The Impact of oil Prices on the Financial Performance of Banking Sector in Middle East Region

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ABSTRACT

The objective of this study is to determine the impact of oil price fluctuations on the financial performance of banking sector in 8 oil producing and exporting countries in Middle East region (Kingdom Saudi Arabia, United Arab Emirates, Qatar, Bahrain, Kuwait, Jordan, Oman, Iran) in the period between January 2012 and December 2017. The results do not reveal the same impact of oil price fluctuations on the financial performance of banking sector in each studied country. A significant direct impact of oil prices on the financial performance of banking sector has been found in Bahrain, Oman and Iran. In Jordan, Kuwait, Qatar, Saudi Arabia and United Arab Emirates, the results do not reveal any direct impact of oil price fluctuations on the financial performance of banking sector. The analysis also showed that the size of the economy in each country and its diversification in non-oil sectors have a direct impact on the relationship between oil price fluctuations and financial performance of banking sector. The existence of well diversified economy in non-oil sector reduces the direct impact of oil price fluctuations on the financial performance of banking sector.

Keywords: Oil Prices, Banks, Financial Performance, Macroeconomics Factors

JEL Classifications: E02, E44, E6, G21, Q41

1. INTRODUCTION

The majority of Middle East (ME) countries are considered as oil producing countries and their government revenues and expenditures depend mainly on oil price fluctuations. Oil sector is considered as a driver of financial variables and business in public and private sectors in oil producing and exporting countries in Middle East region. For this reason, many studies indicate that the economic development and economic situation in oil producing countries are largely related to the international oil price and oil shocks. Khamis et al. (2018) revealed that oil price fluctuations have a clear influence on gross domestic product (GDP) of Gulf Cooperation Council (GCC) countries. Tabash and Khan (2018) and Foudeh (2018) found the same results in United Arab Emirates and Saudi Arabia, respectively. For Said (2015), when the oil prices increased in 1980s, oil producing countries in Middle East region experienced high GDP level. On the other hand, when oil prices decreased in 2009 and 2014, GDPs and many economic sectors dropped down in oil producing countries in Middle East region.

For Saif-Alyousfi et al. (2018), banking sector, the second important sector after oil sector in Middle East region, is considered one of the most affected sector by oil price fluctuations. During the oil price booming, banking sector accumulates the oil price revenue and during oil price slowdown this sector suffers from a lack of liquidity and financial performance. According to Ayu-Effendi (2019), the declining of oil prices affects the economy of oil producing countries and declines the performance of banking sector through oil-related activities. Kandil and Markovski (2018) revealed that oil price has an important role for banks because it is considered as determinant factor of their revenues and liquidity reserves. El-Chaarani and Ragab (2018), stated that oil price fluctuations in Middle East region have a direct impact on the financial resistance of Islamic and Conventional banks during political crisis and economic recession. Xu and Xie (2015),

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also revealed a significant correlation between world crude oil prices and banks performance in Canada. They found that the increasing of oil prices has a positive impact on the performance of conventional banks while the collapse in oil prices is followed by negative influences on the entire banking system.

Oppositely, many other studies revealed the absence of any relationship between oil prices and banking sector performance. Poghosyan and Hesse (2009) found the absence of any significant and direct impact of crude oil prices on the performance of banking sector in Middle East and North Africa region. The same result was obtained in Saudi Arabia by Abduh and Baharoon (2016). The researchers did not reveal any impact of oil prices on the performance of Islamic banks.

Therefore, the relationship between banking sector and oil prices is still in doubt and, studying the impact of oil price on the performance of banking sector is very important because it is at the heart of the diversification strategy in non-oil sectors claimed by oil producing countries in Middle East region during the actual long stage of low oil prices. In this regard, the importance of this research is to provide new evidences by addressing the following question: What is the impact of oil price on the financial performance of banking sector in oil producing and exporting countries in Middle East region?, does the last sharp slowdown of oil price in the middle of 2014 any specific impact on the financial performance of banking sector in Middle East countries?

