

# **The Internal Determinants of Islamic Finance Performance: Panel Evidence of Islamic Versus Conventional Banks in the GCC Region**

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**Abstract:** *The study is aimed at comparative financial performance of Islamic banking versus conventional banking. Although, Islamic finance has registered a considerable growth in recent years. The assets of Islamic funds are doubled in five years. That is why this growth cannot go unnoticed. These figures demonstrate that the interest has to be concerned with the role of Islamic finance in the global sphere. Behalf of the financial specifics, many questions arise concerning Islamic finance, especially Islamic banks and performance. Therefore, a sample of 20 banks, including 11 Islamic and 9 conventional, during the period 2010 to 2014, were analyzed to answer to following question: does Islamic and conventional banks are distinguished from each other based on the financial characteristics and if they have the same determinants of performance? Then, in our research we prove that based on performance determinants, it turns out that the funds (Investments) and distributed credits are the main components of the performance of Islamic banks. However, the credit quality of deposit and portfolio are important variables that influence the profitability of conventional banks.*

**Keywords:** *Performance, Islamic finance, conventional banks.*

**JEL Classification:** E44, E63, F63, G12, G14, G15.

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## **1. INTRODUCTION**

Faced with volatile characteristic of economic environment and from the succession of financial crises, Islamic finance has found a favorable environment to increase and get place in financial systems around the world. Its originality is due to his character that respects the economic and social rules conform to sharia. However, the estimate of the value of Islamic funds is about USD 1.3 trillion in 2014, with growth of 150% since 2006 (La Depeche, 2013). Given the popularity of this era of Islamic finance, especially Islamic banks and performance, several researchers have tried to highlight a series of questions: Do the Islamic and conventional banks are distinguished from each other on the basis of the only financial characteristics? Do they have the same determinants of performance? What is the type most powerful bank? The most risky? The most effective and most efficient? The objective of this research is to find answers to these questions. In particular, this article attempts to present the foundations, principles and basic concepts of Islamic finance, to clarify the differences with conventional finance in terms of financing and investment, as well, to analyze the performance of Islamic banks and the conventional banks. Our study is based on the financial statements of 11 Islamic banks and conventional banks 9 for the period [2010-2014]. We have also ensured the temporal continuity of data per bank. To establish our research, the work will consist of three sections, the first section we present a literature review of studies related to the performance of Islamic and conventional banks, and the research hypotheses. In a second section, we describe the data, resources and methodology adopted, whereas in the last section, we analyze the empirical results, key findings and implications.

## **2. LITERATURE REVIEW AND RESEARCH PROBLEM BACKGROUND**

Given the inability of conventional financial systems to solve economic problems, all investors are now interesting to Islamic financial institutions which are increasingly on the lookout for new ways legitimation. Today, the performance of financial systems depends on new environmental and institutional requirements that give more favor to ethics, social responsibility and the citizenship degree of banks. Hence, the need for a system that is in line with these principles and requirements.

However, several researchers and practitioners have shown that Islamic finance represents the most suitable and apt system to comply with this new generation of financial systems. Therefore, many researchers as Wahyudi, I., and Sani, GA (2014), Alam, N., and al., (2013), Charles, A., and al., (2011), Abdul-Karim, MR, (2010), Iqbal, Z., and al., (2010), Ben Naceur (2003) showed that the performance of Islamic banks is due to their conversion to a separate system (full-fledged scheme) that could optimize a source of financing, such as the injection of capital and increasing the temporary storage investment and the Murabahah (sales activity) still dominates their loans owing to their low risk and fixed income. As other studies have been devoted to the performance analysis of Islamic banks such as the studies of Kosmidou and al. (2008), Peters and al., (2004), Qureshi and Shaikh (2012), Hassan Bashir (2005), Oslon and Zoubi (2004), Melaty (2008).

In addition, Qureshi and Shaikh (2012) examined the effect of factors that determine the profitability of Islamic banks, 14 internal and external variables were deployed such as liquidity, size, and invested funds. Kosmidou and al. (2008) studied the performance of commercial banks in Greece between 1988 and 2001, the results fall a negative effect of operating expenses on profitability, while the effect size is considered unimportant. Melaty (2008) discussed the key determinants of the performance of Islamic banks on a sample of 60 banks in 16 countries between 2001 and 2007, three dependent variables were used: ROE ROA and NIM (Net Interest Margin), and 7 independent variables. Their results show a negative relationship between provisions / total loans on bank profitability and a positive effect of capital on bank performance. The results also show the importance of regulatory factors as tax-related in determining bank performance.

