INTERNATIONAL JOURNAL OF SCIENTIFIC PROGRESS AND RESEARCH (IJSPR) ISSN: 2349-4689
Issue 100, Volume 35, Number 01, 2017

A Study on Financial Performance Evaluation of NSE-CNX Banks Using CAMEL Model

Nagji Chavda[1], Dr. Pankaj Trivedi[2]

[1]Ph.D. Scholar, [2]Associate Professor

[1]Supervisor Instructor – Govt. ITI Junagadh , [2]K.K. Parekh Commerce College-Amreli

***Abstract** This research attempt to discover the financial soundness of banks through using the CAMEL Model.Camels rating 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. Researcher has sampled 8 NSE-CNX Indian Nationalized Banks in which 4 from Public Sector and 4 from Private Sector to analyze the financial health of the Banks. Last 5 year Banks Data (From 2012-13 to 2015-16) have used to analyze the banks on Five different measurements of CAMEL i.e. Capital Adequacy, Management Efficiency, Earning Capability and Liquidity.Various tools and techniques are employed by the researcher in analyzing the financial information contained in these financial statements.*

***Keywords:** CAMEL rating, Capital Adequacy, Management Efficiency, Earning Capability.*

I. INTRODUCTION

In 1995, RBI had set up a working group under the chairmanship of Shri S. Padmanabhan to review the banking supervision system. The Committee certain recommendations and based on such suggestions a rating system for domestic and foreign banks based on the international CAMELS model combining financial management and systems and control elements was introduced for the inspection cycle commencing from July 1998. It recommended that the banks should be rated on a five point scale (A to E) based on the lines of international CAMELS rating model. CAMELS evaluate banks on the following six parameters:-

(a) Capital Adequacy: Capital adequacy is measured by the ratio of capital to risk-Iightedassets (CRAR). A sound capital base strengthens confidence of depositors

(b) Asset Quality: One of the indicators for asset quality is the ratio of non-performing loans to total loans (GNPA). The gross non-performing loans to gross advances ratio is more indicative of the quality of credit decisions made by bankers. Higher GNPA is indicative of poor credit decision-making.

(c) Management: The ratio of non-interest expenditures to total assets (MGNT) can be one of the measures to assess the working of the management. . This variable, which includes a variety of expenses, such as payroll, workers compensation and training investment, reflects the management policy stance.

(d) Earnings: It can be measured as the return on asset ratio.

(e) Liquidity: Cash maintained by the banks and balances with central bank, to total asset ratio (LQD) is an indicator of bank's liquidity. In general, banks with a larger volume of liquid assets are perceived safe, since these assets would allow banks to meet unexpected withdrawals.

II. LITERATURE REVIEW

A. CAMEL rating system (Kelley and Gilbert)

This study uses the capital adequacy component of the CAMEL rating system to assess whether regulators in the 1980s influenced inadequately capitalized banks to improve their capital. Using a measure of regulatory pressure that is based on publicly available information, he found that inadequately capitalized banks responded to regulators' demands for greater capital. This conclusion is consistent with that reached by Keeley (1988). Yet, a measure of regulatory pressure based on confidential capital adequacy ratings reveals that capital regulation at national banks was less effective than at state-chartered banks. This result strengthens a conclusion reached by Gilbert (1991)

B. Banks performance evaluation by CAMEL model (Hirtle and Lopez)

Despite the continuous use of financial ratios analysis on banks performance evaluation by banks' regulators, opposition to it skill thrive with opponents com ing up with new tools capable of flagging the over-all performance (efficiency) of a bank. This research paper was carried out; to find the adequacy of CAMEL in capturing the overall performance of a bank; to find the relative Lights of importance in all the factors in CAMEL; and lastly to inform on the best ratios to always adopt by

banks regulators in evaluating banks' efficiency. In addition, the best ratios in each of the factors in CAMEL Ire identified. For example, the best ratio for Capital Adequacy was found to be the ratio of total shareholders' fund to total riskIighted assets. The paper concluded that no one factor in CAMEL suffices to depict the overall performance of a bank. Among other recommendations, banks' regulators are called upon to revert to the best identified ratios in CAMEL when evaluating banks performance.

