Global Review of Accounting and Finance
Vol. 8. No. 2. September 2017 Issue. Pp. 51 – 61

Empirical Analysis of Banking Performance in Kuwait

Dalal Aloumi[1]* and Sulaiman Al-Jassar[2]

The study focused upon comparing the performance of both conventional and Islamic banks before and after the financial crises, which took place in 2008. Through the empirical analysis of a panel data collected from 8 listed banks in Kuwait, during 2005 – 2015; the performance and profitability of Kuwait banks were assessed and the impact of the financial crisis during this period is also depicted. The study suggests the fixed effect model is an appropriate model to model both return on assets (ROA) and return on equity (ROE) as measures of performance. Moreover, the type of bank (whether conventional or Islamic) has no significant effect on bank performance as defined in this study. The Financial crises indicator has significant effect on ROA but not on the ROE.

Keywords: Panel data analysis, Performance, Profitability, Islamic banks, Conventional banks.

1. Introduction

This paper provides an introduction to banking industry in Kuwait, as well as the development of Islamic banking. Then, an empirical analysis applied to the collected panel data for eight listed banks in Kuwait during the period 2005-2015. The main reason for choosing this period is to measure the performance and profitability of Kuwaiti banks during the financial crisis using two indicators: return on assets (ROA) and return on equity (ROE).

This paper studies factors affecting the performance of the chosen sample. Moreover, it compares the performance of Islamic and conventional banks by using different methods of measuring a bank's profitability. The results of different tests used in this study are discussed and compared to previous findings. To fill the gap in the literature, this study adopts a different method to measure the performance of both Islamic and conventional banks in Kuwait. The method used in this study is different than previous studies by using panel data regression models. Applying this method lent more support for the hypothesis that state that there is no significant difference in the performance between Islamic and conventional banks. The findings of this study support some previous findings in other countries. The rest of this paper is organized as follows. The starting point is a presentation of the existing literature on banking in Kuwait both traditional and Islamic. This is followed by the methodology, data and variable definition. In the fourth section, we report the result and discuss its significance. Concluding remarks are stated in the last section.

[1]University of Glasgow, Adam Smith Business School, Glasgow G12 8QQ, email: d.aloumi.1@research.gla.ac.uk, Phone number: (00965) 94967999 *Corresponding author
[2]Kuwait University, College of Business Administration, P.O. BOX 5486 SAFAT Kuwait 13055 aljassar@cba.edu.kw

2. Literature Review

2.1 Banking Industry in Kuwait

Banking industry in Kuwait, formally, started 1952, with the establishment of the National Bank of Kuwait (NBK 2016). In 1969, the Central Bank was established to manage the currency system in the country (Snowdon 2012), which includes, controlling the stock market exchange, and regulating both the ministry of finance and ministry of commerce as well as all banking institution operating in the country. Currently the country has 10 Kuwaiti banks and few numbers of foreign banks (KGO 2013).

Recently, the global financial crisis has affected the financial sector of Kuwait by sluggish growth of major projects of the financial institutions from the period 2008 to 2012 (Hasan & Dridi 2010). There were instances that the Central Bank of Kuwait required sustenance to survive the 2007-2008 financial crisis. Gulf Bank, which is the fourth largest bank in term of assets, for example, suffered losses of approximately 375 million KD on derivatives trading during this period and assimilated support from the Central Bank of Kuwait to recover (Timewell 2013).

Insufficient regulations of the financial sector as well as absence of monitoring system on the financial institution also hampered the banking affect performance of the banking industry as well. Several examples can be briefly stated here, the investment firm (Investment Dar) defaulted USD 100 million in 2009 on sukuk issue. Also, Global Investment House, one of the largest investment banks in Kuwait, defaulted on debts and could not repay the loans. Therefore, the Central Bank of Kuwait restored the necessary regulations and the processes for financial transactions in 2012, to uplift the industry to the best global practices (Snowdon 2012).

