EMPIRICAL STUDY OF CAMEL MODEL AND BALANCE SCORE BOARD WITH SPECIAL REFERENCE TO SBI

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ABSTRACT

Camel model is significant instrument to evaluate the relative financial power of a bank and to propose essential measures to recover the weakness of a bank. This technique of measurement should be supplement by another concept of performance measurement known as Balance Score Board (BSB) to evaluate the long-term prospect of profitability. In this paper, the performance of State Bank of India is examined by the underlying hypotheses of CAMEL and BSB models and the areas of limitations that require attention to ensure a sustainable growth of its performance. Results indicate a positive correlation amongst the BSB perceptions at a statistically significant level and in a progressive way for the SBI bank. Results of the study predominantly highlights that bank have proficient progresses in their selected financial indicators had obviously improved their determinations to the characteristics under the learning and development, internal business process and customer perceptions.

Keywords: CAMEL model, Balance Score Board, State Bank of India, Bank Performance

INTRODUCTION

Banking system occupies an important place in a nation's economy. In 1969, major process of nationalisation was carried out i.e. 14 major commercial banks were nationalized. Second phase of nationalisation was carried out in 1980 with seven more banks. The banking scenario in India is undergoing fast changes in order to keep pace with the international banking practice.

CAMEL (Capital Adequacy, Assets Quality, Management, Earning, and Liquidity) is an internationally accepted tool for evaluating performance and healthy position of the bank. This model aims at achieving the following objectives (i) Evaluation of bank's safety and soundness, (ii) Appraisal of the quality of board and top management, (iii) Ensuring compliance with prudential regulations, (iv) Identifying the areas where corrective action is required to strengthen the bank, (v) Appraisal of soundness of bank's solvency. This

performance measurement technique has an edge over the previous techniques because it measures the management capacity in addition to the financial measurement of performance.

REVIEW OF LITERATURE

Tripathi and Meghani (2014) examined a comparative study on the financial performance of Axis and Kotak Mahindra bank (Private Sector banks). The CAMELS analysis and t-test concluded that there is no significance difference between the Axis and Kotak Mahindra bank's financial performance but the Kotak Mahindra bank performance is considerably less compared with Axis Bank.

Anita Makkar (2013) analysed the financial performance of 37 banks- both public sector and private sector banks. The CAMEL model was used to do such a comparison. The study concluded that on an average, there is no statistically significant difference in the financial performance of the public and private sector banks in India, but still, there is a need for overall improvement in the public sector banks to make their position strong in the competitive market.

Paneer Selvam and Radjaramane, (2012) focused on the performance of the nationalized banks in the context of the Indian economy. The performance is being carried out with the help of certain crucial operational variables of the banks including total business, expenditure, deposits, advances, profits etc. The performance of the nationalized banks followed by private sector banks is found to be higher when compared to SBI and its associates and foreign banks.

Prasad, and Ravinder, (2012) used CAMEL model for 20 nationalized and analyzed the performance of the banks, giving prominence to each constraint. The study concluded Andhra Bank, Bank of Baroda and Punjab & Sindh Bank assimilated topmost positions while the last position was by Central Bank of India.

Subroto Chowdhury (2012) revealed that Indian banking has witnessed reforms since 1991 thus providing it with operative flexibility and formal conversion. The reforms have reinforced the fundamentals of the Indian banking sector. Still added the spirit of the Indian banking sector in surviving financial crisis has proved its stability in doubt.

Namita Rajput and Monika Gupta (2011) analyzed efficiency of public sector banks in post reform period. The Indian banking sector has witnessed a series of reforms since 1991 with the major objective to promote flexibility, operational sovereignty and competition in the system and to improve the banking standards in India to the global best practices. Results display the positive effect better drive of reforms on 20 banks and seven showed a reverse tendency.

Gupta and Kaur (2008) examined the performance of Indian private Sector banks by using CAMEL model and by assigning rating to the top five and bottom five banks. The CAMEL model revealed that HDFC

stayed at its higher position of all private sectors banks in India prospered by the Karur Vysya and the Tamilnad Mercantile Bank.

OBJECTIVES OF THE STUDY

The main objective of the study is

(i) To review the performance of the bank in a broader perspective i.e. to evaluate the bank both from qualitative and quantitative point of view.

(ii) Study the Capital Adequacy, Assets quality, Management efficiency, Earnings quality and Liquidity position of the bank.

(iii) To evaluate the Balance Score Board.

RESEARCH METHODOLOGY

The study attempts to accomplish its objectives using CAMEL model and BSB model. The parameters used are Capital adequacy, Assets quality, Management efficiency, Earnings quality and Liquidity.

