

# The Joint Effect of Ownership Structure on Bank Financial Performance: Empirical Evidence from Iraq

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**Abstract:** This paper presents the key role of corporate governance on the performance of banks in Iraq. This study aims to examine the relationship between ownership structure and bank performance by considering panel data of 18 banks for period 2005-2014 in Iraq. This relationship is estimated by using the pooled OLS and regression technique. The findings reveal there is a significant positive relationship between family ownership and bank performance. Additionally, findings show that insider ownership is one of the reasons to make increase the bank performance in Iraq. Taken together, the study findings recommended to regulators, in particular for the current financial reform of corporate boards.

**Keywords:** Bank Performance, Ownership Structure, Panel data, Agency theory

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## I. INTRODUCTION

In the current era, corporate governance took more attention and interest in every organization. Corporate governance is more grown in the banking industry, especially the failure banks including Lehman Brothers bank, Merrill Lynch Bank, Northern Rock Bank, Freddie Mac Bank, Fannie Mae Bank, HPOS bank, Washington Mutual Bank and UBS bank in the US and Europe. There was a need to introduce strong corporate governance which verified country level and international level by different developments and standards such as US Sarbanes- Oxley Act 2000, UK Combined Code, Australia CLERP 9, and the Organization for Economic Development [OECD] Code.

The main purpose of corporate governance is to establish ownership structure and management structure for the confirmation of managers, whether managers are working for the benefits of shareholders or not. According to agency theory by Jensen and Meckling (1976), there is a conflict between the owner (principal) and management (agent) which create agency problem, this conflict can be related to extra consumption or make an investment in low-risk assets rather than focus on shareholder wealth maximization. Similarly, Fama and Jensen (1983) proposed that boards of director can reduce agency conflict by looking some decision and separate the management from those decisions. For example, US Sarbanes-Oxley Act presented to increase the transparency and reduce the agency cost by legislative listed firms' governance requirements.

There is the significant role of the board of directors by managers monitoring or controlling strategies decisions in the governance of banking industry (De Andres & Vallelado, 2008). Abdullah (2004) stated that the main function of the board is to take care of the shareholders' wealth. The responsibilities of the board of directors are developing business strategies, opined that the principal objective of a board is to keep the interests of stakeholders. They are responsible for organizing corporate objectives, developing strategic business plans, evaluating and monitoring the efficient implementation of business approaches and management activities (Wang & Hsu, 2013 and Abdullah, 2004).

The board operates under the mechanism of corporate governance to appoint, supervise, and remunerate the senior managers while monitoring the influence on firm's overall strategy (Campbell & Mínguez-Vera, 2008). In banks, the board has a more significant role as compared to non-financial institutions due to extended responsibilities of regulators and depositors along with stakeholders (Macey & O'Hara, 2003). Thus, the board of a bank plays a significant role in the execution of governance mechanism

This paper is likely to expand research by its contribution towards a better understanding of the ownership structure and performance of banks in Iraq. The key focus of the study is in the family ownership, institution ownership and insider ownership. In banks, these measures of corporate governance and ownership play a major role. Furthermore, this study uses Return on Assets (ROA) to measure bank performance. Moreover, it also identifies that corporate governance factors which influence the performance of banks in Iraq are similar to those in western businesses. Since corporate governance was unable to attract the attention of researchers in Iraq, this study provides a better understanding of corporate governance and ownership structure with the performance of banks, similar to that of global markets.

Many studies conducted in developed and developing countries for investigating the association amongst ownership structure and bank performance. Nevertheless, the finding of the earlier studies yielded inconsistent results. From context of Iraq, there are limited studies which examined the impacts of ownership structure on performance of the banks; this justifies the purpose for conducting of current study. Therefore, this study is crucial to investigate because it will offer new opportunities for the researchers, organizations, and policy makers to understand several other aspects of ownership structure and other variables included in the existing study.

## II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

This segment includes the understanding of ownership structure, bank performance and hypothesis development. Ownership structure has three dimensions: family ownership, institution ownership, and insider ownership. Firstly, the association between the family ownership and performance of the bank is discussed. Next, the discussion includes the relationship of institution ownership and inside ownership with the performance of the bank.