Peters and al. (2004) analyzed the performance of 52 banks most of them located in Middle East. This study used regression models linking profitability ratios to several Explanatory variables such as the size of the bank, the composition of the portfolio of assets, off-balance sheet items, property, and the ratio of assets. Oslon and Zoubi (2004) tried in their document to approve if Islamic banks and conventional banks are distinguished from each other only on the basis of financial characteristics. They collected 237 observations for 141 conventional banks and 96 Islamic banks operating in the GCC. Five types of ratios were identified namely the profitability ratio, the asset quality ratio, the efficiency ratio, liquidity ratio and the risk ratio. The results show that most accountants and financial ratios are the same for both types of banks. Given that, the operational characteristics of the two types of banks are different. Thus, the study shows that Islamic banks are outperforming than conventional banks.

Other authors like Hassan and Bashir (2005) examined closely the relationship between profitability and characteristics after taking into account the economic and financial indicators: 4 measures of performance were adopted namely the profit margin, return on assets (ROA), return on equity (ROE) and the net interest margin (NIM). They concluded that the profitability of Islamic banks respond positively with the increase of lending rates and capital, and react negatively to overhead expenses.

According to Wahyudi, I., and Sani, GA., (2014) and based on the analysis of information content of Islamic capital market and money market yields compared to macroeconomic factors, the authors found that there is an interaction between the financial market and macroeconomic variables, and between the Islamic capital market and the money market. Moreover, owing of these interactions, the Islamic capital market index (JII) is more suitable to act as a barometer of fiscal policies, while the Islamic money market index (SBIS) is appropriate for monetary policies.

On the other hand, if previous research has generally shown that there is no consensus on the contribution of Islamic finance in the resolution of economic problems and specifically on bank performance. Therefore, we go in the following through six fundamental assumptions answering to our central problem. So, the literature review conducted previously highlighted a set of variables that will explain variations in performance levels between banks. The relationship between these variables resulted in a separate hypothesis. We developed below 6 research hypotheses:

**H1:** the capital adequacy ratio has a positive effect on bank profitability: well-capitalized banks can access to funds on better conditions because they are considered less risky, this ratio can be regarded as a measure of insolvency risk being as the substitution of debt by equity reduces the probability of bankruptcy and decrease the cost of borrowed funds.

**H2:** the ratio total loan provision / total loan has a negative effect on performance: This ratio measures the quality of credit portfolio of financial institution. Thus, Melaty (2008) found a negative effect of this ratio on performance of Islamic banks. The loan provision ratio to total credit may be considered as a measure of credit risk.

**H3:** the ratio of total deposit / total credit (intermediation ratio) has a positive effect on bank performance: which measures the importance of credit provided by the bank in relation to the main source of funding for its loans. A high ratio will lead to increase the bank performance; Ben Naceur (2003) found a positive effect of this ratio on bank profitability.

**H4:** the operating expenses have a negative effect on bank profitability: The total operating expense ratio is used as the variable measuring the effectiveness of expenditure management. Normally, the most efficient banks are the most profitable.

**H5:** the ratio total loans / total assets has a positive effect on bank profitability: higher ratios can be a sign of better performance. However, a very high ratio could also reduce liquidity. This ratio includes our study to compare the performance of interest-free loans and loans with interest rates.

**H6:** the ratio total deposit / total assets has a negative effect on bank profitability: The liquid assets are associated with rates of return, so this variable is expected to have a negative relationship with performance.

### **3. RESEARCH METHODOLOGY**

#### **3.1. Sample and Data**

The data used for the empirical analysis are derived from the financial statements of banks in golf countries during the period 2010-2014. We ensured particular attention to the temporal continuity of the data per bank. The international comparisons of banks accounts are particularly sensitive owing of significant accounting differences and the data communication system. We find the difficulty in working mainly on developments of ratios. This avoids potential problems associated with the lack of heterogeneity. Our sample is a panel of 20 banks, including 9 Islamic banks and 11 conventional banks (Appendix 1).

#### **3.2. Methodology**

To qualify the databases for which we possess the temporal information concerning a set of individuals, we use the panel data model. The model is composed by cross-sectional and time-series data.

The great advantages of panel data are summarized as follows:

- Explain the dynamic effect between individuals.
- Identify and measure the dynamic effect that cross-sectional data cannot detect.
- Test the heterogeneity of individuals.

Given specify variables and banks, two models can be used, a first model with fixed effect and a second model with variable effect.

