Assessment of Financial Health of Select Private Sector and Foreign Banks in India: An Application of Bankometer Model

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ABSTRACT

Post subprime crisis of (2007-2008) considering sustainability is the need of the hour. Now the banks have to prove that their business model is more sustainable and have to prove practically that their business model is contributing towards economic growth and stability of the country. Referring back to the Enron and Lehman Brothers that were considered very good which was highly impossible to be failed but finally went bankrupt, showing that companies operate in uncertain environment that always fluctuate, where in what becomes the strength in a business organization could be a weakness in the future. Therefore an analysis tool is required in which it is capable of showing weakness when the company is no longer the same within the environment, in taking proactive measures that are able to release the company from the possibility of experiencing financial distress and even bankruptcy. Banking sector is one of the fastest growing sectors in India. Evaluating Indian banking sector is not an easy task. To evaluate the performance of banking sector we have chosen the Bankometer Model developed from the IMF recommendations in 2000 in assessing the financial health of the banks under study. Eight banks of which four from private sector and four foreign banks have been considered for the study. The results show that the model Bankometer, was highly liquid, had strong capital, were able to manage debt/liability well, had good profitability and asset quality as well but was still lacking in the efficiency. These findings suggest that this model can be used as an early warning system in assessing financial performance of a bank.

Keywords--- Financial Performance, CRAR, Bankometer, Capital/Asset, Equity/Asset

I. INTRODUCTION

According to the Reserve Bank of India, banking sector in India is well-regulated and adequately capitalised. The financial and economic conditions in India are in a better position compared to rest of the countries in the world. The risk associated with Credit, liquidity and market suggests that Indian banks are generally strong and have survived the global downturn well.

India is now on a verge in rolling out of new age banks or innovative banks in the form of micro/small finance banks and payment banks to serve the nation with best financial products and services. More than ten payment banks are expected to be launched in the early 2017 and also few small finance banks are also expected to be launched in the said period. Reserve Bank of India’s innovative measures and guidelines may go a long way in helping the restructuring of the Indian banking industry.

Indian banks are increasingly focusing on adopting combined approach to risk management. Banks have already encompassed the international banking supervision accord of Basel II. RBI’s information on capital requirements as per Basel III, majority of the banks has already been met standards prescribed in Basel III, which has a deadline of March 31, 2019. Most of the banks have put in place the framework for asset and liability match, credit and derivatives risk management. Growing incomes are expected to improve the need for banking services in rural areas and therefore drive the growth of the sector; programmes like MNREGA have helped in increasing rural income aided by the recent Jan Dhan Yojana. The RBI has relaxed its branch licensing policy, which leads in allowing banks to set-up new branches in the country. It has emphasised the need to focus on spreading the reach of banking services to the un-banked population of India.

II. PRIVATE-SECTOR BANKS IN INDIA

The private-sector banks in India represent the second major part of the banking sector in India, are banks where greater parts of stake or equity are held by the private shareholders and not by government.

Initially all the banks in India were private banks, which were founded prior Indian Independence to provide the banking services to all the Indian citizens. In 1921, three major banks i.e. Bank of Bombay, Bank of Madras and Bank of Bengal were merged to form Imperial Bank of India. The Reserve Bank of India was
established in the year 1935 and took overall central banking responsibilities from the Imperial Bank of India, which in turn transferring commercial banking as well. In 1955, after the declaration of first-five year plan, Imperial Bank of India was then transformed into State Bank of India (SBI). Following this, the nationalization of major banks in India took place on July 19, 1969. The Government of India issued an ordinance and nationalized the 14 largest commercial banks of India, including Punjab National Bank (PNB), Allahabad Bank, Canara Bank, Central Bank of India, etc. Thus, public sector banks revived to take up leading role in the banking structure. In 1980, the GOI nationalized 6 more commercial banks, with control over 91% of banking business of India. In 1994, the Reserve Bank of India issued a policy of liberalization to license limited number of private banks, which came to be known as New Generation banks. Global Trust Bank was the first private bank after liberalization which was later amalgamated with Oriental Bank of Commerce (OBC). Then Housing Development Finance Corporation Limited (HDFC) became the first to receive an ‘in principle’ approval from the Reserve Bank of India (RBI) to set up a bank in the private sector. As of now, Private Banks in India includes leading banks like ING Vysa Bank, ICICI Bank, Karur Vysys Bank, Jammu & Kashmir Bank, Yes Bank, Karnataka Bank, Kotak Mahindra Bank, SBI Commercial and International Bank, etc. Undoubtedly, being tech-savvy and full of technical skills, private banks have played an important role in the development of Indian banking industry. They have made the banking and banking related activities more effective and customer friendly. In the process they have jolted public sector banks out of contentment and enforced them to become more competitive in the Indian Banking Sector.