Agency theory claims that family ownership reduces the agency problem in a way that family members are part of management and ownership thus working toward the enhancement of firm value (Bocatto et al., 2010). Additionally, earlier researchers found a positive correlation of family ownership with performance (Arouriet al., 2014; Ben Slama Zouari & Boulila Taktak, 2014 and Maury, 2006). The monitoring increases with the growth in relationships of the family, thus improving the performance of the firm. Moreover, the time horizon for founding managers from family is more than those apart from family and has the ability to minimize the uncertainty of control and ownership (Anderson & Reeb, 2003). Also, Moin (2011) argue that family ownership is harmful to the performance of the bank. The stakeholders of the family with considerable rights of cash flows may benefit their family with these opportunities, thus affecting the performance of the firm. Inconsistent results in the previous literature are found when examining the influence of family ownership on the performance of the bank. Consequently, the hypothesis concerning family ownership which is to be tested empirically is:

*H1: There is a positive association between family ownership and bank performance.*

Previous empirical research on the correlation between institutional ownership and performance of bank has found mixed results. Arouriet al. (2014) found a positive relationship between institution ownership and performance of the bank in Gulf Cooperation Council countries excluding Kuwait. Similarly, Tomar and Bino (2012) have stated a positive correlation between institutional ownership and several performance measures of banks. Also, Elyasiani and Jia (2008) found a positive correlation among institution ownership and bank performance. To improve their equity investments values, Institutional investors usually tend to be active monitors (Chen et al., 2007).

Institutional ownership is linked with high performance because it is expected that institutional ownership may reduce the agency problem among stakeholders and managers, lowers opportunities and incentives for control earnings, and improve performance effectiveness. Conversely, previous research stated that increased focus of institutional investors on short-term profit and liquidity of their investment outweighs the monitoring management benefits which affect performance in the long term (Maug, 1998). Al-Amareh (2014), Arouriet al. (2011) found no significant correlation between levels of institutional ownership and performance of banks. Consequently, the hypothesis concerning institution ownership to be tested empirically is stated thus:

*H2: Institutional ownership positively influences the performance of the bank.*

Insider ownership aligns the interests of the management and shareholders. Agency theory stated that increase in manager's ownership reduces the agency problem as interests of stakeholders and managers get aligned, which enhance the performance of banks (Jensen and Meckling, 1976). However, previous scholars found mixed results when addressing same issues in different countries. Garcia-Cestona & Surroca (2008) examined the insider ownership structure in that Spanish savings banks. Results reveal that founders, depositors, and employees in insider ownership focus more on the maximization of profit and perform better than banks under Public administrations. Likewise, Westman (2011) also found a significant positive correlation between insider ownership and performance

of the bank. Nonetheless, Kabigting (2011) found that higher insider ownership is often associated with worse performance. On the other hand, Aebiet al. (2012) found that insider ownership does not influence bank performance during the recent financial crisis. Thus, the effect of insider ownership on the performance of the bank is still questionable. Consequently, the hypothesis concerning insider ownership to be tested empirically is stated thus:

*H3: Insider ownership positively influences the performance of the bank.*

The firm size is linked with economies of scale and has a probability of improving the financial performance of the organizations. Similar to previous researchers, this study has employed bank size as a control variable (Al-Saidi & Al-Shammari, 2013). Additionally, according to Hu et al. (2004) controlling NPL is essential for the bank performance. Also, El-Charani (2014) and Zhang & Yang (2011) assert that NPL has been widely used to control the effects of corporate governance to bank performance, and have been found to be significant.

## METHODOLOGY

This segment includes the employment of sample and sources of data and econometric model.

### Data and Model Specification

To measure bank performance, this study use ROA, which defined as net income of the bank after deduction of tax by employing its total assets(Liang et al., 2013). Ownership structure in three dimensions: family ownership (FAMILY), institution ownership (INSTITUT) and insider ownership (INSID). Family ownership is calculated by dividing the shares of the family by total outstanding shares (Villalonga & Amit, 2006). Institution ownership is calculated by dividing institutional shares by total common outstanding shares (Victoravichet al., 2012). Insider ownership is calculated by the proportion of equity ownership of managers to total common outstanding shares (Kaserer & Moldenhauer, 2008). The bank size (BANKZ) is measured by taking the natural log of banks assets. (Al-Saidi & Al-Shammari, 2013). Non-performing loans represent the ratio of loans which are not performing to total loans in each bank at year end (Zhang & Yang, 2011). As far as this work is concerned, a total sample of 18 commercial banks in Iraq was used due to availability of data. Data is obtained from annual financial reports of the 18 commercial banks in Iraq for the year 2005-2014. Total observations in the sample are 180.

The study used panel data tests to investigate the effect of characteristics of the board on the performance of banks. By using Panel data analysis, estimation biases can be reduced to the maximum extent, overcoming the issues of multicollinearity. This provides time-variant relationship while analyzing the correlation among independent and dependent (Baltagi, 2001). The proposed model for this study is:

$$ROA_{it} = \gamma + \psi_1 FAMILY_{it} + \psi_2 INSTITUT_{it} + \psi_3 INSID_{it} + \psi_4 BANKZ_{it} + \psi_5 NPL_{it} + \varepsilon_{it}$$

Where: ( $\gamma$ ) is a constant, ( $\psi_1$ :  $\psi_5$ ) are the parameters for the explanatory variables. The subscript (i) refers to the bank number and the subscript (t) denotes the time period, ROA = Return on Assets, FAMILY = Family Ownership, INSTITUT = Institutional Ownership, INSID = Insider Ownership, BANKZ = Size (Natural Log of Total Assets), NPL = Non-Performing Loan,  $\varepsilon_{it}$  = Error term.

