulted in debates over the failures of corporate governance structures to properly protect investors. It is said that eighty American banks failed between 2007 and 2009 due to the onslaught of the global financial crisis and a number of banks have become insolvent throughout the globe (Hoque, Islam, and Ahmed, 2013). Much debate has since been raging on about whether the cause of the financial crises was the result of the failure of internal or external governance structures. The recent global financial crises is said to be the worst since the Great Depression in terms of both the economic costs and geographical spread (Claessens, Dell'Ariccia, Igan and Laeven, 2010).

2.1 Banking sector in South Africa

South Africa has developed a well-regulated banking system over the years that compares favourably with many developed countries. Legislation governing the banking sector in South Africa includes among others the Banks Act No. 94 of 1990 as amended in 2008 to align it with principles of Basel II, the Mutual Banks Act No. 124 of 1993, the Financial Intelligence Centre Act No. 39 of 2001, the Financial Advisory and Intermediary Services Act No. 37 of 2002, the National Credit Act No. 34 of 2005, the Consumer Protection Act No. 68 of 2008, and the new Company Act No. 71 of 2008 which replaced the Companies Act No. 61 of 1973. Apart from the legislative framework governing the banking sector in South

Africa, the South African Reserve Bank, as mandated by the South African Reserve Bank Act 90 of 1989 is responsible for bank supervision. The successful adoption of Basel compliance and the banking supervision has positively contributed to the stability of the banking sector (South African Reserve Bank, 2011).

Although the banking system in South Africa was relatively insulated from the effects of the global financial crises of 2008 through appropriate monitoring and supervision (South African Reserve Bank, 2011), issues of corporate governance and financial performance remain of great concern to both the shareholders and regulatory authorities. Given that corporate governance is essentially a mechanism for addressing agency problems and controlling risk within the firm, it is not surprising that the recent initiatives and statements by banking supervisors, central banks, and other authorities have emphasised the importance of effective corporate governance practices in the banking sector.

2.2 Corporate governance in South Africa

The King Report on Corporate Governance is considered to be a ground-breaking code of corporate governance in South Africa. The reports were issued in 1994 (King 1), 2002 (King 11), and 2009 (King 111). The King III Codes of Corporate Governance and the Company Act, No.71 of 2008 (replacing the Companies Act, No.61 of 1973) empowers the board of directors to monitor the activities and performance of companies. One of the main duties of the board of directors, as stipulated in the King III report is to appoint the Chief Executive Officer (CEO), and define its own level of materiality and approve a delegation of authority framework. The board should also ensure that the role and function of the CEO is formalised and the performance of the CEO is evaluated against the criteria specified by the board (King Report on Governance for South Africa, 2009). The recommendations further state that the board should comprise a majority of non-executive directors and a minimum of two executive directors of which one should be the CEO and the other the director responsible for finance.

3. Research objectives

The main objective of the study was to investigate the relationship between corporate governance and performance of the top four listed commercial banks in South Africa using data for the period 2009 to 2011. The reason for using the sample of the top four listed commercial banks in South Africa is because they together control over 90% of the retail market for personal transaction accounts (Competition Commission, 2008).

4. Research methodology

4.1 Data collection

The population of the study consisted of the top four commercial banks listed on the Johannesburg Stock Exchange (JSE) in South Africa. Secondary data used in the empirical study was obtained from two sources. First, the annual reports of the top four listed commercial banks were downloaded from their websites to obtain information relating to board structures and board composition. The second set of data was downloaded from the McGregor BFA website to obtain standardised financial statements of the top four commercial banks. The secondary data downloaded was for the year 2009 to 2011, thus allowing three years of uninterrupted observation. This period was deliberately chosen as it reflects the period immediately after the global crisis that started in the middle of 2007.

The study tested the relationship between corporate governance and a company's performance using premises and variables that have been used in prior studies. The study aimed to build on previous studies conducted on the relationship between corporate governance and company performance, with particular reference to Hoque, Islam and Ahmed (2013), El-Masry (2010), Muttakin and Ullah (2012), and Gill and Mathur (2011).

4.2 Definition of variables and hypotheses

Prior studies on the relationship between corporate governance and company performance have used various internal and external variables, among which is board size, board composition, board committees, CEO's position-duality, CEO incentives and ownership interest, ownership concentration of insiders and outsiders, multiple directorships, debt financing, market for corporate control and so forth (Hoque, Islam and Ahmed, 2013).

