

# The Effect of the Global Financial Crisis on the Profitability of Islamic Banks in UAE

Mukdad Ibrahim<sup>1</sup>

<sup>1</sup>American University of Ras Al Khaimah, United Arab Emirates

Correspondence: Mukdad Ibrahim, American University of Ras Al Khaimah, United Arab Emirates.

Received: August 17, 2019

Accepted: October 30, 2019

Online Published: November 3, 2019

doi:10.5430/ijfr.v11n1p181

URL: <https://doi.org/10.5430/ijfr.v11n1p181>

## Abstract

This paper empirically analyzes the profitability of the four Islamic banks operating in the UAE during the financial period between 2004 and 2009 using three profitability indicators, return on total income, return on assets and return on equity. The researcher uses a variety of techniques, equality of means, coefficient of variation and Anova analysis to assess the effect of the financial crisis on the performance of the four specified banks. The findings show that although the financial crisis began in the 3<sup>rd</sup> quarter of 2007, its impact on the profitability of Islamic banks was most profound in 2008 and 2009 where there was a notable decline in all analyzed financial indicators. Moreover, the three indicators held a higher variability rate during the crisis years spanning 2008 to 2009 in stark contrast with the pre-crisis rates of the period spanning 2004 to 2007. Anova analysis across the four banks show significant differences between the mean of most indicators, suggesting varying performance under the adverse conditions present during the recession.

**Keywords:** Islamic banking, bank performance, profitability analysis, bank stability, United Arab Emirates

## 1. Introduction

The recent global financial crisis began in the U.S and quickly spread to other countries across the globe. Partly caused by loose monetary policy and insufficient lending standards, the effects of the financial crisis were so profound that they are still seen today. As a result, economic growth contracted worldwide and never fully recovered. The breadth of the financial and economic literature available on the crisis repeatedly stresses the adverse and sometimes permanent effects that financial crises can have on economic growth. While the more obvious effects such as the reduction in availability of credit are widely known and expected, other actions that consumers, investors, financial institutions and governments alike have taken as a response to the crisis are less widely understood. This is particularly the case regarding investor behavior, which has seen an evolution that banks and financial institutions are ill advised to ignore, namely their receptiveness to investment opportunities through the banking system. Investors are now both more price conscious and risk averse regarding investment opportunities. The failures and bailouts of banks with widespread exposure to bad loans during 2008 and 2009 were a sobering moment in the psyche of investors. Thus, the investor of today is ever more wary of the increasing need to examine the structural integrity of banks prior to investing. Financial ratios are an increasingly relevant tool in examining the health of any bank or financial institution.

Profitability indicators are valid predictors of sound financial health and as such may be used to ascertain how effective a company is at converting its investments into profits. Investors are disincentivised to invest in banks or financial entities that have a history of poor earnings and mismanagement of financial resources as this will severely affect its market position and result in lower dividend payments. Creditors are reasonable in avoiding investing in entities which consistently underperform as this translates to little to no returns, and in some cases, losses. It is therefore crucial for investors to employ due diligence and to rely on financial ratios that accurately measure a banks earning capability. This is particularly important during financial crises where bank runs and widespread wealth evaporation is common and where it may be difficult for investors to find effective avenues for safeguarding their wealth.

Due to the experiences of the recent years, customers are more conscious of the susceptibility of banks to economic downturns and how rapidly their savings and investments can decline as a result of such downturns. They are consequently more resourceful when examining potential opportunities for investment, and banks are no exception to

this rule. As such, they show sustained interest in the overall profitability of banks and are quick to redirect their financial wealth away from banks that no longer perform according to their expectations. Furthermore, an awareness of the various aspects that determine bank profitability are of great relevance to regulators who want to create a regulatory framework to stop banking crises of such magnitude from taking place again in the future.

