Camel Analysis of Selected Banks

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ABSTRACT

This study attempts mainly to measure the financial performance of the two (2) selected banks and to identify whether any significant difference exists in the performance of the selected banks for the period 2021-2022. CAMEL Model has been used to examine the financial strength of the selected banks. Comparative and significant analysis of different parameters of CAMEL. It is found that under the capital adequacy ratio parameter HDFC is the top position, while SBI got lowest rank. Under the asset quality parameter, HDFC held the top rank while SBI held the lowest rank. Under management efficiency parameter, it is observed that top rank taken by SBI and lowest rank taken by HDFC. In terms of earning quality parameter the capability of HDFC got the top rank while SBI was at the lowest position. Under the liquidity parameter HDFC stood on the top position and SBI is on the lowest position. By considering all of the parameters of CAMEL, it is seen that HDFC is the top position assessed by the CAMEL Model compared to other banks under the study because of its strong performance on the Capital Adequacy, Asset Quality, Management and Earnings Ability. HDFC is the first position, respective of SBI. On the other hand, SBI is the lowest position compared to HDFC bank under the study because of its poor performance on the Capital Adequacy, Asset Quality, and Earnings Ability. Therefore, SBI should improve the weaknesses of the mentioned ratios of the CAMEL. Therefore, the policy maker of the related lowest ranking banks should take necessary steps to improve their weaknesses from the findings under the study.

INTRODUCTION

Banking sector is an important component of financial system plays a key role in the economic development of countries and it helps in stimulation of Capital formation, innovation and monetization in addition to facilitation of monetary policy. The financial environment of any economy consists of typically five components, namely: money, financial instruments, financial institutions, rules and regulations and financial markets. Among the various financial institutions, banks are a fundamental component (Dhanabhakyam & Kavitha, 2012). Therefore, Bank system as a vital part of financial systems plays a key role in the economic development of countries (Said & Tumin, 2011, cited in Azizi and Sarkani, 2014). The studies of McKinnon (1973), cited in Misra and Aspal, (2013) emphasized the role of the financial system in economic growth and opined that there is a strong correlation between economic growth and financial system development. The progression of an economy is significantly dependent upon deployment as well as optimum utilization of resources and most importantly operational efficiency of the various sectors. Banking sector helps in stimulation of capital formation, innovation and monetization in addition to facilitation of monetary policy. It is imperative to carefully evaluate and analyse the performance of banks to ensure a healthy financial system and an efficient economy (Gupta, 2014). Sound financial health of a bank is the guarantee not only to its depositors, but is equally significant for the shareholders, employees and the whole economy of a country. As a result to this statement, efforts have been made from time to time, to measure the financial position of each bank and manage it efficiently and effectively (Mohiuddin, 2014). So, assessing bank's performance in the country is of a prime significance (Riazat, 2002, cited in Azizi and Sarkani, 2014). Performance evaluation of the banking sector is an effective measure and indicator to check the soundness of economic activities of an economy (Misra and Aspal, 2013). The bank in particular, is exposed to a variety of risks that are growing more complex now a days (Sundararajan et al., 2002, cited in Dang, 2011). In order to cope with the complexity and a mix of risk exposure to banking system properly, responsibly, beneficially and sustainably, over the past years, the bank regulators have introduced a number of measures to link the regulation of commercial banks to the level of risk and financial viability of these banks.

THE CONCEPT OF CAMEL AND ITS FRAMEWORK

The 'CAMEL' rating is a supervisory rating system originally developed in the U.S. in 1979-80 to classify a Bank's overall position. It is applied to every bank and credit union in the U.S. and also implemented outside the U.S. by various banking supervisory regulators. The uniform financial institution rating system commonly termed to the

acronym 'CAMEL' rating was accepted by the federal financial institution examination council on November 13, 1979 and then afterwards by the national credit union administration in October 1987. The ratings are given based on the ratio analysis of the financial statement. It has proven to be an effective internal supervisory tool for evaluating the soundness of a financial firm, on the basis of identifying those institutions requiring special attention or concern (The United States. Uniform Financial Institutions Rating System 1997, cited in Dang, 2011). Bangladesh Bank introduced CAMEL Rating System in 1993 as an integral part of the Off-site Supervision System.

