Impact of Global Financial Crisis on the Performance of Islamic and Conventional Banks: Empirical Evidence from Malaysia

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Abstract

This study aims to conduct a comparative analysis on the impact of the 2007/2008 global financial crisis on the Islamic and conventional banks in Malaysia. Three performance indicators, namely profitability, liquidity and credit risk of the banking institutions are being considered. The study covers a five-year period from 2006 to 2010, and divides the sample period into before, during, and after the financial crisis. In methodology, the study adopts the ratio analysis on a sample of six Islamic banks and nine conventional banks. The study documents two main findings: (i) there was no major difference in profitability and credit risk among the two types of the banking institutions due to the financial crisis; and (ii) the Islamic banks were holding more of the liquid assets than their conventional counterparts, thus are less exposed to the liquidity risks due to the financial crisis. The study provides a number of practical implications to the banking sector, particularly on the issue of balancing the profitability-liquidity conflict in the banking institutions.

1.0 Introduction

In the aftermath of the 2007/2008 global financial crisis, comparative studies assessing the impact of the crisis on the conventional and Islamic banking institutions have been accumulating. These studies generally focus on assessing the hypothesis that the Islamic banks have greater resilience to the financial shocks compared to the conventional banks. The adverse impact of the financial crisis on the conventional financial institutions has made headlines, which led many to conclude that the recent financial crisis has indeed manifested the inherent weakness of these institutions. Due to the crisis, even the well known and established conventional banks were badly affected with the value of their assets drops rapidly. While a few of these institutions failed, a number of them had to be saved and bailed out by the government.

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On a contrary, the Islamic banking institutions were reported to remain stable and register commendable performance during the crisis period. Even though there were some impact on their performance, the extent to which the Islamic banks being affected by the crisis was not as bad as that on the conventional banks (Kassim and Abd. Majid, 2010).

Despite this, there are concerns that the Islamic and conventional banks seem to share more similarities than differences as far as the technicalities of their operations are concerned. For instance, Islamic banks, similar to conventional banks, take the role of an intermediary and are trustees of the people’s money with the difference being that the former shares profit and loss with its depositors (Dusuki, 2008; Ghayad, 2008). In addition, Islamic banks, at least ideally, do not charge or receive interest from their customers in all aspects of their financial dealings. A number of prior studies assessed the differences in performance between Islamic banks and their conventional counterparts include Iqbal (2001), Rosly and Abu Bakar (2003), AbdusSamad (2004), Hassan et al. (2009), Kassim and Abd. Majid (2010), Hassan and Dridi (2010), and Cevik and Charap (2011).

The objective of this study is to provide empirical evidence on the impact of the 2007/2008 global financial crisis on the performance of the Islamic and conventional banks by focusing on the Malaysian experience. Specifically, it aims to conduct a comparative analysis on the impact of the recent financial crisis on the profitability, liquidity and credit risk between the Islamic and conventional banks in Malaysia. In doing so, this paper reviews the validity of the proposition that the Islamic banks are more resilient to the financial shocks compared to the conventional banks.

In order to achieve its objectives, the study covers a five-year period from 2006 to 2010 so as to incorporate the periods of before, during, and soon after the 2007/2008 financial crisis. Few studies had been conducted to link the recent financial crisis and the performance of banks but are far from satisfactory as most of them did not use statistical techniques, nor made comparisons between the Islamic and conventional banks during these periods. Consequently, the present study intends to evaluate the performance of the Islamic and conventional banks in terms profitability, liquidity, credit risk and efficiency before, during and after the subprime meltdown. To the authors’ knowledge, there have been no studies covering the performance of the Islamic and conventional banks covering before the global crisis (2006), during the global crisis (2007-2008) and after the global crisis (2009-2010). Such comparison of profitability, liquidity, credit risk and efficiency before, during and after the crisis is important to deposits and investors. Thus, the novelty of this study lies with respect to its contents, coverage of years and methodology.
The paper is organized into five sections. The next section reviews of the available literature on the impact of financial crisis on the banking industry and as much as possible, focuses on the impact of the crisis on the Islamic banks. Section 3 explains the methodology and data adopted in this study. Section 4 discusses the results and finally, section 5 concludes and provides several implications of the study.

