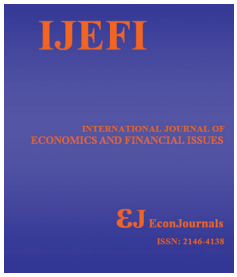

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Financial Resistance of Islamic Banks in Middle East Region: A Comparative Study with Conventional Banks During the Arab Crises

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ABSTRACT

The research aims to empirically test the impacts of political crisis and economic recession during 2010-2015 on the performance and financial behavior of Islamic and conventional banks in the Middle East region. The period of the study (2010-2015) is divided to three phases (stability, economic crisis and political crisis) to reveal the implication of political and economic crises on the performance and financial behavior of Islamic and conventional banks, first, by tracking the sample of Islamic banks during different phases, then, by comparing the sample of Islamic banks with a paired and non-paired samples of conventional banks.The results of this study reveal negative impacts from politic crises and economic recession on the performance of Islamic banks. The results also reveal that the Islamic banks increase their capital adequacy and focus on the reduction of costs to increase the efficiency level during politic crises while they focus on increasing liquidity and assets quality during economic crisis. Additional analyses show the absence of any significant difference between the performance of Islamic and conventional banks during the periods of stability and crises. Finally, this research reveals that the conventional banks have more ability to manage their assets quality and their expenses, whereas the Islamic banks have more capacity to manage their liquidity level. This research reveals the new challenges facing Islamic and conventional banks in Middle East countries. The last Arab spring and oil prices drops highlight a new issue that has not received the needed attention and provide a natural experiment to evaluate the financial resistance and capacity of both Islamic and conventional banks in the Middle East region.

Keywords: Islamic Banks, Conventional Banks, Financial Performance, Financial Behavior, Capital Structure
JEL Classifications: G20, G32

1. INTRODUCTION

For the International Monetary Fund (2016)[1] the economic activity in Middle East countries dropped down during the last years. The Arab spring in Syria and its economic impacts, the conflicts between the kingdom of Saudi Arabia and Houthis in Yemen, the development of the Islamic states of Iraq and Syria (ISIS) and its terrorist attacks, the political crises in Lebanon, the economic stagnation across the world and the lowest level of oil prices have slowed all the economic indicators in Middle East countries. According to the World Bank Report (2016)[2], the gross domestic product (GDP) growth in the Middle East is projected to stay at its lowest level for the 4th consecutive year (2.7%).

Despite the current political crises and economic instability, the Islamic finance industry has shown an impressive growth rate within a few years and has attracted the attention of many financial experts in worldwide. The cases of Al Rajhi bank and Abu Dhabi Islamic Bank (rated A+ by S&P) and Kuwait Finance House (rated A- by S&P) reveal that the Islamic banks have higher credit ratings than many well-known conventional banks such as Barclays Plc, Bank of America Corp. and Goldman Sachs Bank[3].

1 Middle East and Central Asia updated report – April 2016.
2 World Bank Group Report for the Middle East and North Africa –April 2016.
3 Source: Bloomberg.

Wilson (2009) stated that the Islamic banks were insulated from the international financial crisis of 2008; in contrast, the performance of conventional banks was largely and negatively affected. According to the Islamic Finance Service Board (IFSB)[4], the Islamic banking industry showed around 38% growth rate during the period of 2004-2011. The Islamic banks operated in 75 countries (Chaker and Jabnoun, 2010); they held in excess of $900 billion in assets during 2011 (Beck et al., 2013); and they showed a high capacity of resistance during the international financial crisis of 2008 (Tabash and Dhankar, 2014) as result of the nature of their assets and financial transactions. The Islamic banking sector is growing 50% faster than the overall banking sector (Ernst and Young, 2012) and it's expected to account for 50% of all banking assets within 10 years in Islamic countries(Global Finance Islamic Report, 2012). The Islamic banks have become an increasingly integral part of the banking sector in the Middle East and North African (MENA) region. In Kuwait, Kingdom of Saudi Arabia and Malaysia the Islamic banks make up more than 50% of the countries' banking system (Alrifai, 2015).

By recognizing the significant aspect of Islamic banks in Middle East countries, the importance of this research is to provide new evidences by addressing the following question: Do Islamic banks resist better than conventional banks during crises? And what are the different financial behaviors of Islamic banks during crises? and, what are the different financial impacts of the crises periods on the performance of Islamic banks?

To accomplish the study objective, the remainder of this paper is organized as follows: Section two presents a brief overview of Islamic banking principles and foundation. Section three shows the development of Islamic financial instruments and its impact on banks performance. Section four reveals the financial behavior and risk management of banking sector during crises. Section five shows the empirical results of Islamic banks performance during crises. Section six explains the used methodology, defines the hypotheses, defines the variables and shows the sample of the study. Sections seven and eight discuss respectively the sample characteristics and the empirical findings. Finally, section nine concludes the research paper.

2. ISLAMIC BANKING PRINCIPLES AND FOUNDATIONS

The modern Islamic finance experiences were established during 1960s through "Mit Ghamr savings fund" in Egypt and "Malaysian pilgrims management fund" in Malaysia. The first official Islamic banks were established in the Kingdom of Saudi Arabia (Jeddah-Islamic development bank) and Dubai (Dubai Islamic bank) in 1975 to perform all activities carried by conventional banks according to Islamic law and principles. The number of Islamic banks has increased during the last three decades in Muslim and non-Muslim countries and the Islamic finance industry have crossed a significant milestone to be widely accepted at a global level. Today, the major international conventional banks are trying to diversify their activities by offering Islamic banking services besides their conventional services.

The practice of Islamic banking is based on a number of Islamic law and principles to guide the economic wellbeing, economic development and social justice. Besides the international corporate governance practices, it is governed by the principles of Shari'ah. The first source of Shari'ah in Islamic finance industry is the Holy Qur'an which comprises specific rules on commercial, economic, political and religious norms. The second source of Shari'ah in the Islamic finance industry is the Sunnah which provides the sayings, habits, tacit approvals, practices and words of the Holy Prophet Muhammad. The Holy Qur'an elaborates the broad principles of Islamic law, while the Sunnah of the Holy Prophet provides the explanation of those principles.

