EVALUATION OF FINANCIAL PERFORMANCE IN SBI AND ITS ASSOCIATE BANKS BY USING *CAMEL* APPROACH

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ABSTRACT

The performance of Indian banking sector is showing a drastic change by entering into next generation called 'Y' generation. These banks have been transforming through the process of evolution and adoption of the new digital business model like social media and online banking through the smartphones. Banking performance is always taken as an effective measure and indicator for the sound economy. In this paper, an attempt has been made to compare the financial performance and soundness of the State Bank of India and its associates from 2011 to 2016 by using CAMEL approach. Under CAMEL analysis technique, there are several parameters, namely, Capital Adequacy, Asset Quality, Management Quality, Earning Quality, and Liquidity. These have been evaluated comparatively to determine the banking performance over diverse conditions. CAMEL ratings reflect the excellent banking conditions and performance of the SBI and its associates during the selected period. There is a need for bank employees to have sufficient knowledge of the rating system, in order to augment the banking growth rate in the positive direction.

Keywords: Banking performance, Basel norms, CACS (Capital Adequacy, Assets Quality, Compliance, Systems and Controls), CAMEL, financial analysis, Public Sector Banks, SBI.

1. INTRODUCTION:

1.1 Role of Banking in economy

Banking sector plays a vital role in economy of each country. It acts as a backbone of national financial system. Indian banking system is set to undergo massive expansion due to several factors including intensive change in evolution of technological process ,focus on cost effectiveness and customer satisfaction.

1.2 CAMEL concept and components

CAMEL rating system was adopted in October 1987 by the National Credit Union

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Administration (NCUA) based in the U.S. It is an internal tool of measuring risk and allocating resources for supervisory purposes. Several parameters have been taken for evaluation. *Capital Adequacy* represents the sound capital base which strengthen the confidence of depositors, *Assets Quality* represents the ratio of gross non-performing loans to total loans, *Management* requires the professional judgment of banks policies and procedures for risk taking strategic plans, *Earning* represents reasonable profit to support asset growth and to build adequate reserves, *Liquidity* represent the fulfillment of the demand of depositors and creditors and *Sensitivity* reflects the degree of changes and its adverse effect on earnings. The scale ranges between 1 to 5, where 1 shows the 'strongest' and 5 shows 'weakest' performance and efficiency, 2 and 3 are considered 'average' performer and those with rating of 4 and 5 are considered 'below average' prformers.

Table 1: CAMEL Analysis Framework

CAMEL	Ratio	Formulas	Explanatory Note
C	Capital Adequacy Ratio	Tier 1 capital +Tier 2 Capital/ Risk Weighted Assets	Tier1(equity reserves+ total share capital- revaluation reserves)+ Tier 2(revaluation reserves +subordinates debts+ hybrid reserves provision for deferred tax+ total loan loss and other reserves)
	Debt Equity Ratio	Total Debt/ Total Shareholder Equity	Total debt(debt or long term debt or total liabilities)
	Assets Ratio	Total Advances/ Total Assets	Total advances includes receivables and total assets excludes the re-valuation assets value
	Government Securities ratio	Government Securities/Total investment	Total investment of government in banks
A	Net NPA to Total Assets	Total Non Performing Assets/Total Assets	Total assets considered net revolution reserves
	Net NPA to Net Advances	Total Non Performing Assets/Total Advances	Net NPA measured as a percentage of net advances
	Total Investment to Total Assets	Total Investment/Total Assets	It affected the banks profitability adversely
	Gross NPA to Net Advances	Percentage change in NPA	Lower ratio better the quality of advances
M	Total Advances to Total Deposits	Total Advances/ Total Deposits	Total deposits include demand deposits, saving deposits, term deposits and deposits of other banks. Total Advances also include the receivables.