4.2.1 Variables used to measure corporate governance

The following variables were used to measure the effectiveness of corporate governance:

Board size (BSIZE): Board size refers to the total number of directors on the board which includes both executive and non-executive directors. There are various views based on the size of the board and company performance. One view is that larger boards enhance company performance because they have a range of expertise to help make better decisions, and are harder for a powerful CEO to dominate (Muttakin and Ullah, 2012; Kyereboah-Coleman and Biekpe, 2006). The other view is that large boards are less effective and more susceptible to the influence of the CEO (Avouri, Hossain and Muttakin, 2011; Core,

Holthausen and Larcker, 1998; Jensen, 1993). This view is supported by studies conducted by Gill and Mathur (2011) and Liang and Li (1999) which indicates that larger board size negatively impact on the profitability of companies. Jensen (1993) suggests that keeping boards small can help improve their performance. In this study the natural logarithm of total assets was used to determine board size (BSize). The first hypothesis of the study is thus stated as follows:

H1: There is no significant relationship between board size and bank performance.

Board diversity. Proportion of female board directors (PFBD): Board diversity has to do with the gender composition of the board, that is, the percentage number of females versus the number of males in the board. It is argued that diversity of a corporate board enhances better monitoring and increase board independence. The study conducted by Erhardt, Werber and Shrader (2003) indicated that board diversity is positively associated with firm performance. However, the study conducted by Mutttakin and Ullah (2012), Dang, Nguyen and Vo (2009) indicated that the inclusion of female directors have no impact on company performance. Torchia, Calabò and Huse (2011) suggest that a women director's contribution to the level of firm organisational innovation depends on the number of women directors in the board. The second hypothesis is stated as follows:

H2: There is no significant relationship between the proportion of female directors and bank performance.

Board composition: Board composition has to do with the number of executive directors (inside directors) versus the number of non-executive directors (outside directors).

Proportion of executive/inside directors (PNED): Kyereboah-Coleman and Biekpe (2006) argue that the issue of whether directors should be employees of or affiliated with the company (executive/inside directors) or non-executive/outside directors has been thoroughly researched, yet no clear conclusion has been reached. According to Fama and Jensen (1983), executive directors represent an important source of company-specific knowledge and their presence can lead to more effective decision-making. Kyereboah-Coleman and Biekpe (2006) state that executive directors also act as monitors to top management. This view is supported by Shakir (2008) and suggests that if executive directors play an effective monitoring role and provide first-hand information on the company's operations to other board members; this may increase the corporate governance structure of the company which will eventually lead to a better company performance. In contrast Core, Holthausen and Larcker (1998) argue

that executive directors are more loyal to management, and thus the CEO can exert relatively more influence over them as opposed to non-executive directors. However, the study conducted by Nicholson and Kiel (2007) found a positive relationship between the proportion of executive directors and company performance. The third hypothesis is thus stated as follows:

H3: There is no significant relationship between the proportion of executive directors (PNED) and bank performance.

Proportion of non-independent and non-executive directors (PNINE): While executive directors represent an important source of company-specific knowledge and their presence can lead to more effective decision-making (Fama and Jensen, 1983), the presence of non-executive directors may bring an independent judgment to bear on issues of strategy, performance and resources including key appointments and standards of conduct, and their independence from management can bring a degree of objectivity to the board's deliberations and play a valuable role in monitoring management decisions (Cadbury, 1992). Non-executive directors may act as "professional referees" to ensure that competition among executive directors stimulates actions consistent with shareholder value maximisation (Kyereboah-Coleman and Biekpe, 2006). In contrast, Hoque, Islam and Ahmed (2013) argue that non-executive directors may become less effective as they grow older or serve on "too many" boards. However, the study conducted by Liang and Li (1999) indicates that the presence of non-executive directors is positively associated with higher return on investment. The fourth hypothesis is thus stated as follows:

H4: There is no significant relationship between the proportion of non-independent and non-executive directors and bank performance.

Board independence. Proportion of independent directors (PINDD): Agency theory suggests that a higher proportion of independent directors should lead to a better firm performance since it reduces the conflict of interest between the shareholders and management and makes management more effective through better monitoring (Fama and Jensen, 1983; Muttakin and Ullah, 2012). King 111 requires boards in South Africa to be comprised of a majority of non-executive directors, of whom the majority should be independent (KPMG, 2009). Empirical evidence indicates that board independence have a significant positive impact on company performance (Hoque, Islam and Ahmed, 2013; Muttakin and Ullah, 2012; El-Mastry, 2010; Liang and Li, 1999). The fifth hypothesis is therefore stated as follows:

H5: There is no significant relationship between the proportion of independent directors and bank performance.