The modern Islamic finance industry revolves around the prohibition of any transaction that has an element of interest or usury (Riba). Accordingly, Islamic banks should not interact with any ex-ante return (interest) derived from a debt or loan. A number of verses of the Holy Qur'an has forbidden the interest but permitted trade. Selling and buying goods are acceptable if the purpose is earning and sharing profit. In addition, a large number of the Holy Prophet traditions have prohibited the interest and allowed the trade. For example, the Holy Prophet said after having been asked about the trade of dates: "...this is the forbidden Riba (usury), do not do this. Sell the first type of dates and use the proceeds to buy the others"[5].

There is almost a consensus among shari'ah that the principles of "loss and profit sharing" and "time value of money" can replace the principle of "compound interest" largely used in conventional banks. The Islamic forward contract (Salam) used in Islamic banks resolves this problem by enabling a commodity to be bought for future delivery and immediate payment of the price. This implies that the price paid in advanced must be less than the price at delivery time. The partnership contracts between the Islamic bank and an investor (Musharaka) are also used according to pre-agreed ratio of profit and loss allocation. The objective of the musharaka contract is to eliminate the fixed return on capital.

Avoiding any absolute uncertainty or excessive risk relating to major elements of contract (Gharar) is another main principle of Islamic finance industry used by Islamic banks. A number of the Holy Prophet traditions have prohibited this type of uncertain trade because it can lead to unfair enrichment and unexpected loss. For Imam Bukhary, the object of the contract, the terms and the price must be predefined and well determined. Accordingly, this principle involved the obligation of avoiding by Islamic banks of any contract engaged in speculative trade of shares, short-selling, derivatives trading and any trading with unidentified items (Ayub, 2007).

The third kind of activities which must be avoided by Islamic banks are games of chance (Maisir). This prohibition is very clear in the Holy Qur'an through the following verses (4:219): "they ask thee concerning wine and games of chance. Say in them is great sin and some benefits for people, but the sin is greater than the benefit".

4 Islamic Financial Service Report –2013.

5 Muslim, Kitab al Musaquat, 1981.

Beside the games of chance, Islamic banks also have to avoid any financial transaction in which any direct or indirect benefit is provided by uncertain events. For example, traditional life insurance and prize bond coupons must be avoided (Ayub, 2007).

All investments in Islamic banks have to comply with acceptable, tangible, identifiable and useful products on the basis of Qur'an and Sunnah principles. For example, dealing with weapons, alcohol, pig made products and tobacco should not be financed by Islamic banks.

In addition to the major prohibition, the Islamic banks have to respect some Islamic ethical norms. Honesty, fair dealing, levy, justice, transparency, fair pricing, sincerity, mutual cooperation, removal of misleading marketing and hardship must be considered by Islamic banks as basic conduct of commercial and financial transactions.

3. FINANCIAL BEHAVIOR AND RISK MANAGEMENT OF BANKING SECTOR DURING CRISES

Kashyap (2010) has investigated banks' behavior during the crisis of 2007-2009. He found that banks have different ways to face large losses and maintain their capital requirements. One way is to shrink their risk-weighted assets holdings; another is to increase their equity capital. The latter is done either by issuing new stocks or by cutting dividend payout. According to Myers and Majluf (1984), raising equity is a negative signal and suggests to the market that there are more losses to come. For this reason, shrinking their risk-weighted assets is common bank practice during crises. When selling risk-weighted assets does not improve the situation, banks start to sell more liquid assets, such as treasuries, in order to maintain their capital requirements. Consequently, banks stop new lending to small businesses.

Holmström and Tirole (1997) reveals that conventional banks are forced to mitigate the risk level by reducing its credit supply during crises. Calomiris and Wilson (2004) show that the New York-based banks tend to prevent deposit withdrawals during crises by substituting loans with riskless assets. In addition, Demirgü-Kunt et al. (2006) reveal that banks tend to have a conservative behavior during crisis by increasing their capital buffer to isolate depositors from loan risk.

Other studies have identified different strategies for risk management during crisis. Schroeck (2002) set three groups of strategies for risk management in the banking sector. First, banks could eliminate certain risks. This could be done by using a portfolio diversification. If banks cannot avoid or eliminate certain risks, it uses the second strategy of risk management, which is the transfer strategy. A bank can transfer risks to other market participants if it has a competitive advantage in a specific segment and if it can achieve the fair market value of it. The alternative to transferring risks is to keep, manage and absorb hem. These risks must or should be absorbed at the bank level, because they are too complex, they cannot be traded or hedged easily, or they are a business necessity. However, the bank has to make sure that it holds a sufficient amount of capital when absorbing risks in order to ensure that the probability of default is kept at a sufficiently low level.

From the Islamic banking sector point of view, risk management process and secure financial behavior are necessary to avoid any type of uncertainty. That is why the negative implication of the last financial crisis of 2008 was minimal on the Islamic financial institutions. For the financial analyst of S&P, Emmanual Volland, "the Islamic banks were not caught by toxic assets as Shari'ah law prohibits interest".

As for the investment strategy of Islamic banks during crises, the board member of Dar al-Mal al-Islami, Amr Al-Faisal, argues that Islamic banks are conservative, which is considered the height of wisdom. Successful banks have always been conservative lenders (Ambah, 2008).

For Mokhtar and Laldin (2009) Islamic banks can easily mitigate the risk level because they are focused on assets markets while conventional banks are focused on money markets which creates a natural quantum limit of the activities that can be undertaken. They also reveal that Islamic banks can shift the problem of financial transparency, considered one of the most frequent causes of the last financial crisis of 2008, because their works are based on shari'ah principles in which all financial institutions have to be clear and transparent to avoid any type of information asymmetry. The Holy Qur'an establishes in this regards the obligation to write any deal for a future period by defining the mutual obligations and preventing any type of doubts.