III. FOREIGN BANKS IN INDIA

Foreign banks are those banks whose branch offices are in India but they are incorporated outside India, and have their head office in a foreign country. These banks were permitted to set up their subsidiaries in the country from the year 2002. They have to operate their business by following all the rules and regulations laid down by Reserve Bank of India. They have to pay more attention to the priority sector lending and providing much importance to it. All these banks are expected to follow all the banking regulations, just like any other domestic banks.

At present the Standard Chartered Bank is the largest foreign bank in terms of numbers, with more than 95 branches in 41 cities. According to the discussion paper by RBI on presence of foreign banks in India (2011), there were more than 30 foreign banks operating in India as branches. Their respective financial statements/balance sheet assets, accounted for around 7.65 percent of the total assets of the scheduled commercial banks as on March 31, 2010. If the credit equivalent of off balance sheet assets were involved, the share of foreign banks was 10.5 per cent of the total assets of the scheduled commercial banks as on 31st March 2010.

IV. LITERATURE REVIEW

Altman Z-Score model has been used by many researchers to assess the probability of a company experiencing financial distress. Rahmat (2002) conducted a study by applying the Z-Score model to assess the financial performance of banks in Indonesia in 1995-1997 before they were declared bankrupt by Bank Indonesia. Pongsatat, et al. (2004) applied Ohlson's logit model and Altman's four-variance model to assess the financial performance and the possibility of financial distress at small and large companies in Thailand. Christopoulos et al. (2009) used Altman model to predict the likelihood of bankruptcy and concluded that Altman model was able and accurately identify sample the corporate financial difficulties. Altman model was more useful than traditional financial analysis. Endri (2009) applied the model of Altman in Islamic banking by using data from 2005 to 2007. Duvvuri (2012) applied Z-Score model to determine the corporate health of The Nagarjuna Fertilizers and Chemicals Limited after briefly experiencing financial difficulties in 2001.

Some studies, especially those conducted in the banking industry conclude that the model of Altman ZScore (first model and last revised model) was less appropriate when it was used to assess the performance of a bank, both commercial banks and Islamic banks (Rahmat 2002, Endri 2009). This was mainly because the ZScore model was formed from empirical studies of manufacturing industry that would have strongly different characteristics from banking industry. This assessment, coupled with the decision of the Committee Basel I in 1988 in adopting the CAMEL model as the standard model of bank rating, made a lot of researchers who then used the CAMEL model as primary measurement tool in assessing the health condition of a bank.

Research by using CAMEL was conducted by several researchers such as Thomson (1991) who used to assess the CAMEL model to assess banks that faced failure in the 80's and concludes that CAMEL ratios can accurately predict the possibility of failure in a bank so it can be used as an early warning system in the banking industry, Manoj (2010) and Reddy S. (2012) who applied CAMEL ratio between the Bank in India, Mylonakis, et al. (2011) who used the CAMELS ratios to reassess the bankruptcy of Lehman Brothers. Prassad and Ravinder (2012) applied CAMEL by averaging each variable and the analysis results show that Andhara Bank is the best bank in India followed by Bank of Baroda and Punjab & Sindh Bank.

Makkar and Singh (2012) assessed the level of solvency in commercial banks in India in the period of 2006/2007 - 2010/2011 by using Bankometer developed under IMF guidance on the bank rating, because it was assumed that it would be better to use traditional way by
implementing CAMEL ratios. The results explained that by applying Bankometer model, it can provide assessment of the accurate ability of the bank, so it is advisable for internal management to use Bankometer model in assessing the health of banks in India.