4.2.2 Dependent variables

Variables used to measure bank performance. Traditional bank performance measures are similar to those applied in other industries, with return on assets (ROA), return on equity (ROE) or cost-to-income ratio being the most widely used. In addition, given the importance of the intermediation function for banks, net interest margins are typically monitored (NIM) (European Central Bank, 2010). For the purpose of this study, only the accounting indicators return on assets (ROA) and return on equity (ROE) were used as proxies to measure bank performance. The return on assets (ROA) was calculated by dividing earnings before interest and tax by total assets. Total assets in this case include only tangible assets.

Return on assets = Net income/Total assets

ROE was calculated by dividing earnings before interest and tax by total equity.

Return on equity = Net income/Total equity

4.2.3 Control variables

Since the performance of the bank may be influenced by several factors, the following control variables were considered in the study:

Bank/company size (LNTA): According to Crumley (2008), one of the most important influences of compensation in literature is the size of the company. The size of the company is measured by book value of assets, level of sales and number of employees being managed. The size of the banks in this study was measured as the value of its assets base, total assets excluding intangible assets were used as measure of the size of the bank. For the regression analysis, we use the log of the assets because the values are widely spread. The sixth hypothesis is thus:

H6: There is no significant relationship between bank size and bank performance.

Debt-to-equity ratio (D/E): D/E = ratio of debt to equity

Banks have a unique capital structure as distinguished by its equity and liabilities. Macey and O'Hara (2003) states that banks receive 90 per cent or more of their funding from debt, which are largely in the form of deposits available to their creditors/depositors on demand, while their assets often take the form of loans that have longer maturities. Thus the bank is creating the liquidity for the economy through the holding of illiquid assets (loans) and issuing liquid liabilities (deposits) (Zulkafli and Samad, 2007). This mismatch between

deposits and liabilities becomes a problem in the unusual situation of a bank run (Macey and O'Hara, 2003). Debt-to-equity ratio (D/E) was therefore used as the second control variable in this study. Debt-to-equity ratio (D/E) was calculated by dividing the banks total liabilities (debt) by total equity.

Debt-to equity (D/E) = Total liabilities (debt)/total equity.

The seventh and last hypothesis is therefore stated as follows:

H7: There is no significant relationship between debt-to-equity ratio and bank performance.

5. Results

Descriptive statistics

Table 1 depicts the descriptive statistics of the dependent and independent variables.

Table 1. Descriptive statistics, n = 12

Variables	Minimum	Maximum	Mean	Std. deviation
Total liabilities	500 000 000 000	1 000 000 000 000	807 000 000 000	297 100 000 000
Fixed assets	5 178 000 000	38 390 000 000	15 569 583 333	12 225 920 493
Total assets	600 000 000 000	1 000 000 000 000	872 000 000 000	317 300 000 000
Net income	5 135 000 000	14 859 000 000	9 824 166 667	3 324 887 171
Total equity	44 984 000 000	100 000 000 000	70 468 000 000	23 435 028 460
BSIZE	18	23	19.92	1.730
ROE	10.740	20.829	14.03289	3.027100
ROA	0.854	1.921	1.15788	0.336491
D/E	99.655	99.749	99.71424	0.036643
PNINE	15.789	35.000	24.85442	7.424438
PINDD	42.105	72.727	57.31967	11.595587
PFBD	9.091	27.778	18.00272	6.646617
PNED	73.680	90.910	82.17417	5.214585
LNTA	27.060	28.020	27.44250	0.326528

Explanation of variables: BSIZE - the number of members on the board; ROE - return on equity; ROA - return on assets; D/E -debt equity ratio; PNINE - percentage number of independent and non-executive directors; PINDD -percentage number of independent directors; PFBD - percentage number of female board directors; PNED - percentage number of executive directors, LNTA- size of the bank.

According to Table 1, the average valid observations is n = 12. The banks included in the sample have an average of R15 569 583 333 fixed assets (FA), R872 000 000 000 total assets (TA), R807 000 000 000 total liabilities (TL) R9 824 166 667 net income (NI), and R70 468 000 000 total equity (TE). The average return on equity (ROE) is 14.03%, average return on

assets (ROA) is 1.16%, and the banks have an average debt-to-equity ratio (D/E) of 99.71424%. The banks also have an average board size (BSIZE) of 20 members, and an average percentage of independent directors (PINDD) of 57.32%. Table 2 depicts the first regression model.

