A Comparative Study of Financial Performance of Selected Public Sector Banks in India with Special Reference to Camel Model

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Abstract : ***Banking sector is one of the fastest growing sectors in India. Today's banking sector becoming more complex. The objective of the study is to analyse the Financial Position and Performance of selected public sector banks in India. The study attempts to measure the relative performance of selected public sector banks. CAMEL Model is applied by using ranking method which measures the performance of bank from each of the important parameter like capital adequacy, asset quality, management efficiency, earning quality and liquidity. The study covers four years from the year 2013-14 to 2016-17. The study reveals that Punjab National Bank is at top position in terms of Capital Adequacy. Bank of Baroda was at top position in terms of Asset Quality. In context of Management Efficiency, Union Bank is at top position. In the terms of Earnings Quality and Liquidity, Bank of Baroda is at first position. Composite Performance shows that Bank of Baroda is ranked first among all four sample banks followed by Union Bank and Punjab National Bank. Bank of India is at bottom position in CAMEL ranking.***

Keywords : CAMEL Model, Public Sector Banks, Financial Performance.

INTRODUCTION

Banks are playing important role in the economy in capital formation due to the inherent nature, therefore banks should be given more attention than any other type of economic unit in an economy. Reserve Bank of India recommended supervisory rating model named as CAMEL for rating of Indian commercial Banks and Foreign Banks operating in India to measure the performance of the banks. CAMEL approach is significant tool to assess the relative financial strength of a bank and to suggest necessary measures to improve weaknesses of a bank. In India, RBI adopted CAMEL approach in 1996 followed on the recommendations of Padmanabham Working Group (1995) committee. The Reserve Bank of India has taken several measures since Independence to improve access to affordable financial services through financial education, leveraging technology, and generating awareness. The banking sectors performance is perceived as economic activities of an economy. The banking sector reforms were aimed at making banks more efficient and viable as one who had a role initiating these reforms.

"CAMEL is basically a ratio-based model for evaluating the performance of banks by various ratios. CAMEL is an acronym for five components of bank safety and soundness.

(C) APITAL ADEQUACY
(A) SSETS
(M) ANAGEMENT CAPABILITY
(E) ARNINGS
(L) IQUIDITY

Public Sector banks penetrate every corner of the country and have been extending a helping hand in the growth of the economy. The increased presence of the public sector banks has made the market structure of the banking sector in terms of competitive pricing of services, narrow spreads, and improving the quality of the services. Thus, the present study is necessitated to examine the performance of public sector banks during the period 2013-14 to 2016-17. For the comparative performance, four public sector banks in India are been undertaken for the study.

LITERATURE REVIEW:

Bhayani (2006) analysed the performance of new private sector banks through the help of the CAMEL model. Four leading private sector banks – Industrial Credit & Investment Corporation of India, Housing Development Finance Corporation, Unit Trust of India and Industrial Development Bank of India - had been taken as a sample.

D, Maheshwara Reddy and K.V.N, Prasad (2011) conducted a study to evaluate performance of regional rural banks: An Application of Camel model.

D, Tripathi and K, Meghani (2014) conducted a study to compare 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 slightly less compared with Axis Bank.

Gupta and Kaur (2008) conducted the study with the main objective to assess the performance of Indian Private Sector Banks on the basis of Camel Model and gave rating to top five and bottom five banks. They ranked 20 old and 10 new private sector banks on the basis of CAMEL model. They considered the financial data for the period of five years i.e., from 2003-07.

K, Srinivas and L, Saroja (2013) conducted a study to compare the financial performance of HDFC Bank and ICICI Bank. From the study it is clear that there is no significance difference between the ICICI and HDFC bank's financial performance but we conclude that the ICICI bank performance is slightly less compared with HDFC

K.V.N, Prasad and A.A, Chari (2011) conducted a study to evaluate financial performance of public and private sector banks in India. In this study they compared financial performance of top four banks in India viz., SBI, PNB, ICICI and HDFC and concluded that on overall basis

HDFC rated top most position.

Nurazi and Evans (2005) investigated whether CAMEL(S) ratios could be used to predict bank failure. The results suggested that adequacy ratio, assets quality, management, earnings, liquidity and bank size are statistically significant in explaining bank failure.

Prasuna (2003) analysed 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 better services quality, innovative products and better bargains.