While Uppal and Mangla (2010) concluded that Islamic banks in Malaysia were particularly affected and exposed to the negative effects of the global financial crisis particularly when compared to conventional banks, with Parashar and Venkatesh (2010) coming to similar research conclusions, Almanaseer (2014) found that the financial crisis did not have a significant impact on the profitability of Islamic banks. Similarly, Bourkhis and Nabi (2018) echoed the findings of Almanaseer (2014) in observing minimal difference in the susceptibility of Islamic banks to the adverse effects to the global financial crisis when compared with conventional banks. Finally, the findings of Erfani and Vasigh (2018) further reinforced the belief in the viability of Islamic banks, concluding that Islamic banks offered superior protection against the negative effects of the financial crisis when compared with conventional banks, with conventional banks suffering from losses in efficiency during the financial crisis.

While considerable research exists that points to a significant drop in the profitability of financial institutions on a global and general level, there has been considerably less coverage in the literature dedicated towards examining the impact of financial crisis on the profitability of non-conventional banks. Isolating and investigating the financial integrity of the various banking systems individually may reveal superior options for investors looking to effectively manage and increase their wealth. This study is expected to help fill the gap in the literature by shedding light on the profitability of Islamic Banks operating in the UAE.

## 2. Literature Review

Alexakis et al (2018) assessed the relative performance and productivity of Islamic and conventional banks in the GCC region for the period of 2006 to 2012. They used a variety of approaches in order to measure the performance and productivity of the domestic banking sector. A quantitative comparison of performance between the two banking systems showed that Islamic banks have relatively poor cost and profit performance, but are on a par with conventional banks regarding revenue performance.

Ramakrishna et al (2016) evaluated the performance of Indian commercial banks during 2002-2013. They used different financial indicators to study the efficiency of similarly sized commercial banks before and after the financial crisis with panel data being their primary data collection method. To measure bank efficiency, the researchers employed the data envelopment analysis technique. The result of their analysis showed that Indian banks were negatively impacted resulting in declining efficiency throughout the financial crisis but rebounded following the end of the crisis.

Erfani and Vasigh (2018) analyzes the effect of global financial crisis on the profitability of eight Islamic and eleven conventional banks for the years spanning 2006 to 2013. The researchers used a variety of analysis techniques including the Altman Z-Score model, ratio analysis, data envelopment analysis and the seemingly unrelated regression model. Their analysis showed that Islamic banks managed to maintain their efficiency while the majority of the conventional banks suffered a loss in their efficiency.

Adelpop et al (2017) investigates the relationship between bank-specific factors and bank profitability before, during and following the financial crisis of 2007-2008. They used the Economic Community of West African States' bank panel data from 1999 to 2013. The fixed effect panel model used to identify individual industry determinants and macroeconomic factors for banks across the region. The results of their analysis showed a significant relationship between bank-specific determinants and bank profitability in terms of return on assets.

Sufian and Habibulla (2010) examine the determinants of Indonesian banks profitability during the period 1990-2005 on a sample of 32 banks. The researchers employ multi-regression analysis using unbalance banks level panel data. The findings reveals that during Asian crisis, income diversification and capitalization are positively related to bank profitability while size and overhead costs have negative impacts. In addition, the results of the analysis show that the crisis exerted a significant negative impact on the profitability of Indonesian banks.

Unal and Acikalin (2010) investigate the response to the financial crisis of 2001 in both government and private commercial banks in Turkey. They selected six commercial banks, examining the largest three in each sector. They employed an equality of mean analysis on the banks' financial indicators between 1997Q4 and 2007Q1 to ascertain if there are significant differences between private and government banks relying on the reliable t-test which does not reject the null of equal mean. In addition, the researchers divided the whole sample into pre-crisis and post-crisis periods to see if there is a significant change in some indicators between the two periods. The results of their analysis

showed that the crisis has led to a trend break only in net profit, ROA and ROE figures. In addition, the authors believe that the impact of crisis was only a temporary shock rather than a structural break.

