©KY PUBLICATIONS
RESEARCH ARTICLE
Vol.2.Issue.1.2015

IJBMAS
E ISSN 2349-4638

http://www.ijbmas.in
INTERNATIONAL JOURNAL OF BUSINESS, MANAGEMENT AND ALLIED SCIENCES (IJBMAS)
A Peer Reviewed International Research Journal

Financial Performance Measurement of Selected Commercial Banks in India by CAMEL Approach

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Article Info:
Article Received on:10/02/2015
Article Revised on:25/02/2015
Article Accepted on:14/03/2015

ABSTRACT

The present study attempts to evaluate the financial performance of selected Indian commercial banks for the period from 2008/9 to 2012/13. The study comprises 10 commercial banks, five representing public sector and five from private sector, and the financial performance of these banks are analysed using the financial ratios. This study analyses the relative performance of selected commercial banks using CAMEL rating system and provides a relative ranking under each of the sub-parameters independently, taking each of the parameter and finally through a composite ranking taking all the parameters together. The study focused on every aspects of financial performance measurement and the period covered under the study was six years. The public/private sector banks will be selected on the basis of market capitalization BSE (available on money control). This model measures the performance of financial institution (approximately 8,000 institutions) especially banks, from all the important parameter like Capital Adequacy, Assets Quality, Management Efficiency, Earning Quality and Liquidity and sixth component like market risk added in 1997. Statistical tools like average, standard deviation, coefficient of variation and correlation is also calculated. It is found out that overall state of capital adequacy of nationalized banks [Bank of Baroda (BOB), Punjab National Bank (PNB), Bank of India (BOI), Central Bank of India (CBI), Bank Of Maharashtra (BOM)) were satisfactory. As far as portfolio is concern, the overall state of assets quality was good. The management efficiency was also satisfactory. Overall earning capacity of the bank was good but the overall state of liquidity was not satisfactory.

Key words: Financial Performance, commercial banks, Indian Banks, CAMEL approach.

1. Introduction

A bank is a financial institution and a financial intermediary that accepts deposits and channels those deposits into lending activities, either directly or through capital markets. A bank connects customers that have capital deficits to customers with capital surpluses. Due to their critical status within the financial system and the economy generally, banks are highly regulated in most countries. They are generally subject to minimum capital requirements which are based on an international set of capital standards, known as the Basel Accords[1].

Commercial banks play significant role in the development process in the country by promoting industry and trade. Besides, the custodian of the wealth of the country, banks are considered as engines for fostering economic development of a nation. Reforms in India in the banking sector have resulted in expansion of banking sector in the form of new branches, new private banks and entry of more foreign banks. As a result of which, the whole country witnessed a surge in the banking sector at a very fast pace. Also, the role of banks changed significantly with the onset of economic reforms in 1991. These changes came due to LPG policy being followed by Government of India. Since then old fashioned archaic concepts, practices, procedures and methods of banking have changed significantly. The modern banking system is now a complete financial service unit that offers a wide range of innovative and technology driven services.

Research studies emphasized the function of financial sector in economic development and expressed that there is a strong correlation between economic growth and development of financial system[2]. Another study highlighted that financial sector performs as supply leading role in transferring of resources from traditional, low growth sector to high growth sector and stimulates an entrepreneurship response in the high growth sector[3]. From the above discussion it is cleared that the role of banking system is vital and crucial for the capital formation in the country and it necessitates that banks must be more closely watched for their economic efficiency and performance. In the recent past the banking regulators and policy makers have recommended bank supervision by using CAMELS (capital adequacy, asset quality, management quality, earnings, liquidity and sensitivity) rating model to assess and examine the performance and financial soundness of the bank. CAMELS rating system as an effective internal supervisory tool for evaluating and identifying financial firms, was adopted for the first time in 1979 by the Federal Financial Institution Examination Council (USA)[4]. Regulators of the banking sector always monitors the performance of the banks to ensure efficient financial system based on CAMELS ratio.