Both the Central Bank of Kuwait, and the National Bank of Kuwait (the largest bank in Kuwait), have adopted a new strategy to use their asset size and popularity in the country for their advantage to overcome the crisis. While, smaller size banks chose the route of specialization to gain profit. For instance, Gulf Bank after suffering losses caused by derivatives in 2008, shifted the activities from derivatives to retail banking and traditional commercial banking, all done by new management. As a result, the issuing of loans has doubled, with an increase in bank cards by 70%, as well as expanding from 49 branches in 2011 to 56 branches in 2013 (Gulf Bank 2016).

Furthermore, other banks have chosen the geographic expansion strategy to sustain growth and to raise banks revenues. For example, Burgan Bank acquired number of subsidiaries in different countries, like: Jordan, Turkey, Tunisia, Iraq, and Algeria. Therefore, the percentage of growing is around 10% between 2011 and 2012. Around 48% of its revenue originated from its international branches in the Middle East and North Africa, which causes its operating profit to grow by 17% and its operating income by 16% between year 2011 and 2012 (Burgan Bank 2016).

2.2 Islamic Banking in Kuwait

Islamic banking system originated in Egypt over 50 years ago, to meet the desire of Muslims, by operating according the Sharia law to avoid Riba (usury)which is against the Islamic belief. However, now the Islamic banking system has spread beyond Muslims borders and

has attracted the interest of wide range of peoples (Mohieldin et al. 2011). Islamic banking is a blend of banking system and a social organization working according to Islamic bylaws and regulations. It works with a provision of banking facilitates, financial planning, and charity transactions according to the principles of Islamic Sharia (Beck, Demirgüç-Kunt & Merrouche 2013). There are five Islamic banks in Kuwait; Kuwait Finance House, Boubyan Bank, Kuwait International Bank, Ahli United Bank, Warba Bank.

Kuwait Finance House was established in 1977 as the first Islamic bank in Kuwait. It is the largest Islamic financial institution in Kuwait and the second largest bank in the country after the National Bank of Kuwait. It has 31% of total banking assets in Kuwait market, and over 300 branches worldwide (KFH 2016).

In 2007, Kuwait International Bank became an Islamic bank, and in 2010, Al Ahli United Bank adopted the Islamic banking system. Moreover, the National Bank of Kuwait expanded by acquiring the majority of Boubyan Bank assets in 2012. Besides having the fifth Islamic bank which is Warba Bank, the solid foreign player in Kuwait Islamic financial sector is Al-Rahji Bank from Saudi Arabia (KGO 2013).

Having provided generally historical information of the banking industry in Kuwait, this study explores the performance of Islamic and non-Islamic banks, using banks in Kuwait as a research sample by measuring their profitability. Mainly, we will focus on the following specific objectives in the following subsections.

3. Methodology

This study used panel data regression models. Simply, it is a combination of time series and cross-section data. One of the advantages of using panel data is that it is better suitable to incorporate the dynamics of change. Panel data can better detect and measure effects that simply cannot be observed in pure cross-section or pure time series data. Descriptive analysis was performed in this study mainly to discuss the mean of all the variables used in this analysis. To check the stationarity, this study progressed unit root test on each variable. Then, Hausman test applied to check if it is a fixed effect model or random model. Finally, Breusch-Pagan test was progressed to exam heteroskedasticity; all are determined using Stata program.

3.1 Data

The data in this study cover the period 2005 to 2015 for eight public listed banks in Kuwait. The main reason, behind choosing this specific period of time, is the global financial crisis that started to affect many financial institutions worldwide in 2007.

The Islamic banks selected in this study are: Ahli United Bank, Boubyan Bank, Kuwait Finance House, and Kuwait International Bank. The conventional banks included in the study are: Burgan Bank, Commercial Bank of Kuwait, Gulf Bank, and the National Bank of Kuwait, as shown in Table 1. The data has been extracted for the selected banks using the bank scope database, which provides data for all publicly listed banks globally. However, due to the limited availability of data for few banks, the study did not take into account all Kuwaiti banks.

