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# Banks Performance of the MENA Region during the Global Financial Crisis

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#### **ABSTRACT**

The current segment aims to analyse the presentation of the groups particularly in the "MENA section" throughout the course of worldwide economic crisis. The current study expounds in detail the theoretical background of the study and the empirical evidences that are available on this particular study. The current study also explicates in detail the data as well as the research methodology that can be used for undertaking the present study. This current paper illustrates in detail the empirical findings regarding the presentation of diverse banks operating in the section of "MENA" throughout the period of worldwide monetary crisis. Finally, based on the empirical findings, the current study demonstrates in detail the conclusive pronouncement regarding the performance of the groups in this specific area of MENA at the time of worldwide economic crisis.

#### 1. INTRODUCTION

As rightly put mentioned by Hassan et. al., (2012), the particular section of the "The Middle East and North Africa (MENA)" segment that has approximately 28 countries has essentially apopulace of around 357.3 million that is developing very swiftly and is gaining significance in the entire global economy. MENA is also be considered as world's one of the richest expanses from the perspective of capitals, as it has the nations with abundant oil resources essentially in the "Gulf Cooperation Council". Again, it can also be considered as the home to the primary Islamic banks operating throughout the world.

Globalisation as well as the cutback of barriers has permitted the foreign banks to penetrate the MENA region that in turn has led to increased effectiveness and competition. However, banks are said to derive

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benefit from different competitive advantage related to the expansion into new markets, although they also add to the process of transmission of different financial shocks. Again, economic crises can have diverse impacts on domestic in place of foreign banks. Nevertheless, there is inadequate evidence relating to the entire MENA region. This current paper intends to investigate the influence of the worldwide monetary crisis on the entire investment industry in the Middle East and North Africa (MENA) section, in addition to the major determinants that drive the profitability of both domestic as well as distant groups. The experiential pronouncements propose that all through the crisis the domestic banks outperformed the foreign banks in the particular region. The outcome is very much congruent with different pronouncements presented in different current academic literature on the thoroughly discussed "Asian economic disaster". Furthermore, GDP is seen to have a positive effect on the over all success of the bank.

#### 2. LITERATURE REVIEW AND THEORETICAL BACKGROUND

## Factors that Pushes Different Foreign Banks to Enter a New Market

The present education intends to examine the issues that help distant banks to arrive a marketplace. Therefore, it is important to investigate the factors that essentially motivate a particular bank to penetrate a new market. As rightly put forward by Jeon et. al., (2011), geographic factors also undoubtedly matter. Lassoueda et. al., (2016) opines that distance becomes an important factor, where a parent concern loses control over internal management of its own subsidiaries owing to distance. Superior level of control can be regarded is also considered to be crucial for attainment of high success margins. Again, distant banks also search for sites that can offer in expensive benefit associated to the adaptation with the working environment in a given weather (Hassan et. al., 2012). The academic literature on the foreign direct investment stresses on expansion of the firms abroad to a particular environment that is identical to the ones that essentially operates to acquire targeted earnings from different information gains from basically inside the specific corporation.

As mentioned by Hassan *et. al.*, (2012), the great banks are more probable to increase or expand overseas than many other smaller as well as medium sized firms with respect to the size as they have abundant clientele such as international corporations who demands for the banking services overseas.

## Influence of the Entry of Different Foreign Banks in the Domesticnation

As rightly put forward by Farazi et. al., (2011), the impact of diverse distant banks in different emerging markets has been the subject matter of research for a long period of several researchers as well as the rule makers. The investors on one hand, can invest majority of the funds and the practical skills and invention innovation, and can compete with the banking sector of emerging and developing nations, whereas, on the other hand, the strength can also be opposing, undermining belongings of different crowd nations due to essentially the broadcast of different monetary shocks in the economy (Farazi et. al., 2011).

