

## **THE IMPACT OF THE ISLAMIC BANKS PERFORMANCES ON ECONOMIC GROWTH: USING PANEL DATA**

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### **-Abstract-**

Islamic banking saw rapid growth during the last two decades. There are many contributory factors for such growth, most notable of which are the financial liberalization. The prohibition of interest payments by Islamic Sharia has instead made equity and profit sharing the cornerstones of its operational structure activities. Furthermore, the risk-sharing principle provides theoretically better long-term allocation of funds for investments with higher risk-return profiles and subsequently greater economic growth. The purpose of this research is to provide empirical evidence concerning the impacts of liberalization Financial and the Islamic bank performance on economic growth. The study indicates that effects are positive and significant on economic growth during the period 2001-2012 in term of financial liberalization.

**Keywords:** Performance Islamic banks, economic growth, Within and GLS regression analysis

## **1. INTRODUCTION**

The Islamic banking system has indeed been attracting the attention of researchers, customers, and policymakers in the last decades, even more after the recent financial crisis following the subprime credit crisis. In any economy, banking sector contributes toward better financial performance and helps in better resource utilization (Ahmed, 2010). Similarly, Bourke (1989) reported that banks with high profitability remain well capitalized and have easy access to the funds. Indeed, a well-functioning banking

system plays a significant role in resource allocation, economic growth, and financial performance. Further, better financial performance contributes toward investment uplift, which is beneficial for shareholders as well as for the whole economy. According to the banker (2013), Islamic finance is growing at the rate of 15% to 20% per annum. Globally, Islamic Banking assets in commercial banks are set \$1,7 trillion in 2013 (Ernst and young 2013-2014).

Islamic banks offer financial products and services that are compatible with Islamic doctrine, which allows muslim individuals and firms with religious concerns to have access to finance or move from an informal to a formal financial system. In short, Islamic banks can mitigate financial exclusion and bring financial service to a wider population. This can also promote better strategies for poverty alleviation (Rajan, 2006).

Islamic finance is founded on overarching principles that constitute the guideline governing any Islamic economic or financial dealings. Principally, the Islamic banks ought to observe profit and loss sharing system mechanism such as Mudarabah and Musharakah. However, the competition, as indicated above, has forced them to use mostly the fixed return instruments like Murabahah, Ijarah, and Diminishing Musharakah. The deposits in Islamic banks are raised mainly through Mudarabah, and to some extent on wakalah or Qard al Ithmar bases. Saving and investment deposits are raised on the basis of Mudarabah/Musharakah, whereas, current deposits are obtained as Qard (loan). These funds are utilized in different investments such as Murabahah, Ijarah, Diminishing Musharakah, Mudarabah, and Musharakah.

The aim of this study is to examine The Effect of the Islamic Banks performance on the Economic growth in terms of liberalization financial. This paper is organized as follows. The first section tries to draw attention towards the important Studies that Islamic finance and banking have known from a conceptual idea to an evolving and fast reality with financial liberalization. The second section deals with the different empirical works and gives an overview of the added value of Islamic finance to the economic growth. The third section starts with an econometric specification, we will adopt the subsequent panel specification for our analyses. Finally, discusses the results and concludes.

## **2. LITERATURE REVIEW**

There are a large number of empirical studies in which researchers have evaluated the performance of banking sector using different statistical techniques, such as regression analysis, ratio analysis. Furthermore, numerous studies have attempted to explore the empirical determinants of bank performance across the globe. This section provides summary of the literature related to bank-specific, industry-specific, financial and macroeconomic determinants of financial performance of banks. After reviewing the literature, the gaps relevant to this study have been identified. Also the shortfalls of the existing empirical studies have been highlighted.

First, unlike most of the existing studies, we preferred measuring financial performance of banks and ethical Financial because simple ratio based performance measures (e.g., returns on

assets (ROA), returns on equity (ROA) are limited in considering different financial aspects of financial institutions.