R.C, Dangwal and Reetu Kapoor (2010) conducted a study on financial performance of commercial banks. In this study they compared financial performance of 19 commercial banks with respect to eight parameters and they classified the banks as excellent, good, fair and poor categories.

SCOPE OF THE STUDY:

The present study is undertaken to highlight the comparative on the financial performance of selected public sector banks through CAMEL Model. Through the study, it would come to know the financial position of selected public sector Banks of India.

OBJECTIVES OF THE STUDY:

To Analyse and compare the Financial Position and Performance of selected Public sector Banks by Applying CAMEL Model.

To give recommendation and suggestion for improvement of efficiency in Banks.

RESEARCH DESIGN:

Methodology and Data Collections:

The data collected from secondary data based on analytical research design. The data were collected from the official directory, Indian Banking Association, RBI Bulletins, published Annual Reports of Banks taken from their websites, Magazines and Journals. To evaluate the comparative financial performance of Banks, the study adopted the world-renowned: Capital Adequacy, Asset Quality, Management, Earning Quality and Liquidity (CAMEL) model.

Statistical Tools Used:

- Ratio Analysis
- Average
- Percentage
- Rank

Period of the Study: The study covers a period of Four years from 2013-14 to 2016-17.

Data Analysis: Fourteen financial Ratios has been used to assess the performance of the banks in last four years.

Sampling: Four leading public sector banks are selected i.e. Bank of Baroda, Union bank, Punjab National Bank and Bank of India has been taken as a sample.

C.A.M.E.L. ANALYSIS

1. CAPITAL ADEQUECY:

Capital Adequacy indicates whether the bank has enough capital to absorb unexpected losses. It is required to maintain depositor's confidence and preventing the bank from going bankrupt. It reflects the overall financial position and health of banks and also the ability of management to meet the need of additional capital. The following ratios measure capital adequacy:

1.1 Capital Adequacy Ratio (CAR): Capital adequacy ratio is defined as:

CAR = (Tier 1 Capital + Tier 2 Capital) / Risk weighted Assets

TIER 1 CAPITAL - (Paid up capital + statutory reserves + disclosed free reserves) - (equity investments in subsidiary + intangible assets + current and balance carry forward losses)

TIER 2 CAPITAL – i. Undisclosed Reserves, ii. General Loss reserves, iii. hybrid debt capital instruments and subordinated debts where risk can either be weighted assets (a) or the respective national regulator's minimum total capital requirement. If using risk weighted assets,

CAR = [(T1 + T2) / a] _ 10% percent threshold varies from bank to bank (10% in this case, a common requirement for regulators conforming to the basel accords) is set by the national banking regulator of different countries. But As per the latest RBI norms, the banks should have a CAR of 9 percent.

TABLE 1

CAPITAL ADEQUACY RATIO (%)

	Bank of Baroda	Union Bank	Punjab National Bank	Bank of India
2013-14	**12.28**	**10.89**	**12.11**	**10.21**
2014-15	**12.60**	**10.24**	**12.89**	**11.22**
2015-16	**13.17**	**10.62**	**13.15**	**12.37**
2016-17	**12.24**	**11.79**	**11.98**	**12.62**
AVERAGE	**12.57**	**10.88**	**12.53**	**11.60**
RANK	**1**	**4**	**2**	**3**

Source: Author's compilation from Bank Markets Performance, http://moneycontrol.com

INTERPRETATION:

On the basis of group average of all the four years, Bank of Baroda is at top position with highest CAR (12.57%) followed by Punjab National Bank (12.53%). Union Bank scored last position among the all four banks and that is due to poor performance in maintaining CAR in 2014-15 and 2015-16. However, bank shows improvement in the year 2016-17 (11.79%).

1.2 Debt Equity Ratio: This ratio indicates the bank's financial leverage. This ratio indicates how much of the bank business is financed through debt and how much through equity. It is the proportion of total outside liability to net worth. Higher ratio indicates less protection for the creditors and depositors in the banking system.

TABLE 2

DEBT EQUITY RATIO (%)

	Bank of Baroda	Union Bank	Punjab National Bank	Bank of India
2013-14	**16.30**	**19.04**	**13.51**	**17.13**
2014-15	**15.84**	**19.09**	**13.49**	**17.67**
2015-16	**14.60**	**18.31**	**16.74**	**17.69**
2016-17	**15.06**	**19.93**	**17.10**	**18.24**
AVERAGE	**15.45**	**19.09**	**15.21**	**17.68**
RANK	**2**	**4**	**1**	**3**

Source: Author's compilation from Bank Markets Performance, http://moneycontrol.com

INTERPRETATION:

In the above table total long-term debt and gross net worth of particular bank for each year is taken for computation of ratios. In the above table it is seen that Punjab National Bank is the best performer with least leverage followed by Bank of Baroda. Union Bank is on lowest position due to maintenance of high leverage during the study period. Higher leverage ratio indicates the less protection of creditors and depositors fund and vice-versa.