Again, huge amount of information obstacles act as a strong barrier in the process of admittance of different foreign banks while different forms of entry act an impediment and affect the overall competition in different manner. However, the specific "Greenfield mode of entry" as described in various literature can direct the way towards to low interest rate in diverse domestic as well as host countries that can offer lucrative advantages to the clients. However, higher competition does not always lead to positive outcomes.

As rightly argued by De Haasand Van Lelyveld (2011) the overall increase in the entire figure of players operating in the specific market might possible lessen the motivation as well as the incentive of the different banks to put indifferent highly developed tracking technologies. However, huge level of competition can therefore create an entirely ineffective method of credit allotment that in turn raise the likelihood of overall amount of bad loans throughout the entire country and this can direct towards an overall reduction of the entire value of the loan portfolio created by different banks'. Nevertheless, there are several researchers who put forward strong argument regarding soaring percentage of different foreign banks reflects high level of efficacy in particular host countries. (Farazi et. al., 2011) suggests that access and admittance of different foreign banks can lessen the overall margins of net interest, diverse ratios for evaluation of cost, complete profitability, as well as diverse non-interest income for familial banks in budding nations. Most analysts believe that there is a link that draws a difference between the foreign bank penetration, competition and the economic growth (De Haas and Van Lelyveld 2011).

As rightly put forward by Cull *et. al.*, (2010), there is the proof that throughout the Asian as well as the latest worldwide financial crisis, particularly the foreign banks have become the outlet for transmission of risk from a specific nation to an entirely different nation. However, particularly the MENA section has diverse channels that include different financial markets, the entire market of oil, tourism as well as the market for global asset among many others that in turn can lead to higher volatility in the stock market (Claessens and Van Horen 2011).

## Mode of Admittance of the Foreign Banks

As rightly put forward by Assaf (2016), the Arab nations particularly belonging to the specific segment of the MENA in full swing started modifying different financial sections during the period of the 1990s, comparatively behind schedule as opposed to different nations in Latin America plus Asia. Nevertheless, several nations that include Algeria, Libya as well as Syria have essentially state-domination, in addition to different reprehensively modified financial schedule. Again the World Trade Organisation (WTO) also presented different contracts as regards particular financial services especially during the period of the year 1995 as well as 1997 that in turn accelerated overall process of privatisation and at the same time divestiture of diverse state-owned corporations, reformation of different corporations operating in the host nations as well as the eradication of diverse unnecessary rules to lay open the financial bourses in the domestic nations to six different foreign bank entries. BergerandDeyoung(2013) opines that interest rate spreads also declined in the MENA nations owing to liberalisation and increased competition that was brought about by foreign banks entry.

#### Bank Ownership and Performance

As rightly put forward by Bourkhisa and Sami Nab (2013), there is an fragmentary debate on the consequences of ownership on performance of different bank. However, there are different foreign banks can provide superior interest rate margins as well as generate higher level of earnings by essentially incurring low amount of costs in different budding nations as compared to diverse familial banks. As argued by Bourkhisa and Sami Nab (2013), extensive state ownership of banks can be considered to be one of the most important causes for sluggish economic growth as well as financial development in different developing nations. Therefore, the foreign ownership usually shows the way towards superior presentation than familial

ownership in diverse budding nations, in opposition to diverse already developed countries, in which the domestic banks are inclined to perform better than the foreign banks.