V. OBJECTIVES OF THE STUDY

- To analyse the financial performance of the banks under study on the basis of adequate capital base.
- To assess the financial health of the select Private sector and foreign banks in India using the Bankometer model.

VI. RESEARCH METHODOLOGY

This is a descriptive study which illustrates the performance of the select banks under study and the accuracy of Bankometer model in assessing the financial health of the banks. The data used are secondary data from financial statements (Balance Sheet and Income Statement) and annual reports published by Reserve Bank of India.

VII. RESEARCH SAMPLE AND SAMPLING TECHNIQUE

The research Sample contains four Banks from Private Sector Banks (ICICI Bank, HDFC Bank, Axis Bank and Kotak Mahindra Bank) and four banks from Foreign Banks (CITI Bank, HSBC Bank, Standard Chartered Bank and Barclays Bank) in India. Convenience Sampling Technique has been used for the study.

VIII. TECHNIQUES OF DATA ANALYSIS

Calculating the value of S-Score and position of the select banks under study by using Bankometer model:

\[ S = 1.5X1 + 1.2X2 + 3.5X3 + 0.6X4 + 0.3X5 + 0.4X6 \]

Where:
- \( X1 = \text{CA or Capital Asset Ratio} \)
- \( X2 = \text{EA or Equity to Asset} \)
- \( X3 = \text{CAR or Capital Adequacy Ratio} \)
- \( X4 = \text{NPL or non-performing loans to Loans} \)
- \( X5 = \text{CI or Cost to Income} \)
- \( X6 = \text{LA or Loan to Asset} \)

Criteria to be considered:
- a) For the value of \( S < 50 \) means that the company is experiencing financial difficulties and high-risk.
- b) For the value of \( 50 < S < 70 \) then the company is considered to be in the gray area (gray area).
- c) For \( S \) greater than 70, provide an assessment that the company is in a very healthy state.

IX. FINDINGS OF THE ANALYSIS

Assessment of Bankometer Model

Bankometer model developed from the IMF recommendations in 2000 concerning the assessment of financial health of banks. Thus, the results should be analyzed by using Bankometer Model. The model is:

\[ S = 3.5 \text{CAR} + 1.5 \text{CA} + 1.2 \text{EA} + 0.6 \text{NPL} + 0.3 \text{CI} + 0.4 \text{LA} \]

TABLE 1: CALCULATED RESULTS USING BANKOMETER MODEL - 2008-2015

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<tr>
<td>ICICI BANK</td>
<td>117.57</td>
<td>136.82</td>
<td>146.78</td>
<td>145.93</td>
<td>136.96</td>
<td>138.15</td>
<td>134.66</td>
<td>133.90</td>
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<td>HDFC BANK</td>
<td>100.81</td>
<td>107.75</td>
<td>122.12</td>
<td>112.52</td>
<td>111.51</td>
<td>112.85</td>
<td>109.39</td>
<td>119.29</td>
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<tr>
<td>AXIS BANK</td>
<td>98.75</td>
<td>94.64</td>
<td>107.66</td>
<td>96.65</td>
<td>96.24</td>
<td>112.85</td>
<td>116.75</td>
<td>102.04</td>
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<tr>
<td>KOTAK MAHINDRA BANK</td>
<td>141.86</td>
<td>151.45</td>
<td>136.92</td>
<td>147.91</td>
<td>133.97</td>
<td>124.73</td>
<td>146.27</td>
<td>138.42</td>
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<tr>
<td>CITI BANK</td>
<td>76.63</td>
<td>103.61</td>
<td>132.87</td>
<td>126.80</td>
<td>119.20</td>
<td>124.46</td>
<td>123.03</td>
<td>126.03</td>
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<tr>
<td>HSBC</td>
<td>89.29</td>
<td>105.19</td>
<td>120.80</td>
<td>124.31</td>
<td>115.43</td>
<td>122.52</td>
<td>115.81</td>
<td>110.34</td>
</tr>
<tr>
<td>STANDARD CHARTERED BANK</td>
<td>94.57</td>
<td>94.07</td>
<td>109.09</td>
<td>103.57</td>
<td>97.64</td>
<td>122.39</td>
<td>115.21</td>
<td>130.35</td>
</tr>
<tr>
<td>BARCLAYS BANK</td>
<td>200.89</td>
<td>144.88</td>
<td>147.05</td>
<td>128.93</td>
<td>137.58</td>
<td>124.79</td>
<td>122.71</td>
<td>122.00</td>
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X. RESULTS AND INTERPRETATION