	Profit per Employee	Revenue-Operating Expenses/Full time equivalent	Indicates the surplus earned by per employee
	Business per employee	Revenue/Number of employee	Business, per employee relates to the sum of Total Deposits and Total Advances in a particular year
	Return on Net Worth	Net Income/ Shareholder Equity	It shows the utilization of shareholder investments
E	Operating Profit to Average working funds	Operating Profit / Working Funds	Working Fund = Average of total Assets / Liabilities
	Net Profit to Average Assets	Net Profit/Average Assets	Average Assets = Total Assets of previous and current Assets
	Net Interest Margin to Total Assets	Interest Income- Interest expanded on total assets	Interest Income= Dividend Income+ Interest paid in deposits+ Loan from RBI+ Short term loan+ Long term loans
L	Liquid Assets to Demand Deposits	Liquid Assets/Demand Deposits	Liquid assets= cash in hand, balance with RBI+ Balance with other banks(India and abroad)+money at call
	Liquid Assets to Total Deposits	Liquid Assets/ Total Deposits	Total deposit=Demand Deposit+Saving Deposits+Term Deposits+Deposits from

2. LITERATURE REVIEW

Rao and Datta (1998) made an attempt to derive rating based on CAMEL. In their study, based on these five groups (C-A-M-E-L), 21 parameters in all were developed. After deriving separate rating for each parameter, a combined rating was derived for all nationalized banks (19) for the year 1998. The study rated the Corporation Bank as the best followed by the Oriental Bank of Commerce, Bank of Baroda, Dena Bank, Punjab National Bank, etc. The worst rating was found to be of Indian Bank preceded by the UCO Bank, United Bank of India, Syndicate Bank and Vijaya Bank.

Prasuna (2004) analyzed the performance of Indian banks by adopting the CAMEL Model. The performance of 65 banks was studied for the period 2003-04. The author concluded that the competition was tough and consumers benefited from it. Better services quality, innovative products, better bargains are available to the Indian customers. The coming fiscal would prove to be a transition phase of Indian banks, as they would have to align their strategic focus on increasing interest rates

Veni (2004) studied the Capital Adequacy requirement of banks and the measures adopted by them to strengthen their Capital Ratios. The author highlighted that the rating agencies give prominence to Capital Adequacy Ratios of banks while rating the bank's certificate of deposits, fixed deposits and bonds. They normally adopt CAMEL Model for rating banks. Thus, Capital Adequacy is considered as the key element of bank rating.

Satish *et al.* (2005) adopted CAMEL model to assess the performance of Indian banks. The authors analyzed the performance of 55 banks for the year 2004-05, using CAMEL Model. They concluded that the Indian banking system looks sound and Information Technology would help the banking system grow in strength while advancing into future. Banks' Initial Public Offers (IPOs) would be hitting the market to increase their capital and gearing up for the Basel-II norms.

Bodla and Verma (2006), in their paper, authors made an attempt to examine and compare the performance of two largest banks of India - SBI, a public sector bank; and ICICI a private sector bank - through CAMEL Model. They found the then supervision system in banking sector was a substantial improvement over the earlier system in terms of speed, coverage and focus and also the tool employed. Two supervisory rating models based on CAMEL (Capital Adequacy, Assets Quality, Management, Earning, Liquidity, Systems and Controls) and CACS (Capital Adequacy, Assets Quality, Compliance, Systems and Controls) factors for ranking the Indian and foreign banks were done. These models have been worked out on the recommendation of Padamanabhan Working Group (1995). These ratings would enable the RBI (Control Bank) to identify the banks whose conditions warrant special supervision attention.

Sisodiya *et al.* (2008), in their article titled, "*Indian Banking Industry: Sustaining the Growth Momentum*" revealed that the banking sector in India has once again come out with another fiscal of robust performances. The authors ranked banks on the basis of the CAMEL (Capital Adequacy, Assets Quality, Management, Earning and Liquidity) rating. They analyzed 68 banks for the year 2007-08. On the basis of ranking of each measure of CAMEL Model, they selected five banks under following categories: Capital Adequacy winner (PSU banks), Assets Quality winner (Private sector banks), Management Efficiency winner (PSU banks), Earning Quality winner (Private sector banks) and Liquidity winner (PSU banks).