Table 1: Selected Banks Used in the Study

Islamic Banks	Conventional Banks
Ahli United Bank	Burgan Bank
Boubyan Bank	Commercial Bank of Kuwait
Kuwait Finance House	Gulf Bank
Kuwait International Bank	National Bank of Kuwait

3.2 Variable Definition

There are a total of eight variables used in this study: two dependent variables and six indicators. The two dependent variables are: Return on Assets and Return on Equity. The six independent variables are internal bank characteristics, which are: Assets Size, Capital Adequacy, Asset Quality, Liquidity, Deposits, and Income Expenditure Structure. Table 2 illustrates the measures used for each variable chosen in this study.

Table 2: Definition and Notation of the Variables Used in the Study

	Variables	Notation	Measure
Dependent Variables	Profitability	ROA	Return on Assets (ROA)= Net Profit /Total Assets
		ROE	Return on Equity (ROE)= Net Profit / Equity
Independent Variables	Assets Size	Log A	Natural Logarithm of Total Assets
	Capital Adequacy	CA	Equity / Total Assets
	Asset Quality	LA	Loans / Total Assets
	Liquidity	LQD	Liquid Assets / Total Assets
	Deposits	DP	Deposits / Total Assets
	Income Expenditure Structure	NIM	Net Interest Margin = Interest Income / Total Assets

3.3 Dependent Variables

The first dependent variable used in this study is return on assets (ROA), which is usually used as a measure of bank profitability. The higher ROA is, the better the performance and the efficient use of banks assets, while lower ROA indicate an inefficient use of assets (Samad 2004). Many researchers have used ROA as a measure of performance indicator in their studies. A good example is Hassan and Bashir (2004) and Naceur (2003); they used ROA as a dependent variable to measure banks performance. The second dependent variable used in this study to measure the profitability is return on equity (ROE). Higher ROE signifies more efficient use of equity and thus, it indicate a better performance of the firm (Samad 2004). Therefore, Hassan and Bashir (2004) have used ROE in their study to measure the performance of Islamic financial organization for the period 1994 to 2001.

Many researchers have used ROA and ROE as performance indicators in their studies. Athanasoglou, Brissimis and Delis (2008) have used ROA and ROE as dependent variables to explore banks profitability for a panel data of Greek banks for the period 1985 to 2001. Furthermore, Kanas, Vasiliou and Eriotis (2012) has used the same independent variables (ROA and ROE) to measure bank profitability in US from 1988 to 2011. Therefore, and along the same lines, this study uses each ROA and ROE as dependent variables to measure banks performance.

3.4 Independent Variables

The six independent variables used in this study are the internal factors or bank profitability:

1. Asset Size: it is expected to have a positive relation between bank size and profitability (Smirlock 1985).
2. Capital Adequacy: it is expected to have a positive relationship with performance. This means, well-capitalized banks face lower costs of going bankrupt and as a result it decreases their risks and costs of funding (Bourke 1989; Berger 1995; Hassan & Bashir 2004).
3. Asset Quality: it is expected to have a positive effect with banks profitability except banks proceeds on unacceptable level of risk. (Demirgüç-Kunt & Huizinga 1999) found a positive relation between asset quality of conventional banks and profitability.
4. Liquidity: it is expected to have a positive relation between banks liquidity and profitability. Bourke (1989) research shows a significant positive connection between banks liquidity and profitability.
5. Deposits: it is another liquidity indicator considered as a liability (Alkassim 2005). Although it is expected to have a positive effect on banks profitability, yet, Hassan and Bashir (2004) found a negative relation between deposits and profitability.
6. Income Expenditure Structure: it is expected to have a positive relation with profitability, besides having this factor to measure banks efficiency also (Anbar & Alper 2011).