2.0 Literature Review

Several studies focus on comparative performance between the Islamic and conventional banks in terms of profitability, level of capitalization and cost efficiency. In a cross-country study, Iqbal (2001) evaluates the performance of the Islamic and conventional banks using both trend and ratio analyses. The countries being selected, namely Saudi Arabia, Kuwait, Bahrain, Egypt, UAE, Jordan, Qatar, Bangladesh, Malaysia and Turkey, host a significant market share of the Islamic banking and finance industry. The study compares the performance of 12 conventional banks and 12 Islamic banks, covering the period of 1990 to 1998. Using a number of key ratios as evaluative criteria, the study finds that, in general, the Islamic banks were well capitalized, profitable and stable with their profitability ratios compared favorably with the international standards. The Islamic banks also seemed to be making an effective use of the resources at their disposal. However, they do not appear to be cost-effective in their operations. Additionally, the current rates of profits on assets of the Islamic banks seemed to be insufficient to meet that expectation and so the depositors of Islamic banks would genuinely expect a higher rate of return to compensate for the extra risk.

Similarly, Rosly and Abu Bakar (2003) also compare the Islamic banks against the conventional banks with the aim to show that the performance of credit-intensive Islamic banks that use extensive credit has no advantage over the conventional banks in Malaysia. By using several financial ratios, the study covers the period from 1996 to 1999, which is during the peak of the Asian financial crisis. Based on the results of the analysis of the financial performance of 24 financial institutions offering Islamic banking services through the window system, the study finds that these banks have recorded higher return on assets (ROA) as they are able to utilize existing overheads carried by mainstream banks. As this lowers their overhead expenses, it is found that the higher ROA ratio for the banks does not imply efficiency. It is also inconsistent with their relatively low asset utilization and investment margin ratios.

AbdusSamad (2004) compared the performance of Bahrain’s Islamic banks and conventional banks during the post Gulf War period (1991-2001) with respect to (a) profitability, (b) liquidity risk, and (c) credit risk. The study assessed six Islamic
banks and 15 conventional banks. The study documents that there is no significant difference in performance between the Islamic and conventional banks with respect to profitability and liquidity. However, the study finds that there exists a significant difference in credit performance.

Hassan et al. (2009) aims to investigate the differences in mean cost, revenue and profit efficiency scores of the conventional versus Islamic banks in several countries. The study also aims to examine the effect of size and age on cost, revenue and profit efficiency of the sampled banks. Cross-country level data was compiled from the financial statements of 40 banks in 11 OIC countries over the period 1990-2005. Based on the nonparametric approach of Data Envelopment Analysis, the results indicate that there is no significant difference between the overall efficiency of the conventional and Islamic banks. However, it was noted that, on average, the Islamic banks are more efficient in using their resources compared to their ability to generate revenues and profits.

Kassim and Abd.Majid (2010) empirically examine the impacts of two financial shocks (the 1997 and the 2007/2008 financial crises) on the Islamic banks vis-a-vis the conventional banks in Malaysia. The study also tests the hypothesis that Islamic banks are more resilient than the conventional banks during financial crisis. The study focuses on the Malaysian data covering three sub-periods, namely, the 1997 Asian financial crisis period (July 1997-September 1999), the non-crisis period (October 1999-June 2007) and the 2007 financial crisis period (July 2007-September 2009). The results indicate that both the Islamic and conventional banking systems are vulnerable to financial crises. This finding is contrary to the popular belief that the Islamic financial system is sheltered from the financial shocks due to its interest-free nature.

Hassan and Dridi (2010) examine the impact of global financial crisis on the Islamic and conventional banks in the years 2008 and 2009 in several countries where both Islamic banks and conventional banks co-exist, namely Bahrain, Jordan, Kuwait, Qatar, Malaysia, Saudi Arabia, UAE, and Turkey. A sample of 120 banks was examined of which 25% were Islamic banks. The results indicate that Islamic banks have been affected differently than conventional banks during the recent global financial crisis. Factors specific to Islamic banks have helped to limit the adverse effects of the crisis on profitability of the Islamic banks in 2008, whilst their poor risk management practices had adversely affected them in 2008 and 2009.