CAMEL RATINGS

Aspects Covered	***Ratios Calculated***	***Symbol***
Capital Adequacy	Capital Adequacy Ratio Debt-Equity Ratio Advances to Assets	C
Assets Quality	Net NPAs to Net Advances Total Investments to Total Assets Net NPAs to Total Assets	A
Management Efficiency	Total Advances to Total Deposits Business Per Employee Profit Per Employee	M
Earning Quality	Spread to Total Assets Net Profit to Average Assets Interest Income to Total Income Non-Interest Income to Total Income	E
Liquidity	Liquid Assets to Total Assets Liquid Assets to Demand Deposits Liquid Assets to Total Deposits	L

The **Capital Adequacy** of the banks is evaluated using the following variables:

a) Capital Adequacy Ratio = Tier I + Tier II + Tier III Capital

Risk Weighted Assets

b) Debt-Equity Ratio = Outside Liabilities

Net Worth

c) Advances to Assets Ratio = Total Advances

Total Assets

Assets Quality:

a) Net NPAs to Net Advances Ratio = Net NPAs

Net Advances

b) Total Investments to Total Assets Ratio = Total Investments

Total Assets

c) Net NPAs to Total Assets Ratio = Net NPAs

Total Assets

Management Efficiency:

a) Total Advances to Total Deposits Ratio = Total Advances

Total Deposits

b) Business per Employee Ratio = Total Business

Total Number of Employees

c) Profit per Employee Ratio = Profit After Tax

Total Number of Employees

Earnings Quality:

a) Spread to Total Assets Ratio = Net Interest Margin

Total Assets

b) Net Profit to Average Assets Ratio = Net Profit

Average Assets

c) Interest Income to Total Income Ratio = Interest Income

Total Income

d) Non-Interest Income to Total Income Ratio = Non-Interest Income

Total Income

Liquidity:

a) Liquid Assets to Total Assets Ratio = Liquid Assets / Total Assets

b) Liquid Assets to Demand Deposits Ratio = Liquid Assets / Demand Deposits

c) Liquid Assets to Total Deposits Ratio = Liquid Assets / Total Deposits

The analysis is based on secondary data for which the sources are PROWESS database of CMIE and RBI statistical tables. Various statistical tools used are Mean and Standard Deviation. Mean is the popular measure of representing entire data by one value. Standard deviation measures the absolute dispersion.

BALANCE SCORE BOARD

According to Balanced Score Board, qualitative aspect is an important and unavoidable part of performance measurement. The qualitative aspects of performance came under Customers perspective, Internal Business perspective and Innovation and Learning perspective. As there are no direct tools of performance measurement in these areas, some surrogate measures can be applied for performance measurement.

The analysis is based on primary data for which 50 customers and 70 direct clients of SBI Bank were interviewed. Convenient sampling technique was applied to conduct the survey.

RESULTS AND DISCUSSION

Capital Adequacy

Table 1

Capital Adequacy (%)

Ratios	2012-13	2013-14	2014-15	2015-16	2016-17	Mean	Standard Deviation
Capital adequacy ratio (CAR)	11.88	12.34	13.54	12.97	13.01	12.748	.65
Debt-Equity Ratio	1.29	1.79	1.49	1.45	1.51	1.51	.18
Advances to Assets Ratio	53	59.5	57.7	56.2	58.4	56.96	2.51

Source: Calculated value

Table 1 exhibits the various ratios representing the Capital adequacy of SBI. According to the norms of RBI, bank has to maintain a capital of 9% to the risk weighted assets. The average CAR is 12.75%; this

indicates that the bank has maintained CAR above the prescribed level. The average Debt Equity ratio is 1.51. Lower the ratio better it is for the bank. The average advances to assets ratio is 56.96. The growth rate of SBI is positive.

Assets Quality

Table 2

Assets Quality Ratios (%)

Ratios	2012-13	2013-14	2014-15	2015-16	2016-17	Mean	Standard Deviation
Net NPAs to Net Advances Ratio	1.88	1.56	1.78	1.76	1.81	1.76	.12
Total Investments to Total Assets Ratio	32.89	26.31	26.24	28.59	29.34	28.67	2.44
Net NPAs to Total Assets Ratio	9.94	9.28	.01	9.9	10.23	7.87	3.94

Source: Calculated value

The ratios measuring assets quality of SBI is depicted in Table 2. Lower the assets quality ratios better it is for the bank. The Net NPAs to Net Advances ratio and the Net NPAs to Total Assets ratio shows a declining trend indicates good prospect for the bank. Higher total investments to total assets ratio indicates that the bank has kept a high cushion of investments to guard against NPAs however, this affects its profitability.

Management Efficiency

Table 3

Management Efficiency Ratios (%)

Ratios	2012-13	2013-14	2014-15	2015-16	2016-17	Mean	Standard Deviation
Total Advances to Total Deposits Ratio	68.89	77.46	77.55	73.11	75.36	74.47	3.23
Business Per Employee (in Lakhs)	2.99	3.57	4.56	5.56	5.89	4.51	1.11
Profit Per Employee (in Lakhs)	2	2	4	5	6	4	2

Source: Calculated value

The average Total Advances to Total Deposits Ratio is 74.47%. This ratio indicates the efficiency of management in converting the deposits into high earning advances. The average Business per Employee is 4.51; this ratio has increased from 2.99 in 2005-06 to 5.89 in 2009-10. The average Profit per Employee is 4%. Higher the ratio, higher the efficiency of the management.