We consider the following econometric equation:

$$y = a + bx + cx + \varepsilon \quad (1)$$

Where  $y$  is endogenous variable,  $x$  and  $z$  are explanatory variables (and constant), the coefficients  $a$ ,  $b$  and  $c$ , and  $\varepsilon$  random term, assumed to apply to the studied panel data, equation (1) becomes:

$$Y_{it} = A_{it} + B \cdot X_{it} + C \cdot X_{it} + \varepsilon_{it} \quad (2)$$

$$\varepsilon_{it} = u_i + v_t + w_{it} \quad (3)$$

Where  $u_i$  a term, constant in function of time, depends only on the individual  $i$ ,  $v_t$  a term depends only on the time  $t$  and  $w_{it}$  a cross random term.

#### **➤ Fixed Effects Model**

This model, also named the covariance model assumes that  $u_i$  and  $v_t$  are constant effects, not random, thus come simply change the value of the constant  $a$  in equation (1) according to the values of  $i$  and  $t$ .

#### **➤ Random Effects Model**

This model, also named composed error model, assumes that  $u_i$  and  $v_t$  are truly-random. The basic specification assumes:

- The terms  $u_i$ ,  $v_t$  and  $w_{it}$  are centred (zero expectation).
- The terms  $u_i, v_t$  and  $w_{it}$  are homoskedastic and respectively with standard deviations  $\sigma_u, \sigma_v$  and  $\sigma_w$ .
- The terms  $u_i$  and  $v_t$  are uncorrelated and independent from each other.

To decide between the two models, we conducted the Hausman test.

➤ **Hausman specification test**

The Hausman test is a specification test which determining if the coefficients of the two estimates (fixed and random) are statistically different. The idea of this test is that, under the null hypothesis of independence between the errors and the explanatory variables, both estimators are unbiased, so the estimated coefficients should be slightly delayed. The Hausman test compares the variance-covariance matrix of the two estimators.

Under the null hypothesis, statistics of Hausman is reading as:

$$H = (b-B)' Var (b-B)^{-1} (b-B) \tag{4}$$

Where b and B are the estimators models of fixed effects and random effects. V (.) are the variance-covariance matrices of estimated coefficients. The result follows a  $\chi^2$  law with K-1 degree of freedom. We accept the null hypothesis if the p-value is greater than the level of trust. We use the random effects that are effective if there is no correlation between the errors and the explanatory variables.

**3.3. The Research Model**

The aim of our study was to compare the internal determinants of performance between the Islamic and conventional banks, we will test the financial characteristics and bank profitability for the 2 types of banks; we introduce into regression model the capital ratio, liquidity, quality, efficiency and risk.

$$ROA_{it} = \beta_0 + \beta_1(LLR)_{it} + \beta_2(EM)_{it} + \beta_3(DTA)_{it} + \beta_4(LDR)_{it} + \beta_5(PTA)_{it} + \beta_6(COSR)_{it} + \epsilon_{it} \tag{5}$$

$$ROE_{it} = \beta_0 + \beta_1(LLR)_{it} + \beta_2(EM)_{it} + \beta_3(DTA)_{it} + \beta_4(LDR)_{it} + \beta_5(PTA)_{it} + \beta_6(COSR)_{it} + \epsilon_{it} \tag{6}$$

Where,

*i* from 1 to 9 for conventional banks and from 1 to 11 for Islamic banks.

*t* from 2010 to 2014.

$\beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5$  et  $\beta_6$ : the estimated coefficients.

$\epsilon_{it}$ : residual terms.

We have as dependent variables:

**(ROA)** is the return on assets.

**(ROE)** represents the return on equity.

Thus, we have as independent variables:

**(LLR)**: Loan Loss Reserves to Gross Loan ratio which represents the banks' asset quality.

**(EM)**: Equity Multiplier ratio which represents capital adequacy.

**(DTA)**: This ratio represents the liquidity variable and define as the Deposit-To-Asset ratio, it was calculated dividing the total deposits (banks) by the total assets.

**(LDR)**: This ratio represents the risk variable and define by Loan to Deposit Ratio (Loan to Deposit Ratio = Loans/Deposits).

**(PTA)**: This ratio represents the asset quality criteria; it is calculated as Loan Loss Provision to Assets (LLP / Assets).