C. CAMEL model examination (Rebel Cole and Jeffery Gunther)

To assess the accuracy of CAMEL ratings in predicting failure, Rebel Cole and Jeffery Gunther use as a benchmark an off-site monitoring system based on publicly available accounting data. Their findings suggest that, if a bank has not been examined for more than two quarters, off-site monitoring systems usually provide a more accurate indication of survivability than its CAMEL rating. The loIr predictive accuracy for CAMEL ratings "older" than two quarters causes the overall accuracy of CAMEL ratings to fall substantially below that of off-site monitoring systems. The higher predictive accuracy of off-site systems derives from both their timeliness-an updated off-site rating is available for every bank in every quarter-and the accuracy of the financial data on which they are based. Cole and Gunther conclude that off-site monitoring systems should continue to play a prominent role in the supervisory process, as a complement to on-site examinations.

D. *Check the Risk taken by banks by CAMEL model*

The deregulation of the U.S. banking industry has fostered increased competition in banking markets, which in turn has created incentives for banks to operate more efficiently and take more risk. They examine the degree to which supervisory CAMEL ratings reflect the level of risk taken by banks and the risk-taking efficiency of those banks (i.e., whether increased risk levels generate higher expected returns). Their results suggest that supervisors not only distinguish betIen the risk-taking of efficient and inefficient banks, but they also permit efficient banks more latitude in their investment strategies than inefficient banks.

E. Bank soundness - CAMEL ratings – Indonesia (Kenton Zumwalt)

This study uses a unique data set provided by Bank Indonesia to examine the changing financial soundness of Indonesian banks during this crisis. Bank Indonesia's non-public CAMEL ratings data allow the use of a continuous bank soundness measure rather than ordinal measures. In addition, panel data regression procedures that allow for the identification of the appropriate statistical model are used. They argue the nature of the risks facing the Indonesian banking community calls for the addition of a systemic risk component to the Indonesian ranking system. The empirical results show that during Indonesia's stable economic periods, four of the five traditional CAMEL components provide insights into the financial soundness of Indonesian banks. HoIver, during Indonesia's crisis period, the relationships betIen financial characteristics and CAMEL ratings deteriorate and only one of the traditional CAMEL components—earnings—objectively discriminates among the ratings.

When I was searching for the research paper for literature review, I could not find a single report or any research paper on the CAMELS model prepared on Indian Banks. So I inspired to make the project report on CAMELS Model specially on Indian Banks.

III. RESEARCH METHODOLOGY

A. Research objectives

1. To analyze the financial statements and judge the financial soundness of each bank
2. To study of market and know about potential areas among the banks compared.
3. To know the capital adequacy of the banking industry

B. STATEMENT OF PROBLEM

Every industry needs to look after the financial position in the India. The researcher wants to analyze the financial performance of the Banking Industry by using the CAMEL model to see the applicability and effectiveness in judging the financial performance.

C. SCOPE AND LIMITATIONS OF STUDY

The scope of this study is limited up to NSE-CNX Indian Nationalized banks only, while the time period of the study was limited that is why researchers were not able to take data of all the banks of the decades.

D. COLLECTION OF DATA & TOOLS USED

For this study, Researcher has used Secondary source of Data Such as Banks Websites, Banks Journals, Annual Reports of Bank etc. Data tabulation & analysis tools used to apply CAMEL Model in each Bank.

IV. DATA ANALYSIS & INTERPRETATION

Purely for analytical convenience, the Financial Ratio of bank is generally categorized differently from that of

commercial businesses. The working Group to ``Review the system of on-site supervision over Bank'' headed by Shri S. Padmanabhan, constituted in February 1995 recommended far reaching changes in bank inspections by the Reserve Bank of India and introduce a rating methodology for the banks i.e. CAMEL model. It is elaborated as under:

1) C – CAPITAL ADEQUACY

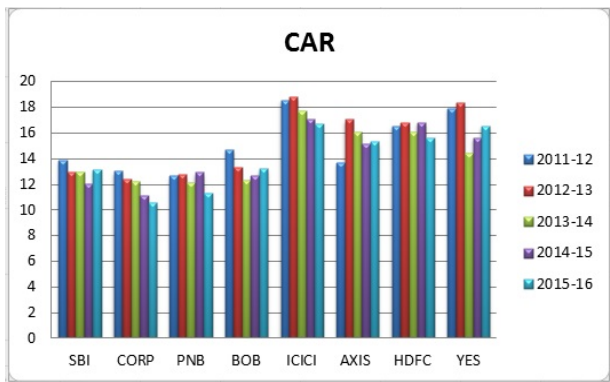
Capital adequacyisstipulated by Bank for International Settlements (BIS) at Basle to ensure that the banks have enough capital to absorb losses from assets which turn bad. The norms are fixed as a percentage of risk weighted assets i.e. assets are, weighted on the basis of the risk involved in their realization. For example, cash is given a risk weight age of 0% and higher weight age for assets secured by goods, mortgage etc. In India Narasimham Committee recommendations have stipulated that Indian Banks particularly those with International Presence must have a capital adequacy of 9%. Capital adequacy reflects the overall financial condition of the banks and also the ability of the management to meet the need for additional capital. It includes the following:

Capital Adequacy Ratio (CAR) or Capital to Risk Assets Ratio (CRAR):

As per the latest RBI norms, banks in India should have a CAR of 9%. It is arrived at by dividing the Tier I and Tier II capital by risk weighted assets. Tier I capital includes equity capital and free reserves. Tier II capital comprises sub-ordinate debt of 5-7 year tenure.

CAR = Capital Funds / Risk Weighted Assets X 100

Years	SBI	CORP	PNB	BOB	ICICI	AXIS	HDFC	YES
2011-12	13.86	13.00	12.63	14.67	18.52	13.66	16.52	17.90
2012-13	12.92	12.33	12.72	13.3	18.74	17.00	16.80	18.30
2013-14	12.96	12.21	12.11	12.28	17.70	16.07	16.07	14.40
2014-15	12.00	11.09	12.89	12.60	17.02	15.09	16.79	15.60
2015-16	13.12	10.56	11.28	13.17	16.64	15.29	15.53	16.50



The minimum CAR as per RBI norms is 9 % at Present. In fact, ICICI Bank has shown a healthy and improved margin of over 9 % which is stipulated by RBI, in the year 2012 – 2013 CAR is of 18.74%. This is due to steady rise in the Risk Weighted Assets. The main reason for the rise in Risk Weighted Assets and decline in CAR is constant increase in advances over the last few years

2) A – ASSET QUALITY

The prime motto behind measuring the asset quality is to ascertain the quality of assets and majority of ratios in this segment are related to non-performing assets i.e. NPA. A credit facility is treated as past due when it remains outstanding for 30 days beyond the due date. An NPA is defined generally as a credit facility in respect of which interest or instalment of principal is in arrears for two quarter or more. This segment contain following ratio

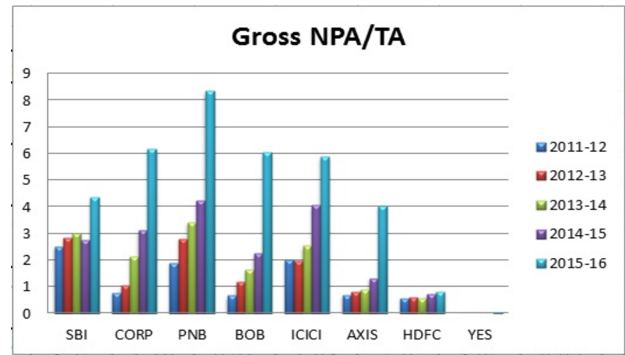
Gross NPAs to Total Assets:

Gross NPAs are gross provisions on NPAs and Total Assets considered are net of revaluation reserves.

Gross NPAs to Total Assets = Gross NPAs / Total Assets X 100

Years	SBI	CORP	PNB	BOB	ICICI	AXIS	HDFC	YES
2011-12	2.53	0.78	1.90	0.68	2.03	0.70	0.58	0.00
2012-13	2.86	1.06	2.81	1.21	1.96	0.82	0.61	0.00
2013-14	3.01	2.13	3.43	1.66	2.54	0.89	0.58	0.00
2014-15	2.77	3.14	4.26	2.27	4.06	1.32	0.74	0.00
2015-16	4.35	6.19	8.36	6.04	5.90	4.05	0.83	0.01

The quality of loan is one of the crucial aspects of that decide the health of banks. This ratio indicates the percentage of gross NPAs to total assets. Ratio does not give any tolerable or desirable limit. But it should be below 10 %.



3) M – MANAGEMENT

Management is the most important ingredient that ensures sound functioning of banks. With increased competition in the Indian banking sector, efficiency and effectiveness have become the rule as banks constantly strive to improve the productivity of their employees.