## Financial Crisis and Banking Performance

As rightly put forward by Chenand Liao (2011), the foreign banks controlled their lending during the period 2008 and 2009 even more than all the domestic banks and debatably contributed to the overall financial unsteadiness. However, there are also evidences of fewer amounts of credit by different familial banks throughout the entire course of economic crisis and at the same time stable credit provided by different foreign banks that in essence pursued the particular scheme of Greenfield entry. As such, in the Asian section Malaysia is observed to have a quick invasion of a number of foreign banks that are in particular subsidiaries of diverse banks in Asia over and above different banks of the UK, North American as well as European banks. Parashar and Venkatesh(2011) rightly mentions that both before and after Asian financial crisis the average number of foreign banks essentially outperformed domestic banks that accepted diverse state aids during the period 1988 and 1999 owing to different global advantage as well as poorer exposure to risk. Parashar and Venkatesh (2011) opine that the MENA region is said to have the maximum percentage of different Islamic banks throughout the globe that might possible have eliminated the overall impact of the crisis. Therefore, investigation of the overall presentation of both the domestic as well as the foreign banks that are operating in the MENA region can be considered as an important aspect where the financial resources are essentially controlled as well as operated by the banks itself (Olson and Zoubi 2011).

## Determining the Profits of the Banks

The existent academic literature takes into consideration both internal as well as external determinants that drive the profitability of bank. As such, there are also evidence of different variations in asset as well as returns on equity dependent on the "size, liquidity, capital invested, net interest margin", primarily for different developed markets. Size is a very significant factor for measurement of performance of different Islamic and at the same time conventional banks (Naceur and Omran 2011).

### Research Methodology and Analysis of Data

For the purpose of examination of the overall influence of the worldwide economic crisis on the familial as well as foreign banks that operate effectively in the particular division of MENA, we gather important information on different internal characteristics of the bank from the specific bank scope database. In addition to this, we also make use of the "bank scope ownership identifier", that considers a particular bank to be essentially foreign owned at the time when the bank operates through a particular branch or else a subsidiary in a diverse nation. The data set for the present study comprises of both foreign as well as domestic banks that function in the particular division of MENA throughout the entire period between the years 2000 to year 2012. However, the data set mainly covers approximately 515 diverse banks operating in 24 different nations of the section of MENA. Nevertheless, after exclusion of certain nations, the final data set comprises of 76 foreign banks as well as 46 domestic banks operating in 17 different MENA nations (Ben-Khedhiri et. al., 2011).

The analysts and the researchers uses the return on assets (ROAA), return on equity (ROEE) for assessment of the performances of the bank (Ali 2011). The ROAA is defined and enumerated by dividing

the net income by the total assets. On the other hand, the ROEE is defined as the net earnings returned as an overall percentage of the total equity of the shareholders. In this present study, ROAA as well as ROEE is taken into consideration. ROAA is essentially an important measure of the overall profitability of the bank (Ali 2011). The other determinants of the performance of the bank include different internal characteristics of the firm, particularly total assets, net interest revenues in addition to liquidity. The additional determinants of the performance of the bank include different macro-economic variables such as the annual Gross Domestic Product per capital growth over and above the annual rate of inflation. The list of different variables consists of different possession identifier and at the same time the disaster variable. However, the previous variable can distinguish among different foreign banks essentially operating in the MENA division as well as familial banks. However the end variable, conversely, relates to the crisis period of 2008–2010 (Jeon et. al., 2011).

#### Model

Many researchers use the return on average assets for the measurement of the profitability of the bank that is again a dependent variable in the model of the present study, stated as follows:

$$Y_{it} = \alpha_{it} + \beta_1 \operatorname{Crisis}_{it} + \beta_2 \log (\operatorname{Total Assets})_{i(t-1)} + \beta_3 \log (\operatorname{Net Loans})_{it}$$

$$+ \beta_4 \log (\operatorname{Net Interest Revenue})_{it} + \beta_5 \log (\operatorname{Ownership})_{it}$$

$$+ \beta_6 \log (\operatorname{GDP})_{it} + \beta_7 \log (\operatorname{Inflation})_{it} + \epsilon_{it}$$
(1)

Here,  $Y_{it}$  is ROAA, and  $\alpha_{it}$  is the specific intercept  $\beta_{it}$  refers to the regression coefficient on especially the explanatory variable. In addition to this, the  $\varepsilon_{it}$  is essentially referred to as the error term that is again assumed to be essentially follows the normal distribution with zero mean. This also follows the model and concepts of log-log multivariate and presents the equation (De Haas and Van Lelyveld 2011). This present study also takes into consideration two different models of random effects in which the specific error term is fundamentally attuned for diverse individual type of banks. Again, the present study also includes Hausman test that is essentially carried out to make it certain that different observed random effects are apposite for the current panel. However, the method of estimation method that is essentially used in this case is the OLS.