**(COSR)**: Cost to income Ratio which represents the indicator of efficiency in expenses management.

## **4. RESEARCH RESULTS**

### **4.1. Descriptive Statistics**

In this section, we try to compare the characteristics of Islamic banks and those of conventional banks while answering these questions:

- Does Islamic banks outperforming than conventional banks?
- What is the most liquid bank?
- What is the riskiest type of bank?
- What is the most effective type of bank?
- What is the most efficient type of bank?

#### *4.1.1. Performance Analysis*

We used two ratios: ROA and ROE with two statistical indicators: the average (mean) and standard deviation. A mean is the sum of the observations divided by the number of observations and the standard deviation measures the dispersion or variability around the average; more the standard deviation is greatest more the gap between the maximum value and the minimum value is high (Std Deviation describes the spread).

Based on table 1, it is noted that the average profitability of shareholders of Islamic banks is higher than those of conventional banks (21.18% against 17.84%). The analysis of return on assets also shows that Islamic banks have a higher yield than conventional banks.

**Table1.** « ROA » of Islamic and conventional banks

	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>Conventional banks</b>					
<b>Mean</b>	0.021	0.029	0.059	0.022	0.018
<b>Std Deviation</b>	0.006	0.009	0.098	0.019	0.013
<b>Islamic banks</b>					
<b>Mean</b>	0.021	0.035	0.065	0.033	0.027
<b>Std Deviation</b>	0.015	0.023	0.103	0.017	0.019

The mean for dependent variables return on assets (ROA) and return on equity (ROE) in case of Islamic banks are 0.181 and 1.059 percent respectively. Meanwhile the standard deviations are 0.177 and 0.494 percent correspondingly. Furthermore, the mean for dependent variables return on assets (ROA) and return on equity (ROE) in case of Conventional banks are 0.149 and 0.86 percent respectively. Meanwhile the standard deviations are 0.145 and 0.503 percent correspondingly.

In conclusion, we notice that the performance of Islamic banks is less risky than conventional banks. Based on the ROA and ROE ratio; we found that the Islamic banks are more efficient than conventional banks (Table 2).

**Table2.** « ROE » of Islamic and conventional banks

	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>Conventional banks</b>					
<b>Mean</b>	0.161	0.187	0.212	0.152	0.148
<b>Std Deviation</b>	0.062	0.067	0.062	0.182	0.130
<b>Islamic banks</b>					
<b>Mean</b>	0.175	0.254	0.224	0.211	0.195
<b>Std Deviation</b>	0.088	0.114	0.118	0.087	0.087

#### *4.1.2. Liquidity Analysis*

The loan / asset ratio (PTA) is higher for conventional banks (56.42%) against Islamic banks (51%); these results indicate that conventional banks grant more credit to total assets than Islamic banks (Table 3).

**Table3.** « PTA » of Islamic and conventional banks

	2010	2011	2012	2013	2014
<b>Conventional banks</b>					
<b>Mean</b>	0,499	0,553	0,534	0,604	0,631
<b>Std Deviation</b>	0,150	0,117	0,199	0,159	0,075
<b>Islamic banks</b>					
<b>Mean</b>	0,472	0,514	0,512	0,494	0,558
<b>Std Deviation</b>	0,172	0,147	0,176	0,25	0,166

The second liquidity ratio measured by the variable (DTA) indicates that Islamic banks have more deposit than their conventional counterparts (Table 4).

**Table4.** « DTA » of Islamic and conventional banks

	2010	2011	2012	2013	2014
<b>Conventional banks</b>					
<b>Mean</b>	0.568	0.602	0.628	0.584	0.568
<b>Std Deviation</b>	0.213	0.215	0.786	0.15	0.156
<b>Islamic banks</b>					
<b>Mean</b>	0.647	0.622	0.666	0.535	0.577
<b>Std Deviation</b>	0.542	0.249	0.689	0.277	0.265

#### 4.1.3. Credit Risk Analysis

The ratio equity / total liabilities that indicates the degree of financial independence is higher for conventional banks, indicating that they have more equity to liabilities (Table 5).

**Table5.** « EM » of Islamic and conventional banks

	2010	2011	2012	2013	2014
<b>Conventional banks</b>					
<b>Mean</b>	0.568	0.602	0.628	0.584	0.568
<b>Std Deviation</b>	0.213	0.215	0.786	0.15	0.156
<b>Islamic banks</b>					
<b>Mean</b>	0.647	0.622	0.666	0.535	0.577
<b>Std Deviation</b>	0.542	0.249	0.689	0.277	0.265

The LDR ratio compares the adequacy of equity for conventional and Islamic banks; the adequacy of equity measures the ability of bank to absorb unexpected losses. The Banking Supervision Committee (Basel) uses this ratio to quantify the ability of bank to manage its exposure to risk. The Committee encourages banks to maintain a capital / asset ratio above 8%. Based on table 6, the two types of banks maintained a ratio above 8%; however, this ratio is higher for Islamic banks. The authors Bashir and Hassan (2005) also found the same result with another sample.