CAMEL is, basically a ratio-based model for evaluating the performance of banks. It is a model for ranking of the banks. CAMEL is an acronym for the five components of bank safety and soundness:

C-Capital Adequacy

A-Asset Quality

M-Management Soundness

E-Earnings Capacity and

L-Liquidity

In the present study an attempt is made to appraise the financial performance of the selected banks in Bangladesh. The studies based on seventeen ratios relating to CAMEL frameworks which are given below at a glance:

Acronym	Parameters of CAMEL	Ratios of measuring CAMEL parameters
C	Capital Adequacy	Capital Adequacy Ratio Debt- Equity Ratio Total Advance to Asset Ratio Share-Holder's Fund to Total advances Share-Holder's Fund / Total assets Return on Net worth ratio
A	Asset Quality	Gross NPA TO Total assets Net NPA to Total assets Gross NPA to Total advances Net NPA to Total advances Total Investment to Total Assets Ratio (%) Credit deposit ratio
M	Management Soundness	Business per Employee Profit per employee Total expenditure to total income ratio Diversification ratio (%) Total assets turnover ratio (%) Return on equity ratio (%) Return on assets
E	Earnings Capacity	Dividend payout ratio Net interest margin Net profit/total income ratio or Net Profit Margin Net profit to total assets ratio Operating profit / total assets ratio (%) Interest income/total income ratio Growth in profit
L	Liquidity	Liquid assets/ total assets ratio Liquid assets/ total deposit ratio Cash to deposit ratio Current ratio Interest expended to interest earned ratio (%) Total investment to total deposit ratio

The banks received a score of '1' through '5' for each component of CAMEL and a final CAMEL rating representing the composite total of the component CAMEL scores as a measure of the bank's overall condition. The CAMEL system was amended in 1996, when agencies included an additional component 'S' for assessing "market risk sensitivity," resulting in the current 'CAMELS' acronym. Commercial banks incorporated in India are currently rated using the 'CAMELS' model. While foreign banks' branches operating in India are rated using the 'CALCS' model (Capital adequacy, Asset quality, Management, Earnings, Liquidity, and Systems & Control). Currently, each of CAMELS' components is scored on a scale of 1 to100, in ascending order of performance. Each CAMELS element's score is calculated by combining (and applying proportionate weights to) the scores of the numerous sub-parameters that make up the individual CAMELS parameter. Each criterion is given a letter grade from A to D (A-excellent, B-satisfactory, C-unsatisfactory, and D-poor). The composite "CAMELS rating" is calculated by adding the component weights together. Furthermore, poor performance in one or more components lowers the overall composite score.

LITRATURE REVIEW

Mathuva (2009) examined the relationship between Cost Income Ratio (CIR), Capital Adequacy Ratio (CAR) and profitability for the period 1998 to 2007. The study found that capital adequacy had differential impact on the profitability of the bank. Mishra et al (2012) analyzed the performance of 12 public and private sector banks for the period 2000-2011 by using CAMEL approach. It was concluded that private sector banks were growing at faster pace as compared to public sector banks. Union bank and SBI had displayed low economic soundness. **Misra (2013)** assessed the performance and financial soundness of State Bank Group using CAMEL approach. The study concluded that there is a requirement to improve its position in respect to asset quality and capital adequacy. **Erol (2013)** compared the performance of Islamic banks against conventional banks in Turkey during the period of 2001-2009. The results showed that Islamic banks performed better in profitability and asset management ratios compared to conventional banks but slow in sensitivity to market risk criterion. **Rostami (2015)** analyzed the impact of each parameter of CAMELS model on the performance of Iranian banks. Q-Tobin's ratio was used as performance indicator in this study. It was found that there was significant relation between each category of camel model and Q-Tobin's ratio as bank's performance ratio. **Majumdar (2016)** measured the financial performance of 15 banks in Bangladesh for the period 2009-2013. CAMEL model had been used to examine the financial soundness of selected banks. Composite Ranking, average and ANOVA test had been applied to the data. The study concluded that there had been significant difference in the performance of selected banks. The study suggested that banks should take required steps to recover their shortcomings. **Ramya (2017)** analyse the financial performance of State Bank of India for the study period 2012-2016 through the use of CAMEL approach. It was concluded that there is a need to take necessary steps to improve the position of SBI in the context of few parameters i.e., debt-equity, operating profit, and non-interest income to total income. **Singh (2017)** examined the capital adequacy performance of private and public sector banks in India for a period of 2006-2015. The study found that all the banks had sound capital adequacy position except Central Bank of India.