1.3 Total Advances to Total Assets Ratio:

Advances in Assets is the ratio of the total advances to total assets. This ratio indicates a bank's aggressiveness in lending which ultimately results in better profitability. A higher ratio of advance/deposits (assets) is preferred to a lower one. Total advances also include receivables. The value of total assets excludes the re-valuation of all the assets.

TABLE 3

TOTAL ADVANCES TO TOTAL ASSETS RATIO (%)

	Bank of Baroda	Union Bank	Punjab National Bank	Bank of India
2013-14	**59.71**	**64.80**	**63.68**	**64.46**
2014-15	**59.32**	**66.72**	**63.67**	**64.67**
2015-16	**56.64**	**65.85**	**62.58**	**58.59**
2016-17	**54.53**	**63.19**	**57.85**	**58.28**
AVERAGE	**57.55**	**65.14**	**61.95**	**46.93**
RANK	**4**	**1**	**2**	**3**

Source: Author's compilation from Bank Markets Performance, http://moneycontrol.com

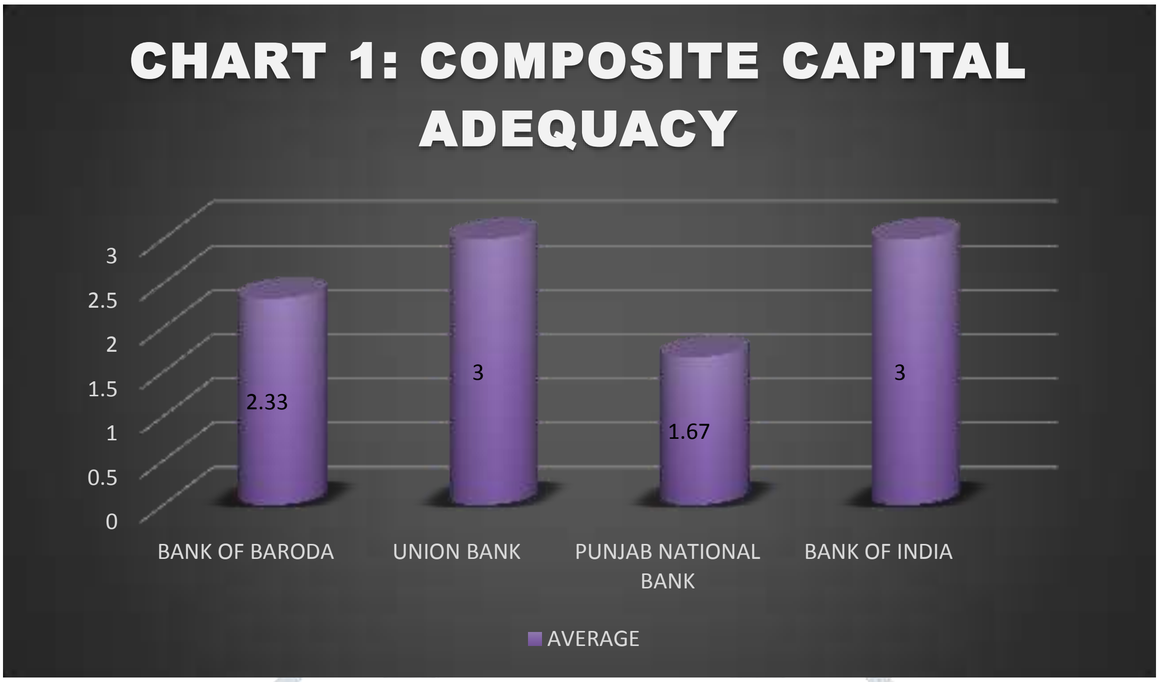
INTERPRETATION:

From the above table it is clear that Union Bank is on the top position with highest average of 65.14 % followed by Punjab National Bank with 61.95%. Bank of India have low score due to low ratio. After a critical study of ledger, it is found that this low rank is due to low investment by banks in government securities. Every public sector bank invests a major portion of their fund in government securities.