4. Results and Discussion

Stat version 13 was used to obtain the descriptive statistics, stationarity diagnostics, and panel data analysis and model's building presented in the following subsections. Table 3; demonstrates the result of the descriptive analysis performed on the entire data used in this study. The total number of observations for the entire sample is 88. The descriptive analysis highlighted the mean of each variable based on three categories. First category is, the descriptive analysis by years; which is the period of the study starting from 2005 to 2015. Second category is, type of banks; either Islamic banks or Conventional banks. Third category is, before and after the Financial Crisis (FC), covers the period 2005- 2007 before the FC, and the period 2008-2015 is the period after the FC.

As shown in Table 3, the average mean value for return on average assets for the whole period is 1.340, which means that on average the banks in Kuwait generated a 1.340 return for each unit of average assets on an annual basis for the period 2005-2015. The mean value for return on average equity in selected banks is 8.882, which indicate that on average banks in Kuwait generated a return of 8.882 for each unit of average equity on an annual basis. The average values of ROA and ROE in Kuwait banks during the period are positive in nature. Moreover, all independent variables used in this study have a positive means for the period 2005-2015.

Table 3: Summary Statistics

	Categories	ROA	ROE	Log A	CA	LA	LQD	DP	NIM
By Years	**2005**	2.755	19.510	3.267	17.112	47.519	41.030	2022.862	3.248
	2006	2.911	20.231	3.384	15.142	48.433	39.945	2691.837	3.522
	2007	2.958	20.973	3.500	14.309	52.023	35.023	3712.913	3.295
	2008	0.600	-5.888	3.542	11.763	60.469	24.981	4163.837	3.459
	2009	-0.418	-4.294	3.551	11.789	62.934	21.092	4230.112	3.155
	2010	0.980	7.250	3.577	13.920	61.438	23.547	4324.475	2.947
	2011	0.886	6.458	3.604	13.595	60.172	24.036	4621.088	3.012
	2012	0.981	7.696	3.650	12.932	61.867	20.588	5262.787	3.135
	2013	0.905	7.360	3.703	12.191	61.731	21.744	5983.950	3.157
	2014	1.079	9.092	3.752	11.968	61.053	23.628	6808.650	2.798
	2015	1.097	9.309	3.763	11.965	62.414	23.163	6913.037	2.835
Type of Banks	**Islamic Banks**	1.430	9.218	3.745	12.18	58.263	25.845	5762.441	3.035
	Conventional banks	1.250	8.545	3.399	14.49	58.11	28.479	3462.205	3.249
Before and After FC	**Before the FC**	2.473	13.989	3.396	14.931	50.140	37.789	2883.068	3.328
	After the FC	0.890	6.855	3.642	12.702	61.380	22.945	5298.535	3.068
	Total Average	1.340	8.882	3.572	13.335	58.187	27.162	4612.323	3.142

As shown in the second category, the mean of all dependent and independent variables used in this study are displayed based on Islamic and conventional banks. The mean value for ROA in the selected Islamic banks is 1.430, and the mean value of ROA in the selected conventional banks is 1.250. The mean value of ROE in the selected Islamic banks is 9.218, and the mean value of ROE in the selected conventional banks is 8.545, for the period 2005-2015. Hence, the values of the dependent variables; ROA and ROE, in the Islamic banks are slightly higher in average value, which indicate that Islamic banking assets and equity are growing at a higher pace. Furthermore, the mean values of Asset Size and Asset Quality are higher in Islamic banks, which confirm that Islamic banking assets are growing in advance. The Deposit mean value is also greater in Islamic banking, and the reason is Islamic banking have less diversified investment that needs to be along with the Islamic law, or Sharia'h. On the other hand, the following independent variables: Capital Adequacy, Liquidity and Income Expenditure Structure have a positively larger mean value for conventional banks in Kuwait.