Several studies try to estimate the Islamic banks return and its effects on the real economy. Some of these studies concern the ratios of performance: Samad and Hassan (2000), Masood and al. (2009). Other studies try to compare the Islamic banks with the classic banks in term of the performance and the profitability: Achraf and Zia-ur-Rehman (2011), Jaffar and Manarvi (2011), Siraj and Plundered (2012), Usman and Kashif Khan (2012). Among the studies which try to find the determiners of the performance of the Islamic banks: Haron (2004), Izhar and Asutay (2007), Sraïri (2009), Idris and al. (2011), Hidayat and Abduh (2012)...

Haron (2004) examined the internal and external factors which influence the profitability of the Islamic banks. Haron (2004) found a strong correlation between the internal factors (of liquidity, the total spending, funds invested in Islamic titles, the percentage of the ratio of division(sharing) of the profits between the bank and the borrower of fund and the level of the total income perceived by the Islamic banks. The author found more or less the same impacts on the external factors such as the size of the bank, the interest rates and the part of the market.

Izhar and Asutay (2007) concluded that the activities of financing were the source of the ways of the Bank Muamalat Indonésia (BMI) profit-seeking, whereas the service activities of the contribution to the profitability of the studied bank were not significant. The document of the authors revealed that the short-term financing was based on the average activities of financing during period 1996-2001. Izhar and Asutay (2007) confirmed a positive relation between the inflation and the measure of the profitability. Sraïri (2009) worked a sample of Islamic and conventional banks in the countries of the Gulf cooperation council (GCC) during the period from 1999 till 2006 to test the impact of the financier.

The structure, the characteristics of the bank and the macroeconomic indicators on the profitability of both modes of banks were discussed by Sraïri (2013) which noticed that the smugness of the capital, the credit risk and the operating efficiency had an effect on the profitability of both conventional and Islamic banks. However, the ratio of risk and financial liquidity has a positive effect on the alone "profitability" the Islamic banks". Idris and al. (2011) tried to estimate the determiners of the profitability of the Islamic banks in Malaysia. Idris and al. (2011) noticed that "only the size of the bank is important in the determination of the profitability with a positive relation".

Hidayat and Abduh (2012) tried to estimate the impact of the financial crisis of 2008-2009 on the financial performance of the Islamic banking industry in Bahrain. Hidayat and Abduh (2012) noticed that even if the impact of the financial crisis was not significant on the performance of the Islamic bank of Bahrain for the period of crisis and it was significant after the period of crisis.

In the model of Yeyati and Micco (2007), they use a sample of commercial banks of eight Latin American countries during period 1993-2002. They found a positive link enter the

banking risk (measured by Z-score) and the competition (measured by Hour-statistics), while the coefficient of banking concentration is not significant. This result confirms paradigm of "competition vulnerability".

Schaeck and Cihak (2008) analyzed the relation between the banking competition and the stability by using a sample of more than 3600 banks of ten European countries and more than 8900 American banks for period going from 1995 till 2005. They noticed that the performance, such as measured by the indicator Boone, increase the banking stability through the increase of the efficiency, and that the most concentrated banking markets benefit in the economic financing. By using the data of 31 systematic banking crises in 45 countries for period going from 1980 till 2005, Schaeck and al. (2009) show that the competition(competitors) (such as calculated by Hour-statistics) reduces the probability of a crisis and takes away the time of its appearance.

In a similar study, Shepherd and al. (2009) use a sample of 8235 banks of 23 industrial nations between 1999 and 2005 and notice that banks having a power of the market (measured by the indication(index) of Lerner) have an exhibition at the less low risk. This result supports the traditional point of view of competition - fragility. On the other hand, they show that the power of the banking market can be translated, also, by more risky loan portfolios, as indicated by the ratio of the not successful loans. Shepherd and al. (2009) asserted that banks can protect their value franchise of a level of higher credit risk, by holding (detaining) a higher level of own capital.

More recently, Anginer and al. (2012) examined the relation between the competitiveness according to the indication (index) of Lerner and the systematic stability. By means of a sample of 1 872 banks quoted in stock exchange of 63 countries between 1997 and 2009, they found a positive relation between the competition and the systematic stability. The same results were confirmed following a test of robustness affected by these authors in which they use the concentration of the banking assets (active persons) as alternative (alternate) proxy for the banking competition.