Additionally, the study analyses the effects of crisis on Islamic and conventional bank profitability, credit and asset growth in countries in which both types of banks have significant market share. In general, they found that Islamic banks showed strong
resilience during the global crisis due to such smaller investment portfolios of Islamic banks, lower leverage, higher solvency and most importantly the adherence to shari‘ah principles which precluded Islamic banks from financing or in a kind of instruments that adversely affected their conventional competitors. On the other hand, the study found that Islamic banks faced larger losses than the conventional peers when the crisis hit the real economy and due to the weakness in risk management practices in some Islamic banks led to a larger decline in profitability compared to that seen in conventional. However, these study raised caution that this comparison would not lead to reliable conclusions about the financial stability and the resilience of the Islamic banking sector because of the varying conditions across financial systems in countries where chooses Islamic banks operate.

3.0 Methodology

In efforts to arrive at empirical evidence on the impact of the global financial crisis on the Islamic and conventional banks, study adopts the descriptive and ratio analyses on a sample of six Islamic banks and nine conventional banks. Specifically, the study conducts a comparative analysis using financial ratios on the impact of the recent financial crisis on the profitability, liquidity and credit risk of the Islamic and conventional banks in Malaysia.

The ratio analysis is widely adopted by many studies to evaluate the banks’ performances (see, for example, O’Connor, 1973; Libby, 1975; Chen and Shimerda, 1981; Ross, 1991; Spindler, 1991; Sabi, 1996; Hempel and Simonsen, 1998; Samad, 1999; Samad, 2004). Among the most important advantage of ratio method is that it removes the disparities between banks as they are not equal in size. The use of ratio removes the disparities in sizes and brings them at par (Samad, 2004).

In order to examine whether there is a difference in performance between Islamic banks and conventional banks of Malaysia, the Mann Whitney U-test of equality of mean is performed. The Mann Whitney U-test is a nonparametric test that compares two samples from two independent populations. The Mann Whitney U-test Z-value is applied in assessing if there are significant differences in various tested variables between the two types of banks. With the assumption that the performance of ratios is normally distributed, the null hypothesis of the equality of mean of the conventional banks and Islamic banks is tested against non-equality of mean.

3.1 Performance Measures

This study used balance sheet and income statement items of banks which are under the control of the bank management. The financial ratios are classified in to three
categories which are profitability performance, liquidity performance and credit (loan) risk performance.

3.1.1 Profitability Performance

In terms of profitability, the study uses the two most widely used profitability ratios which are return on assets and return on equity.

\[ \text{Return on Assets (ROA)} = \frac{\text{net profit}}{\text{total assets}}. \]

The higher the ROA, the better is the financial performance or profitability of the banks.

\[ \text{Return on Equity (ROE)} = \frac{\text{net profits}}{\text{equity}}. \]

The higher the ROE, the more efficient is the performance of the banks.

3.1.2 Liquidity Performance

Liquidity means which means how quickly a bank can convert its assets into cash at face value to meet the cash demands of the depositors and borrowers. Three important ratios are applied which are as follows:

\[ \text{Net Loans to Asset Ratio (NetLTA)} = \frac{\text{net loans}}{\text{total assets}}. \]

NetLTA measures the percentage of assets that are tied up in loans. The higher the ratio, the less liquid the bank is.

\[ \text{Liquid Assets to Deposit and Short-term Fund Ratio (LdASF)} = \frac{\text{liquid asset/customer deposit and short term funds}}{\text{deposit and short term funds}}. \]

It indicates the percentage of deposit and short term funds that are available to meet the sudden withdrawals. The higher the LdASF, the more liquid is a commercial bank and less vulnerable it is to a run on the bank.

\[ \text{Net Loans to Deposit and Borrowing (LDBR)} = \frac{\text{net loans}}{\text{total deposit and borrowings}}. \]

It indicates the percentage of the total deposit locked into non-liquid asset. The higher the LDBR, the higher is the liquidity risk.