Sangmi and Nazir (2010) have taken two major banks of North India namely, Punjab National Bank and Jammu and Kashmir Bank on the basis of their role and participation in influencing the financial condition of North India. They applied the CAMEL Model on these two banks by taking the Annual Report data from 2001-2005, and found out that both the banks were

financially sound and suitable as far as their capital adequacy, asset quality, management capability and liquidity was concerned.

Mishra and Kumari (2011) selected 12 public and private sector banks on the basis of market capture and measured the efficiency and soundness by CAMEL Model. From the analysis they ranked the banks. They found that HDFC took the lead followed by ICICI and Axis Bank. Bank of Baroda and Punjab National Bank followed the fourth position held by the IDBI and Kotak Mahindra Bank. Public Sector Banks like SBI and Union Bank took the back seat. The Report found that Private Sector Banks are performing better than Public Sector Bank.

Jha and Hui (2012) tried to find out the factors affecting the performance of Nepalese Commercial Banks By using various CAMEL ratios such as Return on Asset (ROA), Return on Equity (ROE), Capital Adequacy Ratio (CAR) etc. As public sector banks have higher total assets compared to joint venture or domestic private banks, their ROA was found higher whereas overall performance of public sector was unsound because ROE and CAR of joint venture and private banks was found superior. The financial performance of public sector banks is being eroded by other factors such as poor management, high overhead cost, political intervention, low quality of collateral etc.

Chaudhary (2014) conducted a study to measure the right performance of public and private sector banks by the use of secondary data collected from annual reports, periodicals, website etc. for the year 2009-2011 and found out that in every aspect private sector bank have has performed better than public sector banks and they are growing at faster pace.

OBJECTIVES OF RESEARCH

- To understand the financial performance of State Bank of India and its associates;
- To describe the CAMEL model of banking and the rating range for the same;
- To analyze the banks performance through CAMEL analysis;
- To suggest for improvement if necessary.

3. HYPOTHESES

Ho1: There is no significant difference between SBI and its associate banks on the basis of Capital Adequacy Ratio from the CAMEL analysis.

Ha1: There is a significant difference between SBI and its associate banks on the basis of Capital Adequacy Ratio from CAMEL analysis.

4. DATA COLLECTION

Secondary data were collected from the Annual Reports, which was published by the RBI.

5. DATA ANALYSIS AND DESCRIPTIONS

CAPITAL ADEQUACY RATIO (CAR) is a measuring tool of a bank's capital. It is expressed as the percentage of a bank's risk weighted exposures. It is also known as Capital-to-Risk Weighted Assets Ratio (CRAR). It is used to protect depositors and promote the stability and efficiency of financial systems around the world. Two types of capital are measured: Tier I capital, which can absorb losses without a bank being required to cease trading, and Tier 2 capital, which can absorb losses in the event of a winding-up and so provides a lesser degree of protection to depositors.

BANKS	Capital Adequacy Ratio –Basel II (as on 31st March of the Year)						Average	Rank
	2011	2012	2013	2014	2015	2016		
State Bank of India (SBI)	11.98	13.86	12.92	12.44	12.00	13.12	12.72	1
State Bank of Bikaner & Jaipur	11.68	13.76	12.16	11.55	11.57	11.06	11.96	4
State Bank of Hyderabad	14.25	13.56	12.36	12.00	11.26	11.62	12.50	2
State Bank of Mysore	13.76	12.55	11.79	11.50	12.02	12.43	12.34	3
State Bank of Patiala	13.41	12.30	10.37	10.38	12.06	11.50	11.67	5
State Bank of Travancore	12.54	11.18	9.44	10.79	10.89	11.60	11.07	6

ANALYSIS AND INTERPRETATION

The State Bank of India and its associate Banks namely State Bank of Bikaner and Jaipur, State Bank of Hyderabad, State Bank of Mysore, State Bank of Patiala and State Bank of Travancore have approximately equal amount of CRAR with 12.72,11.96,12.50,12.34,11.67 and 11.07. It implies that these banks have greater capacity to adapt to the loss if occurs though State Bank of India has highest ranking in CRAR in Basel II. On the other hand State Bank of Travancore has taken the last positions with CRAR at 11.07%, which is the least. So, State Bank of Travancore does not have much capacity to adapt to its losses. All the banks have followed the guidelines of RBI and have maintained the CRAR of 9%.