Earnings Quality

Table 4

Earnings Quality (%)

Ratios	2012-13	2013-14	2014-15	2015-16	2016-17	Mean	Standard Deviation
Spread to Total Assets Ratio	3	3	3	2	3.4	2.88	.52
Net Profit to Average Assets Ratio	.92	.86	1.04	1.08	1.65	1.11	.28
Interest Income to Total Income Ratio	7.19	7.34	7.32	7.29	7.8	7.4	.21
Non-Interest Income to Total Income Ratio	1.48	1.07	1.3	1.45	1.54	1.4	.17

Source: Calculated value

The various ratios measuring Earnings quality is depicted in table 4. The average Spread to Total Assets ratio is 2.88%. Higher spread indicates the ability of the bank to keep the interest on deposits low and interest on advances high. The average Net Profit to Average Assets ratio is 1.11%. Higher ratio indicates the better income generating capacity of the assets and the efficiency of the management. The average Interest Income to Total Income ratio is 7.4%. The higher ratio of Non-Interest Income to Total Income ratio indicates the increasing proportion of the fee based income. The average Non-Interest Income to Total Income ratio is 1.4%.

Liquidity

Table 5

Liquidity (%)

Ratios	2012-13	2013-14	2014-15	2015-16	2016-17	Mean	Standard Deviation
Liquid Assets to Total Assets Ratio	12.43	13.5	13.62	15.47	14.61	13.93	1.16
Liquid Assets to Demand	100.97	98.15	94.13	113.87	127.32	106.89	13.61

Deposits Ratio							
Liquid Assets to Total Deposits Ratio	15.57	17.56	17.72	20.79	19	18.13	1.93

Source: Calculated value

The liquidity position of SBI is depicted in table 5. The average Liquid Assets to Total Assets ratio 13.93%. The average Liquid Assets to Demand Deposits ratio is 100.89%. The high average indicates the ability of the bank to meet the demand from deposits. The ratio of Liquid Assets to Total Deposits ratio measures the liquidity available to the deposits of a bank. The ratio has decreased from 20.79% in 2008-09 to 19% in 2009-10.

CUSTOMERS PERSPECTIVE

Customer's satisfaction is the prerequisite of the success of a bank since the main job of a bank is to provide service to the customers.

Table 6

Customer's Perspective

(in Percentage)

Variables	**Score**					**Total percentage of respondents**
	1	**2**	**3**	**4**	**5**	
Time taken for encashing a cheque	-	-	12	8	80	100
Co-operation given by the bank in opening account, receiving and transferring remittance, depositing the money	-	-	-	7	93	100
Evaluation time of loan application	-	9	11	13	67	100
Hidden cost in loan granting	-	-	-	4	96	100
Average percentage of respondents	-	4	6	9	81	100

Source: Survey, August 2018

From this table it is observed that 81% respondents were found highly satisfied with the banks activities and the rest 19% were satisfied with some reservations. SBI has a unique blend of development and commercial banking functions and offers full range of banking services to its customers and clients. Considering the needs of the customers and to ensure their full satisfaction, the bank has all traditional products in the name of Current Deposit, Savings Bank Deposit, Short Notice Term Deposit, Fixed Deposit and Bearer Certificate of Deposit. The functions of the bank also include opening of Letters of Credit (L/C) and financing of all types of foreign trade.

INNOVATION AND LEARNING PERSPECTIVE

Innovative business approach and the ability of banks management to capitalize on opportunities arising from changes in domestic market were the main aspects behind the remarkable success of the bank. To face the change in the millennium, the management is preparing a comprehensive perspective plan for product diversification to maintain a competitive edge in the market.

CONCLUSION

Efficient and prudent credit management of SBI makes it a unique institution to hold lower percentage of non-performing loans of 7.87% average. In terms of CAMEL rating the SBI have maintained CAR above the prescribed level of 9%. The Debt-Equity ratio has registered a declining trend and the Advances to Assets ratio is found significant.

The Assets quality ratios indicate better assets quality position. The Management efficiency ratios indicate improvement in the efficiency of the bank. The ratio of Spread to Total Assets, Interest Income to Total Income, and Net Profit to Average Assets and Non-Interest Income to Total Income shows that SBI has performed better.

Bank balanced scorecard application increases not just the profitability of financial institutions but also reinforces other non-financial aspects of its operation. The institution of balanced scorecard can ensure that bank strategy and mission can be accomplished. Performance is a continuous progression, and it entails continuous improvement and development to regulate with the growing demand.

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