Liu and al. (2012) Introduced some indicators of banking risks (The ratio of reserves on the irrecoverable credits with regard to the total of the credits, the reserves on the irrecoverable credits with regard to the total of the credits, the volatility of the ROA and the logarithm naperies of the indication Z) to study a similar relation for banks operating in the Southeast of Asia (Indonesia, Malaysia, the Philippines and Vietnam) between 1998 and 2008. They found that the competition measured by the model of Panzer and Thrashes is associated significantly with most of the indicators of risk, safe for the indication Z-score, which suggests that the competitiveness does not damage the banking stability. The researchers also noticed that the concentration is negatively.

### **3. METHODOLOGY**

This section presents discussion of methodology, data, sample, and variables description in detail. First, the performance index developed by Teker et al. (2011) is considered as a basic

model to provide financial performance for each bank included in the sample over the study period 2001 to 2012 on economic growth. Next, this study analyzes the empirical determinants of economic growth by taking the GDP as dependent variable while bank-specific variables, macroeconomic factors, and financial indicators as independent variables.

### 3.1. Data and sample

All the data are declared on the balance assessments of banks and the statement of income is mainly obtained from the database of Bank-scope of BVD-IBCA who supplies us the information, the homogeneity and the classification of banks. In the case of lack of information, we use annual reports supplied by the individual banks through their Web sites. The sources of macroeconomic data and the structure of the banking sector for the countries of the CCG are the central banks of the annual reports of the respective countries and the international financial statistics (IFC) ((INTERNATIONAL FINANCE CORPORATION)).

Since all countries (Abu-Dhabi, Saudi Arabia, Bahrain, Great Britain and Tunisia) have different currencies, all the annual financial values are converted in US dollar using appropriate average exchange rates for each year. Also, to ensure comparability of data across countries, all values are deflated to the year 1999 using each country's consumer price index (CPI).

First, unlike most of the existing studies, we preferred measuring financial performance of banks based on CAMELS because simple ratio based performance measures (e.g., returns on assets (ROA), returns on equity (ROE)... etc) are limited in considering different financial aspects of financial institutions.

Variables	Abbreviations	Measures
Financial performance	<b>ROA</b> <b>ROE</b>	* Returns on assets = Résultat net après impôts / Total assets. * Returns on equity = Résultat net après impôts / Total equity
Ethique Performance	<b>RPR</b> <b>RPZ</b> <b>RIRNI</b>	* Ratio of the division of the income = (financing moudaraba + financing moucharaka) / Total financing. * Ratio of the performance of Zakat = Zakat / Net assets  Ratio of Islamic returns vs not Islamic returns = returned Islamic / (returned Islamic + returned not Islamic)

Macro-economic Variables	Abbreviations	Measures
Industriel production index	<b>IPI</b>	worlbank

Consumer Price Index.	<b>CPI</b>	worlbank
Money Market Rate	<b>TMM</b>	worlbank

### 3.2 Correlation Total

	<b>GDP</b>	<b>ROA</b>	<b>ROE</b>	<b>RPR</b>	<b>RPZ</b>	<b>RIRNI</b>	<b>PII</b>	<b>CPI</b>	<b>MMR</b>	<b>D_C</b>
GDP	<b>1</b>									
ROA	0.0350	<b>1</b>								
ROE	0.0072	0.9640	<b>1</b>							
RPR	0.4176	-	-	<b>1</b>						
RPZ	0.0324	0.9342	0.9701	-	<b>1</b>					
RIRNI	0.0078	0.407	0.0101	0.1860	0.0186	<b>1</b>				
IPI	0.7301	0.2804	0.2684	0.5098	0.3221	0.0429	<b>1</b>			
IPC	-	-	-	-	-	0.1442		<b>1</b>		
TMM	0.0361	0.2812	0.2547	0.1303	0.2885	0.0254	0.0078	0.6151	<b>1</b>	
D-C	-	-	-	-	-	-	-	-	0.0508	<b>1</b>
	0.1107	0.2814	0.2518	0.0734	0.2919	0.0333	0.0113	0.1966		