This paper has attempted to focus on the most important sectors (oil and banking sectors) in Middle East region and tried to understand the impact of oil price fluctuations on the financial performance of banking sector. Second, this research fill gaps of empirical finding by studying the impact of sharp slowdown of oil price on the financial performance of banking sector in the whole Middle east region and non just on one or some specific countries. Finally, beside the direct impact of oil price this study explores the impact of some specific economic indicators such as inflation rate, unemployment rate and growth domestic product on the financial performance of banking sector.

To accomplish the objective of this study, the reminder of this paper is organized as follow: Section 2 shows the importance of banking sector, the importance of oil sector and the literature of oil price impact on the financial indicators of banking sector in oil producing countries, section 3 discusses the used method, variables and the data of the study, section 4 presents the descriptive statistics and the empirical findings of the study. Finally, section 5 concludes the research paper.

2. LITERATURE REVIEW

Banking and oil sectors have the dominant positions in the economy of Middle East region. Oil sector is the main source of governments revenues and expenditures while banking sector is the second larger contributor to Growth Domestic Product after

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1 It is believed that this strategy of diversification can help the economical system and banking sector to stand off the economic challenges.
The Islamic banks have become an increasingly integral part of the banking sector in the Middle East region (El-Chaarani and Ragab, 2018). They showed an impressive capacity to resist during the last financial crisis of 2008. For many scholars, the profit and loss sharing principle is key success of Islamic banking system in Middle East region. Moreover, they improved the risk management system and banks’ transparency to reduce the risk of any international shocks.

In past decades, banking sector in oil producing and exporting in Middle East region has accumulated very large amount of assets due to the booming of oil price and revenue. Since the recent slowdown of oil price in the middle of 2014, banking sector in oil producing and exporting countries in Middle East region is suffering from a low liquidity level and many other financial problems. Recently, El-Chaarani (2019), reveal a decreasing of liquidity and performance of banking sector in Middle East region. Also, he recommends large banks to keep an eye on their liquidity risk by controlling the levels of provided and non-performing percentage of loans.

2.3. Relationship between Oil Sector and Banking Sector

Since the last steep drop of oil prices in the middle of 2014, all governments in Middle East region, mainly in oil producing countries, are trying to diversify their investments in non-oil sector like financial, manufacturing, health and tourism sectors. Many scholars have studied the correlation between oil price fluctuations and banking sector performance without having a clear tendency revealing the nature of relationship.

Poghosyan and Hesse (2009), revealed the absence of direct impact of oil price fluctuations on the financial performance of banking sector in 11 oil exporting countries in Middle East and North African region. In addition, their results showed that the oil prices have an indirect impact on banking sector in Bahrein through the macroeconomic indicators such as inflation rate and fiscal stance.

Xu and Xie (2014), studied the impact of oil prices on the performance of 10 public banks in Canada for 20 years, from 2004 to 2014. Their results showed that the oil prices have a significant impact on the performance of these banks. They also found that the impact of oil prices on the performance of these banks is not symmetric, i.e., the negative impact of oil prices is larger than the positive impact.

Finally, El-Chaarani (2019), revealed a decreasing of liquidity and performance of banking sector in Middle East region. Also, he recommends large banks to keep an eye on their liquidity risk by controlling the levels of provided and non-performing percentage of loans.

Alodaynic (2016), studied the impact of oil price slump on the financial stability of banking sector of GCC over the period of 2000-2014. Using the panel VAR model, the results revealed that oil price shocks were a determinant of the overall financial stability of banking sector in the region. The last oil price slump of the middle of 2014 was associated with high level of non performing loans and low level of financial stability.

Khandelwal et al. (2016), verified the impact of oil prices on the banking system in GCC region over the period of 16 years, from 1999 till 2014. Using a data from 42 GCC banks in Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and UAE, the results showed that oil price downturns have significant impact on the balance sheet and assets prices of banking sector. Moreover, they found that the drop of oil prices was correlated with an increasing of non performing loan ratio of the banking sector in GCC countries.

Hawaldar et al. (2017), examined the relationship between oil price crisis, financial crisis and financial performance of banking sector in Bahrain from 2005 to 2015. Using single factor ANOVA model on seven conventional and Islamic banks, they found that oil price fluctuations have a direct and significant impact on the financial performance, liquidity, efficiency and leverage of banking sector in Bahrain. Moreover, they did not reveal any impact of the financial crisis of 2007/2008 on the banking sector in Bahrain.

