

## Performance Efficiency of Islamic Banks in Pakistan: An Application of CAMEL Model

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### Abstract

*This paper aims at evaluating the soundness of Islamic banks working in Pakistan for the period 2008 to 2015. The current study comprises of five full fledged Islamic banks, actively working in Pakistan. The study applied CAMEL parameters to achieve its purpose. It has utilized capital adequacy, Asset quality, Management ability, Earnings ability and liquidity ratios of selected banks. The findings of the study show that although Islamic banks in Pakistan have adequate capital, yet they have limited asset management ability and substandard earnings ability during the selected time period. The study also depicted that Islamic banks have high degree of liquidity thus enjoying low bankruptcy risk. The findings of this study is of prime interest for the management and shareholders of the selected banks. On one hand, the results of this study provide an insight into the performance of these banks. On the other hand, the results also contain useful information for managers and policy makers as they could find and correct easily, the weak areas of their respective institutions.*

**Key words:** Capital Adequacy, Asset Quality, Management Ability, Liquidity

### 1.1 Background

Islamic finance is one of the hot issues these days. It is a system of economics in which interest (Riba) in all its forms is totally prohibited. This system is governed by the Devine principles. Islam do believes in justice in every aspect of life and negate the inequality, unfairness and exploitation on all grounds (Ayub, 2002).Therefore; the purpose of Islamic financial system is to promote such an economic system which should provide justified financial standards to its followers. An Islamic financial system allows the ideal system of market economy i.e., freedom of ownership, enterprise and competitive environment under limited restrictions. There are many bodies which constitutes an Islamic financial system. One of these is the Islamic banking system. Unlike conventional banking system, where interest (Riba) is the principal source of earnings for the banks, Islamic banks do not follow the interest based transactions. Rather, the system of Islamic banks is based upon profit and loss sharing between the clients and banks with the help of shariah complaint products like Musharakah,

mudarabah, Murabahah, Ijarah etc. Islamic banking industry has shown tremendous growth since its practicality. The annual growth rate of Islamic banks in Pakistan has been observed as more than 30% (Kumar & Sayani, 2015). Islamic banking is also getting significant attention in other parts of the globe particularly in Europe and UK. It has been found that majority of Islamic banks are adequately capitalized, efficient and well stable due to their effective utilization of resources. Ayub (2002) has stated that the performance of Islamic and conventional banks are almost equal in terms of their profitability, however the operations of Islamic banks are not cost effective. Moreover, the said author argued, that Islamic banks are less liquid than their counterpart. On the other hand numerous authors do not support these arguments. For instance, Iqbal (2001) negated these views and opined that Islamic banks are well performing than conventional banks in all aspects of banking operations. The views of Iqbal (2001) are also supported by Jaffar and Manarvi (2011) and found that Islamic banks are having high Capital adequacy ratio and high liquidity. In the same line, Al Gindi et al. (2009) applied only two parameters of CAMEL model i.e., liquidity and asset quality and concluded a satisfactory liquidity level and asset quality for Islamic banks. Motivated by these views of previous authors, the current paper has tried to analyze the strength of Islamic banks operating in Pakistan by applying CAMEL model. It has been documented that although Islamic banks in Pakistan, have adequate capital, high degree of liquidity and comparatively low bankruptcy risk, yet they have limited asset management ability and substandard earnings ability.

## **2. Literature Review**

The purpose of this section is to get in sight into the selected topic and document the experts' opinions on the said area. A literature is the backbone of any field without which, one could hardly move in a right direction. Following are the works performed earlier by some prominent scholars on the selected topic across the globe. Kumar and Sayani (2015) tested the application of CAMEL model in the GCC Islamic banks. Their study comprises of 11 listed Islamic banks in different countries of the GCC region. The results of the CAMEL model suggests that in spite of adequate capital in GCC Islamic banks, the asset quality and ability to earn, have found to be decreased over the period. The decrease in earnings may be attributed to the overall crises in financial markets as the time period of study entails the crises period i.e., 2008 to 2014, so it may be appropriate to link the deteriorated performance of selected banks to the financial crisis. The study showed marginal decrease in the management efficiency ratios over the time. They also found that, almost all the selected Islamic banks in GCC have sufficient liquidity ratios, indicating minimum risk of bankruptcy on part of liquidity.

Khouaja and Boumediene (2014) applied CAMEL model to analyze the financial soundness of 150 commercial banks in six European countries during a time span of 2003 and 2008. According to the authors' findings, the benefits linked with maximum profitability of banks are more significant than those associated with risk management practices aimed to make banks stable. The authors suggest that banks have to increase profitability and conciliate on risk management practices. The authors also suggest that there should be a balance between the two objectives. Zaman and Segavan (2013) measured the performance of Islamic as well as conventional banks using CAMEL parameters. The authors have found that selected Islamic banks performed well than their

counterpart in terms of operational efficiency (Management quality), asset quality, and liquidity. However, selected conventional banks are found to be better than Islamic banks in terms of capital adequacy and larger bank size. Kouser and Saba (2012) compared the performance of Islamic, mixed and conventional banks operating in Pakistan. Their study comprises of four Islamic banks, six mixed banks and four, full fledge conventional banks. The results of the study show that, the capital adequacy of Islamic and conventional banks decreases over the time while Islamic branches of conventional banks have maintained their capital adequacy. They also found that the asset quality of Islamic banks is high as compared to the asset qualities of conventional and mixed sample banks. The quality of management was measured through the average number of active borrowers per credit officer. This ratio was found to be the lowest in selected Islamic banks among the three categories. Moreover, the earnings of Islamic branches of conventional banks have found to be decrease over the period while the earnings of Islamic banks are maximum among the three categories. Finally, they found that the selected Islamic banks are the less liquid among others while conventional banks are the most liquid followed by the mixed banks.