According to Hassan and Kayed (2009), Islamic banking can minimize the intensity of crises by mitigating the problem of subprime through short-term provision, connecting the level of credit expansion to the economic situation and sharing the risk level with creditors and customers. Unlike conventional banks, the nature of contracts in Islamic banks (Murabaha and Ijara) is considered as a risk mitigating tool because it is based on the principal of loss-profit sharing which minimizes the risk level supported by the bank.

Same as with the conventional banks, Islamic banks have to avoid the liquidity risk during crises by providing consumer protection through a significant reserve to guarantee a certain level of cash withdrawal (Wilson, 2009). Wilson (2009) revealed also that the Islamic hedging instruments, such as Salam, are widely used by Islamic banks as a tool to reduce the risk level during crises.

4. ISLAMIC BANKS VERSUS CONVENTIONAL BANKS: THE EMPIRICAL EVIDENCE

The studies on assessing the performance and efficiency of Islamic banks have used different measures such as liquidity, solvency, growth, profitability and credit risk performance.

For Mansor and Syed-Aun (2017), there is no indication to suggest that Islamic banks exhibit excessive risk taking in times of stress. Their results also suggest that the financing growth of Islamic banks is higher than the lending growth of conventional banks during the crisis period.

Samad and Hassan (1999) found that the "Islam Malaysia Berhad Bank" performed better than the conventional banks in term of riskiness and liquidity for the period of 1984-1997. Abdul-Hamid and Azmi (2011) compared the financial performance in Malaysia using a sample of one Islamic bank and eight conventional banks. They confirmed that the Islamic banks were less risky and more liquid as compared to commercial banks for the period of 2000-2009. The same results were found in the United Arab Emirates by Kader and Asarpota (2007). The authors indicated that Islamic banks are more profitable, less liquid and less risky than conventional ones. They noted that the principle of "loss and profit sharing" is the main reason for the growth and development of Islamic banks.

Using the trend analysis technique, Akhter et al. (2011) showed a better trend of balance sheet structure in Pakistani Islamic banks than conventional ones over 5 years, from 2006 to 2010. Usman and Khan (2012) also found that Pakistani Islamic banks have higher liquidity and profitability levels than conventional banks during the period of 2005-2009.

The recent global financial crisis of 2008 has triggered an increasingly keen attention on the performance of Islamic banks and their relationship with many macro factors such as economic situation, risk level and GDP growth.

Parashar and Venkatesh (2010) studied six financial ratios for a sample of six conventional banks and six Islamic banks in Gulf cooperation council region during the last global financial crisis of 2008. They found that the Islamic banks had a higher performance level than conventional ones during, before and after the crisis period.

Hasan and Dridi (2010) studied the impact of the global financial crisis of 2008 on both Islamic and conventional banks in Malaysia, Bahrain, Qatar, Kuwait, Jordan, Turkey, the Kingdom of Saudi Arabia, Turkey and the United Arab Emirates. The results showed that Islamic banks have a higher growth rate in terms of loans and assets. For the authors, the highly regulated system and the Shari'a rules are the main sources of Islamic banks' performance.

Abdulle and Kassim (2012) conducted a comparative study between conventional and Islamic banks in Malaysia during the 2008 global financial crisis. They found that Islamic banks are less exposed to liquidity risks than their counterparts.

Sehrish et al. (2012) analyzed the differences between Islamic and conventional banks in Pakistan during and after the crisis period of 2008. Their results revealed that Islamic banks are less risky than conventional banks.

Ftiti et al. (2013) studied the Islamic banks during the subprime crisis in the Gulf Cooperation Council from 2005 to 2009. Their main finding was that Islamic banks remain efficient under subprime crisis.

Using a data of 2900 financial institutions in 20 countries for the period of 1995-2009, Beck et al. (2010) revealed that conventional banks are less capitalized than Islamic banks. Moreover, they found that Islamic banks had more liquidity reserves, higher capitalization and performed better than conventional banks during crises periods.

Rafiuddin and Alam (2012) registered a higher growth rate of Islamic banks than conventional banks in the United Arab Emirates after the international financial crisis of 2008.

Merchant (2012) and Rashwan (2012) argued that the stability and the performance of Islamic banks during and after the global financial crisis proved the importance of Shari'a principles as a tool to regulate the financial system and the confidence of investors.

Other researchers focused on the performance of Islamic banks after the Gulf War and the crisis of 1998-1999. For example, Yudistira (2004) studied a sample of eighteen Islamic banks in twelve countries. He found that Islamic banks had suffered during the crisis period. However, he demonstrated a high performance level of Islamic banks after the crisis period.

Samad (2004) found that the Islamic banks in Bahrain have a higher credit performance than conventional ones during the post-Gulf War. He also showed that there was no major difference between Islamic and conventional banks in terms of liquidity and profitability.

Using the DEA (data envelopment analysis) technique in 21 countries, Bader el al. (2008) found no significant difference between the efficiency values of conventional and Islamic banks for the period of 1966-2005. Finally, Johnes et al. (2012) confirmed the absence of any significant differences between Islamic banks and conventional ones after the 2008 financial crisis.

Given the existing empirical evidence of international crises on the performance and financial behavior of conventional and Islamic banks, we hypothesize in this research that Islamic banks will be negatively affected by the Arabic crises which lead them to implement a conservative behavior by reducing their credit supply level. Based on the principle of profit and loss sharing (PLS) we also hypothesize that the Islamic banks will have a higher performance than conventional banks during crises because the customers will share the losses resulting from any type of crisis with the Islamic banks.

Taking all the above into consideration, the four hypotheses of the research can be defined as follow:

H_1: the performance of Islamic banks is negatively affected during the crisis period;

H_2: Islamic banks exhibit conservative financial behavior during the crisis period;

H_3: Islamic banks exhibit higher performance than conventional banks during the crisis period;

H_4: Islamic banks exhibit higher conservative financial behavior than conventional banks during the crisis period.

