Impact of Capital Structure on Islamic Banks Performance: (Evidence from Asian Country)

By M. Moshin Hafeez, Hafiz Haroon Khan, Fouzia Majeed & Amara Azeem

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Design/Methodology/Approach: The impact of capital structure on Islamic banks performance is calculated through regression analysis. ER, EM, DR and DE treated as regressors and ROA and ROE as regressand in this research. Eviews Software used for analysis the time serious data over the period of 2007 to 2016.

Findings: According to the findings, there is a positive and significant relation EM and DR with ROA while ER has negative and significant relation with ROA.

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1. Introduction

In reaching a return on equity (ROE), firms can use a different of strategies and techniques. One approach is capital structure. The connection between capital structure and ROE is indeed of great importance to all firms. The purpose of this paper checks the impact of capital structure on Islamic banks performance in Asian country. The best way for investigate the performance of any bank through the financial statement. Because the financial statement directly links with banking performance. Few researchers construct that financial statements have the admirable impact on banking performance. Few researcher arguments the capital structure and banking performance have the admirable relationship. Some researchers give the argument on the variable which use in capital structure for measuring the banking performance like DEBT RATIO, EQUITY RATIO, EQUITY MULTIPLIER RATIO AND DEBT EQUITY RATIO etc.

For Islamic banks, Capital structure is not the same: Islamic banks operate in line with the principles of Sharia. Shariah prohibits, among other things, payment and receipt of riba (interest). This means that Islamic banks cannot pay or earn interests on their financial instruments. The consequence is that the banks mobilize and utilize funds using Shariah-compliant instruments or contracts that are not used by their conventional counterparts. Moreover, according to the Shariah rules, Islamic banks should share their profits and losses with investors. The mudaraba contract transforms the relationship between the bank and its depositors into a partnership. This implies that the lower leverage may induce bank to gain a higher profit. This can impact Islamic banks capital structure.

For show the admirable results of capital structure and banking performance give different theories. Capital structure is the most necessary topic in finance. The method for the judgment of capital structure is most difficult for any bank. Modigliani and Miller (1958) give the arguments capital structure is most necessary in the area of finance. For conclusive the optimal capital structure, financial manager face the difficulties. The purposes of optimal capital structure gain the maximum value of organization through the minimum cost. Because run the company smoothly business appropriate many form of financing. The financial tool is the most important point for measuring the financial SWOT (Strength, weakness, opportunities, and threat). On the other hand capital structure is most important decision for the firms. Mujahid, Zuberi et al. (2014). Capital structure is the mixture of debit and equity capital that compound the financing asset. Because financing is the method for producing the capital which use for acquiring the asset or growth. Due to this capital structure summarizing into net worth, preferred stock and long term debt. The capital structure is the most important decision which influences the return on investment, Nasimi (2016).

The most popular approaches of the capital structure is Modigliani and miller. The MM theory base on two dimensions. According to the first capital structure and firm value have no correlation because company performance base on the future return. According to the second grow the future return and not company value. Modigliani and Miller (1958) firstly gave the concept of capital structure. They argued that capital structure has power to change the value of a firm. This theory based on some assumptions: No taxes, no transaction cost, no bankruptcy cost and symmetric market information. MM expand their theory in 1963 and release the assumption of no tax. As the result of MM theory (1958) trade off theory was develop which elaborated those firms which focus on debt financing and save the firms from taxes, Myers (1977) present pecking order theory. This theory believes that firms take

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finance from equity instead of external source like debt. Jensen and Meckling (1976) designed the agency cost theory in which explained both debt and equity. This theory investigate ratio of debt in capital structure.