### 3.3. The model

The model is estimated, for the economic growth in model of panel over the period 2001-2012. The analysis of the obtained results allows us to determine the variables which are directly connected to the joint of the economy such as implementation by the Islamic banks by following the works of Demirgüç-Kunt (2013). After a thorough analysis of the various ratios and their various possible connections, the problem of choice of the explanatory variable settled.

$$Y_{it} = \alpha_i + \beta_{it}ROA_{it} + \chi_{it}ROE_{it} + \delta_{it}RPR_{it} + \phi_{it}RPZ_{it} + \eta_{it}RIRNI_{it} + \theta_{it}IPI_{it} + \gamma_{it}CPI_{it} + \lambda_{it}MMR_{it} + \varphi_{it}dC + \varepsilon_{it}$$

Where we subscript denotes individual countries and t denotes the time dimension.

### 3.4 Empirical results

The tests of specifications show that our model can be formalized as a panel with fixed effect. To consider our model during the period going of 2001 to 2012, we shall be used techniques within and GLS. The picture below will recapitulate these two procedures of estimations in the observation of the static relations describing the linear equation which connects the economic growth according to the explanatory variables.

To distinguish between both techniques of estimation, Within or GLS, we shall use the statistics of Hausman (1978). The test of specification of Hausman is a general test which can be applied to numerous problems of specification in econometrics. However, his most answered application is the one tests of specification of the individual effects in panel. He so serves to discriminate between the fixed and random effects.

**Table 2: Estimation of model**

<b>GDP</b>	<b>within</b>	<b>GLS</b>
ROA	1.435067** (0.0481)	2.555655** (0.0169)
ROE	0.1634596 (0.511)	0.0444128 (0.839)
RPR	0.0016293 (0.984)	-0.0026157 (0.872)
RPZ	-0.4163889* (0.069)	-0.3174475*(0.0106)
RIRNI	-0.3977812* (0.0830)	1.037543** (0.0569)
IPI	0.0465853** (0.0403)	-0.098338** (0.000)
CPI	-0.5223834** (0.0456)	-1.277682*** (0.001)
MMR	-0.0591294** (0.0308)	-0.0736711** (0.008)
D_C	1.014671* (0.0581)	-.2036262*(0.0883)
Constant	2.414007 (0.613)	2.980239(0.164)
*** indicate significance at 1%, ** indicate significance at 5% * indicate significance at 10%		

Both hypotheses of Hausman can be specified as follows:  $\begin{cases} H_0 : E(\alpha_i / X_i) = 0 \\ H_a^3 : E(\alpha_i / X_i) \neq 0 \end{cases} \quad \forall X_i :$

The matrix of the explanatory variables.

Hausman (1978) recommends to base its test of specification on the following statistics:

$$H = (\beta_k^F - \beta_k^A)' (\text{Var}(\beta_k^F - \beta_k^A))^{-1} (\beta_k^F - \beta_k^A) \quad \forall k = 1, 2, 3, 4, 5 \quad ^1$$

Under the no hypothesis of correct specification, this statistics is asymptotically distributed according to a chi2 in k degrees of freedom. So, under the worthless hypothesis this theoretical model can be specified with random individual effects, so we have to hold the value of the MCG (the value BLUE). On the other hand, under the alternative hypothesis, the model must be specified with fixed individual effects and thus we have to hold the value Within or LSDV (the not biased value).

**Table 3: Hausman test**

Hausman Statistic	
GDP	22.19 (0.0046)
Effect	fixed effect

Into the trap the average over five years, the indication of the financial liberalization and the indication of the financial crises in the equation of growth represent the fraction of years during which a country was liberalized or knew a crisis in an interval of 2 years (2008-2009). As the estimations in two stages of the growth model on average over five years are calculated by using the results of the model Within and GLS presented in him table1, we present only the estimations for the equation of growth in the picture to tops. The results are similar to those obtained by using data with an annual frequency. The direct effect of the financial liberalization is almost identical, whereas the costs of the crises of growth are slightly more pronounced.