OBJECTIVE OF THE STUDY

The ultimate aim of the present study is to analyze the performance of the selected banking companies by using the CAMEL model and to identify whether any significant difference exists in the performance of the selected banks as assessed by the CAMEL model. In order to achieve this, the study investigates the following:

I. Comparative analysis of capital adequacy of the selected banks;
II. Comparative analysis of asset quality of the selected banks;
III. Comparative analysis of management efficiency of the selected banks;
IV. Comparative analysis of earnings quality of the selected banks;
V. Comparative analysis of liquidity of the selected banks.
VI. Overall performance analysis of the selected banks using CAMEL ratios.

RESEARCH METHODOLOGY

In the preset research study, Banks are selected for sample. Banks are:

1) HDFC BANK
2) SBI BANK
3) Period of Study
4) Data for the last five years i.e

The study is purely an analytical research design as it has relied basically on the secondary sounds of financial information of the selected banks. Other secondary sources such as text books, research articles, and electronic library resources of information are used in this study. Data collected from the annual reports of the selected banks have been tabulated through the computer spreadsheets and only CAMEL Model have been used to examine the financial strength of the selected banks with regard to capital adequacy, asset quality, management efficiency, earning ability and

liquidity. For the comparative analysis, the spreadsheets have been interpreted through the rank, based on average on the sub-parameters of each parameter of CAMEL.

RESULT AND ANALYSIS

The different parameters of CAMEL and various ratios used to measure all the five parameters of CAMEL under the present study are explained below:

Capital Adequacy (C)
Capital Adequacy indicates whether the bank has enough capital to absorb unexpected losses. It is required to maintain depositors' confidence and preventing the bank from going bankrupt (Reddy, 2012). "Meeting statutory minimum capital requirement is the key factor in deciding the capital adequacy, and maintaining an adequate level of capital is a critical element" (The United States Uniform Financial Institutions Rating System 1997) it shows the ability of the firm that liability could be privileged. If there is any loss of loans it will be a great risk for banks to meet the demand of their depositors. Therefore, to prevent the bank from failure, it is necessary to maintain a significant level of capital adequacy (Chen, 2003). As per regulatory norms, Indian scheduled commercial banks are required to maintain a CAR of 9% while Indian public sector banks are emphasized to maintain a CAR of 12%.

Table 1: Capital Adequacy of selected banks

	HDFC Bank		SBI Bank	
	Mar'2022	Mar'2021	Mar'2022	Mar'2021
CAR	18.90	18.79	13.74	13.74
DE Ratio	7.62	7.57	17.54	17.58
Total Advance to Asset Ratio	66.17	64.85	52.12	51.61
Share-Holder's Fund to Total advances	17.54	17.98	10.94	11.02
Share-Holder's Fund / Total assets	11.61	11.66	5.70	5.69
Return on Net worth ratio	15.39	15.27	12.53	8.89

The above table shows that in term of overall Capital Adequacy HDFC bank has top position. The lowest composite rank represents the good position for the bank. On the other hand, SBI bank has the lowest position in comparison to HDC bank under the study. Capital adequacy highest in case of HDFC bank which is 18.85 and SBI bank has 13.74.

Asset Quality
The quality of assets is an important parameter to examine the degree of financial strength. The primary objective to measure the assets quality is to ascertain the composition of non-performing assets (NPAs) as a percentage of the total assets.

Table 2: Asset Quality of selected banks

	HDFC Bank		SBI Bank	
	Mar'2022	Mar'2021	Mar'2022	Mar'2021
Gross NPA TO Total assets	0.78	0.86	1.80	2.20
Net NPA to Total assets	0.21	0.26	0.44	0.49
Gross NPA to Total advances	1.18	1.33	3.45	4.27
Net NPA to Total advances	0.32	0.33	1.00	2.00
Total Investment to Total Assets Ratio (%)	22.02	25.40	33.14	32.92
Credit deposit ratio	87.79	84.85	68.36	67.30

It is witnessed that assets quality of HDFC bank is much better as compare to SBI bank. SBI bank got second place in assets quality followed by HDFC. Net NPA to Net Advance ratio (Lowest value provide lowest rank) shows that HDFC (0.32) has the better condition with standard deviation 0.14. Where Secured Advance to total Advance depicts that highest value 89.56 obtain by the IndusInd bank and standard deviation value is 2.46. Term loans to Total Advance showed that ICICI have highest value (66.47) with standard deviation 8.05) which is more volatile in comparison to other.

Management Efficiency

Management efficiency is another vital component of the CAMEL model that ensures the survival and growth of a bank. While the other factors of CAMEL model can be quantified easily from current financial statements, management quality is a somewhat indefinable and subjective measure, yet one that is crucial for institutional success. The banking sector reforms reinforce the need to improve productivity of the banks through appropriate measures which aim at reducing the operating cost and improving the profitability of the banks.