Mongid (2016) investigated the determinants of profitability of Islamic banks from MENA region and how the global financial crisis impacted their performance. His study covers 117 banks for the period of 2003 to 2011. Mongid used a balanced and dynamic panel data regression model. The results of his analysis showed that Islamic banks' profitability is determined positively by assets size, equity to total assets, liquidity risk, and negatively by capital adequacy ratio, innovation and global financial crisis.

Bouzarrou et al (2018) examined the profitability of both domestic and foreign banks before and during the financial crisis of 2007-2008. Their sample includes 170 commercial banks in the French market over the period spanning 2000 to 2012. The researchers used robustness check analysis to test their research objective. The research results concluded that foreign banks are more profitable than domestic banks. In addition, they state that during the financial crisis, lagged profitability has a negative effect for domestic banks and a positive effect for foreign banks.

El-charani and Ragab (2018) examined the impact of political and economic recession during 2010-2015 on the performance and financial behavior of Islamic and conventional banks in the Middle-East region. The researchers used Mann-Whitney test on a sample of both Islamic and conventional banks over the period 2010-2015. The results showed a negative the economic recession on the performance of Islamic banks. The findings also show that Islamic banks increased their capital adequacy and focused strongly on cost reduction in order to increase their efficiency during the crisis.

Bourkhis and Nabi (2013) examine the effect of the 2007-2008 financial crises on the soundness of both Islamic and conventional banks. They used data on 34 Islamic and conventional banks in 16 countries. Two approaches have been used to measure the effect of the financial crisis. The first one is a non-parametric analysis of the financial crisis's impact on a set of financial soundness indicators. The second one is a parametric approach to analyze the impact of the crisis on a particular indicator of bank stability using Z-score. The results showed that there is no significant difference between both types of banks regarding the effect of financial crisis on banking soundness.

Almanaseer (2014) examines the impact of the financial crisis on Islamic bank profitability in GCC countries. He used data for 24 Islamic banks over the period 2005-2012. He applied pooled estimation models to examine the inter-relation between measures of bank profitability performance and the determining factors. His findings showed that the financial crisis does not have significant impact on Islamic bank profitability. In addition, the impact of crisis on Islamic banks' profitability increases with increasing bank total assets, liquidity, and overhead expenses.

Tlemsani and Al Suwaidi (2016) measured the performance of Islamic and conventional banks during the financial crisis. The first segment of their research was to measure the performance between Abu Dhabi Islamic bank and Dubai Commercial bank for the period of 2007 and 2008. Subsequently, they conducted a cross sectional analysis between 8 Islamic banks and 43 conventional banks for the same period. The findings revealed that both banks were impacted negatively by the crisis, since there was a decrease of ROA and ROE in 2007 and 2008.

### **3. Research Methodology**

Financial statement records were obtained from the annual publication of the National Bank of Abu Dhabi: Asset Management Group entitled Local Share directory 2010. Several tests have been conducted to analyze the profitability for the years 2004 to 2009. Independent group mode test was conducted in order to observe any significant difference in the mean of profitability indicator before and during the crisis. In addition, a coefficient of variation was calculated for the years excluding and including the financial crisis with the goal of assessing the impact of the crisis on the stability of profitability indicators. Finally ANOVA analysis was employed across the banks for the years 2004 to 2009 to test the significant differences of profitability means amongst a bank group's peers.

### **4. Results**

Below are the empirical analyses of the effect of global financial crisis on the profitability indicators of four Islamic banks using three techniques described above

#### *4.1 Return on Total Income*

The analysis of return on income across the banks reveals that Sharjah Islamic Bank obtained the highest profitability ratio with a mean of 42.63%, Dubai Islamic Bank followed second with a mean of 33.528%, Abu Dhabi Islamic Bank achieved a mean of 22.30% and Emirates Islamic Bank received a mean score of 22.27% respectively.