The CAMELS model is very much popular among regulators due to its effectiveness. This model is highly compatible for the assessment of the performance of the bank. The importance of banks is more prominent in developing countries because financial markets are usually underdeveloped, and banks are typically the only major source of finance and are act as custodian of economic savings[5]. The strength of CAMEL's factors would determine the overall strength of the bank. The quality of each component further underlines the inner strength and how far it can take care of itself against the market risks[6]. Sound financial health of a bank also provides the assurance to its stakeholders and economy as a whole. To be really helpful and practically useful for the bankers, the package of ratios should be small in size, simple in calculations, logically consistent and statistically valid. Over the years, various experts propounded a plethora of ratios for analyzing the financial position of a bank. The financial analysis of a bank can be done with the help of four general categories of ratios viz. profitability ratio, liquidity ratio, leverage ratio and activity ratio.

2. Literature Review

The evaluation of financial performance of banking sector has been assessed by various researchers, academicians and policy makers in different time periods. A simplistic review of one of the important studies is presented here which fulfills the need for the present study. This section of the paper incorporates brief review of literature on performance and soundness measurement of banks using CAMEL approach. Sathye (2005)[7] studied the financial performance of the Indian banking sector for the period of 1998 to 2002. The focus of the research was on traditional financial ratios to measure the performance of Indian banks in context of Indian strategy of privatization[8]. It is clear from the existing literature[9] that the studies pertaining to the financial performance of commercial banks across the globe, especially in Indian context, are performed based on the ratio analysis and CAMEL ranking method. Besides there have been studies which proved that there has been significant difference in the performance of public and private sector banks in India.

The study comprises 5 commercial banks and the financial performance of these banks are analysed using the financial ratios by CAMEL model. In addition, the study investigates the impact of liquidity, solvency and efficiency on the profitability of the selected public sector banks and private sector banks, respectively, by employing the panel data estimations.

3. Statement of the Problem

The confidence of the public and private investors in financial institutions has been shaken by recent failures in the banking sector in India. Profitability of banks and their performance in comparison to the competitors has become an important topic of research, many banks do not find the right measure to evaluate the performance, since there are many variables that decide the efficiency and effectiveness of banks, there arises a question of what are the criteria's to be measured. Therefore CAMEL model is the mostly widely used tool to measure the performance of the banks.

4. Need for Performance Measurement of Banks

Due to its very nature of operation and the important role it plays in the overall growth of economy, the banking institutions should be more closely monitored in order to protect the entire financial system. The present supervisory system in banking sector is a substantially improved one in comparison to the earlier system in terms of frequency, coverage, focus and more importantly the tools employed. Nearly one-half of the Basel core principles have already been adhered to for effective banking supervision and the remaining is in the process of implementation. Two Supervisory Rating Models, based on CAMEL and CACS (capital, asset quality, compliance and systems & control) models for rating of the Indian Commercial Banks and Foreign Banks operating in India respectively, have been worked out on the lines recommended by the Padmanabhan Working Group[10]. These ratings would enable RBI to identify the banks whose condition warrants special supervisory attention

5. Objectives of the Study

The objectives of the study are as under:

a. To measure the financial performance of selected banks [Bank of Baroda (BOB), Punjab National Bank (PNB), Bank of India (BOI), Central Bank of India (CBI), Bank Of Maharashtra (BOM)] through CAMEL model.
b. To measure the relative financial performance of each selected commercial bank by providing ranks under each parameter of CAMEL rating system and to map out the overall relative position of each selected commercial bank by composite ranking method.

Identification of the problem of the study: In the recent years the financial system especially the banks have undergone numerous changes in the form of reforms, regulations and norms. CAMEL framework for the performance evaluation of banks is an addition to this. Here, for our research study problem is to analyze financial performance of selected public sector and private sector banks through CAMEL FRAMEWORK and their comparison

Comparative Statement Analysis: A statement which compares financial data from different periods of time. The comparative statement lines up a section of the income statement, balance sheet or cash flow statement with its corresponding section from a previous period. It can also be used to compare financial data from different companies over time, thus revealing the trend in the financials.