The effect of the inflation of the growth is now not significant whereas the effect of the commercial opening becomes stronger. Other explanatory variables have more or less the same impact. This picture presents the decomposition of the effects of the financial crisis on the growth. In comparison with the growth model considered of the annual data, at the same time the advantage of direct growth (IPI) and (TMM) has an a little raised cost.

We find that the presence of Islamic banks is positively linked with financial sector performance and economic growth in our sample.

#### 4. CONCLUSION

We are interested in the role of pure Islamic banks on financial systems and the economic growth. We controlled the financial performance, ethic performance, inflation money market ratio and industrial production.

<sup>1</sup> -  $\beta_k^F$  is the vector of the valuers Within et  $\beta_k^A$  is the vector of the valuers Between.

We try capture the heterogeneities associated with the structure of the banking sector in term of profitability and growth economic. We use fixed effects technique for our estimation, which accounts for unobservable factors, we control for a number of macroeconomic and institutional environment factors such as inflation, remittance inflow, GDP per capita, culture and religion.

We explored the relationship between the presence of Islamic banks and the financial development and economic welfare for the sample of different countries. We estimated the fixed-effect technique, and illustrated the results. The first show a significantly positive relationship between the return on equity, return on asset of Islamic banks profitability and economic growth. As expected, inflation is negatively associated with bank deposit. The trend variable has a positive coefficient.

The second results were in line with our finding in the regression the variables of ethical variables are positively linked of funding mobilization at the financial system level. Changes in market structure may affect banks performance. In a dual-banking system, Islamic and conventional banks do not merely play a supplementary role to one another, they compete with each other for clients and investors, whether and how conventional banks are affected by the presence of Islamic banks is affected when they operate alongside Islamic banks.

## BIBLIOGRAPHY

Abdul-Majid, M., Mohammed Nor, N.G., Said, F.F., (2005a). "Efficiencies of Islamic banks in Malaysia ". In: *International Conference on Islamic Banking and Finance*, Bahrain.

Abdul-Majid, M., Mohammed Nor, N.G., Said, F.F., (2005b). "Efficiency of Islamic banks in Malaysia ". In: Iqbal, M., Ahmad, A. (Eds.), *Islamic Finance and Economic Development*. Palgrave Macmillan, New York.

Abdul-Majid, M., Saal, D.S., Battisti, G., (2008). "The Efficiency and Productivity of Malaysian Banks: an Output Distance Function Approach ", *Aston Business School Research Paper R*, P0815.

Abdul-Majid, M., Saal, D.S., Battisti, G., (2010). "Efficiency in Islamic and Conventional banking: An International Comparison ", *Journal of Productivity Analysis* 34 (1), pp. 25–43.

Abdul-Majid, M., Saal, D.S., Battisti, G., (2011a). "Efficiency and total factor productivity change of Malaysian commercial banks ". *Service Industries Journal* 31 (13), pp. 2117–2143.

Abdul-Majid, M., Saal, D.S., Battisti, G., (2011b). "The Impact of Islamic Banking on the Cost Efficiency and Productivity Change of Malaysian Commercial Banks ", *Applied Economics* 43 (16), pp. 2033–3054.

Abduh, M., Omar, M.A. & Duasa, J. (2011). "The Impact of Crisis and Macroeconomic Variables towards Islamic Banking Deposits ". *American Journal of Applied Sciences*, 8 (12), pp. 1413-1418.

Ahmed, A. (2010). "Global Financial Crisis: An Islamic Finance Perspective", *International Journal of Islamic and Middle Eastern Finance and Management*, 3(4), pp. 306-320.

Ahmad, A.U.F., Hassan, M.K., (2007). "Regulation and Performance of Islamic Banking in Bangladesh ". *Thunder bird Int. Bus. Rev.* 49 (2), pp. 251–277.