#### 4.1.1 Abu Dhabi Islamic Bank

The mean analysis for each bank before the crisis and during the crisis reveals that the mean of this ratio decreased from 25.907% before the crisis to 15.095% during the crisis for Abu Dhabi Islamic bank. This shows that the crisis had a significant negative impact on the profitability of this bank. The coefficient of variation before the crisis is 6.07% while the ratio for the whole period including the crisis data is 44.57% which points to high degree of volatility during the crisis. Abu Dhabi Islamic bank managed to increase this ratio from 26.63% in 2007 to 27.96% in 2008. The effect of crisis can clearly be seen in 2009 when this ratio declined sharply from 27.96% in 2008 to 2.23% in 2009.

#### 4.1.2 Dubai Islamic Bank

For Dubai Islamic bank, the mean of this ratio is 37.015% before the crisis and 26.555% during the crisis. This is in accordance with the overall downward trend that was first observed with Abu Dhabi Islamic bank. The coefficient of variation of the data before the crisis is 13.32%, increasing to 20.50% for the whole study period including the crisis period, highlighting increased variability in this profitability indicator during the crisis.

The effect of crisis on Dubai Islamic bank is negatively as this indicator been declined from 41.82% in 2007 to 29.49% and went down to 23.62% in 2009.

#### 4.1.3 Emirates Islamic Bank

For Emirates Islamic Bank, the mean of this ratio before crisis is 24.565%, dropping to 17.695% during the crisis period indicating a negative impact of the crisis on the performance of this ratio. The coefficient of variation for the data in the consecutive years leading up to the crisis is 9.70% , rising to 31.28% after when analyzing the whole time period (pre-crisis and post crisis), a notable increase in the variability of this profitability indicator.

The higher fluctuation of this ratio for Emirates Islamic can be realized as a result of increases in this indicator from 24.81% in 2007 to 26.72 and decreases to 8.67% in 2009.

#### 4.1.4 Sharjah Islamic Bank

Finally, the mean of the data before the crisis for Sharjah Islamic bank is 50.42% and 27.05% during the crisis showing decline in ratio value during the crisis. Moreover, the coefficient of variation for the data prior to the crisis is 16.73% increasing to 32.40% after including the data related to crisis period, indicating that this bank like other banks suffered from instability during the financial crisis. The effect of crisis on Sharjah Islamic bank can be seen when this ratio declined from 43.56% in 2007 to 24.63% in 2008. This bank managed to increase this ratio in 2009 to 29.47%.

Table 2 shows Anova analysis across the banks produced F-test value 6.036 and a significance of 0.004 which is below 0.05, indicating that there is at least one of the mean values of the return on total income in one of the banks does not equal the others. LSD post anova analysis indicates that this mean of this ratio across the banks has some similar behavior over the years with the notable exceptions being between Abu Dhabi and Sharjah banks as well as between Sharjah and Emirates Islamic banks.

Table 1. Return on total income

Year	Abu Dhabi	Dubai	Emirates	Sharjah
2004	25.06	31.36	26.78	50.34
2005	27.73	40.40	25.46	62.33
2006	24.21	34.48	21.21	45.43
2007	26.63	41.82	24.81	43.58
2008	27.96	29.49	26.72	24.63
2009	2.23	23.62	8.67	29.47
Coefficient of variation (prior to crisis)	6.07%	13.32%	9.70%	16.73%
Coefficient of Variation (including the crisis period)	44%	20.50%	31.28%	32.40%

Table 2. Return on total income - Anova

Details	Sum of Squares	DF	Mean Square	F	Significant
Between group	1744.468	3	581.489	6.036	0.004
Within group	1926.718	20	96.336		
Total	3671.186	23	-----		

#### 4.2 Return on Assets

The analysis of return on assets across the banks for the period 2004 to 2009 reveals that Sharjah Islamic Bank obtained the highest ratio over the period studied with a mean of 2.348%, Dubai Islamic Bank 2.133%, Abu Dhabi Islamic Bank with a mean 1.271% and 1.058% for Emirates Islamic Bank.