Due to lackness in capital structure banking area disturbed. Through the equity ratio, equity multiplier ratio, debt ratio, and debt equity ratio determines the performance of Islamic banks in Asian country. Akhtar. In the last paper divide into five sections. In the first section explain the introduction, second literature review, third methodology and data collection and fourth analysis of data and fifth conclusion and recommendation.

a) Objective of the Study

- Identify the relationship between capital structure and performance.
- Capture the relationship between the capital structure and debt equity ratio.
- Determine the relationship between capital structure and Equity ratio.
- Investigate the relationship between the capital structure and Equity Multiplier ratio. Akhtar, Bano et al. (2016).

b) Research Question

1. What is the relationship between capital structure and performance?
2. What is the relationship between capital structure and equity ratio?
3. What is the relationship between capital structure and debt equity ratio?
4. What is the relationship between capital structure and debt ratio?
5. What is the relationship between capital structure and equity multiplier ratio? Akhtar

c) Research Significant

The importance of this study check the impact of capital structure on Islamic banking performance in Asian country i.e. Pakistan, Jordan, Bahrain and Egypt. In this study check how capital structure impact on banking area and how increase the performance through the debt ratio, debt equity ratio, equity ratio and equity multiplier ratio take edge.

II. Literature Review

In this section, we have featured the past specialists’ feelings and theory about the variable that are incorporated. The literature review part includes the real variable of this study. Profitability of bank measure the efficiency and effectiveness of the operations of the bank and poor performance might be due to lack of control over expenses which lead to low profit. The impact of capital structure on financial institutions has been a subject of a decent debate. Modigliani and Miller who firstly present that the firms could change their value through its capital structure. The basic Modigliani and Miller proposition is based on key assumptions: no taxes, no transaction cost, no bankruptcy cost and symmetric market information.

Siddik, Kabiraj et al. (2017) conclude the data of 22 banks over a period of 2005-2014 and observed capital structure have negative effect on return on equity, for data analysis used the least square technique. The other researcher conducted same nature study Birru (2016) using the data of 5 commercial banks over the period (2011-2015). For the multiply regression model use the panel data and show the negative relation between return on asset and capital structure in Ethiopia commercial bank.

Zafar, Zeeshan et al. (2016) examined that capital structure strongly effect on profitability of banking industry. The data collected from 25 listed banks of Karachi stock exchange and measuring the relationship used the regression technique. (Meero (2015) suggested that financial leverage have indirectly impact on ROA and direct link with equity to asset ratio. For the result used the 16 gulf countries data over the period of 2005 to 2014. They analysis the positive interaction between performance and size of Islamic bank and Commercial bank.

Nikoo (2015) investigated the relationship between capital structure and banking performance in Karachi Stock Exchange. Tehran use model has a measurement of capital structure on the profitability of banks during period 2009-2014. They suggested that the results are high correlate capital structure on ROA, ROE and Earning per share. Tarek Al-Kayed, Riahan Syed Mohd Zain et al. (2014) used the 85 Islamic banks covering 19 countries to find out the relationship between capital structure and profitability through least square method. The study concluded that capital structure directly influence the profitability of Islamic banks.

The other researcher similar Rajha and Alslehat (2014) used the multiple regression model and sample size of two Islamic banks (Jordan Islamic bank and International Arab bank) over the period of 1998-2012. The result analyses show that capital structure has a positive influence on banks profitability and have no effect on bank’s profitability (Liquidity assets of total assets). Mujahid, Zuberi et al. (2014) investigate the relationship between capital structure and bank profitability because capital structure directly impact on bank profitability. Researcher measured the performance use the data from 2008 to 2012. Mubeen Mujahid suggested that following points can be improved profitability good technology, employee skill, and time management.

Saeed, Gull et al. (2013) conducted the relationship between capital structure and bank performance. The researcher includes the data of Karachi stock exchange listed banks over the period of 2007 to 2011. Researcher suggests that the direct relationship
between long term debt to capital ratio , short term debt to capital ratio ,total debt to capital ratio and profitability of banking industry (ROA, ROE, EPS) through use the regression models. Choong, Thim et al. (2012) aimed provide guidance for bank’s profitability and determinants which is used in performance. Data collected from 11 local Islamic bank in Malaysia for this study. They conclude that two variables are highly correlated size and concentration.