3.1.3 Credit Risk Performance

To measure the credit/loan risk performance of the banks, three financial ratios are used and are:

\[ \text{Equity to Asset ratio (EQTA)} = \frac{\text{common equity/assets}}{\text{assets}}. \]

It measures equity capital as a percentage of total assets. The higher the ratio of EQTA, the greater is the capacity for a bank to sustain the assets losses.

\[ \text{Equity to Net Loan ratio (EQL)} = \frac{\text{total equity/net loans}}{\text{net loans}}. \]

It measures equity capital as a percentage of total net loans. The higher the ratio of EQL, the higher is the capacity for a bank in absorbing loan losses.
Total Impaired Loans to Gross Loan ratio (IMLGL) = impaired (non-performing loans) loans/gross loans. This is one of the most important criteria to assess the quality of loans or asset of a commercial bank. It measures the percentage of gross loans which are doubtful in banks’ portfolio. The lower the ratio of IMLGL, the better is the asset/credit performance for the commercial banks.

3.2 Data and Data Sources

The study uses a sample of six Islamic and nine conventional banks. The study covers five years from 2006-2010. This time frame is selected as it represents before, during and after the crisis. The year 2006 is used as before the crisis, whilst 2007 and 2008 during the crisis, and 2009 and 2010 after the crisis. The data utilized in the analysis are extracted from the annual reports of the selected banks.

4.0 Results

The results of the ratio analysis in terms of profitability, liquidity and credit risk performance and its nonparametric approach of Mann Whitney U-test which compares the samples of the of Islamic and conventional banks is shown in Tables 1 and 2. Table 1 presents the descriptive results of the study which shows means of various performance measures of six (6) Islamic and nine (9) Conventional banks for the period 2006 - 2010. In addition, Table 2 displays the results based on Mann Whitney U-test whereby Z-value is applied in assessing the significance between the two types of banks.

The profitability measures, namely the ROA and ROE show that conventional banks were in surplus before the crisis for the year 2006, while Islamic banks were swallowing in deficit. This loss is specifically because of one of the Islamic banks, namely Bank Islam Malaysia incurred heavy losses for the years 2005 and 2006. Bank Islam Malaysia aside, it seems that the Islamic banks performed better than their conventional counterparts. The ROA and ROE for the Islamic banks are -0.78% and -68.20% respectively, whilst those of the conventional banks are 0.82% and 11.80%, respectively.

Surprisingly, during the earlier stages of the financial crisis, while enormous previously well known institutions were collapsing, the Islamic banks industry were making progress in profitability as they reported a higher profit for the year 2007 than the conventional banks did. The ROA for Islamic and conventional banks for the year 2007 were 0.93% and 0.82%, respectively, partially attributed to the greater amount of debt owed to conventional banks from banks in Europe and America – which were at the time unable to pay their debts. However, the difference in profitability for the
years 2006 and 2007 between Islamic and conventional banks was not statistically different. But for 2008, the difference in profitability was statistically significant in favor of the conventional banks.

<Insert Tables 1 and 2 here>

The ROA for the conventional banks was 1.25%, while for the Islamic banks were only 0.78%. The higher returns of conventional banks might have been due to higher risk investment. This is supported by increased net loans to total assets of conventional banks from 51.28% in 2007 to 55.87% in 2008. After the crisis in 2009 and 2010, there was no significant difference between Islamic and conventional banks in terms of the profitability. The average ROA and ROE of the Islamic banks are 0.85% and 13.60%, respectively in 2009, as well as 1.03% and 15.06% in 2010, compared to 0.94% and 11.51% in 2009, along with 1.05% and 12.34% in 2010 of the conventional banks.

Although the Islamic banks were making progress in profitability, the conventional banks fared a little bit better than the Islamic banks. This observation can be attributed to several reasons. First, because of religious constraints, the Islamic banks don’t have a broad span for investment in any stock or security. It cannot invest beyond shariah approved investment even if it can earn a higher rate of returns. The shariah screening might limit the banks’ investments so Islamic banks do invest only in shariah approved projects. Second, the Islamic banks are supposed to maintain more liquidity than conventional banks in order to provide the guarantee of the saving deposits and trust. This is evident from all the liquidity ratios of which Islamic banks are superior. The higher liquidity maintained may, thus, restrict Islamic banks’ investment which might lead lower returns.

In general, we may conclude that there was no major difference in performance between the Islamic and conventional banks in terms of profitability as the two banking systems statistically differed in only the year 2008. This is consistent with prior studies that there was not a significant difference in terms of profitability between the two types of banks (Hassan, 1999; Samad, 1999; Samad, 2004).