##### 4.2.1 Abu Dhabi Islamic Bank

For Abu Dhabi Islamic Bank showing that the mean before the crisis is 1.462% decreasing to 0.890% during the crisis, indicating the definitive negative impact of the crisis. Moreover, the coefficient of variation for pre-crisis data is 23.25% while the ratio after including accounting for crisis period increased to 49.60% indicating an increase in instability resulting from crisis. As a results of profitability level declining , the return on assets indicator Abu Dhabi Islamic bank has been decline from 1.75% in 2007 to 1.66% in 2008 and went down to 0.12% in 2009.

##### 4.2.2 Dubai Islamic Bank

For Dubai Islamic Bank, the mean of this ratio before crisis is 2.382 while the average ratio during the crisis is 1.635. The coefficient of variation before the crisis is 26.47% increasing to 29.57% after including crisis period data as part of the data set. It is clear from the results that the global financial crisis has caused an upward shift in the instability level for this bank. The financial crisis has negatively affected the different of the banks' revenues. As a result, this indicator for Dubai Islamic bank has been declining from 3% in 2007 to 1.83% in 2008 and went down to 1.44% in 2009.

##### 4.2.3 Emirates Islamic Bank

For Emirates Islamic Bank, the mean of the data prior the crisis is 1.077 while it is 1.02 during the crisis period which shows slight decrease in this ratio during the crisis period. The coefficient of variation for the period before the crisis is 25.92% while it is 36.79% when including data related to crisis period which shows an increase in the variability of this ratio as a direct consequence of the crisis. Despite of declining of its revenues and increase of total assets, Emirates Islamic bank managed to increase this ratio from 1.41% in 2007 to 1.52% in 2008, but it decreased to 0.52% in the year of 2009. This fluctuation created a high instability in this indicator.

##### 4.2.4 Sharjah Islamic Bank

For Sharjah Islamic Bank, the mean for the pre-crisis period is 2.742, falling to 1.56 during the crisis period, showing a significant change as a result of the negative impact of the global financial crisis. The coefficient of variation for the data prior the crisis is 21.90%, increasing to 32.76% when including financial crisis data in the analysis. Again, the crisis has increased the level of instability for this profitability indicator. This indicator has been declined by 46.20% in 2008 when it was 1.49% comparing to 2.77% in 2007. The bank managed to increase this ratio to 1.63% in 2009.

Table 4 shows Anova analysis across the bank shows F-test 6.283 with a significance score of 0.004, below the 0.05 insignificance threshold, indicating that there is at least one of the mean values in one of the banks does not equal the others. LSD post Anova analysis indicates that the mean across the banks did sometimes follow a similar pattern during the period studied with the exceptions being between Abu Dhabi bank and Dubai Islamic bank; Abu Dhabi bank and Sharjah Islamic Bank; Dubai Islamic and Emirates Islamic bank, and finally between Emirates Islamic and Sharjah Islamic Bank.

Table 3. Return on assets

Year	Abu Dhabi	Dubai	Emirates	Sharjah
2004	0.97	1.51	0.72	2.06

2005	1.55	2.57	1.06	3.51
2006	1.58	2.45	1.12	2.63
2007	1.75	3.00	1.41	2.77
2008	1.66	1.83	1.52	1.49
2009	0.12	1.44	0.52	1.63
Coefficient of Variation (before the crisis)	23.25%	26.47%	25.92%	21.90%
Coefficient of Variation (including crisis period)	49.60%	29.57%	36.79%	32.76%

Table 4. Return on total assets – Anova

Details	Sum of Squares	DF	Mean Square	F	Significant
Between group	7.220	3	2.407	6.283	0.004
Within group	7.660	20	0.383		
Total	14.880	23	-----		

### 4.3 Return on Equity

The analysis of return of equity for the four banks reveals that Dubai Islamic Bank has the highest ratio with a mean of 19.631, Abu Dhabi Islamic bank 12.715, Emirates Islamic bank 11.080 and Sharjah Islamic bank with a mean of 8.948.