Table 3: Managerial Efficiency of selected banks

	HDFC Bank		SBI Bank	
	Mar'2022	Mar'2021	Mar'2022	Mar'2021
Business per Employee	20.68	20.55	28.17	25.30
Profit per employee	0.26	0.26	0.15	0.10
Total expenditure to total income ratio	0.76	0.79	0.78	0.79
Diversification ratio (%)	0.37	0.35	28.06	26.42
Total assets turnover ratio (%)	7.60	8.36	2.37	2.37
Return on equity ratio (%)	15.39	15.27	12.53	8.89
Return ON ASSETS	1.79	1.78	0.51	0.49

Managerial efficiency of HDFC bank is better in comparison to SBI Bank. Return on Equity and business per employee analysis shows that the HDFC banks have highest value 15.39 and 15.27 respectively. HDFC bank has highest Profit per Employee value i.e. 0.26. HDFC bank shows better position in terms of Return on Equity with value of 15.39and 15.27respectively.

Earning Quality

The quality of earnings is crucial criterion that determines the ability of a bank to earn consistently. Basically, it determines the profitability of bank and explains its sustainability and growth in earnings in future context. Banks depend on their strong earning capability to perform the activities such as funding dividends, maintaining adequate capital levels, providing for investment opportunities to for bank for growth, strategies for engaging in new activities and maintaining the competitive outlook.

Table 4: Earning Quality of selected banks

	HDFC Bank		SBI Bank	
	Mar'2022	Mar'2021	Mar'2022	Mar'2021
Dividend payout ratio	39.25	23.25	17.91	15.94
Net interest margin	3.64	3.28	4.79	4.88
Net profit/total income ratio or Net Profit Margin	23.50	21.30	12.32	13.08
Net profit to total assets ratio	1.79	1.78	0.29	0.31
Operating profit / total assets ratio (%)	2.19	1.91	0.40	0.42
Interest income/total income ratio	45.78	44.42	32.87	31.69
Growth in profit	18.78	18.51	4.34	9.95

HDFC bank has top position in term of earning quality and lowest position secured by SBI bank. Net Profit Margin is highest in case of HDFC bank with value of 23.50 and 21.30, lowest in SBI bank with value 12.32 and 13.08. SBI Bank has highest net interest margin and HDFCBank has lowest with value of 4.79 and 4.88 respectively. Operating Profit to Total Assets shows that HDFC has the highest position in term of Non-Interest Income to total assets with value of 2.19 and 1.91 respectively.

Liquidity

Liquidity has a significant impact on financial soundness and it evaluates the operational performance of a bank. It indicates the capacity of a bank to pay its short term debts and face unexpected withdrawals of depositors. Liquidity shows the ability of an organization to convert its assets into cash without any loss. Liquidity of the banks assures the depositors that they can access to their funds whenever need arise and shows the stability and longevity of banks. While too much liquidity has a negative impact on profitability, too little liquidity increases the risk of insolvency.

Table 5: Liquidity Quality of selected banks

	HDFC Bank		SBI Bank	
	Mar'2022	Mar'2021	Mar'2022	Mar'2021
Liquid assets/ total assets ratio	7.36	6.84	8.37	8.96
Liquid assets/ total deposit ratio	9.77	8.95	10.99	11.68
Cash to deposit ratio	7.85	6.83	10.99	11.68
Current ratio	0.05	0.03	0.94	0.94
Interest expended to interest earned ratio (%)	43.63	46.32	0.39	0.36
Total investment to total deposit ratio	29.22	33.24	43.46	42.93

Above table present that liquidity position of SBI bank is much better than HDFC Bank. HDFC bank at the lowest position in term of liquidity. SBI Bank has strong position in case of in case of cash deposit ratio and credit deposit ratio. SBI has highest investment deposit ratio with the value of 43.46 and 42.93.

CONCLUSION

By considering all of the parameters of CAMEL, it is seen that HDFC bank is at the top position as assessed by the CAMEL Model compared to other banks under the study. HDFC bank has strong performance in case of capital adequacy, Asset Quality, and Earnings Ability while it is lag behind in case of Management efficiency and liquidity. On the other side, SBI bank at the lowest position compared to HDFC banks under the study due to its poor performance in the context of Capital Adequacy, Asset Management, Earnings Ability whereas it perform better in case of Management Efficiency and Liquidity. Therefore, SBI bank should improve its position in particular weak areas. Therefore, the policy makers of the related lowest ranking banks should take necessary steps and try to find out solution to improve their weaknesses by using the findings this study.

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