1.4 COMPOSITE CAPITAL ADEQUACY

TABLE 4

	Capital Adequacy Ratio		Debt Equity Ratio		Total Advances to Total Assets Ratio		Group Rank (Low rank represents good performance)	
BANKS	%	RANK	TIMES	RANK	%	RANK	AVG	RANK
BOB	12.57	1	15.45	2	57.55	4	2.33	2
UB	10.88	4	19.09	4	65.14	1	3	3.5
PNB	12.53	2	15.21	1	61.95	2	1.67	1
BOI	11.60	3	17.68	3	46.93	3	3	3.5



INTERPRETATION:
On the basis of group average of all the three ratios of Capital Adequacy as expressed in the table 04, Punjab National Bank is at top most position with group average of 1.65, followed by Bank of Baroda with group average of 2.33. Union Bank and Bank of India is the poor performer and got lowest rank. The reason behind poor performance in Capital Adequacy Ratio and Debt Equity Ratio.

2. ASSET QUALITY:
This ratio indicates what types of advances the bank has made to generate interest income. When loans are given to highly rated companies, the rates attracted are lower than that of lower rated doubtful companies. Thus, asset quality indicates the type of debtors of the bank. Banks determine how many of their assets are at financial risk and how much allowance for potential losses they must make.

2.1 Gross NPAs to Gross Advances Ratio:
Gross NPAs are the sum total of all loan assets that are classified as NPAs as per RBI guidelines as on Balance Sheet date. Gross NPA reflects the quality of the loans made by banks. It consists of all the nonstandard assets like as sub-standard, doubtful, and loss assets.

TABLE 5

GROSS NPAs TO GROSS ADVANCES RATIO (%)				
	Bank of Baroda	**Union Bank**	**Punjab National Bank**	**Bank of India**
2013-14	**2.94**	**4.08**	**5.25**	**3.15**
2014-15	**3.72**	**4.96**	**6.55**	**5.39**
2015-16	**9.99**	**8.70**	**12.90**	**13.07**
2016-17	**10.46**	**11.17**	**12.53**	**13.22**
AVERAGE	**6.78**	**7.23**	**9.31**	**8.71**
RANK	**1**	**2**	**4**	**3**
Source: Author's compilation from Bank Markets Performance, http://moneycontrol.com				

INTERPRETATION:
In table 05, Bank of Baroda is on top position with least average of 6.78 followed by Union Bank. Punjab National Bank scored lowest due to highest percentage of 9.31.

2.2 Net NPAs to Net Advances Ratio:
This ratio indicates how good a bank's provisioning practices. Net NPA shows the actual burden of banks. A low score here indicates better performance.

TABLE 6

NET NPAs TO TOTAL ADVANCES RATIO (%)				
	Bank of Baroda	**Union Bank**	**Punjab National Bank**	**Bank of India**
2013-14	**1.52**	**2.33**	**2.85**	**2.00**
2014-15	**1.89**	**2.71**	**4.06**	**3.36**
2015-16	**5.06**	**5.25**	**8.61**	**7.79**
2016-17	**4.72**	**6.57**	**7.81**	**6.90**
AVERAGE	**3.30**	**4.22**	**5.83**	**5.01**
RANK	**1**	**2**	**4**	**3**
Source: Author's compilation from Bank Markets Performance, http://moneycontrol.com				

INTERPRETATION:
In table 06, Bank of Baroda is on top position with least average of 3.30 followed by Union Bank. Punjab National Bank scored lowest due to highest percentage of 5.83.

Net NPAs to Total Assets Ratio:
This ratio indicates the efficiency of the bank by calculating credit risk and to recover the debts.