Al-Farisi and Hendrawan (2011) the researcher investigates the effect of capital structure on profit efficiency of Islamic bank and commercial bank. Data collected from 102 conventional and Islamic banks and use the unit root test for analysis. Result based on two stages. First stage suggested Islamic banks in Indonesia have top 20% highest performance score. And another concluded that capital ratio of banks negatively influence on the performance. Shoaib (2010) discovered the agency cost hypothesis of financial institution in Pakistan and use panel data of 22 banks over the period 2002-2009 . The result show that size of bank positively influence on financial performance of banking sector and similar the other researcher.

Pratomo and Ismail (2006) conducted capital structure has impact on profit efficiency of the Islamic banks in Malaysia. They have positive relationship between leverage and profitability. They argue that agency cost will be low if the debt capital wills high. Bank size has inversely relationship with profitability of banks.

### III. Methodology

**Research Design:** Positivism, critical and interpretive these are three types of research which are used in research process. positivism type used in this paper because it is a quantitative research which is based on numerical data.

**Population and Sample Design:** The targeted population of our research was Islamic banking sector of Asian country. The most important reason targeting the Islamic banks has been evaluating the impact of capital structure in Asian countries. Sample of our study Pakistan, Jordan, Egypt, and Bahrain (16 Islamic banks of four countries over the period 2007 to 2016).

**Data Analysis Techniques:** Eviews-10 student versions are used for perform tests Descriptive, correlation, and regression on data.

### Table 1: Name of banks and Country

<table>
<thead>
<tr>
<th>Sr#</th>
<th>Country Name</th>
<th>Banks Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pakistan</td>
<td>Dubai Islamic Bank , Meezan Bank, Emirates Islamic bank, Albaraka bank</td>
</tr>
<tr>
<td>2</td>
<td>Jordan</td>
<td>Capital bank, Islamic international Arab bank, Jordan Kuwait bank, Jordan Ahli bank</td>
</tr>
<tr>
<td>3</td>
<td>Bahrain</td>
<td>ABC Islamic bank Bahrain , Bahrain Islamic bank, Al- baraka bank Bahrain ,Ithmaar bank Bahrain</td>
</tr>
<tr>
<td>4</td>
<td>Egypt</td>
<td>Audi Islamic bank, AL- baraka bank, ADIB, National bank of Kuwait-Egypt</td>
</tr>
</tbody>
</table>
Variable Measurement

<table>
<thead>
<tr>
<th>SR#</th>
<th>VARIABLE</th>
<th>NOTION</th>
<th>MEASUREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RETURN ON ASSET</td>
<td>ROA</td>
<td>NET INCOME/AVERAGE TOTAL ASSET</td>
</tr>
<tr>
<td>2</td>
<td>RETURN ON EQUITY</td>
<td>ROE</td>
<td>NET INCOME/SHAREHOLDER EQUITY</td>
</tr>
</tbody>
</table>

**INDEPENDENT VARIABLE**

<table>
<thead>
<tr>
<th></th>
<th>EQUITY RATIO</th>
<th>ER</th>
<th>TOTAL EQUITY/TOTAL ASSET</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>EQUITY MULTIPLIER RATIO</td>
<td>EMR</td>
<td>TOTAL ASSET/SHAREHOLDER EQUITY</td>
</tr>
<tr>
<td>4</td>
<td>DEBT TO EQUITY RATIO</td>
<td>DER</td>
<td>TOTAL LIABILITY/TOTAL EQUITY</td>
</tr>
<tr>
<td>5</td>
<td>DEBT RATIO</td>
<td>DR</td>
<td>TOTAL LIABILITY/TOTAL ASSET</td>
</tr>
</tbody>
</table>

IV. Data Analysis

**Table 1**: Summary of Statistics used in Descriptive

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Max</th>
<th>Min</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>0.122</td>
<td>1.11</td>
<td>0.08</td>
<td>0.11</td>
</tr>
<tr>
<td>ER</td>
<td>2.56</td>
<td>91.90</td>
<td>0.06</td>
<td>9.26</td>
</tr>
<tr>
<td>EM</td>
<td>12.38</td>
<td>588.3</td>
<td>0.07</td>
<td>47.16</td>
</tr>
<tr>
<td>DR</td>
<td>73.05</td>
<td>1.17</td>
<td>0.05</td>
<td>92.41</td>
</tr>
<tr>
<td>DE</td>
<td>72.50</td>
<td>1.16</td>
<td>1.59</td>
<td>91.71</td>
</tr>
</tbody>
</table>