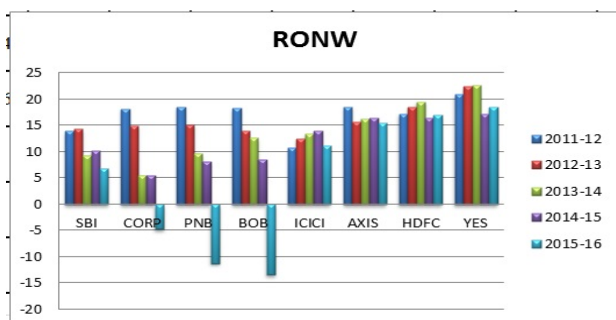
The major improvements in the style of management and productivity have come about in the all sectors of banks. Today, it is not uncommon to see the extended working hours, flexible time schedules, outsourcing marketing, etc. to attract and retain customers.

The parameters used to assess the quality of management gives the measurement of the efficiency and effectiveness of management. The ratios of this segment are:

Return on Net Worth (RONW): Net Profit / Net Worth X 100

It is a measure of the profitability of a company. PAT is expressed as a percentage of Average Net Worth.

Years	SBI	CORP	PNB	BOB	ICICI	AXIS	HDFC	YES
2011-12	13.94	18.19	18.52	18.22	10.70	18.59	17.26	20.89
2012-13	14.26	14.99	15.19	14.01	12.48	15.64	18.57	22.39
2013-14	9.20	5.56	9.69	12.61	13.40	16.26	19.50	22.71
2014-15	10.20	5.57	8.12	8.53	13.89	16.46	16.47	17.16
2015-16	6.89	-4.73	-11.20	-13.42	11.19	15.46	16.91	18.41



This ratio expresses the net profit in terms of net worth. This ratio is an important yardstick of performance for equity shareholders since it indicates the return on the funds employed by them. Though, YES Bank has highest Ratio in terms of Return on Net worth.

4) E – EARNINGS QUALITY

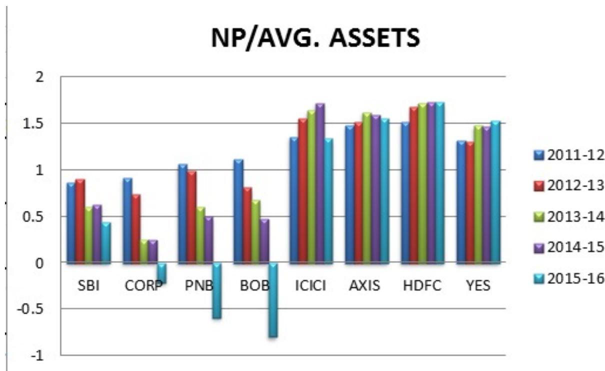
Investing additional funds forms an important part of the banking function along with lending. In the recent past, banks have been criticized for making most of their money from treasury operation and other investment rather than from core lending operation. Even as fee-based operations still account for a minority of the banks' revenues, the share of non-interest income is higher. The ratio of this section, assesses the quality of income in terms of income generated by core activities i.e., income from lending operations. This segment contains the following;

Return on Assets: Net Income / Average Assets

This ratio measures return on assets employed or the efficiency in utilization of the assets. It is arrived at by dividing the Net Income by Average Assets, which is the average of total assets in the current year and previous year.

The profitability of the firm is measured by establishing relation of net profit with the total assets of the organization. This indicates the efficiency of utilization of assets in generating.

Years	SBI	CORP	PNB	BOB	ICICI	AXIS	HDFC	YES
2011-12	0.87	0.92	1.06	1.11	1.36	1.48	1.52	1.32
2012-13	0.90	0.74	0.99	0.81	1.55	1.52	1.68	1.31
2013-14	0.60	0.25	0.60	0.68	1.64	1.62	1.72	1.48
2014-15	0.63	0.25	0.50	0.47	1.72	1.59	1.73	1.47
2015-16	0.44	-0.21	-0.59	-0.80	1.34	1.56	1.73	1.53



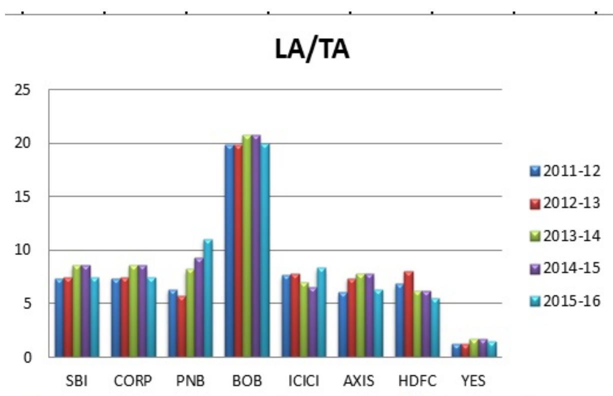
revenue. The HDFC Bank in all years is more able to utilize their assets as effectively, compare with remaining

Banks, which can be seen from the chart and figures arrived on.

