A comparison Study on The Profitability and its Determinants between Islamic and Conventional Banks Listed in Qatar Exchange (QE) Pre, During, and Post 2008 Global Financial Crisis

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Abstract— the objectives of this study are to find the determinants of the profitability of Islamic and conventional banks listed in Qatar Exchange (QE) and investigate whether a significant difference between the two kinds of banks is existed. To achieve the research objectives, the researcher has collected the data from Bloomberg database and Central Bank of Qatar. These data have been analyzed by using Statistical Analysis Software (SAS). Descriptive statistics have been used to summarize and analyze the raw data, Correlation Coefficient analysis has been used to test the relationship between dependent and independent variables, and sample paired T-test has been used to test the difference of profitability between Islamic and conventional banks listed in Qatar exchange (QE). The independent variables that have significant relationship with the profitability of Islamic banks are; Loan deposit ratio (before and during the crisis), Capital adequacy ratio (before the crisis), Debt to equity (after the crisis), Debt to total assets (after), Asset utilization (during) Non-performing loans to total loans (before), Non- performing loans to total equity (before), Bank size (before and after), inflation rate (during and after), Money supply (before and after), and Interest rate (before and after). The independent variables that have significant relationship with the profitability of conventional banks are; Loan deposit ratio (before), Capital adequacy ratio (before and during), Debt to equity (before and after), Debt to total assets (before and during), Operating efficiency (during), Non-performing loans to total loans (before and after), Non- performing loans to total equity (before and during), Bank size (before, during, and after), inflation rate (during and after), Money supply (before, during, and after), and Interest rate (before, during, and after). The researcher also found that there is a significant difference between Islamic and conventional banks during and after the crisis.

Keywords- Islamic Banks, Conventional Banks, Profitability, Qatar Exchange.

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I. INTRODUCTION

In the beginning of 1930s up to 1960s developments in Islamic finance took place but only in the theoretical part. In 1963, Egypt was the first practice of Islamic finance conducted through initiating the first Islamic bank operating under Islamic laws (Shari’a). Later on number of Islamic banks was established in Malaysia between periods of 1960s to 1970s, as [1] . Islamic banks introduced themselves as an alternative to conventional interest-based bank and is broadening speedily throughout the last two decades within both Muslim and non-Muslim countries, as [2]. Islamic banks and conventional banks similar in terms of intermediation between depositors and investors and they are also profit-maximizing entities playing important role in Muslim nations serving the need of customers there. Islamic banks practice intermediation and they are trustees of depositors’ money but different from conventional banks as they Failed to charge or receive interest in all their financial transactions while they share profit and loss with their depositors, as [3], [4].

Generally, The banking sector profitability contributes in economies and makes economies to bear negative and external financial shocks and contribute in financial system stability, as [5]. As a result of importance of profitability, the researcher in this study will focus on the determinants of the profitability of both Islamic and conventional banks in Qatar Exchange (QE) and whether a significant difference between profitability of both kinds of banks is existed.

II. LITERATURE REVIEW

At the micro level, profit represents an essential requirement for a competitive banking institution and the cheapest source of funds. It is not just a result, but also is essential for successful banking in a period of growing competition on financial markets. Hence, the basic aim of a bank’s management is to achieve a profit, as the essential requirement for conducting any business, as [6]. According to reference [7] ROA is used as a dependent variable to predict bank performance. Reference [8] defined liquidity as the availability of company’s resources to cover the short-run cash

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requirements. It is an evaluation of the company's liquid assets to cover its current obligations. According to reference [9] Loan Deposit Ratio used as a measure of bank's liquidity. Capital adequacy is the capital required to maintain balance with financial institution to cover credit risk, market risk, and operational risk, to absorb the potential losses and protect the financial institution's debt holder, as [10]. Reference [11] Used Capital ratio as a determinant of profitability and he found that there is a positive relationship between capital ratio and bank's profitability. Solvency risk refers to the increasing of market value of bank liability over the market value of its assets which means in case of liquidating assets of the banks will not be enough to pay bank obligations to creditors and consequently the bank would be bankrupt, as [10]. According to reference [12], there are a couple of options for the purpose of efficiency measurement, the first one is input-oriented measure (also known as the input maximization) and the second one is output-oriented measures (also known as the input minimization). According to reference [13], the input-oriented measure addresses the question "By how much can input quantities be proportionately reduced without changing the output quantities produced?. On the other hand, the output-oriented measure addresses the question "By how much can output quantities be proportionately expanded without altering the input quantities used?. Reference [14] used Operating efficiency ratio, as indicator of management efficiency and its relation to bank's profitability. They found that no evidence that highly profitable banks have a greater operating efficiency than their lower profitable counterparts. Reference [15] used asset utilization ratio to evaluate asset management performance and its relationship with bank's profitability. They found that there is a positive relationship between asset utilization ratio and bank's profitability. Refer to reference [16], there was a study on the impact of asset quality on the profitability of Private banks in India and the result was negative correlation. According to reference [17], the bank size is related to the concept of economics of scale which mean the large institutions can be more efficient as long as they could provide their services with lower costs incurred, in consequence, the bank would be able to increase its market share and increase its profitability. According to reference [18], the profitability of the bank positively affected by the asset size of the bank. Reference [19] defined inflation as a sustained increase in the price level measured by the annual rate of change in the Consumer Price Index. Reference [20] showed that there is a positive relationship between inflation and profitability. Reference [19] defined money supply M1 as measure of physical money such as coins and currency and checking account balances available in a country in a specific period of time. Reference [21] used the money supply (M2) as a measure of market size and tested its impact on profitability of banks and found that the variable significantly affects bank profitability. Interest rate According to reference [10] can be defined as the cost of borrowing money. Interest rates are normally expressed as a percentage of the total borrowed. Reference [22] stated that under general market conditions, bank profits are affected positively with increasing in interest rates.