S-Score calculations above yield S values from 2008 to 2015 which are strongly above the limit of at least 70, therefore it can be interpreted that the select banks under study during the period is always in the category of healthy and are not facing financial distress. The calculations show a tendency to fluctuate, nevertheless because of the calculation results are strongly above the value of 70 which is as safe limit, the fluctuations will not impact significantly on the health condition of the banks.

The high value of S-Score is mainly influenced by the high capital adequacy rate or CAR in HSBC Bank and Standard Chartered Bank from 2008 to 2015, even at the lowest of 10.59% in 2008, they remain significantly above the prescribed limit as per Basel III [Minimum Common Equity Tier 1 Ratio plus Capital Conservation Buffer of 8%, Minimum Total Capital Ratio (Minimum Tier 1 Capital Ratio + Tier 2 Capital) of 9% and Minimum Total Capital Ratio plus Capital Conservation Buffer of 11.50%] in which it is above all the minimum limit prescribed by the Reserve Bank of India which is considered to be highly safe in terms of capital.

CA or Capital to Asset Ratio calculates how much assets are financed either by equity or long term debt, the greater the ratio means that the bank is much more secure as the assets are financed by long term funds.

The ratio of CA in CITI Bank from 2008 to 2015 are at the lowest, which is at 3.20% in 2008 and this means the long term funds are highly affected but the S value is still higher than the minimum prescribed score of 70 which shows overall bank in safe position and should take certain important measures to increase the CA ratio.

Equity to Asset Ratio or EA that measures the amount of assets that are financed by owners investments by comparing the total equity in the company to the total assets. The higher the ratio, the more secure the financial position of the bank in the long run as the major part of the assets are financed by equity capital and is less dependent on external funding. Axis bank is showing very less ratio in all the years of comparison with other banks under study. This results the value of S in the above calculation also tends to be less compared to the other banks.

NPL is a ratio that shows how much the loan is classified as non-performing loans (i.e., delay in servicing interest for more than 90 days). The higher the ratio indicates the higher non-productive loans given by a bank. The ratio of Non-performing Loans to Loans in Barclays Banks from 2008 to 2015 are at the lowest, which is 4.59% and 5.15% in 2009 and 2010 respectively when compared to other banks under study. This indicates the risk involved in the Non-performing loans and the bank should take immediate action on reducing the non-performing loans.

Cost to Income Ratio or CI is the ratio that compares the operating expenses excluding non-cash expenses and operating income. The lower the ratio, the higher the level of bank profits. The results of the calculation of the CI ratios in the banks show that the operating expenses of the banks to be reduced to its minimum or otherwise it will become very difficult in carrying out its operations.

LA ratio indicates the proportion of a company’s assets that are being financed with debt, rather than equity. The ratio is used to determine the financial risk of a business. The higher ratio means more loans that will give positive impact on banks revenue but also provide negative impact on banks liquidity, whereas the smaller ratio means fewer loans and hence it does not gives good impact for bank earnings and however gives
better impact on the liquidity of the bank. From the above analysis it can be concluded that the Banks under study are highly liquid.

XI. CONCLUSION

Private sector banks and foreign banks in India are providing very prompt services to customers inculcating new technology in the banking services which in turn very important and user friendly. After the setup of foreign banks in India, the banking sector in India also become more competitive with private sector and majority public sector banks. In the instance, the above study reveals that the Bankometer model is designed to obtain calculations automatically and replaces the other related models in assessing the financial performance of the banks. The results show the banks under study considered to be highly liquid, had strong capital base, were able to manage debt well, had good profitability, and asset quality but was still lacking in efficiency. These findings suggest that this model can be used as an early warning system in assessing financial performance of a bank. The results also shows that the banks considered under study are safe in terms of overall consideration of the variables described in the model.

REFERENCES