5. SAMPLE, CRISIS, METHODOLOGY AND VARIABLES DEFINITIONS

5.1. Sample Definition and Characteristics

Studying the performance and financial behavior of Islamic banks during the last Arabic crisis is a challenging task. For this study, a sample of Islamic banks in the Middle East countries was collected over the period 2010-2015. The cross-countries banks data were collected from the Bank-Scope database, International monetary Funds-International financial statistics, the central bank database of each country, IFC's emerging market database and websites of banks. The total number of Islamic and conventional banks in the sample is 215 (Table 1) from 341 banks existing in the region.

The Syrian, Palestinian, Iraqi and Yemen banks were excluded from the sample due to the violent conflicts and the nature of economic and politic crises and their impacts on the banking sector.

5.2. Crises Period Definition

The main objective of this study is to fully explore the impact of the Arabic crisis period on the performance and financial behavior of Islamic banks.

The identification of a crisis period is a basic element for this research and its determination is based on qualitative and quantitative approaches. For the Middle East region, we identified two types of crises: Political crisis and economic crisis. For the studied period, two types of crises (economic and politic) can overlap in the same country.

As for the economic dimension, the negative volatility of oil prices will be considered in this study as an economic crisis period since the different sectors including the banking sector in the Middle East region is highly correlated to the petroleum sector. The research of Moore (1997) recognizes the links between oil prices and Islamic banks' development in the Middle East region.

From 2010 to 2016, we identified nineteen drops in petroleum prices. The worst and non-recovered drops were during 2014 and 2015 (Table 2), thus must be reflected in the financial statements of Islamic banks at the end of 2014 and 2015.

As for the political crises, we identified two major years (2011and 2012) of political instability in the Middle East region. At the end of December 2010 the Arab revolution began in Tunisia with violent protest and coups. During 2011, the effect of the Tunisian revolution spread to the Arab countries in North Africa (Libya and Egypt) and the Middle East region (Yemen, Syria and Bahrain). Street demonstrations, social violence and minor protests occurred in other Middle East countries, such as Jordan, Oman, Kuwait, Lebanon and Saudi Arabia. In the middle of 2012, the impact of the Arab revolutions faded in the Middle East region, except Syria. The Syrian Revolution transformed into a multi-sided armed civil war with mass immigration to the other countries in the Middle East region, mainly Lebanon and Jordan.

During 2011 and 2012, the Middle East region was dancing on a volcano of civil wars, protests and political crises, and their economic impacts on Islamic banks must be reflected in the financial statements of 2011 and 2012.

To conclude, three phases are detected in the Middle East region: (1) Phase of stability during 2010 and 2013, (2) phase of political crises during 2011 and 2012 and (3) phase of economic crises during 2014 and 2015 (Table 3).

5.3. Methodology Definition

The first part of the study is conducted through descriptive statistics to track the performance and financial behavior of Islamic banks over long periods of politic and economic instabilities in the Middle East region. The objective at this level is to evaluate the general tendency, specificity and interdependency of Islamic banks in the Middle East region.

Table 1: The sample of Islamic and conventional banks

Type of banks	KSA	UAE	Lebanon	Qatar	Kuwait	Jordan	Oman	Bahrein	Total
Islamic	3	4	3	4	5	2	2	6	29
Conventional	13	34	35	9	25	16	16	38	186
Total	16	38	38	13	30	18	18	44	215

Table 2: The values of oil price during 2010-2016

Date	May-10	May-11	Aug-11	May-12	Mar-13	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Jul-15	Aug-15	Nov-15	Dec-15	Jan-16	Jul-16	Nov-16
Oil price	75.6	108	100	104	102	100	95.8	86	76.9	60.7	47.1	54.3	45.6	43.1	36.5	29.7	44.1	45.2
Δ%	–9	–7	–6.8	–8.4	–4.7	–4.9	–4.2	–10.2	–10.5	–21.1	–22.3	–11.3	–15.9	–8.2	–15.1	–18.5	–7.4	–8

Source: World Bank

Table 3: The different phases of the study

Year	2010	2011	2012	2013	2014	2015
Crisis type	Phase of stability	Phase of politic crises		Phase of stability	Phase of economic crises	

The second part consists of comparing the performance and capital structures of Islamic banks during stability with the same sample during political then economic crises. The objective here is to verify the first two hypotheses (H_1) and (H_2).

The final part involves a comparative study between Islamic and conventional banks. In this section, two different samples are compared during three different periods: Stability, political crises and economic crises periods. The first sample is composed of Islamic banks and the second of conventional banks. The objective at this level is to test the final hypotheses (H_3) and (H_4).

After comparing the sample of Islamic banks with all the conventional banks in the Middle East region, and in order to neutralize any size, country and context effects, every Islamic bank chosen in the sample from a particular country was selected along with a conventional bank from the same country. The non-parametric test is used in this phase to cover the random noises and systematic differences between banks.

5.4. Variables Definition

Two different categories of variables are used in this research. The first category measures the performance of banks and it includes Return on Average Assets and Return on Average Equity.

The second category of variables tracks the Financial Behavior of Islamic and conventional banks. This category includes capital adequacy, liquidity, management quality and assets quality ratios. The following Table 4 summarizes the operational definition of variables previously mentioned:

6. DESCRIPTIVE STATISTICS

The results of descriptive statistics reveal that the 6-year average of total assets, total deposits, total equity, total loans and loan loss reserve for conventional banks are higher compared to Islamic banks. Despite the importance of Islamic banks in the Middle East region, the conventional banks remain bigger and more developed. They attract more depositors and they have larger assets, loans, loan loss reserve and equity. For Islamic banks, the averages of net income attain higher values than that of conventional banks over the years 2010-2015.

The results in Table 5 indicate a decrease of net income in 2011 and a decrease of all the averages in 2012 for both Islamic and conventional banks. This could be the consequences of the political crisis (Arab Spring) which exploded in the region from mid-2011 to 2012. The results also indicate the growth of the banking sector during 2013 and 2015. We noticed during these 2 years a development of total assets, total loans, total deposits and short term funding, net income and total equity. The decrease in oil prices and the economic stagnation during 2014 may be the reasons behind the low level of variations in the averages between 2013 and 2014.