6. Research Methodology

Research Design: The present study is descriptive research study. Descriptive research is a study designed to depict the participants in an accurate way. As the name implies, descriptive research methods are used when the researcher wants to describe specific behavior as it occurs in the environment. There are a variety of descriptive research methods available; once again, the nature of the question that needs to be answered drives which methods is used .Case study, defined as an in-depth study of an individual or group of individuals.

Sampling Technique: The study encompasses six banks selected randomly, which includes five public sector banks; Bank of Baroda (BOB), Punjab National Bank (PNB), Bank of India (BOI), Central Bank of India (CBI), Bank of Maharashtra (BOM). The period covered in this study ranges from 2008-9 to 2012-13. These banks have been selected on basis of their consistent performance during the study period.

Sources of Data Collection: The study is based on secondary data obtained from the annual reports of selected banks and Reserve bank of India statistical table for five years (i.e. from the financial year 2008-09 to 2012-13.

CAMELS Model is used for measuring the financial performance of the public sector banks. CAMEL is a basically, a ratio based model to evaluate the performance of bank under various criteria. Soundness of a bank measured on a scale of 1(strongest) to 5(weakest).The CAMELS ratings is a supervisory rating system originally developed in the U.S. to classify a bank's overall condition. It's applied to every bank and credit union in the U.S. supervisory regulators. Bank examiners (trained and employed by the country's central bank) award these ratings. The CAMEL stands for various criteria through which bank performance is measured. The components of the CAMELS rating system comprise of both objective and subjective parameters. The details are based on publicly available information published at Reserve Bank of India, Indian Banks Association, referred papers and a book

Tools of Analysis: Capital Adequacy ratio, Debt Equity Ratio, Total advances to Total Assets Ratio etc.,

Analysis and Interpretations

Table 1: Capital Adequacy Individual Ratios Average (FY 2008–2012)

	Bank of Baroda	Punjab National Bank	Bank of India	Central Bank of India	Bank Of Maharashtra
Capital Adequacy Ratio	16.672	10.945	15.263	12.196	13.758
Equity Capital to Total Assets	0.120	0.049	0.094	0.052	0.102
Advances to Total Assets	0.566	0.577	0.602	0.567	0.602
G. Sec. to Total Investments	0.605	0.848	0.757	0.812	0.756

Table 2: Asset Quality Individual Ratios Average (FY 2008–2012)

	Bank of Baroda	Punjab National Bank	Bank of India	Central Bank of India	Bank Of Maharashtra
Net NPA to Net Advances	2.281	3.795	2.776	0.962	0.258
Net NPA to Total Assets	0.014	0.022	0.017	0.006	0.002
Total Invest to Total Assets	0.251	0.257	0.235	0.269	0.251

Table 3: Management Quality Individual Ratios Average (FY 2008–2012)

	Bank of Baroda	Punjab National Bank	Bank of India	Central Bank of India	Bank Of Maharashtra
Business per employee (Rs. in Cr.)	8.237	12.177	9.749	13.931	7.679
Profit per employee (Rs. in Cr.)	0.136	0.052	0.122	1.364	0.093
Total Advances to Total Deposits (CDR)	98.248	81.005	80.64	67.124	87.333
Return on Net Worth %	12.408	9.768	18.857	5.376	16.733

Table 4: Earnings Quality Individual Ratios Average (FY 2008–2012)

	Bank of Baroda	Punjab National Bank	Bank of India	Central Bank of India	Bank Of Maharashtra
Return on Assets (ROA)	1.529	0.340	1.577	0.613	0.303
Net Interest Margin (NIM)	2.968	2.627	2.635	2.650	1.924
Interest Income to Total Income	0.766	0.859	0.815	0.838	0.867