#### 4.3.1 Abu Dhabi Islamic Bank

The mean of this ratio for Abu Dhabi bank for the period before crisis was 15.025, falling to 8.095 during the crisis period. The declining in the mean of the indicators shows the negative impact on profitability. The coefficient of variation for this ratio for the period before crisis is 35.16% and 55.15% after including the crisis data in the analysis. This shows a very high variability in this indicator resulting from the financial crisis. For Abu Dhabi Islamic bank, the data analysis shows a high degree of volatility in this indicator during the crisis period when this ratio increased from 14.19% in 2007 to 15.10 in year 2008 and then sharply declined to 1.09% in the year 2009.

#### 4.3.2 Dubai Islamic Bank

For Dubai Islamic bank, the mean of this ratio for the pre-crisis period is 21.720 while it is 15.455 during the crisis period. Again, the analysis shows a decline in this ratio during the crisis period. The coefficient of variation before crisis is 27.40% while it is 29.39% when including financial crisis data in the analysis. The declining performance of this ratio appears to indicate that Dubai Islamic bank did suffer from a high degree of volatility in its ability to capitalize on its asset holdings during the financial crisis. For Dubai Islamic bank a negative affect occurred during the crisis period when this ratio was continuously declining from 24.13% in 2007 to 17.41% in 2008 and to 13.50% in the year 2009.

#### 4.3.3 Emirates Islamic Bank

For Emirates Islamic bank, the mean of this ratio before the crisis stood at 9.500 increasing to 14.240 during the crisis. The analysis shows normal improvement in this ratio during the crisis, while the coefficient of variation increased from 73.22% for the pre-crisis period to 76.99% when we combine both data before and during the crisis in calculation the coefficient. It seems that the crisis impacted negatively on the stability level of this indicator. The ratio for Emirates Islamic bank changes in the same pattern of Abu Dhabi Islamic bank. It increased from 17.90% in 2007 to 23.93% in 2008 and sharply declined to 4.55% in the year of 2009.

#### 4.3.4 Sharjah Islamic Bank

For Sharjah Islamic bank, the mean for ratio for pre-crisis period is 10.505 while the average performance of this indicator during the crisis period fell to 5.845, showing a large impact of the crisis on the behavior of this ratio. Sharjah Islamic bank has a coefficient of variation from 20.70% for the pre-crisis period to 32.63% when taking into account the data before and during the crisis period in calculating this coefficient. Different behavior of this ratio for Sharjah Islamic bank during the financial crisis comparing to other banks. While it decreased from 13.56% in 2007

to 5.57% in 2008, it increased to 6.10%

Table 6 shows Anova analysis across the four banks for the period 2004 to 2009 with F-test 3.133 and a significance value of 0.048, which is below 0.05, indicating that there is at least one of the mean values of the return on total equity in one of the banks does not equal the others. LSD post anova analysis shows different mean of this indicator over the years between Dubai bank and Emirates Islamic bank; and between Dubai bank and Sharjah bank.

Table 5. Return on equity

Year	Abu Dhabi	Dubai	Emirates	Sharjah
2004	8.16	15.44	2.04	10.12
2005	17.10	28.83	5.90	8.83
2006	20.65	18.48	12.16	9.51
2007	14.19	24.13	17.90	13.56
2008	15.10	17.41	23.93	5.57
2009	1.09	13.50	4.55	6.10
Coefficient of variation (prior to crisis)	35.16%	27.40%	73.50%	20.70%
Coefficient of Variation (including crisis period)	55.15%	29.39%	76.99%	32.63%

Table 6. Return on equity - Anova

Details	Sum of Squares	DF	Mean Square	F	Significance
Between group	384.765	3	128.255	3.133	0.048
Within group	818.711	20	40.936		
Total	1203.476	23	-----		