The multivariate regression analysis is also performed where the return on the average assets is essentially utilized for assessment of the profitability of the banks (Cull et. al., 2010). Profitability of the bank is considered as the dependent factor in the present study.

Descriptive statistics is carried out for examination of the macro variable as well as the internal features of the banks functioning in the division of the MENA region of the nation during the entire period between the year 2000 and the year 2012.

#### 3. EMPIRICAL FINDINGS

#### **Correlation Matrix**

The name of the three groups in which different variables are essentially categorized include- all banks as well as foreign banks operating in the segment of the MENA and at the same time familial banks. ROAA

and ROAE shares the inverse relationship with each other. However, the total assets as well as the net loans are inversely associated to the ROAA as well as ROAE. The macroeconomic variables that include the GDP as well as inflation are observed to possess a very little affirmative correlation between especially the ROAA with the ROAE (Chen and Liao 2011).

Correlation outcomes of both domestic MENA banks as well as the foreign banks operating in the MENA

	1	2	3	4	5	6	7
1. ROAA	1.000						
2. ROEE	-0.229	1.000					
3. Total assets	-0.138	0.057	1.000				
4. Net loans	-0.024	-0.003	1.000	1.000			
5. Net interest revenues	0.0003	0.091	0.873	0.192	1.000		
6. GDP	0.039	-0.092	-0.026	-0.027	-0.030	1.000	
7. Inflation	0.115	0.016	0.083	-0.001	0.082	0.118	1.000

#### 4. REGRESSION RESULTS

The Equation numbered 1 is essentially approximated for the purpose of enumeration of the overall impact of the global economic crisis on familial banks and at the same time foreign banks functioning in the division of the MENA. However, the approximated coefficient available for gross domestic product (GDP) is essentially positive for the entire sample. This shows the way towards the improvement of the effectiveness of domestic banks in the overall target market that in turn endorses growth in the economy by encouraging the effectiveness of resource allotment (Ben-Khedhiri et. al., 2011).

Determine IV with IV DO 4.4	Full Sample	Domestic Bank	Foreign Bank	
Dependent Variable: ROAA —	Model 1	Model 2	Model 3	
Crisis	-0.191(0.078)*	-0.136(0.118)	-0.187(0.102)**	
Log (total assets) <sub>it</sub>	-0.491(0.045)*	-0.274(0.070)*	-0.609(0.059)*	
Log (net loan)	-0.085(0.033)*	-0.089(0.079)	-0.103(0.038)*	
Log (net interest revenues)	0.407(0.044)**	0.150(0.076)*	0.520(0.056)*	
GDP	0.018(0.010)*	0.042(0.013)*	-0.010(0.015)	
Log (inflation)	-0.127(0.031)*	0.138(0.045)	0.123(0.043)*	
Observations	803	803	803	
Intercept	3.082(0.391)*	2.606(0.605)*	3.790(0.519)	
Adjusted R-square	0.149	0.144	0.178	
F-statistic	21.8	21.8	21.8	

**Notes:** Standard errors are in parentheses. \*p < 0.05. \*\*p < 0.01. Model 1, 2 and 3 are Showing all coefficients of full sample, domestic banks and foreign banks respectively.

#### 5. ESTIMATION RESULTS

The estimation outcomes for the two different models help in evaluating the influence of the worldwide crisis on both the domestic as well as foreign banks separately.