DEBT EQUITY RATIO This ratio indicates the degree of leverage of a bank. It represents the figure of the proportion of the bank business that is financed through equity and through debt. It is obtained by dividing total borrowings with shareholders' net worth. Higher ratio gives an indication of less protection for the creditors and depositors and its lower ratio represents more security for the creditors and depositors in banks. Investors or lenders and depositors usually prefer low debt-to-equity ratios because their interests are better protected in the event of a business decline. On the basis of this, banks with high debt-to-equity ratios may not be able to attract additional borrowing. The debt to equity ratio is considered a balance sheet ratio because all of the elements are reported on the balance sheet.

Table 2 :Debt Equity Ratio

BANKS	Debt/Equity						Average	Rank
	2011	2012	2013	2014	2015	2016		
State Bank of India (SBI)	5.96	14.08	14.06	14.0	14.02	13.9	12.67	3
State Bank of Bikaner & Jaipur	1.05	15.49	16.36	15.05	15.27	14.67	12.98	4
State Bank of Hyderabad	0.99	1.30	1.61	3.12	2.24	3.37	2.10	1
State Bank of Mysore	0.89	13.71	14.06	16.81	16.45	16.03	12.99	5
State Bank of Patiala	1.24	1.35	1.62	3.17	3.88	3.98	2.54	2
State Bank of Travancore	1.64	20.45	21.39	21.02	18.06	17.28	16.64	6

ANALYSIS AND INTERPRETATION

The State Bank of Hyderabad secures first position in Debt-Equity ratio with 2.10 followed by the State Bank of Patiala with 2.54. The State Bank of India , State Bank of Bikaner and Jaipur, State Bank of Mysore and State Bank of Travancore stands have lower figure with average of 12.67, 12.98, 12.99 and 16.64 times. It means that the creditors and depositors of the State Bank of Hyderabad and the State Bank of Patiala are more secured as they are using less debt in comparison with other four banks, whereas creditors and depositors of the State Bank of Mysore and the State Bank of Bikaner and Jaipur are at higher risk as they are focusing more on debt rather than the shareholder's wealth. The State Bank of Travancore is placed last for the highest risk with Debt-Equity Ratio of 16.64.

ADVANCES– ASSETS-RATIO is a ratio that indicates the relationship between the total advances and total assets in the banks. This ratio expresses bank's aggressiveness in lending process which ultimately produces better profitability. Under this head, a higher ratio indicates the better preference in comparison with a lower one.

Table 3: Advances/ Assets Ratio

BANKS	Advances/ Assets Ratio(%)						Average	Rank
	2011	2012	2013	2014	2015	2016		
State Bank of India (SBI)	61.80	82.03	85.06	85.08	82.04	83.0	79.83	2
State Bank of Bikaner & Jaipur	65.50	81.13	80.76	80.95	80.69	76.48	77.58	3
State Bank of Hyderabad	60.70	58.02	63.43	68.08	67.52	69.12	64.48	6
State Bank of Mysore	65.40	78.77	77.85	77.40	74.97	73.60	74.67	4
State Bank of Patiala	63.30	81.36	88.54	89.84	94.87	65.29	80.53	1
State Bank of Travancore	64.90	77.43	78.27	73.24	71.95	65.18	71.82	5

ANALYSIS AND INTERPRETATION

The State Bank of Patiala has got the highest position in Advances to Assets ratio with

figure of 80.53% followed by the State Bank of India with79.83%. The State Bank of Bikaner and Jaipur , State Bank of Mysore and State Bank of Travancore holds the next positions with figure of 77.58%, 74.67 and 71.85%, respectively. The State Bank of Hyderabad holds the last position with figure of 64.48%. Average figure of all the Banks are approximately same indiating that all the banks have a good lending policy. But, the State Bank of Patiala and the State Bank of India have adopted a better lending policy as compared with other banks because their ratios are much higher, which would definitely increase the profits of the banks.