Cost to Income Ratio	36.125	42.791	39.062	47.937	43.266

Table 5: **L**iquidity Individual Ratios Average (FY 2008–2012)

	Bank of Baroda	Punjab National Bank	Bank of India	Central Bank of India	Bank Of Maharashtra
Liquid Assets to Demand Deposits	3.503	2.764	2.791	5.985	2.113
Liquid Assets to Total Deposits	0.477	0.448	0.453	0.335	0.389
Liquid Assets to Total Assets	0.275	0.307	0.313	0.278	0.274

Using Table 1 to Table 5, individual ranking for each ratio of all five parameters of CAMEL is given. This ranking is from 1 to 11, where rank 1 defines the best value of a particular ratio among all eleven banks while rank 11 defines the worst value of a particular ratio. This ranking is shown in Table 6. These ranks are further averaged to reach the group ranking of each parameter of CAMEL. All the calculations are based on MS Excel. The overall ranking of all five banks considering all sub-criteria rankings under CAMEL analysis is shown in Table 6. The group rankings obtained in Table 6 is further averaged to reach the overall ranking for each parameter of acronym CAMEL for all eleven banks for the period of FY 2008–2012.

Table 6: Overall CAMEL Ranking (FY 2008–2012)

	Bank of Baroda	Punjab National Bank	Bank of India	Central Bank of India	Bank Of Maharashtra
C- Capital Adequacy	9.0	10.5	9.0	2.0	4.5
A- Asset Quality	10.0	8.0	10.0	2.0	9.0
M-Management Quality	8.5	6.5	8.5	4.0	8.5
E- Earnings Quality	9.0	11.0	9.0	1.0	10.0
L- Liquidity Average of Group Rankings	1.0	2.0	1.0	6.0	9.0
Overall Ranking	7.5	7.6	7.5	3.8	8.2

The results obtained from CAMEL approach indicate, Punjab National Bank as the most efficient and sound bank in financial analysis for the period of FY 2008 to 2012. Even though Bank of Baroda and Bank of India are at second position in overall ranking, the position is sounder in case of Earning quality and Management quality parameter than any other bank out of the selected five. By increasing liquid assets, the position of Bank of Maharashtra will be better than Punjab National Bank. Bank of Baroda and Bank of India are at the same position. But in case of Bank of India, variation in a rank of all five parameters is more as compared to Bank of Baroda. The bottom position is with Central Bank of India. The scale of the bank seems to be the reason for such a low efficiency among other peer banks. Non-performing assets proportion has scaled up in most of the banks. Impact of this is clearly seen on returns on assets as well as returns on net worth of these banks over a span of five years. Decreasing level of interest income as compared to total income, clearly indicate the growth in other income avenues of all selected five banks.

Suggestions

- The higher the CRAR the better the capacity of the banks to pay of its obligations and safety against bankruptcy.
- The higher the DEBT EQUITY RATIO lower the cover of risk for its stakeholders, the banks should emphasis on maintaining these ratios high.
- Nonperforming assets have to managed efficiently, The higher ratio means the bank is unable to manage its loans and advances effectively.
- Net interest income is the most important ratio that measures the financial performance of the financial institutions. The profit earning capacity of the firm shows how well the banks are managing its earning assets to earn profitable revenues. Therefore it has to be given highest priority.

- The banks need to lay focus on the management efficiencies as management is the only criteria which can manage all the other elements of the performance.

Conclusion

Financial performance analysis of an individual entity is easier as compared to the industry; specifically for banking, the traditional approach of ratio analysis under the CAMEL approach is preferred. The sample of banks in this article represents the top eleven banks in a country with respect to market capitalization. This study can be further extended for all public sector, private sector and foreign banks for better analysis of the banking industry. CAMEL Model is one of the financial tools that analyses the performance of the banks in respect to the five elements. The above study shows that the performance of the banks is different from each other and as one bank focuses on one criteria and the other bank thinks the latter criteria's are important. Also the study gives a picture of the shortcomings of the banks and where they need to be improved.

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