As displayed in the third category, the mean of the eight selected banks are presented based on before the financial crises (FC). The average values of ROA and ROE in Kuwait banks during the period are positive in nature. However, the average mean value for return on average assets before the financial crisis is 2.473, and 0.890 after the financial crisis, which indicate a decrease on average the banks in Kuwait for each unit of average assets on an annual basis for the period 2005-2015. Moreover, the mean value for return on average equity in the selected banks before the financial crisis is 13.989, and 6.855 after the FC. It means that on average banks in Kuwait generated a decrease of each unit of average equity on an annual basis. The results discover that three independent variables; Capital Adequacy, liquidity, Income Expenditure Structure, have an average mean value that

decreases after the financial crisis, which means having a negative effect on bank profitability. However, Bank Size, Asset Quality, and Deposits showed a positive effect to banks profitability, since the mean average value of these independent variables have increased after the financial crisis.

Said (2012) conducted a study of Islamic banks in Middle Eastern and non-Middle Eastern countries for the period 2006-2009. He found that large Islamic banks were stable and efficient with no drop in bank profitability during 2006-2008. However, in 2009, banks suffered a drop in profitability and efficiency. He suggested that the reason behind the drop in profitability was due to financial and regulatory shockwaves moving through the industry at the time. Therefore, our findings support (Said 2012) results.

4.1 Unit Root Test

It is a common practice to check the stationarity of each variable involved in the analysis before any further analysis to ensure the long term behavior of the series. Levin-Lin-Chu unit root test for panel data was utilized to check the stationarity of both independent and dependent variables.

Table 4: Result of Unit Root Test Using Stata

	Variables	Notation	p-value
Dependent Variables	Profitability	ROA	0.0000
		ROE	0.0000
Independent Variables	Assets Size	Log A	0.0010
	Capital Adequacy	CA	0.0000
	Asset Quality	LA	0.0000
	Liquidity	LQD	0.0000
	Deposits	DP	0.2372
	Income Expenditure Structure	NIM	0.0000

Based on Unit Root test results, as shown in Table 4, the data is stationary in the sense we have p-value ≤ 0.05 for all variables, except for one independent variables; deposits. Thus, we discard the variable; deposits, since it will lead to unexpected spurious regression and correlation. Therefore, the proposed models for ROA and ROE for the selected banks are as follows:

Under Fixed Effect Models we have:

Model 1 – ROA:

$ROA_{it} = \alpha_i + \beta_1$ Assets $Size_{it} + \beta_2$ Capital $Adequacy_{it} + \beta_3$ Asset $\text{Quality}_{it} + \beta_4\ Liquidity_{it} + \beta_5$ Income Expenditure $Structure_{it} + \varepsilon_{it}$, i=1, 2… 10. And t =2005, 2006… 2015.

Model 2 – ROE:

$ROE_{it} = \alpha_i + \beta_1$ Assets $Size_{it} + \beta_2$ Capital $Adequacy_{it} + \beta_3$ Asset $\text{Quality}_{it} + \beta_4\ Liquidity_{it} + \beta_5$ Income Expenditure $Structure_{it} + \varepsilon_{it}$, i=1, 2… 10. And t =2005, 2006… 2015.

With the assumptions, E (Assets $Size_{it}, \varepsilon_{it}$) = 0, E (Capital$Adequacy_{it}, \varepsilon_{it}) = 0$, E(Asset $\text{Quality}_{it}, \varepsilon_{it}) = 0$, E($Liquidity_{it}, \varepsilon_{it}) = 0$, and E(Income Expenditure $Structure_{it}$, $\varepsilon_{it}) = 0$ and for i=1, 2, …, 10, α_i is fixed.

Under Random Effect Models the random component in the above models ε_{it} is written as:

ROA_{it} = β_0 + β1 Assets $Size_{it}$ + β2 Capital $Adequacy_{it}$ + β3 Asset Quality_{it} + β4 $Liquidity_{it}$ + β5 Income Expenditure $Structure_{it}$ +$\alpha_i + \delta_{it}$, i=1, 2… 10. And t =2005, 2006… 2015.

And

ROE_{it} = β_0 + β1 Assets $Size_{it}$ + β2 Capital $Adequacy_{it}$ + β3 Asset Quality_{it} + β4 $Liquidity_{it}$ + β5 Income Expenditure $Structure_{it}$ +$\alpha_i + \delta_{it}$, i=1, 2… 10. And t =2005, 2006… 2015.