III. Research Framework And Hypotheses

The conceptual framework (see Fig. 1) is conceptualized from references, [6],[9],[11],[18],[20],[21],[22].

As shown in Figure 1, the Independent Variables have been selected for this study were, Loan deposit ratio (LDR), Capital adequacy ratio (CAR), Total debts to Equity capital (DER) Ratio, Debt to total assets ratio (DTAR), Asset Utilization Ratio (AU), Operating Efficiency Ratio (EFF), NPLs To total loans ratio (NPL1), NPLs to total equity ratio (NPL2), Bank size (BS), Inflation rate, Money supply, and Interest rate. And the Dependent Variable was Return on Assets (ROA).

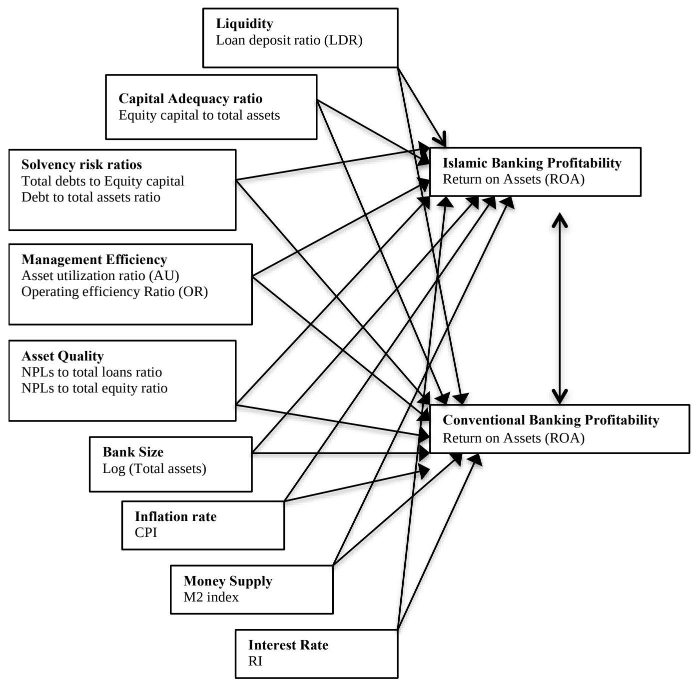

Fig. 1 Conceptual framework of Islamic and conventional Banks' Profitability

IV. Hypotheses

The null-hypotheses were formulated as follows:

H_{1o}: There is no significant relationship between Liquidity and Profitability of listed Islamic and conventional banks in Qatar exchange (QE) before, during, and after 2008 global financial crisis.

H_{2o}: There is no significant relationship between capital adequacy ratio and profitability of listed Islamic and conventional banks in Qatar exchange (QE) before, during, and after 2008 global financial crisis.

H_{3o}: There is no significant relationship between debt to equity ratio and profitability of listed Islamic and conventional banks in Qatar exchange (QE) before, during, and after 2008 global financial crisis.

H_{4o}: There is no significant relationship between debt to total assets ratio and profitability of listed Islamic and conventional banks in Qatar exchange (QE) before, during, and after 2008 global financial crisis.

H_{5o}: There is no significant relationship between asset utilization ratio and profitability of listed Islamic and conventional banks in Qatar exchange (QE) before, during, and after 2008 global financial crisis.

H_{6o}: There is no significant relationship between operating efficiency ratio and profitability of listed Islamic and conventional banks in Qatar exchange (QE) before, during, and after 2008 global financial crisis.

H_{7o}: There is no significant relationship between NPLs to total loans ratio and profitability of listed Islamic and conventional banks in Qatar exchange (QE) before, during, and after 2008 global financial crisis.

H_{8o}: There is no significant relationship between NPLs to total equity ratio and profitability of listed Islamic and conventional banks in Qatar exchange (QE) before, during, and after 2008 global financial crisis.