The results of Table 6 indicates that Islamic banks recorded lower values of ROAE and ROAA than that of conventional banks during 2010-2015. During these 6 years, the conventional banks had a higher level of profitability. A longitudinal analysis between 2010 and 2015 reveals that the performance of Islamic banks was highly and negatively affected by the political crisis of 2011 ($ROAA_{2011}$: -1.87; $ROAE_{2011:}$ 3.302) and the decrease in oil prices in 2014 ($ROAA_{2014}$: –0.682; $ROAE_{2014:}$ 5.55). The conventional banks recorded a higher performance level than that of Islamic banks in 2011 ($ROAA_{2011}$: –1.966; $ROAE_{2011:}$ 11.497) and 2014 ($ROAA_{2014:}$ 1.536; $ROAE_{2014:}$ 11.497). This higher performance

Table 4: Definition of variables

Performance ratios		
Return on average assets	ROAA	Net income/total assets
Return on average equity	ROAE	Net income/total equity
Financial behavior ratios		
Capital adequacy	CA	Total equity/total assets
Liquidity	LIQ	Net loan/total assets
Management quality	MQ	Total cost total revenue
Assets quality	AQ	Loan loss reserve/gross loan

Table 5: Descriptive statistics

2010	Islamic banks	Conventional banks
	Mean±SD	Mean±SD
Total Assets	18754±22611	19213±64422
Total deposits	14205±18742	14571±44321
Total equity	2432±2765	1906±2547
Loan Loss RSRV	408±560	324±503
Net Income	359±561	306±534
Total loans	1296±1336	764±1118
2011		
Total assets	20493±25749	20703±68244
Total deposits	13886±1976	15642±46234
Total equity	2321±2651	2169±3007
Loan loss RSRV	454±582	367±611
Net income	332±526	282±517
Total loans	1302±1430	855±1254
2012		
Total assets	15684±24312	23007±72509
Total deposits	11005±18258	11483±31432
Total equity	2276±3143	1599±2736
Loan Loss RSRV	395±537	293±583
Net INCOME	311±552	186±458
Total loans	961±1302	566±1141
2013		
Total assets	17782±27434	25529±76270
Total deposits	12757±20702	12401±34316
Total equity	2522±3521	1747±3023
Loan Loss RSRV	344±512	273±592
Net Income	351±582	205±493
Total loans	1077±1542	603±1205
2014		
Total assets	18726±28166	25334±75490
Total deposits	13544±21874	12883±31571
Total equity	2743±3942	1918±3392
Loan Loss RSRV	363±522	277±628
Net income	375±629	193±465
Total loans	1226±1721	676±1355
2015		
Total assets	19224±30706	24907±72917
Total deposits	14576±22543	15028±23622
Total equity	3129±4212	2603±3585
Loan loss RSRV	480±615	464±851
Net income	478±713	295±506
Total loans	1587±1936	1043±1903

level of conventional banks implies better levels of assets quality and capital adequacy.

The results in Table 6 also reveals that the assets quality and capital adequacy ratios of conventional banks are higher compared to Islamic banks during 2010-2015. Conventional banks have the capacity to manage their assets and manage the allowance for potential losses they must make.

The average liquidity ratio indicates that the Islamic banks were more capable of increasing their liquidity level compared to conventional banks during 2010-2015, especially during crises periods. The results in Table 6 indicates that the Islamic banks reached their higher value of liquidity ratio in 2011 ($LIQ_{2011:}$ 62.115) and 2014 ($LIQ_{2014:}$ 59.185).

The management quality ratio of Islamic banks is greater than that of conventional banks during 2010-2015. The results reveal that the conventional banks are able to manage and control their costs. However, the lowest level of management quality ratio of Islamic banks (MQ_{2011}:57.245) is recorded in 2011. During the political crisis of 2011-2012 the managers of Islamic banks become very active to minimize the different types of cost and maximize the level of return which reflect the professionalism and the conservative financial behavior of Islamic banks during the crisis period.

7. EMPIRICAL FINDINGS

7.1. Comparison of Islamic banks' Behaviors and Performance during Crises and Stability Periods

In this part of the study, the sample of 29 Islamic banks is divided into three sub-groups of year-observation. The first sub-group covers the observation of Islamic banks during the period of stability (2010 and 2013), the second sub-group contains the observation of Islamic banks during the political crisis (2011 and 2012) and finally, the third sub-group includes the observation of Islamic banks during the economic crisis (2014 and 2015).

The non-normal distribution of the study's variables leads us to use the non-parametric test (Mann-Whitney T.) to compare the performance and financial behavior of Islamic banks during a period of stability with the Islamic banks during periods of political and economic crises.

The results in Table 7 indicate that the Islamic banks are highly affected by political and economic crises. The results of ROAA reveal that the performance of Islamic banks decreased from 0.835 during a period of stability, to –0.18 during the economic crisis and –0.25 during the political crisis. The results of ROAE also indicate that the performance of Islamic banks decreased from 7.72 during a period of stability to 5.97 during the economic crisis and 5.53 during the political crisis. These findings support the first hypothesis (H_1), namely that the performance of Islamic banks is negatively affected during a crisis period.

The values of assets quality and management quality ratios are consistent with the performance levels of Islamic banks during the periods of stability, political and economic crises. The results in Table 7 reveal that the Islamic banks have the highest level of assets quality during the period of stability, while the lowest level exists during the political crisis. The bad debt losses during economic and political crises expend more resources on the non-performing loans which incurs extra operating costs and, consequently, a low performance level.

The management quality ratio also indicates that the Islamic banks are negatively affected by political crisis. The managers of Islamic banks did not have the ability to manage their overhead costs and increase their incomes during the political crisis of 2011-2012.