GOVERNMENT SECURITY TO TOTAL INVESTMET RATIO (%)

This ratio reflects the risk involved in a bank's investment. It is calculated by dividing the amount invested in government securities by total investment. Since government securities are risk-free, higher the proportion of government securities in total investment, lower will be the risk involved in a bank's investment and vice versa. In India, the Central Government issues both, treasury bills and bonds or dated securities while the State Governments issue only bonds or dated securities, which are called the State Development Loans (SDLs). Government securities carry practically no risk of default and, hence, are called risk-free gilt-edged instruments. Government of India also issues savings instruments (Savings Bonds, National Saving Certificates (NSCs), etc.) or special securities (oil bonds, Food Corporation of India bonds, fertilizer bonds, power bonds, etc.). They are, usually not fully tradable and are, therefore, not eligible to be SLR securities.

Table 4: Government Securities to Total Investment Ratio

BANKS	Government Securities/ Total investment						Average	Rank
	2011	2012	2013	2014	2015	2016		
State Bank of India (SBI)	78.05	82.54	77.54	76.36	75.53	77.22	77.87	6
State Bank of Bikaner & Jaipur	97.16	97.00	87.72	93.11	91.84	91.39	93.03	1
State Bank of Hyderabad	81.20	97.90	98.41	92.98	85.10	92.12	91.28	3
State Bank of Mysore	88.34	84.32	86.23	82.44	81.65	93.05	86.00	4
State Bank of Patiala	97.82	94.19	92.84	87.16	84.51	94.69	91.86	2
State Bank of Travancore	80.10	81.06	85.81	84.18	83.88	77.56	82.09	5

ANALYSIS AND INTERPRETATION

Five Banks namely, State Bank of India , State Bank of Bikaner and Jaipur, State Bank of Hyderabad, State Bank of Mysore, State Bank of Patiala and State Bank of Travancore have invested equal amount of money in government securities in proportion to its total investments. It indicates that investments of State Bank of India and its Associates are on safer side. The State Bank of Bikaner and Jaipur secures first position with 93.03% of investments in government securities. On the other hand State Bank of India secures last position with low percentage of

77.86%. This reflects how investments of State Bank of India in debt instruments are at a higher risk in comparison with other five Banks.

COMPOSITE CAPITAL ADEQUACY

Table 5: COMPOSITE CAPITAL ADEQUACY

	Capital Adequacy Ratio		Debt- Equity Ratio		Advances/ Assets Ratio		Government Security ratio to Total Investment		Group Rank	
BANKS	**%**	**Rank**	**%**	**Rank**	**%**	**Rank**	**%**	**Rank**	**Average**	**Rank**
SBI	12.72	1	12.67	3	79.83	2	77.87	6	5.64	4
SBBJ	11.96	4	12.98	4	77.58	3	93.03	1	3.54	5
SBH	12.50	2	2.10	1	64.48	6	91.28	3	5.73	3
SBM	12.34	3	12.99	5	74.67	4	86.00	4	6.20	2
SBP	11.67	5	2.54	2	80.53	1	91.86	2	2.72	6
SBT	11.07	6	16.64	6	71.82	5	82.09	5	7.79	1

ANALYSIS AND INTERPRETATION

On the basis of group averages of five sub-parameters of capital adequacy, SBT was at the top position with group average of 7.79, followed by the SBM (6.20), SBH (5.73), SBI (5.64) and SBBJ (3.54). SBP stood at the last position due to its poor performance in CAR, Advances to assets and also due to less investment in Government Securities.

CONCLUSION

The results of study shows that the State Bank of Travancore is leading in all the aspects of CAMEL followed by the State Bank of Maharashra in Capital Adequacy, Management efficiency and Earning capacity and State Bank of India in Asset Quality, whereas State Bank of India has not performed well according to the study though it holds highest amount of assets and cash reserves. State Bank of Hyderabad has always remained in the middle position. There has been a significant change in the performance of these banks throughout the years. The Associate Banks of SBI have performed really well due to radical change in the banking sector in the recent years.

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