H_{9o}: There is no significant relationship between bank size and profitability of listed Islamic and conventional banks in Qatar exchange (QE) before, during, and after 2008 global financial crisis.

H_{10o}: There is no significant relationship between inflation rate represented in CPI and profitability of listed Islamic and conventional banks in Qatar exchange (QE) before, during, and after 2008 global financial crisis.

H_{11o}: There is no significant relationship between money supply and profitability of listed Islamic and conventional banks in Qatar exchange (QE) before, during, and after 2008 global financial crisis.

H_{12o}: There is no significant relationship between interest rate and profitability of listed Islamic and conventional banks in Qatar exchange (QE) before, during, and after 2008 global financial crisis.

H_{13o}: There is no significant difference between the profitability of listed Islamic and conventional banks in Qatar Exchange (QE) before, during, and after.

V. Research Methodology

To achieve the research goals, the researcher will depend on the documentary secondary data in this study. According to reference [23] documentary secondary data include written materials such as notices, correspondence, reports to shareholders, organizations' databases, and organizations' websites. The data in this research will be taken from the financial database of the selected listed banks in Qatar exchange. The sources of database used are; Bloomberg, and Qatar Exchange (QE) database.

The target population for this research is eight listed banks in Qatar exchange between 2004 and 2012 period, three are Islamic banks and five are conventional banks. The target Islamic and conventional banks used in this research are shown in table 1.

SAS program for windows version has been used for analyzing and summarizing data from several sources. All the dependent and independent variables between 2004 and 2012 was fed in the SAS program. The SAS is a program that provides techniques for analyzing the data.

TABLE I
LIST NUMBER OF BOTH ISLAMIC AND CONVENTIONAL BANKS AS IN QATAR EXCHANGE (QE) IN 2012

Islamic banks	**Conventional banks**
Qatar Islamic Bank	Qatar National Bank
Qatar International Islamic Bank	The Commercial Bank
Masraf Al Rayan	Doha Bank
	Al Khalij Commercial Bank
	Al Ahli Bank

Methods of Analysis

In this research, Descriptive Analysis is used to analyze statistics of nine years' financial data between January 2005 and December 2012 is used to analyze each bank from the selected listed banks in Qatar exchange that have finally completed their financial information. Correlation Coefficient is used to study the relationship between profitability as a dependent variable and Independent variables. A paired sample t-test is used to determine whether there is a significant difference between profitability of Islamic banks and profitability of conventional banks.

VI. Finding Results

Loan deposit ratio and profitability

Finding for Islamic banks: before and during the crisis the relationship is positive and statistically significant but after the crisis, the relationship still positive but statistically insignificant.

Finding for conventional banks: before the crisis the relationship is positive and statistically significant, during and after the crisis the relationship is negative and statistically insignificant.

Capital adequacy ratio and profitability

Finding for Islamic banks: before the crisis the relationship is positive and statistically significant, during the crisis, the relationship negative and statistically significant, after the crisis the relationship still negative and statistically insignificant.

Finding for conventional banks: before the crisis the relationship is positive and statistically significant, during the crisis, the relationship negative and statistically significant, after the crisis the relationship still negative and statistically insignificant.

Debt to equity ratio and profitability

Finding for Islamic banks: before and during the crisis the relationship is positive but statistically insignificant but after the crisis, the relationship became negative and statistically significant.

Finding for conventional banks: before the crisis the relationship is positive and statistically significant, during the crisis the relationship is positive and statistically insignificant, after the crisis the relationship is negative and statistically significant.

Debt to total assets ratio and profitability

Finding for Islamic banks: before and during the crisis the relationship is positive but statistically insignificant but after the crisis, the relationship became negative and statistically significant.

Finding for conventional banks: before the crisis the relationship is positive and statistically significant, during the crisis the relationship is negative and statistically significant, after the crisis the relationship is negative but statistically insignificant.

Asset utilization ratio and profitability

Finding for Islamic banks: before the crisis the relationship is negative and statistically insignificant, during the crisis, the relationship became positive and statistically significant, and after the crisis, the relationship became negative and statistically insignificant once again.

Finding for conventional banks: before the crisis the relationship is positive and statistically insignificant, during and after the crisis the relationship is negative and statistically insignificant.

Operating efficiency ratio and profitability

Finding for Islamic banks: before and during the crisis the relationship is positive and statistically insignificant, after the crisis, the relationship became negative and still statistically insignificant.

Finding for conventional banks: before, during, and after the relationship is negative but only significant during the crisis.

Non-performing loans to total loans ratio and profitability

Finding for Islamic banks: before the crisis the relationship is positive and statistically significant, during the crisis, the relationship is positive and statistically insignificant, after the crisis the relationship is negative and statistically insignificant.