In United Arab Emirates, Kandil and Markovski (2018), found that the last fall of oil price during the middle of 2014 had a significant negative impact on four financial indicators of banking sector: Return on assets (ROA), return on equity (ROE), level of loans and level of deposits. Across a sample of 22 banks, they revealed that conventional banks have higher capacity to resist than Islamic banks during the slowdown in economic activity. Tabash and Khan (2018), confirmed the existence of long-term and short-term relationships between oil prices and Islamic banking in United Arab Emirates between 1990 and 2015. They stated that oil price shocks did a large impact on the banking sector in the emerging economy like United Arab Emirates.

Ayu-Effendi (2019), studied the relationship between oil prices and Islamic banking performance in OPEC member countries in the period between 2007 and 2016. He found that each country has specific characteristics and the impact of oil prices is not the same in each country. The results indicated that the oil price fluctuations have direct and indirect impacts on the financial performance of Islamic banks in Iran, Qatar, Bahrein, Saudi Arabia, Iraq, United Arab Emirates and Kuwait. In addition, Ayu-Effendi (2019) found that the Islamic banks do not have any influence on oil sector due to their small market share in OPEC member countries.

It is noticed from the literature above the absence of any specific study treating the impact of recent slowdown of oil price on the financial performance of banking sector in Middle East region. Also, there is no study comparing the impact of oil price fluctuations on the financial performance of banking sector in different countries in Middle East region at the same time. Therefore, the objective of this study is to fill this gap in the literature review by considering the impact of the recent oil price slowdown on the financial performance of banking sector in 8 oil producing and exporting countries in Middle East region.

3. DATA, VARIABLES AND METHODS

This study examines the impact of oil prices on the performance of banking sector in Middle East region form January 2012 to December 2017. Considering this period is very important because it is characterized by the existence of political instability (known as Arab Spring) and the beginning in the middle of 2014 the long stage of “low price of crude oil.”

The oil data of this study were collected from World Bank database. The data of financial performance of banking sector were collected from BankScope database and annual reports of banks. The macroeconomic data were collected from World Bank database, from International Monetary Fund and central bank database of each studied country.

The total number of banks in the sample of this study is 36 banks traded in stock exchange and selected from 8 oil producing countries (Kingdom Saudi Arabia, United Arab Emirates, Qatar, Bahrein, Kuwait, Jordan, Oman, Iran). Many banks were excluded from the study due to missing data during the studied period. The other Middle Eastern countries such as Syria, Iraq, Yemen and Palestine were excluded from the sample due to the violent political conflicts and their impacts on the banking sector. Lebanon was excluded because it is not considered as oil producing country. The sample of the study is presented in Table 1.

Three variables were implemented to measure the financial performance of banking sector in Middle East countries. The first variable is the ROA, measured by net income over total assets. The second variable is the ROE, measured by net income over total equity. The third is the monthly return of bank stock market. The oil price return was measured by the monthly variation of oil prices. In addition, three control variables were considered: Growth domestic product, unemployment rate and inflation rate.
To reveal the impact of oil price fluctuations on the performance of banking sector, the panel data regression was implemented after being validated through Hausman test, Chow test and L-multiplier test. The model of the study is expressed as follow: \( (\text{Performance})_{it} = \beta_0 + \beta_1 \text{OR}_t + \beta_2 \text{GDP}_t + \beta_3 \text{INF}_t + \beta_4 \text{UN}_t + \epsilon_{it} \). Where, performance is the monthly stock market return for bank “i” in period “t”, OR\(_t\) is the monthly oil price variation in period “t”, GDP\(_t\) is the yearly growth domestic product in period “t”, INF\(_t\) is the yearly inflation level in period “t”, UN\(_t\) is the yearly unemployment rate in period “t”, \( \epsilon \) is the error term and \( \beta \) is the coefficient of variable where “\( \beta \)” ranges from 1 to 4. ROE and ROA were used only for descriptive statistics and excluded from the regression model because they were extracted from annual report while this study is based on monthly data of bank performance and oil price fluctuations. Only GDP, INF and UN variables are considered fix for each studied year.