5) *L–LIQUIDITY: Liquid Assets / Total Assets*

The business of banking is all about borrowing and lending money. Timely repayment of deposits is of crucial importance to avoid a run on a bank. With co-operative banks going under frequently and with the recent collapse of GTB (Global Trust Bank) investors have become extremely sensitive. They are alert; they rush to the bank to withdraw money at the slightest hint of trouble. In such a scenario, even false rumors could wreak havoc with a bank. Hence, banks have to ensure that they always maintain enough liquidity. Through mandatory Statutory Liquidity Ratio (SLR) and Cash Reserve Ratio (CRR), RBI ensures that banks maintain ample liquidity. In fact, over the last few years banks have been awash with liquidity. It contains the following;

Years	SBI	CORP	PNB	BOB	ICICI	AXIS	HDFC	YES
2011-12	7.33	7.33	6.30	19.84	7.65	6.00	6.81	1.24
2012-13	7.40	7.40	5.67	19.84	7.72	7.37	8.05	1.24
2013-14	8.54	8.54	8.22	20.75	6.98	7.81	6.15	1.70
2014-15	8.54	8.54	9.27	20.75	6.55	7.81	6.15	1.70
2015-16	7.41	7.41	11.03	19.94	8.31	6.34	5.49	1.48



Liquid assets as a percentage of total assets measures of the liquidity position of the bank to meet the amount of total assets. We have seen in chart that liquidity situation of Bank of Baroda Bank is quite good.

V. FINDINGS AND CONCLUSION

During the last four years, the Indian economy has witnessed a sea change with various economic reforms aimed at globalization. In the process the banking system in India has exhibited remarkable adaptability and resilience in facing the challenges dictated by the market forces. The objective is to make the system competitive and self-sustaining and place it on par with the international standards in terms of operational efficiency while retaining the unique role in accomplishing the socio-economic objectives of the nation.

Capital Adequacy: All Banks have always maintained the healthy and stable margin of ratios in this segment. Then also they are not increasing the debt components in theQir capital structure. Although the banks are able to taps the market and went ahead with their equity offering.

This inherent strength of the banks are evident in their capital structure.

Asset Quality: All banks have continue to maintain the lowest Gross NPAs level, these shows that the asset quality of the banks are too much sound.

Management: From the ratio it can be observed that the management of the all Banks vary widely. Even though there is a decrease in gross profit per employee in some years with the increase in the employee but than also there is great combined effort of employee which has shown the effective and efficient management of all Banks.

Earning Quality: All Banks have increased their investment in total SLR and Non-SLR as per RBI norms. This also shows that effective utilisation of investment is their, as their investment is in risk free securities which help them to concentrate over their lending.

Liquidity: Liquidity shows the ability of the firm to meet its current obligation when they become due for payment. The liquidity position of all Banks is too strong to meet their obligations. All Banks have efficiently maintained their liquidity position for last few years.

Perhaps, more important is the innovative spirit of all Banks that turns challenges into opportunities over the last few years of their performance. These gives the competent and willingness to scale the new height in the years to come.

REFERENCES

[1] Prasad K.V.N.G. Ravinder and D. Maheshwari Reddy (2011), “A CAMELS Model Analysis of Public and Private Sector Banks in India”. Journal of Banking Financial Services and Insurance Research, Vol1(5): Pg. 16-23

[2] Bhattacharyya, A and Sahay, P (1997), “The impact of liberalization on the productive efficiency of Indian commercial banks”. European Journal of Operational Research, vol. 98(2): pg. 250-68.

[3] Bodla, B.S. and Verma, R. (2006), “Evaluating Performance of Banks through CAMELS Model: A Case Study of SBI and ICICI”. The ICFAI Journal of Bank Management, Vol.5(3): pg.49-63.

[4] Chaudhry,Sahila and Singh, Sultan (2012): “Impact of Reforms on the Asset Quality in Indian Banking”, International Journal of Multidisciplinary Vol. 5(2): pg. 17-24

WEBLIOGRAPHY

1. www.axisbank.com
2. www.hdfcbank.com
3. www.icici.com
4. www.yesbank.com
5. www.corp.com
6. www.punjabnationalbank.com
7. www.indianbankingassociation.com
8. www.wikipedia.com
9. www.bankofbaroda.com
10. www.moneycontrol.com
11. www.statebankofindia.com