In the context of Islamic banks, Jaffar and Manarvi (2011) made a comparison between the performance of Islamic and conventional banks in Pakistan while applying the CAMEL indicators. The authors found that, both streams of banking are alike in terms of asset quality however, Islamic banks are found to be having high Capital adequacy ratio and higher liquidity than conventional banks. However, the conventional banks performed better in quality of management and ability of earnings. In the same line, Al Gindi et al. (2009) applied only two parameters of CAMEL model i.e., liquidity and asset quality for the performance measurement of conventional and Islamic banks in Malaysian. The results of the study indicated a dominant performance of Islamic banks on both parameters.

### **3. Research Methodology**

The sample of this research work is comprised of 5 listed Islamic banks that are located in Pakistan. The sample size for the study is designed in the light of banks' financial statements' availability using convenient sampling technique. The study analysis period ranges from 2008 to 2015 and utilizes a total of eight years data for every bank that is in the sample with some exclusions as some of these banks haven't published their 2014 yearly financial statements. It is apparent that analysis's period taken in both periods of crisis and post crisis that overwhelmed the entire banking sector in the recent times. The study follows different steps in analysis of data. Firstly, all those ratios are calculated that come under the parameters of CAMEL model (Altman, 2002). Secondly, average standard deviation is calculated for all ratios. The details relating to ratios and models that used in data analysis are given in the following subsections. The analysis and calculations are performed with the help of Microsoft Excell and SPSS Software.

#### **3.1 CAMEL Model**

The ratios given below are computed as an important part of the parameters of CAMEL.

- **Capital adequacy**

A banks' safety and financial stability can be scrutinized by the use of this ratio. The greater the value of this ratio, the smaller will be the chances of bankruptcy. It can be calculated as follow;

Capital adequacy = Equity of stock holders / total worth of assets

- **Asset quality**

Bank's asset quality is determined with the help of total loans and non-performing loans' (NPL). The greater value of this ratio shows greater risk of non-performing loans. The smaller value of this ratio indicates that the bank requires less capital to support the portfolio of loans.

- **Management capability**

This ratio calculates salaries as well as advantages to average assets. The management's capability is highlighted by this ratio that shows bank's profitability. Management capability can also be measured by using total loans or total assets' growth; the greater amount of loans or assets shows management's capability.

- **Earnings ability**

This ratio computes net interest income to average assets, which is an important element in determining financial performance of the bank. In sum, it shows bank's earning ability. Further, banks' ability can also be measured with use of return on equity (ROE) as well as return on assets (ROA). The greater the value of these ratios indicates bank's greater earning capability. This research work doesn't employ alternative methods for measuring bank's earning capability.

- **Liquidity**

This ratio is estimated by total customer deposit / total assets. The bank's liquidity is measured by using this ratio, which aids in mitigating the risk of bank's failure. If the bank lacks sufficient liquidity, then it may fails in paying its depositors and financing its routine payments.

#### **4. Discussion**

According to the criterion settled by the American International Assurance (AIA), the CAR for a financial institution like bank must vary in a range of 4% and 6% as documented by Dang (2011). In the same line, Bank for International Settlement (BIS) has provided a minimum value of 8% for CAR. According to sangmi and Nazir (2010), a high value of CAR magnifies the relative strength of a bank and makes a bank able to survive in a dynamic environment. After measurement by both criterions, in the selected time period, the average CAR for sampled Islamic banks has decline from 16.45 to 13.33%, yet it is much higher than the required criterion settled by AIA (4-6%) and BIS (8%). A similar conclusion can be observed in the work performed by of Kumar & Sayani (2015) while analyzed the performance of Islamic banks in GCC countries.