Where, ε_{it} = α_i+ δ_{it} with $\delta_{it} \sim iid(0, \sigma_\delta^2)$ and $\alpha_i \sim iid(0,\sigma_\alpha^2)$. The $\alpha_i's$ are random variables with the same variance σ_α^2. The value α_i is specific for individual i and different individuals are independent, have a mean of zero, and their distribution is assumed to be not too far away from normality. While the intercept β_0 represents the overall mean. The random variable α_i is time invariant and homoscedastic across individuals. There is only one additional parameter σ_α^2. Only $\alpha_i$contributes to Corr(ε_{it}, ε_{is}), i=1,2,…,10.

4.2 Hausman Test

To apply Hausman test, first, we model the data as fixed effect model, and store the estimates. Next, we model the same data as random effect model and store the estimates as well. Then, we apply Hausman test to find the appropriate model to be used in this study. The results of Hausman test indicate it is a fixed effect model. Hence, we did these steps twice, using Model 1, then using Model 2, and the result appear to be both are fixed effect model.

4.3 Breusch-Pagan Test

We apply Breusch-Pagan test to examine if there is heteroscedasticity. Therefore, we run the fixed effect model as a robust effect for Model 1, as shown in Table 5:

Table 5: Results for Robust Fixed Effect Model Using Model 1

ROA	Coefficient.	Robust Std. Err.	t-value	P-value	95% Confidence Interval
Log A	3.199	0.863	3.71	0.000*	(4.917, 1.482)
CA	0.296	0.132	2.24	0.028*	(0.560, 0.033)
LA	0.133	0.049	2.7	0.008*	(0.231, 0.035)
LQD	0.113	0.036	3.2	0.002*	(0.184, 0.043)
NIM	-0.087	0.295	-0.29	0.769	(0.501, -0.675)
Islamic/ Conventional Banks	0.230	0.320	0.72	0.474	(0.867, -0.407)
Before and after FC	-1.549	0.402	-3.85	0.000*	(-0.749, -2.349)
Cons	-23.725	8.458	-2.81	0.006*	(-6.894, -40.557)

**Means the effect on ROA is significant at $\alpha < 5\%$*

Then we run the fixed effect model as a robust effect for Model 2, as shown in Table 6:

Table 6: Results for Robust Fixed Effect Model Using Model 2

ROE	Coefficient.	Robust Std. Err.	t-value	P-value	95% Confidence Interval
Log A	33.616	11.568	2.91	0.005*	(10.595, 56.637)
CA	3.364	2.154	1.56	0.122	(-0.923, 7.650)
LA	1.632	0.683	2.39	0.019*	(0.272, 2.992)
LQD	1.309	0.473	2.76	0.007*	(0.366, 2.251)
NIM	-0.223	2.582	-0.09	0.931	(-5.361, 4.916)
Islamic/ Conventional Banks	5.367	5.051	1.06	0.291	(-4.686, 15.420)
Before and after FC	-7.904	5.833	-1.36	0.179	(-19.513, 3.704)
Cons	-283.509	129.270	-2.19	0.031*	(-540.764, -26.253)

**Means the effect on ROE is significant at $\alpha < 5\%$.*

This analysis performed to find the significant factors affecting the performance of the selected banks in Kuwait, as shown in Tables 5 and 6 respectively. The result of both models point out that the asset size has significant appositive effect on banks profitability. It supports (Smirlock 1985) findings that clarify that larger banks gain higher ROA and ROE. Capital adequacy results indicate a significant positive relation with ROA, which supports (Hassan & Bashir 2004) findings. Having a strong capital adequacy is very important for banks since well capitalized banks decreases the risk of going bankrupt and increase the safety for depositors during unstable macroeconomic situations (Al-Qudah & Jaradat 2013). However, insignificant relation appears between capital adequacy and ROE. Asset quality found a significant positive relation with ROA and ROE as expected, and it supports (Demirgüç-Kunt & Huizinga 1999) results. Liquidity of Kuwait banks has a significant positive relationship with both ROA and ROE and it support Bourke (1989) findings. Income Expenditure Structure found insignificant relationship between profitability and the two models (ROA and ROE), which means that Income Expenditure Structure is insignificant factor for measuring the profitability of Kuwait banks, on contrary to (Anbar & Alper 2011) findings.