### 4. RESULTS AND DISCUSSION

Figure 3 presents the oil price fluctuations between the period of 2008 and 2017. The first strong decreasing of Oil price was in the middle of the financial crisis of 2008/2009 due to improper speculation of market prices. On December 2008, the oil price reached the lowest price (US$30.2 a barrel) since the beginning of financial crisis. On the beginning of 2011, the Brent oil price reached US$100 then remained in range of US$90-120 for about 3½ years. The rising of oil production in USA has decreased the oil price since the middle of 2014. Nowadays, the oil price is in the range of US$40-60. It is believed that this actual long stage of low oil price can not stay without direct implication on government expenditure, economic indicators and banking sector in emerging markets mainly, in oil producing and exporting countries in Middle East region.

Figure 4 presents the unemployment rate of oil producing countries in Middle East region. The results indicate a slight increasing of unemployment rate in some countries like Jordan, United Arab Emirates and Saudi Arabia. This trend of unemployment can be the result of oil price slowdown. In addition, Figure 4 indicates that Jordan has the highest unemployment rate in Middle East region flowed by Iran, Saudi Arabia, Bahrein, Oman and Kuwait. Qatar and United Arab Emirates have the lowest unemployment rate in Middle East region due to their well diversified economies and low population level.

Figure 5 shows that there is no clear trend of inflation rate in Middle East region. It seems that the low price of oil price had marginal impact on the inflation rate in the 8 oil producing countries. It is noticed that the inflation trend in Iran was the highest in the region and the most volatile. In November 2013, the inflation rate hits 39% due the sanctions imposed by US government on Iran. During the last 2 years, the inflation rate in Iran drops down after decreasing the pressure on Tehran government.

The GDP of oil producing countries in Middle East region was strongly volatile in the 8 studied countries from 2012 till 2017. Figure 6 indicates that the financial crisis of 2008/2009 had the worst impact on all GDPs of Middle East region except Iran which had confronted the lowest GDP during the US sanctions in the middle of 2012. The results do not show any direct impact of oil price slowdown in the middle of 2014 on GDP. Since 2016, it is noticed that the GDPs of the whole region fall down again. This situation can be the cumulative results of non diversified

### Table 1: Sample description

<table>
<thead>
<tr>
<th>Country</th>
<th>KSA</th>
<th>UAE</th>
<th>Qatar</th>
<th>Bahrein</th>
<th>Kuwait</th>
<th>Jordan</th>
<th>Oman</th>
<th>Iran</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of banks (sample)</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>36</td>
</tr>
<tr>
<td>% of sample</td>
<td>11.11</td>
<td>22.22</td>
<td>8.33</td>
<td>8.33</td>
<td>16.67</td>
<td>11.11</td>
<td>8.33</td>
<td>13.89</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Figure 3: Crude oil price

![Crude oil price graph](image-url)
economy in non-oil sector and oil price decreasing since the middle of 2014.

As for ROA rate of banking sector in oil producing countries in Middle East region, the results of Figure 7 show that there is a decreasing trend of ROA since 2014, mainly in UAE, KSA, Qatar and Kuwait. It seems that the banking sector in those countries are the most affected by the oil prices slowdown in the middle of 2014. The decreasing trend in Iran had begun since 2012 which indicate that the banking sector in Iran was influenced by the sanctions of US government. From 2011 to 2017, the ROA of banking sector in Saudi Arabia was the highest in Middle East region flowed by United Arab Emirates. The banking sector in Kuwait had the lowest level of ROA between the oil producing and exporting countries in Middle East region.

Since 2014, the ROE of banking sector has decreased in Saudi Arabia, United Arab Emirates, Oman, Bahrein and Kuwait (Figure 8). The last long stage of low oil price may be the reason behind this ROE trend in Middle East region. From 2011 to 2017, the banking sector in Saudi Arabia had the highest level of ROE while the banking sector in Kuwait had the lowest level of ROE in the region. From Figures 7 and 8, it can be concluded that the banking sector in Saudi Arabia has the highest level of performance while the banking sector in Kuwait is suffering from lowest level of performance in Middle East region.