Alam, I.M.S., (2001). “A Non Parametric Approach for Assessing Productivity Dynamics of Large US Banks “, *Journal of Money, Credit and Banking* 33 (1), pp. 121–139.

Alexakis, C., Tsikouras, A., (2009). “Islamic Finance: Regulatory Framework Challenges Lying Ahead “, *International Journal of Islamic and Middle Eastern Finance and Management* 2 (2), 90–104.

Al-Jarrah, I., Molyneux, P., (2005). “Efficiency in Arabian Banking “. In. Iqbal, M., Wilson, R. (Eds.), *Islamic Perspectives on Wealth Creation*. Edinburgh University Press, Edinburgh, pp. 97–117.

Al-Khasawneh, J.A., Bassetat, K., Aktan, B., Thapa, P.D.P., (2012). “Efficiency of Islamic banks: Case of North African Arab countries “. *Qual. Res. Finance*. Mark. 4 (2/3), pp. 228–239.

Al-Muharrami, S.,(2008). “An Examination of Technical, Pure Technical and Scale Efficiencies in GCC Banking “ *American Journal of Finance and Accounting* 1 (2), pp. 152–166.

Akerlof George A. 2002. “Behavioral Macroeconomics and Macroeconomic Behavior “. *American Economic Review*, 92(3), pp. 411-433.

Andersen Thomas B. et Finn Tarp (2003). “Financial Liberalization, Financial Development and Economic Growth in LDCs”, *Journal of International Development*, 15(2), pp.189-209.

Archer S, Abdel-Karim R, Al-Deehani T (1998); “Financial Contracting, Governance Structure and the Accounting Regulation of Islamic Banks: An Analysis in terms of Agency Theory and Transaction Cost Economics “. *J Manage Gov* 24, pp.1605–1628.

Ariff, M., Can, L., (2008). “Cost and Profit Efficiency of Chinese Banks: A Non-Parametric Analysis “. *China Economic Review* 19 (2), pp. 260–273.

Arteta Carlos, Barry Eichengreen Charles Wyplosz (2001). “When does Capital Account Liberalization Help more than it Hurts? “ *The National Bureau of Economic Research (NBER)*, Working Paper n° 8414.

Berger AN, Bonaccorsi di Patti E (2006), Capital Structure and Firm Performance: A New Approach to Testing Agency Theory and an Application to the Banking Industry. *J Bank Finance* 30:1065– 1102.

Johnson. K, (2013); “The Role of Islamic Banking in Economic Growth” *Journal of Finance Services of Research* vol. 38, pp. 95–113.

Johnes. J. M, Izzeldin, and Pappas. V (2014), “A Comparison of Performance of Islamic and Conventional Banks 2004–2009”, *Journal of Economic Behavior and Organization*, vol. 103, pp. 93–107,

Karim.R, and Ali.A, (2014); “Determinants of the Financial Strategy of Islamic Banks”, *Journal of Business Finance and Accounting*, vol. 16, pp. 193-212,

Rosly SA, Abu Baker MA (2003) “Performance of Islamic and Mainstream Banks in Malaysia”. *Int J Soc Econ* 30, pp.1249–1265.

Sayilgan. G, Yildirim. O. (2009), “Determinants of Profitability in Turkish Banking Sector : 2002-2007 “, *International Research Journal of Finance and Economics*, ISSN 1450-2887, Issue 28, pp. 207-214

Viverita, V., Brown, K., Skully, M., (2007). “Efficiency Analysis of Islamic Banks in Africa, Asia and the Middle East “. *Review of Islamic Economics* 11 (2), pp. 5–16.

Warde, I., (2010). "Islamic Finance in the Global Economy ". Edinburgh University Press, Edinburgh. Willison, B., 2009. *Technology trends in Islamic Investment Banking*.

Yılmaz, D., (2009). "Islamic Finance-During and After the Global Financial Crisis ". Hilton Convention Center, Istanbul.

Yudistira, D., (2004). "Efficiency in Islamic Banking: An Empirical Analysis of Eighteen Banks ", *Islamic Economic Studies* 12 (1), pp. 1-19.