The results of comparing Islamic and conventional banks in Kuwait appear to have no significant deference between the performances under both types of banks. Olson and Zoubi (2008) used wide range of 26 financial ratios to differentiate between Islamic and conventional banks in the Gulf region. They suggest that there was no significant difference between the two different financial organizations in the Gulf region, echoing the findings of this study.

The results also suggest that there is no significant difference between the performance of Kuwait banks before and after the financial crisis. Al-Kulaib, Almudhaf and Al-Jassar (2013) used profitability ratios to examine the performance of Islamic and conventional banks in Kuwait during the financial crisis. Their result suggested that there was no significant difference between the profitability ratios for Islamic and conventional banks. Therefore, their results are similar to the results of this study.

5. Conclusion

This study reviews the banking industry, followed by Islamic banking in Kuwait. It then carries on with an empirical analysis of the selected data, with the purpose of drawing a conclusion regarding the performance of Kuwait banks during the period of 2005-2015.

This study explores different methods of measuring a bank's profitability and attempts to identify significant factors affecting the performance. It also focused on comparing the performance between Islamic and conventional banks with regard to profitability. As well as comparing the performance before and after the financial crisis.

The study suggests that all independent variables used in this study are significant factors for measuring the return on equity (ROA), except Income Expenditure Structure. In addition, all independent variables used in this study are significant factors for measuring the return on equity (ROE), except Capital Adequacy and Income Expenditure Structure.

The results also suggest that, regarding banks profitability, there is no significant difference between Islamic and conventional banks. Further, the results suggest there is no significant difference for bank performance before and after the financial crisis in Kuwait.

Finally, the result of this study supports, to a large extent, the findings of previous studies in different regions of the world focusing in Islamic and conventional banking system, such as the findings of Olson and Zoubi (2008), Al-Kulaib, Almudhaf and Al-Jassar (2013).The methodology used in this study is more advanced compared to previous studies, by using panel data regression models, which offered further support for the hypothesis that there is no significant difference between the performance of Islamic and conventional banks.

Some of the limitation of the study is that some other variables were not included to test bank profitability, such as macroeconomic independent variables. Other research, such as that undertaken by Bashir and Hassan (2004), included GDP and inflation as independent variables, and found that favourable economic conditions have a positive effect on profitability for Islamic banks.

Moreover, this research is based on one country-specific variables and their impact on bank performance. As a recommendation for future studies, a research can be explored in a cross country, or regional, setting. Further, studying the effects of some macroeconomic shocks on the performance of Conventional Vs Islamic factor is worth researching.

References

Alkassim, F 2005, 'The profitability of Islamic and conventional banking in the GCC countries: A comparative study', *Journal of Review of Islamic Economics*, vol. 13, no. 1, pp. 5-30.

Al-Kulaib, Y, Almudhaf, F & Al-Jassar, S 2013, 'The banking industry during an extended financial crisis: An empirical assessment of Kuwait banks', *Academy of Banking Studies Journal*, vol. 12, no. 1-2, pp. 61-73.

Al-Qudah, A & Jaradat, M 2013, 'The impact of macroeconomic variables and banks characteristics on Jordanian Islamic banks profitability: Empirical evidence', *International Business Research*, vol. 6, no. 10, pp. 153-162.

Anbar, A & Alper, D 2011, 'Bank specific and macroeconomic determinants of commercial bank profitability: Empirical evidence from Turkey', *Business and Economics Research Journal*, vol. 2, no. 2, pp. 139-152.