## 5. Conclusion

The goal of this paper is to analyze the profitability of the four Islamic banks in the United Arab Emirates during the global financial crisis 2007-2008. The research was focused on three profitability indicators, return on income, return on assets and return on equity. Various types of analysis have been conducted on these indicators to analyze the profitability performance during financial crisis. The comparative analysis between pre-crisis data, 2004 to 2007 and crisis data, 2008 to 2009, shows that the crisis had a significant impact on the performance of these indicators. The height of the impact can most clearly be seen in the years 2008 and 2009.

Moreover, the comparison of the four Islamic banks revealed that Sharjah Islamic and Dubai Islamic banks achieved the highest rates of return on total income and return on assets while Dubai Islamic and Abu Dhabi Islamic banks scored the highest on the performance indicator, return on equity. In addition, the findings also showed that the financial crisis hit the mean ratio performance of these banks particularly hard.

The four banks have responded differently to the financial crisis. While both Abu Dhabi and Emirates Islamic bank witnessed growing performance on the return on total income ratio in 2008 over the prior year, the effect of the crisis can eventually be seen in 2009, where there was dramatic drop in the performance of this indicator for these two banks. The data also shows a continuous decline in the return on total income indicator for Dubai Islamic bank beginning in the year 2008 through to 2009, while the effect of the crisis on this ratio for Sharjah Islamic bank becomes evident in 2008, where return on income fell before slightly rebounding in 2009.

Analysis of the return on assets ratio data revealed a common pattern among all four Islamic banks, all banks were negatively affected by the financial crises. As a result of their decline in revenues, coupled with their increase in fixed assets, all banks saw poorer performance in their return on assets indicators during the defining years of the financial crisis, with the key differences being that Sharjah Islamic bank experienced a slight rebound in the performance of this indicator in 2009.

The analyses of data find that return on equity performance contracted significantly in 2008 for both Dubai and Sharjah Islamic banks. In contrast, the performance decline in this ratio for Abu Dhabi Islamic bank and Emirates Islamic Bank was more delayed, first experiencing a notable decline in the year 2009.

Furthermore, the comparison between the coefficient of variation on the three indicators before and during the crisis indicated high levels of variability resulting mainly from fluctuations during the crisis period. Finally, Anova analysis showed there is a significant difference in the behavior pattern of the indicators across the banks contrasted with the mean performance of some banks, where there was relatively more similarity in behavior. This findings of this research may provide a contribution to policy makers and banks' management by illustrating the financial performance of individual Islamic banks in UAE during the crisis.

Future research should build on this study by expanding its scope to include Islamic banks from other countries as well as by analyzing their performance in 3 distinct periods; pre-crisis, during crisis and post crisis with the intent of more deeply understanding what changes Islamic banks have since made in order to improve their financial resilience in times of crisis.