Alternatively, the Islamic banks have the higher levels of liquidity (56.5) during the political crisis of 2011-2012. These results reveal that the managers of Islamic banks are able to manage the financial reliability and safety by captivating the politic crises shocks.

During the crisis period, the Islamic banks have a non significant difference of capital adequacy level. These results are not

Table 6: Descriptive statistics of ratios

2010	Islamic Banks	Conventional Banks
	Mean±SD	Mean±SD
ROAA	1.119±1.561	1.513±2.605
ROAE	7.767±10.134	9.946±18.333
Liquidity	55.557±16.343	48.366±21.291
Assets quality	3.755±2.776	6.595±9.597
Management quality	62.632±46.136	48.602±22.454
Capital adequacy	0.199±0.185	0.191±0.139
2011		
ROAA	–1.876±10.823	1.966±3.051
ROAE	3.303±19.801	11.497±18.602
Liquidity	62.115±10.986	48.964±21.140
Assets quality	3.025±2.056	5.392±5.758
Management quality	57.245±32.291	46.285±19.176
Capital adequacy	0.217±0.239	0.217±0.189
2012		
ROAA	0.742±1.756	2.118±4.259
ROAE	7.694±7.412	9.299±15.321
Liquidity	54.199±25.256	43.029±25.369
Assets quality	2.510±2.080	8.112±13.183
Management quality	96.793±118.620	62.647±88.810
Capital adequacy	0.239±0.246	0.304±0.271
2013		
ROAA	0.676±1.885	2.164±3.938
ROAE	6.930±8.150	8.582±13.163
Liquidity	56.918±17.605	43.519±25.164
Assets quality	2.451±2.168	7.698±12.972
Management quality	78.741±78.049	54.756±44.522
Capital adequacy	0.225±0.209	0.294±0.261
2014		
ROAA	–0.682±6.789	1.537±4.976
ROAE	5.555±13.216	6.539±20.733
Liquidity	59.185±21.075	43.594±25.855
Assets quality	2.546±2.198	9.529±17.532
Management quality	70.807±39.767	53.490±33.112
Capital adequacy	0.195±0.150	0.303±0.268
2015		
ROAA	0.457±2.486	0.628±5.487
ROAE	6.506±7.899	6.900±15.004
Liquidity	64.196±13.125	51.032±24.433
Assets quality	3.117±2.342	7.176±12.404
Management quality	66.049±27.452	52.783±24.794
Capital adequacy	0.175±0.122	0.270±0.244

Table 7: Mann-Whitney U test of Islamic banks

Sample	Islamic banks during a period of stability (IBDS)	Islamic banks during political crisis (IBDPC)	Islamic banks during economic crisis (IBDEC)
Period (year)	2010-2013	2011-2012	2014-2015
Number of observations	54	55	53
	ROAA		
Average	0.835	–0.25	–0.18
Mann-Whitney U value IBDS & IBDPC (Z score); Asymp. Sig. (2-tailed)	656 (–3.105) 0.001		
Mann-Whitney U value IBDS & IBDEC (Z score); Asymp. Sig. (2-tailed)	712.5 (–3.468) 0.001		
	ROAE		
Average	7.72	5.53	5.97
Mann-Whitney U value IBDS & IBDPC (Z score); Asymp. Sig. (2-tailed)	647 (–3.314) 0.000		
Mann-Whitney U value IBDS & IBDEC (Z score); Asymp. Sig. (2-tailed)	694 (–3.444) 0.001		
	Liquidity		
Average	55.9	56.5	61.04
Mann-Whitney U value IBDS & IBDPC (Z score); Asymp. Sig. (2-tailed)	633 (–3.163) 0.002		
Mann-Whitney U value IBDS & IBDEC (Z score); Asymp. Sig. (2-tailed)	518 (–3.101) 0.001		
	Assets quality		
Average	2.8	2.71	2.799
Mann-Whitney U value IBDS & IBDPC (Z score); Asymp. Sig. (2-tailed)	514.5 (–3.14) 0.001		
Mann-Whitney U value IBDS & IBDEC (Z score); Asymp. Sig. (2-tailed)	577 (–2.933) 0.002		
	Management quality		
Average	72.7	82.1	68.6
Mann-Whitney U value IBDS & IBDPC (Z score); Asymp. Sig. (2-tailed)	605.5 (–3.082) 0.001		
Mann-Whitney U value IBDS & IBDEC (Z score); Asymp. Sig. (2-tailed)	631 (–3.733) 0.000		
	Capital adequacy		
Average	0.21	0.23	0.18
Mann-Whitney U value IBDS & IBDPC (Z score); Asymp. Sig. (2-tailed)	601 (–0.135) 0.614		
Mann-Whitney U value IBDS & IBDEC (Z score); Asymp. Sig. (2-tailed)	455 (–1.124) 0.362		

consistent with the studies of Siddiqui (2008), Isik and Hassan (2002) who indicate that a higher level of capital adequacy ratio reflects positive signals of solvency and a cushion against future losses. At this level we consider that the Islamic banks have the same strategy of maintaining a high level of capital adequacy ratio during crises and stability to avoid any potential losses and to protect the bank's depositors and lenders.

As for the liquidity ratio, the results indicate that the Islamic banks have a higher level of financial safety during political and economic crises. The leaders of Islamic banks know how to manage their liquidity level during critical periods to meet their short-term obligations, maintain a solid cash position, explore new investment opportunities and expand their loans level. These results lead us to support the second hypothesis (H_2), namely that

the Islamic banks exhibit conservative financial behavior during a crisis period.

7.2. Comparison between Islamic and Conventional Banks during Crises and Stability Periods

In this part of the study, the 29 Islamic banks are compared with the whole population of conventional banks in the Middle East region. To complete the results, 186 conventional banks are compared with 29 Islamic banks for 6 years, from 2010 until 2015.

After the comparison between the populations of Islamic and conventional banks, the banks' year-observations are divided to three sub-samples based on three different periods: stability, economic and political crises. The objective at this level is to study the differences between Islamic and conventional banks during crises and stability periods. Finally, the Islamic banks are compared with a selected sample[6] of conventional banks to eliminate any bias related to country and bank size.