Table 2. Regression analysis between the dependent variables (ROE; ROA) and independent variables (predictors: BSIZE, D/E, LNTA)

Coefficients[a]

Predictor	Unstandardised coefficient		Standardised coefficient		
	Beta	Std. Error	Beta	T	Sign.
ROE					
(Constant)	5576.156	1313.817		4.244	0.003
BSIZE	1.001	0.361	0.572	2.776	0.024
D/E	-55.096	13.405	-0.667	-4.110	0.003
LNTA	-3.214	1.994	-0.347	-1.612	0.146
ROA					
(Constant)	694.225	102.671		6.762	0.000
BSIZE	0.097	0.028	0.499	3.446	0.009
D/E	-6.875	1.048	-0.749	-6.563	0.000
LNTA	-0.345	0.156	-0.335	-2.212	0.058

ANOVAa

Model	Sum of squares	Df	Mean square	F	Sig.
ROE					
Regression	84.676	3	28.225	14.007	0.002[b]
Residual	16.121	8	2.015		
Total	100.797	11			
ROA					
Regression	1.147	3	0.382	31.070	0.000[b]
Residual	0.098	8	0.012		
Total	1.245	11			

a.Dependent variable: ROE; ROA
b.Predictors: (Constant), BSIZE, D/E, LNTA
*Significant at the 0.05 level

The results of the first regression analysis are reported in two phases. In the first phase ROE is used as a dependent variable. The results of the regression indicate a statistically positive significant relationship between BSIZE (0.024), D/E (0.003) and ROE, but indicate no statistically significant relationship between LNTA (0.146) and ROE. The F test for ROE equals 14.007 and is statistically positive significant at 0.002. In the second phase ROA is used as dependent variable. The results indicate a statistically positive significant relationship between BSIZE (0.009), D/E (0.000) and ROA, but indicate a weaker statistically positive relationship between LNTA (0.058) and ROA. The F test for ROA equals 31.070

and is highly statistically positive significant at 0.000. The results are consistent with the view that larger boards are better for company performance because they have a range of expertise to help make decisions and are harder for a powerful CEO to dominate (Muttakin and Ullah, 2012; Kyereboah-Coleman and Biekpe, 2006). The second regression has the same predictors as the first regression, except that BSIZE is replaced by percentage number of independent directors (PFBD). ROE and ROA still remains the independent variables. Table 3 report the results of the second regression analysis.

Table 3. Regression analysis between the dependent variables (ROE; ROA) and independent variables (predictors: PFBD, D/E, LNTA)

Coefficientsa

Predictor	Unstandardised coefficient		Standardised coefficient		
	Beta	Std. Error	Beta	T	Sign.
ROE					
(Constant)	7060.077	1371.370		5.148	0.001
PFBD	-0.287	0.139	-0.630	-2.059	0.073
D/E	-69.452	13.877	-0.841	-5.005	0.001
LNTA	-4.209	2.887	-0.454	-1.458	0.183
ROA					
(Constant)	837.601	120.290		6.963	0.000
PFBD	-0.025	0.012	-0.501	-2.072	0.072
D/E	-8.274	1.217	-0.901	-6.798	0.000
LNTA	-0.387	0.253	-0.386	-1.570	0.155

ANOVAa

Model	Sum of squares	Df	Mean square	F	Sig.
ROE					
Regression	80.114	3	26.705	10.329	0.004
Residual	20.683	8	2.585		
Total	100.797	11			
ROA					
Regression	1.086	3	0.362	18.205	0.001[b]
Residual	0.159	8	0.020		
Total	1.245	11			

a.Dependent variable: ROE; ROA
b.Predictors: (Constant), PFBD, D/E, LNTA
*Significant at the 0.05 level

The results of the second regression analysis are also reported in two phases. In the first phase ROE is used as dependent variable. The results of the regression indicate a statistically negative weaker relationship between PFBD (0.073) and ROE, a statistically negative significant relationship between D/E (0.001) and ROE, and no statistically significant relationship between LNTA (0.183) and ROE,. The F test for ROE equals 10.329 and is statistically positively significant at 0.004. In the second phase ROA is used as dependent variable. The result indicates a statistically negative weaker relationship between PFBD (0.072), and a statistically negative significant relationship between D/E (0.000) and ROA, and no statistically significant relationship between LNTA (0.155) and ROA. The F test for ROA equals 18.205 and is statistically positive significant at 0.001. The weaker positive relationship between PFBD and the two bank measurements ROE and ROA, indicates that board diversity as indicated by the presence of female directors in a board have little impact on the performance of the banks, a view supported by Muttakin and Ullah (2012), and Dang, Nguyen and Vo (2009). The third regression has the same predictors as the second regression, except that PFBD is replaced by percentage number of executive directors (PNED), ROE and ROA still remains the independent variables. Table 4 report the results of the forth regression analysis