Source: Authors’ Calculations using E-Views software

The researcher used the mean and Std. Deviation check the impact of capital structure on Islamic banks performance in Asian country. Table 1 show the Descriptive analysis. In ROA, mean 0.122 maximum value 1.11, minimum value 0.08 and standard deviation 0.11. In ER, mean 2.56, maximum value 91.90, minimum value 0.06 and standard deviation 9.26. In EM, mean 12.38, maximum value 588.3 minimum value 0.07 and standard deviation 47.16. In DR, mean 73.05, maximum value 1.17, minimum value 0.05 and standard deviation 92.41. In DE, mean 72.50, maximum value 1.16, minimum value 1.59 and standard deviation 91.71.

**Table 2**: Results of Correlation

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>ER</th>
<th>EM</th>
<th>DR</th>
<th>DE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>1</td>
<td>0.046</td>
<td>0.067</td>
<td>0.039</td>
<td>0.048</td>
</tr>
<tr>
<td>ER</td>
<td></td>
<td>1</td>
<td>0.537</td>
<td>0.020</td>
<td>0.013</td>
</tr>
<tr>
<td>EM</td>
<td></td>
<td></td>
<td>1</td>
<td>0.014</td>
<td>0.009</td>
</tr>
<tr>
<td>DR</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>0.00</td>
</tr>
<tr>
<td>DE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Authors’ Calculations using E-Views software

To check the relationship between two variables uses the correlation method. In this check the positive and negative relation of the variable. ROA has strong relation 1 with ROA. Table 2 show ER value is 0.046%. So, ER has positive relation with ROA. EM value is 0.067%. EM has positive relation with ROA. DR value is 0.039%. and has positive relation with ROA.DE value is 0.048% and positive relation with ROA. So, in the data no multicolinarity exist its means no value more than 0.7.

**Table 3**: Regression

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ER</td>
<td>-7.04</td>
<td>0.000231</td>
<td>-0.304409</td>
<td>0.0112</td>
</tr>
<tr>
<td>EM</td>
<td>7.10</td>
<td>4.56</td>
<td>1.556993</td>
<td>0.1215</td>
</tr>
<tr>
<td>DR</td>
<td>1.000</td>
<td>1.97</td>
<td>5.07</td>
<td>0.000</td>
</tr>
<tr>
<td>DE</td>
<td>-1.05</td>
<td>1.99</td>
<td>-0.052726</td>
<td>0.9580</td>
</tr>
</tbody>
</table>

Source: Authors’ Calculations Using E-Views software

The R-Square value 1.00 means 100%. The R-square value shows that dependent variable ROA has strong relation with independent variable ER, EM, DR and DE. So we accept the H1 Hypothesis and HO Rejected. The level of signification use 5%, 10% and 15%. According to the level of signification ER has signification and negative relation with ROA at the level of 5%. There is signification and positive relation with
ROA at the level of 15%. DR has the significant and positive relation with ROA at the level of 5%. DE has the negative and insignificant relation with ROA.

V. Conclusion

This research was examining the impact of capital structure on Islamic bank performance of Asian country. It describe how variable ER, EM, DR and DE connected to capital structure of banking sector in Asian country. This research use the 16 banks financial statement and annual reports over the period of 2007 to 2016. This research show that capital structure has the effect on Islamic banks performance. In this study used the regression correlation and descriptive techniques for data analysis. According to result of the study conclude that ER has significant and negative relation with ROA and EM and DR has positive and significant relation with ROA. In the regression model value of \( r^2 \) is 1.00 means 100% that show dependent variable has strong relation with independent variable. The finding of this study show that capital structure effect on the Islamic banking performance like ER, EM, DR and DE.

VI. Recommendations

This study base only 10 years data. For future research take the next year data. This research base on Asian country, it is optional apply same variables in another countries. It is propose that in ER, EM, DR and DE dealings others formulas and methods. It also optional that studies should carries by other factors.

References Références Referencias