In terms of liquidity, the study finds that the Islamic banks performance was far more superior to that of conventional banks in almost all the years. Firstly, the Islamic banks showed lower net loans to asset ratio (NetLTA), in all the five years. This measure shows the percentage of assets that are tied up in loans and the lower the ratio, the more liquid the bank is. However, the difference was not statistically significant in all years under examination. Also, the Islamic banks were better according to net loans to deposit and borrowing (LDBR) which is among the most important ratio in measuring liquidity.

The Islamic banks were holding a lower LDBR ratio which means a lower liquidity risk. Both of the above mentioned ratios, the difference were significant in the year 2006. With regard to liquid asset to customer deposit and short-term fund (LdASF), the Islamic banks showed a higher run off ratio in all the years. Specifically, the difference is statistically significant for the years 2006, 2008 and 2009. This indicates that the Islamic banks were holding a higher percentage of deposit and short term funds available to meet the sudden withdrawals. This implies that the Islamic banks was holding more to a great extent of liquid assets than their counterparts and are exposed to less liquidity risk than that of conventional banks. In other words, the Islamic banks were less vulnerable to a run on the bank. The higher liquidity ratio of the Islamic banks compared to that of the conventional banks could be due to limitations of scope of the Islamic banks investment. The restricted set of investment opportunities helps the Islamic banks to hold higher liquid assets (Samad, 2004). Furthermore, because the Islamic banks are new entrants to the market, they might be careful to incur losses in an attempt to not undermine the general reputation of the Islamic banking system.

According to credit performance, the study finds in general that the Islamic banks was relatively less risky and more solvent than the conventional banks but the difference was not significant in almost all the years. However, non-performing loans to gross loans which measures the quality of loans showed statistical significant for the year 2009 of which, the Islamic bank was in favour. The Islamic banks could be performing better in credit because they are cautions about credit advancement as they are new comers in the market. This is supported by the fact that the Islamic banks did maintain a lower percentage of assets attached to loans (loan to asset ratio) in all the period compared to their conventional counterparts.

5.0 Conclusion

The paper examines the impact of the recent global financial meltdown on the performance of Islamic and the conventional banks in Malaysia. Specifically, the study aims to tests the influence of the recent financial crisis on the profitability, liquidity and credit risk of the Islamic and conventional banks. The study covers five years from 2006-2010. The results indicate that there is no major difference in profitability and credit risk between the Islamic and conventional banks. However, the Islamic banks was holding more to a great extent of liquid assets than their counterparts and are exposed to less liquidity risk than their conventional banks counterparts. The higher liquidity ratio of the Islamic banks compared to that of conventional banks could be due to limitations of scope of the Islamic banking investment and this might have as a result led to lower returns.
Several implications can be derived from the findings of this study. First, the evidence drawn in this study suggests that the two banking institutions perform similar in their profitability and credit risk but with respect to liquidity, the Islamic banks maintained higher liquid assets. This might have led to lower profits compared to the conventional banks as the Islamic banks are maintaining higher liquidity than their conventional counterparts. Hence, the Islamic banks should work on ways to utilize their loads of liquid cash in better investment and strive to strike the balance between the profitability and liquidity tradeoff. In this regard, efficient liquidity management is crucial to ensure that the Islamic banks are operating at the optimum level.

Secondly, it was observed that during the recent financial downturn, the Islamic banks were performing slightly better than the conventional banks. Thus, this seems to support the widely held view that the Islamic banks are better off during a crisis period of time. Conventional banks might, as a result, want to emulate the Islamic banking behavior during a financial turmoil.

Notwithstanding the implications of the study, the study is still subject to a number of limitations. First, the small sample of the study might not depict a better view of the banks in Malaysia. Future studies might wish to examine a larger sample in comparing the performance and efficiency of the two banking systems. Second, the quantitative results presented in the current study can only describe the performance of the banks. Future researchers should combine quantitative and a qualitative approaches to not only describe but also ‘explain’ why the banks performed better than the others. Finally, the Islamic and conventional banks in Malaysia were only examined in this study. Investigation of the banks in several countries would have revealed a better view in comparing the performance of the Islamic and conventional banks. Hence, future studies may attempt to compare the performance of the Islamic and conventional banks in several countries in a longitudinal setting.

References


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