**Table6.** « LDR » of Islamic and conventional banks

	2010	2011	2012	2013	2014
<b>Conventional banks</b>					
<b>Mean</b>	1.270	1.208	1.503	1.125	1.044
<b>Std Deviation</b>	0.289	0.149	1.158	0.309	0.225
<b>Islamic banks</b>					
<b>Mean</b>	1.024	1.073	0.943	1.117	1.095
<b>Std Deviation</b>	0.662	0.571	0.664	0.618	0.627

#### 4.1.4. Analysis of Efficiency and Effectiveness of Banking

The analysis of credit portfolio quality must take into account the probability of borrowers to repay their loans. The results of our research show that Islamic banks have a portfolio quality better than those of their conventional counterparts (table 7).

**Table7.** « LLR » of Islamic and conventional banks

	2010	2011	2012	2013	2014
<b>Conventional banks</b>					
<b>Mean</b>	0.007	0.005	0.004	0.072	0.006
<b>Std Deviation</b>	0.007	0.003	0.003	0.193	0.005
<b>Islamic banks</b>					
<b>Mean</b>	0.016	0.051	0.025	0.023	0.071
<b>Std Deviation</b>	0.026	0.145	0.052	0.055	0.168

## The Internal Determinants of Islamic Finance Performance: Panel Evidence of Islamic Versus Conventional Banks in the GCC Region

There is a discrepancy in previous studies on the impact of expenses on performance; theoretically the most efficient banks operate cheaply. In our research Islamic banks are proving most effective

**Table8.** « COSR » of Islamic and conventional banks

	2010	2011	2012	2013	2014
<b>Conventional banks</b>					
<b>Mean</b>	0.061	0.067	0.068	0.063	0.078
<b>Std Deviation</b>	0.162	0.179	0.179	0.167	0.189
<b>Islamic banks</b>					
<b>Mean</b>	0.038	0.018	0.027	0.022	0.021
<b>Std Deviation</b>	0.078	0.022	0.037	0.032	0.027

### 4.2. The Regression Results

This section presents the regression results of performance determinants of Islamic and conventional banks preceded by an analysis of correlations between variables.

#### 4.2.1. The Conventional Banks

##### 4.2.1.1. ROE Regression of Conventional Banks

The Hausman test notes that the most appropriate model is a random effects model (Annex 2).

**Table9.** The ROE estimation results of conventional banks

Variables	Coefficient	t-Statistic	Prob.
<b>C</b>	0.231269	8.922612	0.0000
<b>LLR</b>	-0.959022	-14.77245	0.0000
<b>EM</b>	-0.570115	-4.376414	0.0000
<b>DTA</b>	0.010570	1.698690	0.0903
<b>LDR</b>	-0.006920	-0.990889	0.3224
<b>PTA</b>	0.048146	1.606597	0.1091
<b>COSR</b>	0.007571	1.466567	0.1434
<b>Radjusted</b>	47%		
<b>F</b>	22.47		

The model can be written as follows:

$$\text{ROE} = 0.23 - 0.95 (\text{LLR}) + 0.057(\text{EM}) + 0.01 (\text{DTA}) - 0.0006 (\text{LDR}) + 0.04 (\text{PTA}) + 0.007 (\text{COSR})$$

The ROE regression results of conventional banks show that:

- The quality adjustment is close to the average.
- The model is globally significant with F calculated equal to 22.47.
- Two variables are statistically significant EM and LLR.

LLR is the asset quality variable, it has a negative effect on the return on capital of conventional banks. In short-term, any increase in provisions to total loan causes a reduced equity yield of conventional banks. Also, we note a significant negative relationship between shareholder returns and capital.

##### 4.2.1.2. The ROA Regression of Conventional Banks

The Hausman test notes that the most appropriate model is a random effects model (Appendix 3).