TABLE 7

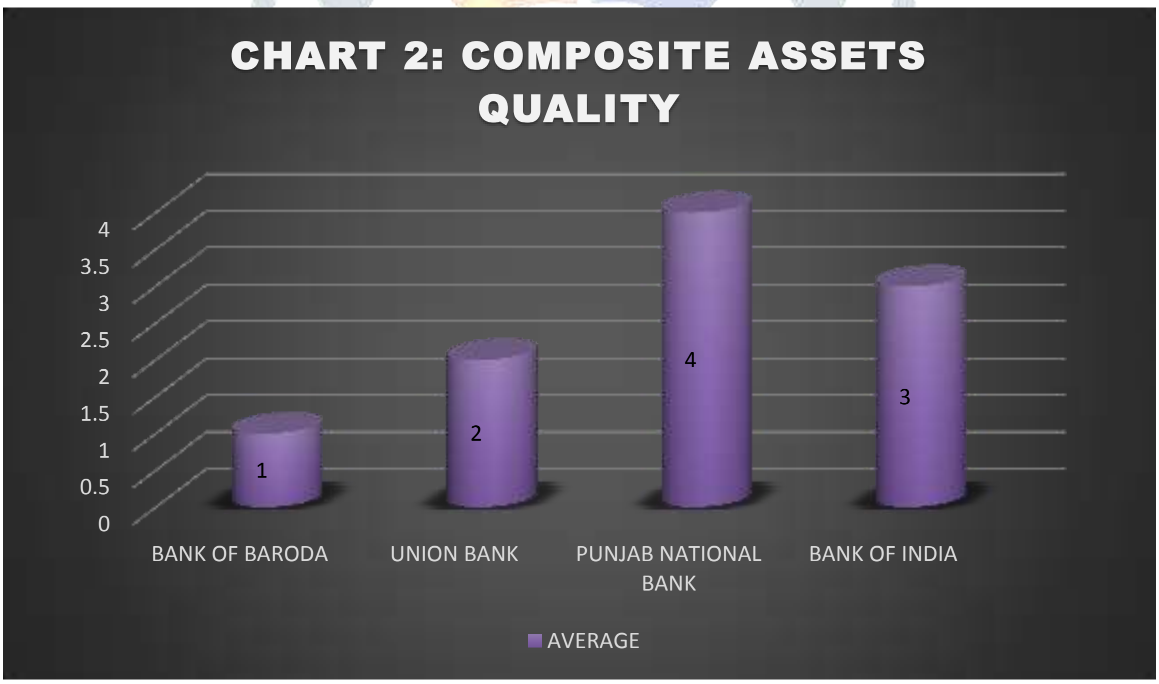
NET NPAs TO TOTAL ASSETS RATIO (%)				
	Bank of Baroda	**Union Bank**	**Punjab National Bank**	**Bank of India**
2013-14	**0.89**	**1.51**	**1.72**	**1.28**
2014-15	**1.10**	**1.80**	**2.42**	**2.16**
2015-16	**2.81**	**3.44**	**4.97**	**4.54**
2016-17	**2.51**	**4.13**	**4.46**	**3.93**
AVERAGE	**1.83**	**2.72**	**3.39**	**2.98**
RANK	**1**	**2**	**4**	**3**
Source: Author's compilation from Bank Markets Performance, http://moneycontrol.com				

INTERPRETATION:
Here in this table 07 Bank of Baroda score at top due to low average followed by Union Bank. Punjab National Bank has scored last due to poor efficiency of bank in the year 2015-16 and 2016-17.

2.4 COMPOSITE ASSETS QUALITY:

TABLE 8

	Gross NPAs to Gross Advances Ratio		Net NPAs to Total Advances Ratio		Net NPAs to Total Assets Ratio		Group Rank (Low rank represents good performance)	
BANKS	%	RANK	%	RANK	%	RANK	AVG	RANK
BOB	6.78	1	3.30	1	1.83	1	1	1
UB	7.23	2	4.22	2	2.72	2	2	2
PNB	9.31	4	5.83	4	3.39	4	4	4
BOI	8.71	3	5.01	3	2.98	3	3	3



INTERPRETATION:
On the basis of composite asset quality Bank of Baroda is the best performer with least average and high score followed by Union bank. The poor performer in composite asset quality is Punjab National Bank due to high score in all the three averages.

3. MANAGEMENT EFFICIENCY:
The bank management efficiency guarantees the growth and survival of a bank. This parameter is used to evaluate management quality so as to assign premium to better quality banks and discount poorly managed ones. It involves analysis of efficiency of management in generating business and in maximizing profits.

3.1 Credit Deposit Ratio:

It indicates the ability of a bank to convert its deposits into higher earning advances. It is the ratio of how much a bank lends out of the deposits it has mobilized.