## RESULTS AND DISCUSSIONS

This section makes an assessment of the results and findings. This research paper's hypotheses were in order to determine whether or not they held up to their theoretical assumptions. This section consists of the descriptive data which was analyzed first, followed by correlation analysis, followed by panel data regressions and, finally, a discussion of the results.

### Descriptive Statistics

Table1. Descriptive Statistics

Variables	Unit.	Mean	Std. Dev.	Minimum	Maximum
ROA	Ratio	0.0273	0.0112	-0.1287	0.0868
FAMILY	Ratio	0.4132	0.2492	0.0123	0.9340
INSTITUT	Ratio	0.3687	0.2705	0.0121	0.9268
INSID	Ratio	0.5237	0.2755	0.0132	0.8994
BANKZ	USD	8.1199	0.4993	6.3872	9.2141
NPL	Ratio	0.2093	0.0957	0.0235	0.4397

Table 1 consists of the descriptive statistics which gives a snap shot of the data and the relationships which exist within the presented data's variables. Family ownership stood at close to 41% with a minimum of 1% and

maximum of 93%. The institution ownership was approximately 36% with a minimum of 1% and a maximum of 92%. The insider ownership ranged from a minimum of 1% to a maximum of 89% with an approximation of 52%. The total assets of the Iraqi banks were approximately million \$ 236.537538 with a minimum of million \$2.439427 and maximum of billion \$1.64. The non-performing loan ranged from a minimum of 2.35% to a maximum of 43.79% years with an approximation of 21%.

### Correlation Analysis

In this section, the correlation analysis is carried out. Correlation analysis is useful in describing the strength and sign of the linear relationship between two variables. More specifically, the Pearson correlation analysis was employed to assess and clarify the strengths of the linear relationship among the study variables as provided in table 2. The correlation coefficient (r) values given in table 2 shows the strength of the relationship among variables. Correlation coefficient value of 0 shows no linear relationship, while the correlation coefficient value of  $\pm 1.0$  shows perfect linear relationship. On the other hand, interpreted the correlation coefficient value between 0 and 1.0 as follows; the correlation (r) between  $\pm 0.1$  and  $\pm 0.29$  shows weak relationship, between  $\pm 0.30$  and  $\pm 0.49$  shows medium correlation and above  $\pm 0.50$  shows strong relationship (Hair et al., 1998).

Overall, the results shows that all correlations between independent variables are less than 0.80. This indicates that there is no multicollinearity problem. Gujarati (2004) says that the correlation between independent variables should not exceed 0.80 to ensure that there is no multicollinearity.

Table 2. Pearson Correlation Analysis

	ROA	FAMILY	INSTITUT	INSID	BANKZ	NPL
ROA	1.000					
FAMILY	0.131*	1.000				
INSTITUT	0.047	-0.372***	1.000			
INSID	0.776***	-0.051	-0.076	1.000		
BANKZ	0.241***	-0.126**	0.124**	0.178***	1.000	
NPL	-0.290***	-0.256***	0.095**	0.250***	0.074	1.000

\*, \*\* and \*\*\*. Correlation is significant at the 0.10 level, 0.05 level, .01 respectively.

### Regression analysis

In this section, the empirical examination of the influence of ownership structure on the performance of the bank is presented and discussed. Table 1 illustrates the panel tests to select the appropriate model, fixed effects, random effects or pooled OLS. The first test is Hausmann test to compare between random and fixed effects. For Hausmann test, when the p-value is higher than 0.05 that mean random effect is the more appropriate for the model. The second criterion is Breusch-Pagan LM test to compare between random effects and pooled OLS. The p-value for Breusch-Pagan LM test is higher than 0.05 that mean pooled OLS is the more appropriate model.

Table 3. Ownership structure and bank performance (ROA)

Variable	Coefficient	t-Statistic	Prob.
Constant	1.1180	8.6563	0.000
FAMILY	0.0655*	1.9200	0.0558
INSTITUT	0.0324	1.0535	0.2929
INSID	0.5846***	19.968	0.0000
BANKZ	0.0446***	2.834	0.0049
NPL	-0.1976**	-2.3208	0.0209
R-squared	0.6273		
Adjusted R-squared	0.6213		
F-statistic	104.694		
Prob(F-statistic)	0.0000		
Diagnostic Tests	P-value	Results	
Hausman Test	0.0753	Random Effects	
LM Test	0.6529	Pooled OLS	

Normality	0.3461	The residuals normally distributed
Serial Correlation	0.8516	There is no serial correlation problem
Heteroscedasticity	0.0854	The residuals are homoscedasticity

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Note: \*, \*\* and \*\*\* indicates significance at the 10%, 5% and 1% level respectively.