**Table10.** The ROA estimation results of conventional banks

Variables	Coefficient	t-Statistic	Prob.
<b>C</b>	-0.007942	-2.184804	0.0296
<b>LLR</b>	-0.085535	-9.395037	0.0000
<b>EM</b>	0.044682	2.445787	0.0150
<b>DTA</b>	0.055592	63.70914	0.0000
<b>LDR</b>	-0.000572	-0.583990	0.5596
<b>PTA</b>	-0.010525	-2.504517	0.0127
<b>COSR</b>	0.001620	2.237971	0.0259
<b>R adjusted</b>	93,45%		
<b>F</b>	351,38		

The model can be written as follows:

$$\text{ROA} = -0.007 - 0.085 (\text{LLR}) + 0.044 (\text{EM}) + 0.05 (\text{DTA}) - 0.0005 (\text{LDR}) - 0.01 (\text{PTA}) + 0.001 (\text{COSR})$$

The ROA regression results of conventional banks show that:

- The quality adjustment is high (94%), this means that 94% of the ROA variation is explained by the model variables.
- The model is globally significant with F calculated equal to 351.
- Two variables are statistically significant, the variables "LLR" and "DTA".

The "LLR" variable has a negative effect on assets profitability of conventional banks. Therefore, any increase in loan provisions causes a decrease in assets profitability. The results show the positive effect of deposits on assets profitability. In fact, any one point increase in deposits on assets percentage would induce an increase in bank profitability about 0.055 point of assets percentage.

#### 4.2.2. The Islamic Banks

##### 4.2.2.1. The ROE Regression of Islamic Banks

The Hausman test notes that the most appropriate model is a random effects model (Appendix 4).

**Table11.** The ROE estimation results of Islamic banks

Variables	Coefficient	t-Statistic	Prob.
C	0.186781	11.25272	0.0000
EM	0.111621	1.840543	0.0663
LLR	-0.106020	-0.252007	0.8011
DTA	0.158811	8.407116	0.0000
LDR	-0.095357	-6.875855	0.0000
PTA	0.046872	2.698357	0.0072
COSR	-0.174590	-2.696538	0.0072
R adjusted	29,38%		
F	39.38		

The model can be written as follows:

$$\text{ROE} = 0.186 + 0.11 (\text{LLR}) - 0.10 (\text{EM}) + 0.158 (\text{DTA}) - 0.09 (\text{LDR}) + 0.04 (\text{PTA}) - 0.17 (\text{COSR})$$

The ROE regression results of Islamic banks show that:

- The quality adjustment is low at least 29.38%.
- The model is globally significant with F calculated equal to 39.38.
- The two variables are statistically significant, the variables "DTA" and "LDR"

The variable "DTA" has a positive and statistically significant relationship with the performance of Islamic banks, a positive variation of 1% of deposits causes an approximately increase of 0.15% of the equity. The variable "LDR" which is the total loan / total credit has a negative coefficient, in fact the volume of loans distributed is in favours of Islamic banks profitability. The increase in bank credits to total deposit affects positively the return on equity.

The return on equity of Islamic banks is negatively affected by the general expenses of banks (COSR) in our sample. However, the results show that this variable is not significant.

##### 4.2.2.2. The ROA Regression of Islamic Banks

The Hausman test notes that the most appropriate model is a random effects model (Appendix 5).

**Table12.** The ROA estimation results of Islamic banks

Variables	Coefficient	t-Statistic	Prob.
C	-0.013029	-2.333558	0.0200
EM	0.209216	10.25583	0.0000
LLR	-0.071740	-0.506950	0.6124
DTA	0.129281	20.34608	0.0000
LDR	-0.045639	-9.783437	0.0000
PTA	-0.017457	-2.987693	0.0029
COSR	-0.023674	-1.087011	0.2775
R adjusted	62,72%		
F	146,14		



The model can be written as follows:

$$\text{ROA} = -0.01 - 0.07 (\text{LLR}) + 0.20 (\text{EM}) - 0.12 (\text{DTA}) - 0.04 (\text{LDR}) - 0.017 (\text{PTA}) - 0.02 (\text{COSR})$$

The ROE regression results of Islamic banks show that:

- The quality adjustment is medium and it is about 63%.
- The model is globally significant with F calculated equal to 146.
- The three variables are statistically significant, the variables "EM", "DTA" and "LDR".

The variable "EM" is significant and has a positive effect on return on equity; in fact any increase of capital leads to an increase in profitability of Islamic banks shareholders. The "LDR" variable that represents the total loans / total credit has a negative and statistically significant effect. Furthermore, any loan increase causes increase in the profitability of Islamic banks assets. The deposit has a significant positive effect on the assets, so any increase of 1% of deposits to assets leads to an increase of 0.12% of assets.