Table 4. Regression analysis between the dependent variables (ROE; ROA) and independent variables (predictors: PNED, D/E, LNTA)

Coefficients[a]

Predictor	Unstandardised coefficient		Standardised coefficient		
	Beta	Std. Error	Beta	T	Sign.
ROE					
(Constant)	7070.439	1749.104		4.042	0.004
PNED	-0.043	0.247	-0.073	-0.173	0.867
D/E	-71.122	17.902	-0.861	-3.973	0.004
LNTA	1.422	4.095	0.153	0.347	0.737
ROA					
(Constant)	840.579	153.551		5.474	0.001
PNED	-0.005	0.022	-0.076	-0.227	0.826
D/E	-8.446	1.572	-0.920	-5.374	0.001
LNTA	0.116	0.360	0.113	0.324	0.754

ANOVA[a]

Model	Sum of squares	Df	Mean square	F	Sig.
ROE					
Regression	69.267	3	23.089	5.858	0.020
Residual	31.529	8	3.941		
Total	100.797	11			
ROA					
Regression	1.003	3	0.334	11.002	0.003[b]
Residual	0.243	8	0.030		
Total	1.245	11			

c. *Dependent variable: ROE; ROA*
d. *Predictors: (Constant), PNED, D/E, LNTA*
Significant at the 0.05 level

The results of the third regression analysis are also presented in two phases. In the first phase ROE is used as a dependent variable. The results of the third regression indicate no statistically significant relationship between PNED (0.867), LNTA (0.737) and ROE, but indicate a statistically negative significant relationship between D/E (0.004) and ROE. The F test for ROE equals 5.858 and is statistically positive significant at 0.020. In the second phase ROA is used as dependent variable. The results indicate no statistically significant relationship between PNED (0.826), LNTA (0.754) and ROA, but indicate statistically negative significant relationship between D/E (0.001) and ROA. The F test for ROA equals 11.002 and is statistically positive significant at 0.003. The results are in contrast with the study conducted by Nicholson and Kiel (2007) which found a positive relationship between the proportion of executive directors and company performance. The fourth regression has the same predictors as the third regression, except that PNED is replaced by a proportion of non-independent and non-executive directors (PNINE), ROE and ROA still remain the independent variables. Table 5 report the results of the sixth regression analysis.

Table 5. Regression analysis between the dependent variables (ROE; ROA) and independent variables
(predictors: PNINE, D/E, LNTA)

Coefficients[a]

Predictor	Unstandardised coefficient		Standardised coefficient		
	Beta	Std. Error	Beta	T	Sign.
ROE					
(Constant)	8297.829	1271.863		6.524	0.000
PNINE	0.220	0..76	0.540	2.879	0.021
D/E	-84.307	12.983	-1.021	-6.494	0.000
LNTA	4.277	1.812	0.461	2.361	0.046
ROA					
(Constant)	958.176	98.478		9.730	0.000
PNINE	0.021	0.006	0.471	3.605	0.007
D/E	-9.708	1.005	-1.057	-9.657	0.000
LNTA	0.382	0.140	0.371	2.722	0.026

ANOVA[a]

Model	Sum of squares	Df	Mean square	F	Sig.
ROE					
Regression	85.253	3	28.418	14.626	0.001[b]
Residual	15.544	8	1.943		
Total	100.797	11			
ROA					
Regression	1.152	3	0.384	32.974	0.000[b]
Residual	0.093	8	0.012		
Total	1.245	11			

a. *Dependent variable: ROE; ROA*

b. *Predictors: (Constant), PNINE, D/E, LNTA*

*Significant at the 0.05 level;

In the fourth regression return on equity (ROE) and return on assets (ROA) are used as dependent variables, while percentage number of non-independent and non-executive directors (PNINE), debt-to-equity ratio (D/E), and size of the bank as measured by the logarithm of total assets (LNTA) are used as predictors. The results of the analysis are reported in two phases. In the first phase ROE is used as dependent variable. The results indicate a statistically positive significant relationship between PNINE (0.021), LNTA (0.046) and ROE, and a statistically negative significant relationship between D/E (0.000) and ROE. The F test for ROE equals 14.626 and is statistically positive significant at 0.001. In the second phase ROA is used as dependent variable. The result indicates a statistically positive

significant relationship between PNINE (0.007), LNTA (0.026) and ROA, and a statistically negative significant relationship between D/E (0.000) and ROA. The F test for ROA equals 32.974 and is statistically positive significant at 0.000. The results are consistent with the study conducted by Liang and Li (1999) which indicated that the presence of non-executive directors is positively associated with higher return on investment. The fifth regression has the same predictors as the fourth regression, except that PNINE is replaced by percentage number of independent directors (PINDD). ROE and ROA still remains the independent variables. Table 6 report the results of the second regression analysis.