**Table 4.1 CAMEL ratios of selected banks**

Bank	ROA		ROE		Capital Adequacy		Asset Quality		Mgt ability		Earnings ability		Liquidity	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Bank Islami	4.86	2.23	5.40	3.33	4.37	3.23	1.40	2.56	3.82	0.50	4.08	2.28	70.32	24.8
Albaraka	3.02	0.75	18.04	2.38	9.45	2.43	1.00	0.20	1.26	0.55	3.52	1.23	82.69	2.45
MeezanBank	5.70	1.23	14.05	4.68	10.34	2.09	0.89	0.34	2.08	0.05	7.67	2.00	85.36	3.00
DubaiIslamic	1.90	0.74	13.90	3.33	8.05	1.05	0.95	0.46	1.90	0.30	5.38	1.35	68.90	2.35
Burj Bank	2.76	0.89	11.46	2.90	9.31	1.45	3.30	0.92	1.36	1.01	3.34	2.13	63.23	1.56

Sources: Out put of Software from 2008-2015

The above table (Table 4.1) shows the average CAR for individual sample banks. It shows that the average CAR for Bank Islami during the selected time period has found to be 4.37%, while its Standard deviation is equal to 3.23%. Similarly, Albaraka bank ltd has a CAR ratio of 9.45% with a standard deviation value of 2.43%. In all of the sample banks, Meezan bank ltd has the highest CAR ratio of 10.34%. Dubai Islamic bank has a mean CAR value equal to 8.05%, followed by Burj bank CAR value of 9.31%. The CAR values confirmed that all the selected banks are well adequate in terms of capital according to the two criterions i.e. AIA and BIS. These results are in line with the results of Jaffar and Manarvi (2011), who found that Islamic banks are having high Capital adequacy ratio and higher liquidity ratios. In the same line, Al Gindi et al. (2009) also concluded in his results that Islamic banks are dominant in terms of capital adequacy and liquidity

Moreover, the asset quality of bank Islami has been reported as 1.40%, followed by a value of 1.00% for Albaraka bank ltd. In the same line, Meezan bank ltd has an asset quality ratio equal to 0.89%; Dubai Islamic bank and Burj bank have asset quality ratios of 0.95% and 3.30% respectively. Referring to the criterion set forth by AIA and BIS for asset quality (Less than or equal to 1), one can say that, bank Islami and Burj bank ltd have a high percentages of nonperforming loans, while all other banks satisfy the required criteria.

Another important measure of CAMEL model is to judge the management quality of an institution. The quality of management plays a significant role in the success or failure of an organization as stated by Grier (2007). According to AIA's approach, a good management quality directs a bank to improved standing in a market. It is also one of the key factors contributing to the profitability of a bank. It is measured through ratio of salaries and benefits to average assets, and according to AIA it should be to approximately 1.5%. Measuring across this criterion, it has been found that bank Islami, Albaraka bank ltd, Meezan bank, Dubai Islamic Bank and Burj bank have management

ability ratios of 3.82%, 1.26%, 2.08%, 1.90% and 1.36% respectively. So it can safely be argued that all the selected banks are well managed as depicted by the above values.

No one denies the importance of earnings ability of an organization. The earnings of an organization enable it to stand against the adverse conditions of business. Good earnings are also pre requisite for the growth of an organization. A bank also required sufficient earnings to meet its liabilities and other requirements on time. In order to analyze the earnings ability of a bank, different numerical ratios have been used by different researchers. In this paper, net income margin (NIM) has been used as a measure of earnings ability. Looking at the table, it is clear that the earnings ability of Meezan bank is higher (7.63%) than all other sample banks. Similarly, Dubai Islamic bank has NIM of 5.38%, Bank Islami 4.08%, Albaraka bank limited 3.52% and Burj bank 3.34%.

Liquidity is one of the key factors that add in keeping an organization survive. Common measures of liquidity are current ratio and quick ratio. However; cash conversion cycle or operating cycle do contribute in the liquidity of a firm because these cycles serves as supply chain for the current assets and current liabilities which in turn constitutes liquidity. For a financial institution like bank, liquidity is measured through customer deposits to total assets, According to AIA standards, for a bank to be classified as liquid the customer deposit to total assets ratio must be greater than 75 % AIA standards. Referring to the table (), it can be said that almost all the selected Islamic banks are liquid as shown by their respective liquidity ratios.

## **5. Conclusion**

This study has been conducted with the sole purpose of investigating the Islamic banks, performing in Pakistan, through the well known model i.e., CAMEL model. The study comprises of five major Islamic banks actively operating in Pakistan. After testing the selected banks with the CAMEL parameters, it can be concluded that Islamic banks have adequate capital to cover their operations as shown by the CAR values. However; it can be said that Islamic banks performing in Pakistan have high percentages of nonperforming loans which can be considered as limitations on part of these banks. The Islamic banks performed very well in terms of management quality as is depicted by the management quality ratio. Unfortunately, the earnings ability of almost all the selected Islamic banks in Pakistan suffered and depicts very low percentages of earnings. These low rates of earnings can be attributed to the period of financial crises i.e., 2008 onward. Regarding the liquidity of Islamic banks, one can safely argue that almost all the selected Islamic banks in Pakistan are liquid as shown by their respective liquidity ratios. The findings of this paper are very much in line with the results of Kumar and Sayyani (2015) where the authors have documented almost similar results for the CAMEL parameters in GCC banks.

The findings of this study can be significant for the management and shareholders of the selected banks. On one hand, the results of this study provide an insight into the performance of these banks which is off course important for shareholders to judge how their appointed agents are performing? On the other hand, the results also contain useful information for managers and policy makers as they could find and correct easily, the weak areas of their respective institutions. The researchers suggest that Islamic banks should focus on reducing the percentage of nonperforming loans and enhance their earnings ability.

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