Athanasoglou, P, Brissimis, S & Delis, M 2008, 'Bank-specific, industry-specific and macroeconomic determinants of bank profitability', *Journal of International Financial Markets, Institutions and Money*, vol. 18, no. 2, pp. 121-136.

Beck, T, Demirgüç-Kunt, A & Merrouche, O 2013, 'Islamic vs. conventional banking: Business model, efficiency and stability', *Journal of Banking and Finance*, vol. 37, no. 2, pp. 433-447.

Berger, A 1995, 'The relationship between capital and earnings in banking', *Journal of Money, Credit and Banking*, vol. 27, no. 2, pp. 432-456.

Bourke, P 1989, 'Concentration and other determinants of bank profitability in Europe, North America and Australia', *Journal of Banking and Finance*, vol. 13, no. 1, pp. 65-79.

Burgan Bank 2016, *Investment banking*, Burgan Bank, viewed 3 June 2016, <http://www.burgan.com/investment/SitePages/Burgan_equity_fund.aspx>.

Demirgüç-Kunt, A & Huizinga, H 1999, 'Determinants of commercial bank interest margins and profitability: Some international evidence', *World Bank Economic Review*, vol. 13, no. 2, pp. 379-408.

Gulf Bank 2016, viewed 4 June 2016, <https://www.e-gulfbank.com>.

Hasan, M & Dridi, J 2010, 'The effects of the global crisis on Islamic and conventional banks: A comparative study', Working paper, International Monetary Fund.

Hassan, M & Bashir, A 2004, 'Determinants of Islamic banking profitability', ERF paper presented at the 10th Annual Conference, Marrakesh, Morocco.

Kanas, A, Vasiliou, D & Eriotis, N 2012, 'Revisiting bank profitability: A semi-parametric approach', *Journal of International Financial Markets, Institutions and Money*, vol. 22, no. 4, pp. 990-1005.

KFH 2016, *Kuwait Finance House Official*, viewed 1 May 2016, <http://www.kfh.com/en/>.

KGO 2013, *Banks in Kuwait*, Kuwait Government Online, viewed 1 June 2016, <http://www.e.gov.kw/sites/kgoEnglish/portal/Pages/Business/FinancialServices/Banks>.

Mohieldin, M, Iqbal, Z, Rostom, A & Fu, X 2011, 'The role of Islamic finance in enhancing financial inclusion in Organization of Islamic Cooperation (OIC) countries', *Policy Research Working Papers.*

Naceur, S 2003, 'The determinants of the Tunisian banking industry profitability: Panel evidence', *Universite Libre de Tunise, Tunisia.*

NBK 2016, *National Bank of Kuwait official website*, viewed 15 April 2016, <http://www.nbk.com/>.

Olson, D & Zoubi, T 2008, 'Using accounting ratios to distinguish between Islamic and conventional banks in the GCC region', *The International Journal of Accounting*, vol. 43, no. 1, pp. 45-65.

Said, A 2012, 'Efficiency in Islamic banking during a financial crisis: An empirical analysis of forty-seven banks', *Journal of Applied Finance and Banking*, vol. 2, no. 3, pp. 163-197.

Samad, A 2004, 'Performance of interest-free Islamic banks vis-`a-vis interest-based conventional banks of Bahrain', *International Journal of Economics, Management and Accounting*, vol. 12, no. 2, pp. 1-15.

Smirlock, M 1985, 'Evidence on the (non) relationship between concentration and profitability in banking', *Journal of Money, Credit and Banking*, vol. 17, no. 1, pp. 69-83.

Snowdon, C 2012, *Central Bank of Kuwait revamps bank governance rules*, 21 June, Central Banking, viewed 20 May 2016, <http://www.centralbanking.com/central-banking/news/2186143/central-bank-kuwait-revamps-bank-governance-rules>.

Timewell, S 2013, 'Kuwait's banking industry goes from strength to strength', *The Banker*, viewed 7 May 2016, <http://www.thebanker.com/Reports/Special-Reports/Kuwait-s-improved-outlook/Kuwait-s-banking-industry-goes-from-strength-to-strength>.