Table 6. Regression analysis between the dependent variables (ROE; ROA) and independent variables
(predictors: PINDD, D/E, LNTA)

Coefficients[a]

Predictor	Unstandardised coefficient		Standardised coefficient		
	Beta	Std. Error	Beta	T	Sign.
ROE					
(Constant)	8 195.272	1 450.257		5.651	0.000
PINDD	-0.156	0.071	-0.597	-2.185	0.060
D/E	-83.483	14.874	-1.011	-5.613	0.001
LNTA	5.544	2.654	0.598	2.089	0.070
ROA					
(Constant)	949.039	118.279		8.024	0.000
PINDD	-0.015	0.006	-0.524	-2.615	0.031
D/E	-9.637	1.213	-1.049	-7.944	0.000
LNTA	0.508	0.216	0.493	2.346	0.047

ANOVAª

Model	Sum of squares	Df	Mean square	F	Sig.
ROE					
Regression	80.977	3	26.992	10.895	0.003[b]
Residual	19.819	8	2.477		
Total	100.797	11			
ROA					
Regression	1.114	3	0.371	22.527	0.000[b]
Residual	0.132	8	0.016		
Total	1.245	11			

a. *Dependent variable: ROE; ROA*
b. *Predictors: (Constant), PINDD, D/E, LNTA*
*Significant at the 0.05 level

The results of the fifth regression are also reported in two phases. In the first phase ROE is used as a dependent variable. The results of the regression indicate no statistical relationship between PINDD (0.060), LNTA (0.070) and ROE, but reveal a statistically negative significant relationship between D/E (0.001) and ROE. The F test for ROE equals 10.895 and is statistically positive significant at 0.003. In the second phase ROA is used as a dependent variable. The result indicates a statistically negative significant relationship between PINDD (0.031), D/E (0.000), and ROA, and a statistically positive significant relationship between LNTA (0.047) and ROA. The F test for ROA equals 22.527 and is statistically positive significant at 0.000. The results are inconclusive as they indicate a weaker positive relationship between PINDD and ROE, and a statistically positive significant relationship using the bank performance measure ROA, which is consistent with the results obtained by Hoque, Islam and Ahmed (2013), Muttakin and Ullah (2012), El-Mastry (2010), and Liang and Li (1999). Table 7 provides a summary of the list of variables, the stated hypotheses and the results thereof.

6. Limitations of the study

The first limitation is that the data of this study was limited to a period of three years, 2009 to 2011. The second limitation is that the sample was drawn from the top four listed commercial banks in South Africa; other small commercial banks were not included in the sample.

7. Conclusion

One of the major roles of the board of directors is to ensure that the interests of shareholders and managers are closely aligned in order to ensure optimal performance of the company. The main objective of this paper was to determine the relationship between corporate governance and bank performance of the four top listed commercial banks in South Africa using data for the period 2009 to 2011. Accounting-based measures, namely ROA and ROE were used to measure the financial performance against various corporate governance variables including board sixe

(BSIZE), the proportion of female board directors (PFBD), proportion of non-executive directors (PNED), proportion of non-independent and non-executive directors (PNINE) and percentage number of independent directors (PINDD). Control variables such as debt equity ratio (D/E) and bank size as measured by logarithm of total assets (LNTA) were used during the study.

The results on the relationship between board size (BSIZE) and bank performance indicated a significantly positive relationship using both two measures of bank performance ROE and ROA. The results support the view that larger boards are better for company performance because they have a range of expertise to help make decisions and are harder for a powerful CEO to dominate (Muttakin and Ullah, 2012; Kyereboah-Coleman and Biekpe, 2006). Board diversity as represented by proportion of female directors in the board (PFBD) indicated a statistically weak negative relationship with bank performance (ROE and ROA), which is an indication that the presence of female directors in the board has little or no impact on the performance of banks in South Africa. This view is supported by Muttakin and Ullah (2012), and Dang, Nguyen and Vo (2009).