The regression result is shown in table 3. The regression equation employed ROE as its dependent variable and family ownership, institution ownership and insider ownership as independent variables. Bank size and non-performing loan are control variables. Diagnostic tests: normality test, serial correlation test, and heteroscedasticity test were used in analyzing the estimated model. It is also found from Table 3 that FAMILY, INSID, BANKZ and NPL are significant in explaining variations in ROA, but INSTITUT is insignificant to explaining variation in ROA. Nevertheless, not all the significant variables are found to meet the expected sign or support the hypotheses. The positive sign of the coefficient of FAMILY, INSID, and BANKZ indicate that an increase in FAMILY, INSID, and BANKZ by one unit will increase ROA by 0.0655 units, 0.5846 units and 0.0446 units respectively. While, the negative sign of the coefficient of NPL indicates that, an increase in NPL by one unit will decrease ROA by 0.1976 units respectively. Table 3 illustrates also, normality test, serial correlation test, and heteroscedasticity test. The p-value in all tests are insignificant ( $P > 0.05$ ), that mean the residual normally distributed and there is no autocorrelation and heteroscedasticity issues in the model.

Results illustrate a significant positive correlation of family ownership with performance (ROA) of the bank, showing that banks which have high family ownership perform better. The current study findings are aligned with Arouriet al., 2014; Ben SlamaZouari & BoulilaTaktak, 2014 and Maury, 2006) Additionally, in Iraq, bank ownership influence its performance which indicates a lower agency problem.

Positive insignificant correlation among the institution ownership and bank performance were illustrated by the results. Findings were similar to Arouriet al. (2011) and Al-Amarneh (2014). This is a bit surprising because investors in the institution are more experienced and can utilize the financial resources more efficiently to improve governance. Furthermore, they can minimize the agency problem and strive for maximizing the value of their personal investments in the equity of the banks, which should translate into superior bank performance. The results imply that institution ownership does not explain changes in performance of institution-owned banks in Iraq during the study period.

The findings of the current study show that there is a significant positive association between insider ownership (INSID) and performance of the bank. It supports agency theory, which argues the existence of convergence in the interest of managers and stakeholders as the ownership of managers increases. Thus, insider ownership minimizes the agency cost and enhances the performance of the bank (Jensen & Meckling, 1976). The current study has findings similar to Westman (2011) and Garcia-Cestona & Surroca (2008). In Iraq, ownership nature may be the cause. The increase in insider level of ownership decrease the agency cost and enhance the performance of banks.

Moreover, findings show that size of the bank has a positive influence on bank performance, which is according to the notion that large bank tends to have the ability for efficiency improvement through resource consolidation and alliance with other banks (Arouri, 2011). Nonetheless, the percentage of non-performing loan has a significant negative influence on performances measured by ROA, which is according to the notion that non-performing loan in the financial sector increases the possibility to lead establishment to difficulty and worse bank performance (Messai & Jouini, 2013).

The overall findings depict that practices of governance in Iraq banks are good, including ownership structure (family ownership, insider ownership). These variables are significantly linked with bank's performance across financial measure ROA.

## CONCLUSION AND RECOMMENDATION

The study empirically examined the influence of ownership structure on bank financial performance. In previous research, researchers have emphasized on the relationship of ownership structure and bank performance in developed and developing countries. This study is among few other studies which empirically examined the correlation between ownership structures with the bank financial performance in Iraq.

The analysis carried out in the scope of this paper allowed us to advance in the understanding of the impacts of ownership structure on financial performance, by empirically examining commercial banks in Iraq. In general, the findings provide evidence that family ownership has a positive correlation with the performance of the bank in Iraq. Finally, an insider has a positive association with performance regarding ROA for banks in Iraq. The paper, therefore, recommends that banks committed toward the enhancement of performance should have high percentage of family ownership, a large percentage of insider ownership.

Moreover, the results of this paper provide a bridge for future research. For any potential researchers need to replicate and reinvestigate the argument introduced here in other contexts. Second, examining how the ownership structure and financial performance varies with a bank's life cycle is likely to be considered for future research. It is important as corporate governance parameters may be related to strategic thresholds in the life cycle of banks. Third, future research is encouraged to empirically examine the moderating or mediating impact among the structure of ownership and financial performance.

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