#### **Domestic Banks**

Log (ROAA\_D)<sub>it</sub> = 
$$\alpha_{it} + \beta_1 \operatorname{Crisis}_{it} + \beta_2 \log (\operatorname{Total Assets})_{i(t-1)} + \beta_3 \log (\operatorname{Net Loans})_{it}$$
  
+  $\beta_4 \log (\operatorname{Net Interest Revenue})_{it} + \beta_5 \log (\operatorname{Ownership})_{it}$   
+  $\beta_6 \log (\operatorname{GDP})_{it} + \beta_7 \log (\operatorname{Inflation})_{it} + i_{it}$  (2)

The above model tests the influence of the worldwide crisis on domestic banks. The crisis coefficient ( $\beta_1 = -0.136$ ) is observed here to be negative and is also statistically insignificant (Olson and Zoubi 2011).

## Foreign Banks

$$Log(ROAA\_F)_{it} = \alpha_{it} + \beta_1 Crisis_{it} + \beta_2 log (Total Assets)_{i(t-1)} + \beta_3 log (Net Loans)_{it}$$

$$+ \beta_4 log (Net Interest Revenue)_{ii} + \beta_5 log (Ownership)_{it}$$

$$+ \beta_6 log (GDP)_{it} + \beta_7 log (Inflation)_{it} + i_{it}$$
(3)

The above model tests the influence of the overall economic crisis on only the overseas banks. However, the F test substantiates different combined connotations of specific regresses. In this case, the measured crisis coefficient measured by  $\beta_1$  is calculated to be ( $\beta_1 = -0.187$ ) is negative and at the same time is statistically significant at 10% level of significance.

## Relative Investigation and Evaluation of Familial and Overseas Banks Operating in MENA

The Hausman test essentially suggests that the corporation-specific features are related to the particularly observed error term and accordingly the model of random effect that needs to be approximated.

Determinant IV minister DO 4.4	Domestic Bank	Foreign Bank Model 5	
Dependent Variable: ROAA —	Model 4		
Crisis	-0.105(0016)*	-0.272(0.103)*	
$Log (total assets)_{it}$	-0.277(0.067)*	-0.620(0.060)*	
Log (net loan)	-0.081(0.076)*	-0.103(0.038)*	
Log (net interest revenues)	0.147(0.073)	0.520(0.056)*	
GDP	0.038(0.012)*	-0.009(0.017)	
Log (inflation)	0.079(0.043)**	0.111(0.046)*	
Observations	562	562	
Intercept	2.716(0.578)*	3.924(0.527)*	
Adjusted R square	0.180	0.170	
F-statistic	15.4	23.23	

**Notes:** Standard errors are in parentheses. \*p < 0.05. \*\*p < 0.01. Model 4and 5 are Showing all coefficients of domestic banks and foreign banks respectively.

The regression results presented in the above table shows that indicate that internal characteristics of bank are essentially statistically significant (1% level) in case of domestic banks. However, the estimated coefficient calculated for the observed variable particularly the dummy ones essentially substantiates that overseas banks that were greatly influenced than other related familial banks during the period of economic disaster as the profits (ROOA) declined by around 27.2% as compared to 10.5%. Again, the internal bank features in addition to coefficient on total assets is said to be negative as well as significant. In the end, the

coefficient on Gross Domestic Product is seen to be positive and at the same time important for diverse national banks, while no result can be observed in the circumstance of different distant banks (Olson and Zoubi 2011). Evidently, the banks are said to be influenced by the entire economic environment in which the banks operate.

#### 6. CONCLUSION

The present study presents complete indication regarding the "MENA division" that is of attention to both the rule makers and consultants. The major finding in this study suggests that diverse banks operating in the domestic country essentially outperformed the overseas banks essentially during economic crisis. As such, the current study also replicates the matter that banks essentially operating in this segment happens to be largest Islamic banks in the world that have enjoyed a relative advantage and to observed to have been comparatively less influenced by the crisis. However, the foreign banks were observed to have aggregate regrade of exposure to diverse risk with large number of companies operating in different industrialized nations.

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