Table 2 presents the regression results of financial performance of banking sector in 8 oil producing countries. The results reported in Table 2 indicate that oil price fluctuations and macroeconomic factors had different impact on the performance of banking sector of each country studied in Middle East region from 2011 to 2017.

In Table 2, the results of Saudi Arabia, the second largest oil producer in the world, indicate the absence of direct impact of oil prices on the financial performance of banking sector. However, it is noticed a direct impact of GDP on the return of banking sector which lead to expect the existence of indirect impact of oil price fluctuations through the economic indicators. A low level of oil price decreases the economic growth of the whole country which...
lead therefore to fall the financial performance of banking sector. The impacts of inflation and unemployment rates are negative and insignificant on the financial performance of banking sector in Saudi Arabia. The dominance of Islamic banking system in Saudi Arabia and its capacity to overcome the international crises may be the reason behind this results (El-Chaarani and Ragab, 2018). The Islamic banking system is well known by its conservative strategy through the avoiding of uncertainty and excessive level of risk.

The regression results of Kuwaiti banks come in line with the results of Saudi banks. Table 2 shows the absence of direct impact of oil prices and inflation rate on the financial performance of banking sector in Kuwait. Moreover, Table 2 reveal the existence of

Table 2: Regression results

<table>
<thead>
<tr>
<th>Var.</th>
<th>KSA</th>
<th>UAE</th>
<th>Qatar</th>
<th>Bahrain</th>
<th>Kuwait</th>
<th>Jordan</th>
<th>Oman</th>
<th>Iran</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORt</td>
<td>0.726</td>
<td>0.773</td>
<td>0.632</td>
<td>0.703*</td>
<td>0.612</td>
<td>0.214</td>
<td>0.114**</td>
<td>0.902**</td>
</tr>
<tr>
<td>GDPt</td>
<td>0.027**</td>
<td>0.822</td>
<td>0.201*</td>
<td>0.431**</td>
<td>0.062*</td>
<td>0.241</td>
<td>0.631*</td>
<td>0.876</td>
</tr>
<tr>
<td>INFt</td>
<td>−0.003</td>
<td>−0.641</td>
<td>0.226</td>
<td>−0.765*</td>
<td>−0.524</td>
<td>−0.601</td>
<td>−0.411</td>
<td>−0.153*</td>
</tr>
<tr>
<td>UNt</td>
<td>−0.000</td>
<td>−0.035</td>
<td>0.328</td>
<td>−0.403*</td>
<td>−0.356*</td>
<td>−0.213</td>
<td>−0.341</td>
<td>−0.286*</td>
</tr>
<tr>
<td>R²</td>
<td>0.292</td>
<td>0.313</td>
<td>0.268</td>
<td>0.441</td>
<td>0.327</td>
<td>0.205</td>
<td>0.316</td>
<td>0.321</td>
</tr>
</tbody>
</table>

*** and ** represent the significance levels at 10%, 5%, and 1% levels, respectively. R² is the coefficient of determination.

**Figure 6:** Gross domestic product rate of oil producing countries in Middle East region

**Figure 7:** Return on assets rate of banking sector in oil producing countries in Middle East region
positive impact of GDP and negative impact of unemployment rate on the financial performance of Kuwaiti banks. The decreasing of GDP and increasing of unemployment rate have a direct negative impact on the activity of banking sector in Kuwait through reducing the level of deposits and debt lending.

The Iranian banks are between the most affected by oil price fluctuations. The results in Table 2 show significant positive impact of oil prices on the return of banking sector in Iran. Moreover, Table 2 shows negative and significant impact of inflation rate and unemployment rate on the financial performance of banking sector in Iran. Oppositely, GDP indicator does not have any significant impact on Iranian banks. The US sanctions on energy sector and the non diversification in non-oil sectors increase the importance of cash flow generated by oil sector for Iranian banks. The last slowdown of oil price in the middle of 2014 decreased the financial performance of banking sector in Iran. Moreover, the existence of high inflation rate increases the cost of production and lead to rise the unemployment rate that fall the financial performance of banking sector in Iran.