Board composition has to do with the number of executive directors (inside directors) versus the number of non-executive directors (outside directors). With regards to the proportionate number of executive directors (PNED), the results indicated no statistically significant relationship with bank performance for both ROE and ROA. The results are in contrast with the study conducted by Kiel and Nicholson (2003) which found a positive relationship between the proportion of executive directors and company performance. Executive directors (inside directors) form part of management and have specific skills, their presence in the board should lead to more effective decision-making (Kyereboah-Coleman and Biekpe, 2006), and their ability to provide first hand inside information on the company's operations to other board members may increase the corporate governance structure of the company and lead to better company performance (Core, Holthausen and Larcker, 1998). The reason why the relationship between executive directors and bank performance is insignificant in the banks in South Africa might be the

fact that the majority of the sampled banks had only two executive directors, the CEO and the chief financial officer (CFO) as recommended by the King III report.

On the other hand the results of the proportion of non-independent and non-executive directors (PNINE) indicated a statistically positive and significant relationship using both bank performance measures ROE and ROA which is consistent with the study conducted by Liang and Li (1999). Because non-executive directors are not part of management, their independence may bring a degree of objectivity to the board and they may act as "professional referees" to ensure that the interests of shareholders are protected (Cadbury, 1992; Kyereboah-Coleman and Biekpe, 2006). The presence of non-executive directors should therefore represent a means of monitoring the actions of the executive directors and of ensuring that the executive directors are pursuing policies consistent with shareholders interest.

Board independence is represented in this study by the proportion of independent directors (PINDD). The results of the study indicated a statistically negative weaker relationship when using the performance measurement ROE and a statistically negative significant relationship when using ROA as a performance measure, which is consistent with the results obtained by Hoque, Islam and Ahmed (2013), Muttakin and Ullah (2012), El-Mastry (2010), and Liang and Li (1999). The results of the relationship between bank size (BSIZE) and bank performance are inconclusive for both ROE and ROA, while the relationship between debt-equity-ratio (D/E) and bank performance indicates a statistically negative and significant relationship with bank performance, an indication that bank insolvency may affect the performance of the bank.

8. Managerial implication and recommendations

Based on the results obtained, it is evident that corporate governance is reasonable implemented by commercial banks in South Africa, this might be the results of the regulatory environment and the recommendations of King 1, King 11 and King 111 reports. The legislative framework that govern banks in South Africa has also played a major role in strengthening the governing structures of the banks hence the global financial crisis had little impact on the South African banking system. However, banks in South Africa should not become complacent, but must seek to improve their corporate governance structures to ensure that the agency and stewardship forces in the banks are well managed.

It is further recommended that banks in South Africa should maintain a reasonable board size which consists of a mixture of skills or expects since larger boards are better for company performance, but the size of the board must not be too large to manage to

ensure timely resolution in decision making. With regard to board diversity, the proportion of female directors in the board (PFBD) should not be used as a token but should be used to enhance the governance of the banks. The proportion of independent directors should be increased as recommended by the King reports, but banks should ensure that independent directors are skilled and effective, and that they are evaluated annually to ensure that they remain committed and do not serve in too many companies as that might hamper their effectiveness.

References

1. Avouri, H., Hossain, M., and Muttakin, M.B. (2011). "Ownership structure, corporate governance and bank performance: Evidence from GCC countries." *Corporate ownership & control,* Vol. 8, Issue 4, continued-3, pp. 365-372.
2. Cadbury, A. (1992). "Report of the committee on the financial aspects of Corporate Governance." London: Gee and Co. Ltd.
3. Claessens, S., Dell'Aricia, G., Igan, D. and Laeven, L. (2010). "Cross-country experiences policy implications from global financial crisis." *Economic Policy*, pp. 269 – 293.
4. Competition Commission. (2008). "Banking enquiry: Report to the competition commissioner by the enquiry panel." Available from: http://www.compcom.co.za/assets/Banking/Executive-overview.pdf. [Accessed: 9 July 2013].
5. Core, J.E., Holthausen, R.W. and Larcker, D.F. (1998). "Corporate governance, chief executive officer compensation, and firm performance." *Journal of Financial Economics,* Vol. 51, pp. 371-406.
6. Crumley, C. R. (2008). "A study of the relationship between firm performance and CEO compensation in the U.S. commercial banking industry." *Journal of Applied Management and Entrepreneurship,* Vol. 13, No. 2, pp. 26-45.
7. Dang, R., Nguyen, D.K. and Vo, L. (2009). "Women on Corporate Boards and Firm Performance: A comparative study." *JEL. Classification: G30; G34; J16.* Available from: http://events.em-lyon.com/AFFI/Papers/252.pdf. [Accessed: 4 December 2013].
8. El-Masry, A.A. (2010). "Corporate governance, ownership structure, and firm performance of Egyptian listed companies." *Corporate Ownership and Control*, Vol. 8, Issue 1, Fall 201 Continued -5, pp. 35-551.
9. Erhardt, N.C., Werbel, J.D., and Shrader, C.B. (2003). "Board of director diversity and firm financial performance." *Corporate Governance,* Vol. 11, No. 2, pp. 102-111.
10. European Central Bank. (2010). "Beyond ROE – How to measure Bank Performance." Available from: http:www.ecb.europa.cu. [Accessed: 11 July 2013].
11. Fama, E.F., and Jensen, M.C. (1983). "Separation of ownership and control." *Journal of Law and Economics*, Vol. 26, No. 2, pp. 301-325.
12. Gill, A. and Mathur, N. (2011). "Board size, CEO duality, and the value of Canadian manufacturing firms." *Journal of Applied Finance and Banking*, Vol.1, No.3, pp. 1-13.