## References

- Adelpop, I., Lloydking, R., & Tauringana, V. (2018). Determinants of Bank Profitability before, during, and after the Financial Crisis. *International Journal of Managerial Finance*, 14(4) 378-398. <https://doi.org/10.1108/IJMF-07-2017-0148>
- Alexakis, C., Izzeldin, M., Johnes, J., & Pappas, V. (2018). Performance and Productivity in Islamic and Conventional Banks: evidence from the global financial crisis. *Economic Modeling*, 79, 1-14 <https://doi.org/10.1016/j.econmod.2018.09.030>
- Almanaseer, M. (2014). The Impact of the Financial Crisis on the Islamic Banks Profitability: Evidence from GCC. *International Journal of Financial Research*, 5(3) 176-187. <http://dx.doi.org/10.5430/ijfr.v5n3p176>
- Bourkhis, K., & Nabi, M. S. (2013) Islamic and Conventional Banks' Soundness during the 2007-2008 Financial Crisis. *Review of Financial Economics*, 22, 68-77. <https://doi.org/10.1016/j.rfe.2013.01.001>
- Bouzzgarrou, H., Jouida, S., & Louhichi, W. (2018). Bank Profitability during and before the domestic Versus Foreign Banks. *Research in International Business and Finance*, 44, 26-39. <https://doi.org/10.1016/j.ribaf.2017.05.011>
- El-chaarani, H., & Ragab, N. S. (2018). Financial resistance of Islamic Banks in the Middle-East Region. *International Journal of Economics and Financial Issues*, 8(3), 207-218.
- Erfani, G. R., & Vasigh, B. (2018). The Impact of the Global Financial Crisis on Profitability of the Banking Industry: A Comparative Analysis. *Economies*, 6(4), 2-13. <https://doi.org/10.3390/economies6040066>
- Mongid, A. (2016). Global Financial Crisis and Islamic Banks Profitability: Evidence from MENA Countries. *Journal of Emerging Economies and Islamic Research*, 4(1), 2-16. Retrieved from [https://www.researchgate.net/publication/309401319\\_Global\\_Financial\\_Crisis\\_GFC\\_And\\_Islamic\\_Banks\\_Profitability\\_Evidence\\_From\\_MENA\\_Countries](https://www.researchgate.net/publication/309401319_Global_Financial_Crisis_GFC_And_Islamic_Banks_Profitability_Evidence_From_MENA_Countries)
- Parashar, S. P., & Venkatesh, J. (2010). How Did Islamic Banks Do during Global Financial Crisis?. *Banks and Banks Systems*, 5(4), 54-62. Retrieved from <https://ssrn.com/abstract=1878564>
- Ramakrishna, G., Ramulu, M., & Kumar, B. P. (2016). Financial Crisis and the Performance of Commercial Banks: India Experience. *Journal of International Economics*, 7(2), 35-55. Retrieved from [https://www.researchgate.net/profile/Gollagari\\_Ramakrishna2/publication/307938711\\_Financial\\_Crisis\\_and\\_the\\_Performance\\_of\\_Commercial\\_Banks\\_Indian\\_Experience/links/58cb4d9da6fdccdf531a536c/Financial-Crisis-and-the-Performance-of-Commercial-Banks-Indian-Experience.pdf](https://www.researchgate.net/profile/Gollagari_Ramakrishna2/publication/307938711_Financial_Crisis_and_the_Performance_of_Commercial_Banks_Indian_Experience/links/58cb4d9da6fdccdf531a536c/Financial-Crisis-and-the-Performance-of-Commercial-Banks-Indian-Experience.pdf)
- Sufian, F., & Habibullah, M. S. (2010). Assessing the Impact of Financial Crisis on Bank Performance: Empirical Evidence from Indonesia. *ASEAN Economic Bulletin*, 27(3), 245-262. <https://doi.org/10.1355/ae27-3a>
- Tlemsani, I., & Al Suwaidi, H. (2016). Comparative Analysis of Islamic and Conventional banks in the UAE during the Financial Crisis. *Asian Economic and Financial Review*, 6(6), 298-309. <https://doi.org/10.18488/journal.aefr/2016.6.6/102.6.298.309>
- Unal, S., & Acikalin, S. (2012). Effect of Financial Crises on State and Private Bank Performance: The Turkish Experience of 2001. *The IUP Journal of Bank Management*, XI(1), 30-46. Retrieved from [https://econpapers.repec.org/article/icficfjbm/v\\_3a11\\_3ay\\_3a2012\\_3ai\\_3a1\\_3ap\\_3a30-46.htm](https://econpapers.repec.org/article/icficfjbm/v_3a11_3ay_3a2012_3ai_3a1_3ap_3a30-46.htm)
- Uppal, J. Y., & Mangla, I. U. (2010). Islamic Banks and the Global Financial Crisis of 2007-09: An Assessment. *Journal of the Academy of Finance*, 8(1), 167-178.