#### *4.2.3. The Regression Summary*

The first independent variable is the capital adequacy; theoretically, the best capitalized banks have easy access to financing funds in the market because they are less risky and more solvent. In fact, prudential regulation requires banks a minimum level to cover employments by stable resources.

Our results show that exist:

- A negative effect of capital ratio on performance (ROE) of conventional banks.
- A positive impact of capital ratio on performance (ROA) of Islamic banks.

The capital is one of the main determinants of the Islamic banks performance. It is expected that the ratio of provisions for losses on loans to total loans has a negative relationship with performance, so the regression results show that this ratio:

- Has a negative effect on profitability (ROE and ROA) of conventional banks.
- Has no effect on the performance of Islamic banks.

The quality of credit portfolio is the main determinant of profitability of conventional banks. According to the risk variable (DTA: total deposit / total loans), banks are intermediaries between lenders and borrowers. More deposits do not turn into loans, plus margins and profits rise. Our results show that this ratio:

- Has no effect on the profitability of conventional banks.
- Has a significant negative impact on performance (ROE and ROA) of Islamic banks.

The granting of credit is a source of profitability of Islamic banks. The variable (COSR) used in this study as an effective indicator of management expenditure. Theoretically, an increase of overheads leads to a decline in bank profitability; the regression results show that this variable is not significant for the two types of banks. The liquidity variable defined by total deposits / total assets:

- Has a positive effect on the profitability of the conventional banks assets.
- Is positively correlated with performance (ROA and ROE) of Islamic banks.
- The customer deposits act positively on bank profitability of two types of banks.

## **5. DISCUSSION OF RESULTS**

Our study appears with a great contribution, the purpose is to analyze the financial characteristics of Islamic and conventional banks and to identify their internal determinants of performance. This helps to identify some decision variables for each type of bank, and which managers can act to increase their profitability levels. The analysis by the ratio shows that Islamic banks are more profitable and more liquid than conventional banks. Based on performance determinants, it turns out that the capital and distributed credits are the main components of the Islamic banks performance. However, the deposit and credit quality of portfolio are important variables that influence the profitability of conventional banks.

## 6. CONCLUSIONS, LIMITATIONS AND FURTHER RESEARCH

In reality, Islamic finance is suffering by an exponential growth that needs to be considerably relative to volumes and assets of conventional finance. Indeed, since birth in the 70s, the development of Islamic finance was durable. The growth rate of this emerging banking industry was impressive. In this perspective, in Saudi Arabia, Kuwait, Bahrain, United Arab Emirates, Egypt, Malaysia, the Maghreb countries and even in Europe are increasing international conferences, where participating, in the same thought, academics, researchers, lawyers, bankers, etc., to identify the foundations of "Islamic economics theory" and in particular the specific new banking procedures in accordance with the spirit of Islam.

Although, after the analysis of the financial characteristics of Islamic and conventional banks, and internal determinants of performance, the main admitted finding shows that Islamic banks are outperforming than conventional banks. The Islamic finance is an ethical finance compartment. From religious, its mechanisms are also psychological and social orders. The Islamic finance gives some ideas for itself and its stakeholders; it participated of a collective vow.

Therefore, its reputation, its image, its credibility are all intangible assets. However, there are limits to their development, as the absence of common standards, even limited re-uses, a narrow range of investment products and overwhelmingly resources at short-term. They mainly offer cash investment products, leasing, Islamic bonds, equity investments, pre-financing, as well as some stock products. In our research, we examined only the internal determinants of Islamic banks performance, other research include external variables such as GDP per capita, inflation, etc. Thus, it is of interest to analyze the risk of Islamic funds and especially the risk of certain Islamic products such as sukuk, the musharaka and moudtharaba. Finally further research on efficiency indices and Islamic actions can have great interest.

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**The Internal Determinants of Islamic Finance Performance: Panel Evidence of Islamic Versus Conventional Banks in the GCC Region**