In Bahrein, the banking sector is well influenced by oil price fluctuations and different macroeconomic indicators. The results of Table 2 reveal positive impact of oil prices and GDP on the financial performance of banking sector in Bahrain. In addition, the results in Table 2 show negative impact of inflation and unemployment rates on the financial performance of Bahraini banks. The nature of economy in Bahrein and its highly dependence on oil sector increase the relationship between oil price fluctuations and banking sector. Moreover, the small size of the economy in Bahrein makes the financial performance of banking sector highly dependent from the different economic indicators (GDP, unemployment and inflation). Consequently, the actual government plan in Bahrein is working to develop both of construction and tourism sectors to overcome the sharp fall of oil price since the middle of 2014.

In United Arab Emirates, the results do not reveal any impact of any dependent variable on the financial performance of banking sector. The oil price fluctuations have not any significant impact on the return of banking sector. In addition, the results do not reveal any impact of macroeconomic (GDP, unemployment rate and inflation rate) indicators on the financial performance of banking sector in United Arab Emirates. The nature of well diversified economy in non-oil sector can be the reason of this absence of any impact of oil prices and macroeconomic factors on the financial performance of banking sector in United Arab Emirates. During the last decade, the government in United Arab Emirates has developed many sectors such as tourism, service and financial sector.

The results do not reveal any significant impact of oil prices, inflation and unemployment rates on the financial performance of banking sector in Qatar. Only the GDP has significant impact on Qatari banks. The reason behind the absence of direct impact of oil price on the financial performance of banking sector may is due to the nature of economy in Qatar and its highly dependence on natural gas production beside the oil production. Qatar is the second largest exporter of natural with more than 250 trillion cubic feet of natural gas reserve. As many countries in Middle East region Qatari banks are affected by the economic growth and development of the country.

In Jordan, the results do not reveal any significant impact of any dependent variable on the financial performance of banking sector. The diversified economy in many sectors in Jordan can be the reason behind this result. Nowadays, the economic system in Jordan is based on the revenue of many sectors like tourism, agriculture, telecom and manufacturing which reduce the relationship between oil price fluctuations and financial performance of banking sector. Therefore, the decreasing of oil price and oil revenue can be compensated by the revenue derived from the other sectors.

In Oman the results reveal a significant impact of oil price fluctuations and GDP on the financial performance of banking sector. The oil sector has very important role for the economy in Oman and it is very clear
that the GDP and banking sector are suffering since the middle 2014 due to the slowdown of oil prices. Recently, the government in Oman has implemented 5% VAT on certain products to reduce the large public deficit caused by oil prices.

5. CONCLUSION AND SUGGESTIONS

This paper analyzes the oil price impact on the financial performance of banking sector in 8 oil producing and exporting countries in Middle East region over the period of period 7 years, from 2012-2017. The importance of the study is to shed light on the impact of the oil price slowdown since 2014 on the financial performance of banking sector in Middle East region.

The results reveal a direct impact of oil price fluctuations on the financial performance of banking sector in Bahrein, Oman and Iran. In addition, the results do not reveal any direct impact of oil price fluctuations on the financial performance of banking sector in Jordan, Kuwait, Qatar, Saudi Arabia and United Arab Emirates.

These results reveal that the economic characteristics and conditions of each oil producing country have a direct impact on the relationship between oil prices and banking sector. If the economy is well diversified in non-oil sector the direct impact of oil price on the performance of banking sector is alleviated. Oppositely, if the economy of the country is small and non well diversified in non-oil sector, the direct impact of oil price on the financial performance of banks is largely significant.

In addition, the impact of oil price fluctuations on the performance of banking sector in Middle East region is dependent on the nature of existing banking system (Islamic or conventional) and the international economic pressures and sanctions as the case of Iran. The results reveal that the US sanctions on Tehran government had a direct impact on the relationship between oil prices and financial performance of banking sector.

After the sharp drop of oil price in the middle of 2014, the governments of oil producing countries should try to reduce their dependency on oil sector by investing in different non-oil sector like tourism, manufacturing and technology to provide alternative resources for governments revenues and expenditures. Likewise, it is very important to develop and finance the private non-oil sectors by banking sector in Middle East region to provide an alternative source of liquidity and sustain the economic growth.

REFERENCES