Due to the non-normal distribution of the study's variables, the non-parametric test (Mann-Whitney T.) is used to compare the performance and financial behavior of Islamic banks with the conventional banks during stability and crises.

The results of ROAA and ROAE presented in Table 8 indicate no significant differences between the performance values of conventional and Islamic banks for the period of 2010-2015. The average return on assets (ROAA) of Islamic banks is 0.11 whereas the average ratio of conventional banks is 1.73. The average return on equity of conventional banks is 8.64 and the average of Islamic banks is 6.38.

The results in Table 8 also indicate that both management and assets quality ratios of conventional banks are greater than that of Islamic banks between 2010 and 2015 which reflect a high capacity of conventional banks to manage their costs and their assets. The assets quality ratio of Islamic banks is 2.82 whereas the average ratio of conventional banks is 7.68. The management quality ratio of conventional banks is 54.26 and the average of Islamic banks is 74.24.

The liquidity ratio of Islamic banks (58.37) is greater than that of conventional banks (45.6) between 2010 and 2015 which reflects a sufficient and higher capacity of Islamic banks to cover any unpredicted requirement during stability and crises periods.

The result of capital adequacy ratio reveals a non-significant superiority of conventional banks during the period of the study. The capital adequacy ratio of Islamic banks is 0.211 whereas the average ratio of conventional banks is 0.275. The non-separation between the studied period (stability, political crisis and economic crisis) may be the reason behind this non-significance of capital adequacy ratio.

6 The selection criteria of the 29 conventional banks are based on two dimensions: (1) bank size and (2) country. Each Islamic bank is matched with a conventional bank having almost the same size and from the same country.

The results indicate that the ROAA values of Islamic banks are 0.853, –0.25 and –0.18 during stability, political crisis and economic crisis, respectively. Alternatively, the performance values of conventional banks in the Middle East region are 1.94, 2.06 and 1.2 during stability, political crisis and economic crisis, respectively. The advanced analysis of Mann-Whitney Test presented in Table 9 indicate the absence of any significant differences between Islamic and conventional banks. The non-significant superiority of conventional banks is also revealed when the Islamic banks are compared with the paired sample of conventional banks.

The same results are detected for the ROAE. The average return on equity of Islamic banks is 7.72, 5.53 and 5.97 respectively during stability, political crisis and economic crisis, and the averages return on equity of conventional banks is respectively 9.03, 10.04 and 6.67 during stability, political crisis and economic crisis. The non-parametric test presented in Table 9 also reveals no significant differences between Islamic banks and conventional ones during the period of 2010-2015. The non-significant superiority of conventional banks is also observed when the Islamic banks are compared with the paired sample of conventional banks based on ROAE ratio. These absence of significant difference between Islamic and conventional banks confirms the studies of Bader et al. (2008) and Johnes et al. (2012) and lead us to reject the third hypothesis (H_3), namely that the Islamic banks exhibit higher performance than conventional banks during a crisis period.

The results of management quality ratio reveal the advantage of conventional banks during crises and stability periods. The

Table 8: Mann-Whitney U test of Islamic and conventional banks

Variable	ROAA
Average of Islamic banks	0.11
Average of conventional banks	1.73
Mann-Whitney U	44442
Z value (Asymp. Sig. (2-tailed))	−0.535 (0.23)
Variable	ROAE
Average of Islamic banks	6.38
Average of conventional banks	8.64
Mann-Whitney U	45377
Z value (Asymp. Sig. (2-tailed))	–0.367 (0.73)
Variable	Liquidity
Average of Islamic banks	58.37
Average of conventional banks	45.60
Mann-Whitney U	37887
Z value (Asymp. Sig. (2-tailed))	–3.636 (0.001)
Variable	Assets quality
Average of Islamic banks	2.82
Average of conventional banks	7.68
Mann-Whitney U	20949
Z value (Asymp. Sig. (2-tailed))	–3.754 (0.000)
Variable	Management quality
Average of Islamic banks	74.24
Average of conventional banks	54.26
Mann-Whitney U	34385
Z value (Asymp. Sig. (2-tailed))	–3.686 (0.000)
Variable	Capital adequacy
Average of Islamic banks	0.211
Average of conventional banks	0.275
Mann-Whitney U	41969
Z value (Asymp. Sig. (2-tailed))	–1.944 (0.372)

Table 9: Mann-Whitney U test of Islamic and conventional banks during the periods of stability and crises