Finding for conventional banks: before the crisis the relationship is positive and statistically significant, during the crisis, the relationship is positive and statistically insignificant, after the crisis the relationship is negative and statistically significant.

Non-performing loans to total equity ratio and profitability

Finding for Islamic banks: before the crisis the relationship is positive and statistically significant, during the crisis, the relationship is positive and statistically insignificant, after the crisis the relationship is negative and statistically insignificant.

Finding for conventional banks: before and during the crisis the relationship is positive and statistically significant, after the crisis the relationship is negative and statistically insignificant.

Bank size and profitability

Finding for Islamic banks: before the crisis the relationship is positive and statistically significant, during the crisis, the relationship is negative and statistically insignificant, after the crisis the relationship is negative and statistically significant.

Finding for conventional banks: before the crisis the relationship is positive and statistically significant, during the crisis, the relationship is negative and statistically significant, after the crisis the relationship became positive and statistically significant once again.

Inflation rate and profitability

Finding for Islamic banks: before the crisis there is no relationship, during and after the crisis, the relationship is negative and statistically significant.

Finding for conventional banks: before the crisis there is no relationship, during the crisis the relationship is negative and statistically significant, after the crisis the relationship is positive and significant.

Money supply and profitability

Finding for Islamic banks: before the crisis the relationship positive and statistically significant, during the crisis, the relationship is negative and statistically insignificant, after the crisis the relationship is negative and statistically significant.

Finding for conventional banks: before the crisis the relationship positive and statistically significant, during and after the crisis, the relationship is negative and statistically significant.

Interest rate and profitability

Finding for Islamic banks: before the crisis the relationship positive and statistically significant, during the crisis, the relationship is negative and statistically insignificant, after the crisis the relationship is positive and statistically significant.

Finding for conventional banks: before and during the crisis the relationship is positive and significant, after the crisis the relationship is negative and significant as well.

The difference of profitability of Islamic and conventional banks pre, during and after 2008 global financial crisis

Before 2008 global financial crisis, there was no difference between profitability of both banks but during and after the crisis, there is a significant difference between profitability of Islamic and conventional banks and profitability of Islamic banks was higher than profitability of conventional banks (ROA Islamic – ROA conventional) where t-value was positive.

VII. Summary and Conclusion

According to the research findings for Islamic banks after 2008 financial crisis period, the researcher found that among all financial ratios used in the study, only debt to equity ratio and debt to total assets ratio significantly negatively affect the profitability of Islamic banks, and that means to increase the profitability, Islamic banks must keep lower values of both debt to equity and debt to total assets ratios and this can be done by reducing debt and increasing equity. Bank size significantly negatively affects the profitability of Islamic banks and that result can guide the investor to the fact that the small Islamic banks in terms of total assets have higher profitability than the large Islamic banks. According to macroeconomic factors, inflation rate significantly negatively affects the profitability of Islamic banks, that means the higher the inflation rate the lower the profitability of Islamic banks and that result can give an indicator for the investor to avoid the investment in Islamic banks in Qatar during the time of high inflation rate. Money supply also significantly negatively affects the profitability of Islamic banks, that means the higher money supply the lower the profitability of Islamic banks and that result can give an indicator for the investor to avoid the investment in Islamic banks in Qatar during the time of high money supply. Interest rate also significantly positively affects the profitability of Islamic banks, that means the higher the interest rate the higher the profitability of Islamic banks and that result can give an indicator for the investor to invest in Islamic banks in Qatar during the time of high interest rate.

According to the research findings for conventional banks after 2008 financial crisis period, the researcher found that among all financial ratios used in the study, only debt to equity ratio significantly negatively affects the profitability of Islamic banks, and that means to increase the profitability, conventional banks must keep lower value of debt to equity ratio. Also non-performing loans to total loans ratio significantly negatively affects the profitability of conventional banks, and that means to increase the profitability, conventional banks must keep lower value of non-performing loans to total loans ratio. Bank size significantly positively affects the profitability of conventional banks and that result can guide the investor to the fact that the large conventional banks in terms of total assets have higher profitability than the small conventional banks. According to macroeconomic factors, unlike Islamic banks, inflation rate significantly positively affects the profitability of conventional banks, that means the higher the inflation rate the higher the profitability of conventional banks and that result can give an indicator for the investor to invest in conventional banks in Qatar during the time of high inflation rate. Like Islamic banks money supply also significantly negatively affects the profitability of conventional banks, that means the higher money supply the lower the profitability of conventional banks and that result can give an indicator for the investor to avoid the investment in conventional banks in Qatar during the time of high money supply. Unlike Islamic banks, Interest rate significantly negatively affects the profitability of conventional banks, that means the higher the interest rate the lower the profitability of conventional banks and that result can give an indicator for the investor to avoid investment in conventional banks in Qatar during the time of high interest rate.

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