**APPENDIX**

**Appendix 1. List of banks and sources of database**

N°	Banks	Countries	Sources of database
1	Qatar National Bank	Qatar	www.qnb.com
2	Doha Bank	Qatar	www.dohabank.com.qa
3	The Commercial Bank of Qatar	Qatar	www.cbq.qa
4	Qatar Islamic Bank	Qatar	www.qib.com.qa
5	Qatar International Islamic Bank	Qatar	www.qiib.com.qa
6	National Bank of Kuwait	Kuwait	www.nbk.com
7	Ahli United Bank	Kuwait	www.ahliunited.com.kw
8	Kuwait Finance House Islamic	Kuwait	www.kfh.com
9	ADCB Bank	United Arab Emirates	www.adcb.com
10	Emirates Islamic Bank	United Arab Emirates	www.emiratesislamicbank.ae
11	Dubai Islamic Bank	United Arab Emirates	www.dib.ae
12	Abou Dabi Islamic Bank	United Arab Emirates	www.adib.ae
13	Union National Bank	United Arab Emirates	www.unb.co.ae
14	Gulf International Bank	Bahrain	www.gibonline.com
15	Gulf Finance House	Bahrain	www.gfh.com
16	Al Salam Bank Bahrain	Bahrain	www.alsalambahrain.com
17	Bank Aljazira	Saudi Arabia	www.baj.com.sa
18	Samba Financial Group	Saudi Arabia	www.samba.com
19	Bank Albilad	Saudi Arabia	www.bankalbilad.com
20	Al Rajhi Bank	Saudi Arabia	www.alrajhibank.com.sa

**Appendix 2. Hausman Test of conventional banks (ROE)**

Correlated Random Effects - Hausman Test				
Pool: Untitled				
Test cross-section random effects				
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.	
Cross-section random	0.000000	6	1.0000	
* Cross-section test variance is invalid. Hausman statistic set to zero.				
** Warning: estimated cross-section random effects variance is zero.				
Cross-section random effects test comparisons:				
Variable	Fixed	Random	Var(Diff.)	Prob.
LLR	-0.959022	-0.959022	0.000000	1.0000
EM	-0.570115	-0.570115	0.000000	1.0000
DTA	0.010570	0.010570	-0.000000	NA
LDR	-0.006920	-0.006920	-0.000000	NA
PTA	0.048146	0.048146	-0.000000	NA
COSR	0.007571	0.007571	0.000000	1.0000

**Appendix 3. Hausman Test of conventional banks (ROA)**

Correlated Random Effects - Hausman Test				
Pool: Untitled				
Test cross-section random effects				
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.	
Cross-section random	0.000000	6	1.0000	
* Cross-section test variance is invalid. Hausman statistic set to zero.				
** Warning: estimated cross-section random effects variance is zero.				
Cross-section random effects test comparisons:				
Variable	Fixed	Random	Var(Diff.)	Prob.
EM	0.044682	0.044682	0.000000	1.0000
LLR	-0.085535	-0.085535	0.000000	1.0000
DTA	0.055592	0.055592	-0.000000	NA
LDR	-0.000572	-0.000572	-0.000000	NA
PTA	-0.010525	-0.010525	-0.000000	NA
COSR	0.001620	0.001620	0.000000	1.0000

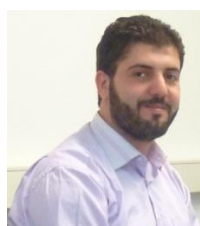
**Appendix 4. Hausman Test of Islamic banks (ROE)**

Correlated Random Effects - Hausman Test				
Pool: Untitled				
Test cross-section random effects				
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.	
Cross-section random	0.000000	6	1.0000	
* Cross-section test variance is invalid. Hausman statistic set to zero.				
** Warning: estimated cross-section random effects variance is zero.				
Cross-section random effects test comparisons:				
Variable	Fixed	Random	Var (Diff.)	Prob.
EM	0.111621	0.111621	0.000000	1.0000
LLR	-0.106020	-0.106020	0.000000	1.0000
DTA	0.158811	0.158811	-0.000000	NA
LDR	-0.095357	-0.095357	-0.000000	NA
PTA	0.046872	0.046872	-0.000000	NA
COSR	-0.174590	-0.174590	-0.000000	NA

**Appendix 5. Hausman Test of Islamic banks (ROA)**

Correlated Random Effects - Hausman Test				
Pool: Untitled				
Test cross-section random effects				
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.	
Cross-section random	0.000000	6	1.0000	
* Cross-section test variance is invalid. Hausman statistic set to zero.				
** Warning: estimated cross-section random effects variance is zero.				
Cross-section random effects test comparisons:				
Variable	Fixed	Random	Var(Diff.)	Prob.
EM	0.209216	0.209216	0.000000	1.0000
LLR	-0.071740	-0.071740	0.000000	1.0000
DTA	0.129281	0.129281	-0.000000	NA
LDR	-0.045639	-0.045639	-0.000000	NA
PTA	-0.017457	-0.017457	-0.000000	NA
COSR	-0.023674	-0.023674	-0.000000	NA

**AUTHOR’S BIOGRAPHY**



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