13. Guest, P.M. (2009). "The impact of board size on firm performance: evidence from the UK." *The European Journal of Finance,* Vol. 15, No. 4, pp. 385-404.
14. Hoque, M.Z., Islam, R., and Ahmed, H. (2013). "Corporate governance and bank performance: the case of Bangladesh." *JELClassification,* pp. 1-37. Available from: http://ssrn.com/abstract=2208903. [Accessed: 18 November 2013].
15. Jensen, M. (1993). "Presidential address: the modern industrial revolution, exit and the failure of internal control systems." *Journal of Finance,* Vol. 48, pp. 831-880.
16. John, K. and Qian, Y. (2003). "Incentive features in CEO compensation in the banking industry." FRBNY Economic Policy Review, pp.109-121. Available from: hrrp://www.newyorkfed.org/research/epr/0304john.pdf. [Accessed: 4 August 2013].
17. KPMG (2009). "Corporate governance & King III." Available from: www.kpmg.cm/.../Corporate%20Governance%20and%20King%203.pdf. [Accessed: 4 December 2013].
18. Kyereboah-Coleman, A., and Biekpe, N. (2006). "The relationship between board size, board composition, CEO duality and firm performance: Experience from Ghana." *Corporate Ownership and Control,* Vol. 4, No. 2, pp. 114-122.
19. Liang, N., and Li, J. (1999). "Board structure and firm performance: New evidence from China's private firms." *Paper presented at the Academy of Management Annual Conference, Chicago, USA, August 7-10, 1999.*
20. Macey, J.R., and O'Hara, M. (2003). "Corporate Governance of Banks." *Federal Reserve Bank of New York Economic Policy Review,* Vol. 9, No. 1. pp. 91-107. Available from: http://papers.ssm.com/sol3/papers.cfm?abstract_id=795548.
21. Muttakin, M.B., and Ullah, S. (2012). "Corporate governance and bank performance: Evidence from Bangladesh." *Corporate Board: Role, Duties & composition,* Vol. 8, Issue 1, pp. 62-68.
22. Nicholson, G.J., and Kiel, G.C., (2007). "Can directors impact performance? A case based test of three theories of corporate governance." *Corporate Governance: An International Review,* Vol. 15, No. 4, pp. 585-608.
23. Rossow, G.J., van der Watt, A. And Malan, D.P. (2002). "Corporate governance in South Africa." *Journal of Business Ethics,* Vol. 37, pp. 289-302.
24. Shakir, R. (2008). "Board size, executive directors and property firm performance in Malaysia." *Pacific Rim Property Research Journal,* Vol. 14, No. 1, pp.66-80.
25. South African Reserve Bank. (2011). "Bank Supervision Department, Annual Report." Available from: http://www.reservebank.co.za. [Accessed 8 August 2013].
26. Torchia, M., Calbrò, A. and Huse, M. (2011). "Women directors on corporate boards: From tokenism to critical mass." *Journal of Business Ethics,* Vol. 102, pp. 299-317.
27. Vaughn, M. and Ryan, L. V. (2006). "Corporate governance in South Africa: a bellwether for the continent?" *Journal of Corporate Governance,* Vol. 14, No. 15, pp. 504-512.
28. Wameru, N. M. (2012). "Corporate governance and the value of the firm: an empirical analysis of companies listed in the JSE securities exchange of South Africa." *Corporate Ownership and Control,* Vol. 10, Issue 1, pp. 125-136.
29. Young, J. (2010). "Corporate governance and risk management: A South African perspective." *Corporate Ownership and Control,* Vol. 7, Issue 3, pp. 136-145.
30. Zulkafli, A. H., and Samad, F. A. (2007). "Corporate governance and performance of banking firms: evidence from Asian emerging markets." *Corporate Governance and Finance Advances in Financial Economics,* Vol. 12, pp. 49-74.