Description of Period	Stability	Political crisis	Economic crisis
Period (year)	2010-2013	2011-2012	2014-2015
Variable	ROAA		
Average of Islamic banks	0.835	–0.25	–0.18
Average of conventional banks (population)	1.94	2.06	1.20
Average of conventional banks (sample)	4.41	4.08	1.86
Mann-Whitney U value: Islamic banks & population of conventional banks Z score (Asymp. Sig. (2-tailed))	4917−1.74 (0.833)	3840−2.61 (0.629)	5090−2.73 (0.234)
Mann-Whitney U value: Islamic banks & sample of conventional banks Z score (Asymp. Sig. (2-tailed))	4352−2.13 (0.543)	3251−2.45 (0.612)	4865−2.88 (0.118)
Variable	ROAE		
Average of Islamic banks	7.72	5.53	5.97
Average of conventional banks (population)	9.03	10.04	6.67
Average of conventional banks (sample)	19.33	18.22	10.73
Mann-Whitney U value: Islamic banks & population of conventional banks Z score (Asymp. Sig. (2-tailed))	5837−0.45 (0.964)	5304−0.36 (0.345)	5314−0.59 (0.552)
Mann-Whitney U value: Islamic banks & sample of conventional banks Z score (Asymp. Sig. (2-tailed))	5123−0.66 (0.144)	4817−0.13 (0.201)	4612−0.29 (0.182)
Variable	Liquidity		
Average of Islamic banks	55.9	56.5	61.04
Average of conventional banks (population)	45.15	45.1	46.4
Average of conventional banks (sample)	41.45	42.77	45.22
Mann-Whitney U value: Islamic banks & population of conventional banks Z score (Asymp. Sig. (2-tailed))	2335−3.16 (0.001)	2593−3.32 (0.000)	2619−3.01 (0.001)
Mann-Whitney U value: Islamic banks & sample of conventional banks Z score (Asymp. Sig. (2-tailed))	2113−3.30 (0.000)	2593−3.52 (0.000)	2619−3.11 (0.000)
Variable	Assets quality		
Average of Islamic banks	2.8	2.71	2.799
Average of conventional banks (population)	7.30	7.17	8.67
Average of conventional banks (sample)	10.32	12.13	6.99
Mann-Whitney U value: Islamic banks & population of conventional banks Z score (Asymp. Sig. (2-tailed))	1692−3.21 (0.001)	1444−3.29 (0.000)	1598−2.98 (0.002)
Mann-Whitney U value: Islamic banks & sample of conventional banks Z score (Asymp. Sig. (2-tailed))	1242−3.35 (0.001)	1015−3.11 (0.000)	1131−3.08 (0.000)
Variable	Management quality		
Average of Islamic banks	72.7	82.1	68.6
Average of conventional banks (population)	52.70	56.88	53.22
Average of conventional banks (sample)	58.14	49.78	66.81
Mann-Whitney U value: Islamic banks & population of conventional banks Z score (Asymp. Sig. (2-tailed))	3063−3.31 (0.001)	3026−2.91 (0.003)	3199−2.82 (0.01)
Mann-Whitney U value: Islamic banks & sample of conventional banks Z score (Asymp. Sig. (2-tailed))	2563−3.23 (0.000)	2721−3.22 (0.000)	3199−3.14 (0.001)
Variable	Capital adequacy		
Average of Islamic banks	0.21	0.23	0.18
Average of conventional banks (population)	0.26	0.27	0.29
Average of conventional banks (sample)	0.46	0.49	0.46
Mann-Whitney U value: Islamic banks & population of conventional banks Z score (Asymp. Sig. (2-tailed))	2267−1.12 (0.193)	2380−1.32 (0.101)	4369−0.37 (0.375)
Mann-Whitney U value: Islamic banks & sample of conventional banks Z score (Asymp. Sig. (2-tailed))	2006−2.22 (0.096)	2158−1.01 (0.186)	3027−0.92 (0.206)

conventional banks mangers have more capacity and skills to minimize and control the different types of bank costs to achieve the greatest return by providing the best possible service. The values of management quality ratio of conventional banks are 52.7, 56.88 and 53.22 during stability, political crisis and economic crisis respectively. The average values of management quality ratio for Islamic banks are 72.7, 82.1 and 68.6 during stability, political crisis and economic crisis respectively.

The assets quality ratios of Islamic and conventional banks reveal that the Islamic banks accumulate a higher level of many bad loans and they have a higher risk of being unable to repay the debts when their total assets lose value. The values of assets quality ratio of conventional banks are 7.3, 7.17 and 8.67 during stability, political crisis and economic crisis respectively, compared to the values of assets quality ratio for Islamic banks are 2.8, 2.71 and 2.79 during stability, political crisis and economic crisis respectively.

The results of liquidity ratio indicate that the Islamic banks have more capacity and potential to meet the short-term obligations and pay the debt obligations. The liquidity ratio of Islamic banks is 55.9 during stability, 56.5 during political crisis and 61.04 during economic crisis. Alternatively, the value of liquidity ratio of conventional banks is 45.15 during stability, 45.1 during political crisis and 46.4 during economic crisis.

Finally, the non-significant superiority of capital adequacy ratios of conventional banks reveal that both Islamic and conventional banks are well capitalized and the limited superiority of conventional banks may due to their size level.

All these results lead us to reject the final hypothesis (H_4), namely that the Islamic banks exhibit higher conservative financial behavior than conventional banks during the crisis period.

8. CONCLUSION

Alongside conventional banks, the Islamic banks appear in the Middle East region as an alternative financial system based on Islamic law and principles. The objective of this paper has been to conduct a comparison study between Islamic and conventional banks based on six variables (ROAA, ROAE, liquidity, assets quality ratio, management quality ratio and capital adequacy ratio) during different periods: stability (2010-2013), economic crisis (2014-2015) and political crisis (2011-2012).

The main result of the study shows that political and economic crises have a negative impact on the performance of Islamic banks in the Middle East region. The Islamic banks in the Middle East region were not isolated from the fluctuation of oil prices and the political crisis of 2011-2012. The impact of the economic and politic crises is reflected in the declining of ROAA and ROAE.

The results also reveal that it is so difficult to record a clear financial behavior of Islamic banks during crises. The managers of Islamic banks increase the capital adequacy and focus on the reduction of costs to increase banks' efficiency during the political crisis, whereas they focus on increasing liquidity and assets quality during the economic crisis.

The study also compares the performance and financial behavior between Islamic and conventional banks. It has recorded a non-significant superiority of conventional banks in the different performance indicators (ROAA, ROAE).

Alternatively, the results indicate that the conventional banks have a significant and higher level of assets quality and management quality ratios during the periods of stability and the period of crises. The managers of conventional banks know more efficiently how to manage the assets and reduce the different types of expenses to maximize the level of profitability. The study also found that the Islamic banks have a higher liquidity ratio than that of conventional banks during the periods studied because they focus more upon deposits and less upon lending. The Islamic banks in general may not seem to be in a better financial position than other conventional banks, but they are less exposed to risk and more concerned in insuring a high level of stability and safety, especially during a crisis period.

Based on the results of this study the Islamic banks should analyze the Middle East environment and reinforce their financial system by putting in place an efficient financial and operational management system, and by formulating a risk management policy to maximize the efficiency and the performance level during the periods of crises. Moreover, the Islamic banks have to be more competent by developing the number of Islamic financial product, providing the best possible service and improving the cost control system to achieve the greatest level of return.

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