TABLE 9

CREDIT DEPOSIT RATIO (%)				
	Bank of Baroda	**Union Bank**	**Punjab National Bank**	**Bank of India**
2013-14	**69.39**	**77.89**	**79.78**	**76.97**
2014-15	**69.35**	**78.85**	**78.93**	**76.70**
2015-16	**67.96**	**79.23**	**78.36**	**72.91**
2016-17	**65.10**	**76.80**	**72.52**	**68.96**
AVERAGE	**67.95**	**78.19**	**77.40**	**73.89**
RANK	**4**	**1**	**2**	**3**
Source: Author's compilation from Bank Markets Performance, http://moneycontrol.com				

INTERPRETATION:

From the above table 9 it is clear that Union Bank is on the top position with highest average of 78.19% followed by Punjab National Bank with 77.4%. Bank of Baroda have low score due to low ratio.

3.2 Total Advances to Total deposits Ratio:

This measure narrows the focus to gain a better understanding of a company's ability to generate returns from its available capital base.

TABLE 10

TOTAL ADVANCES TO TOTAL DEPOSITS RATIO (%)				
	Bank of Baroda	**Union Bank**	**Punjab National Bank**	**Bank of India**
2013-14	**0.70**	**0.77**	**0.79**	**0.78**
2014-15	**0.69**	**0.81**	**0.79**	**0.76**
2015-16	**0.67**	**0.78**	**0.78**	**0.70**
2016-17	**0.64**	**0.76**	**0.67**	**0.68**
AVERAGE	**0.68**	**0.78**	**0.76**	**0.73**
RANK	**4**	**1**	**2**	**3**
Source: Author's compilation from Bank Markets Performance, http://moneycontrol.com				

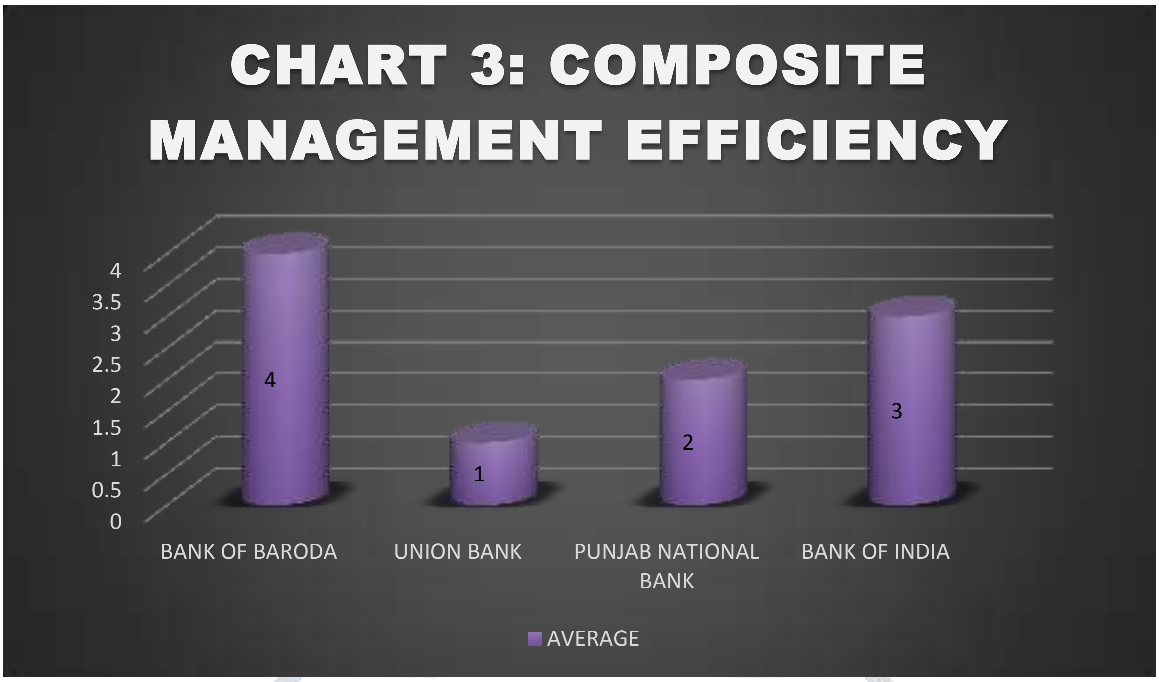
INTERPRETATION:

In the above table 10, Union Bank rank at top position with highest proportion of advances to deposits followed by Punjab National Bank. Bank of Baroda has low score due to low proportion. A high ratio average indicates possibility of high earnings.

3.3 COMPOSITE MANAGEMENT EFFICIENCY:

TABLE 11

	Credit Deposit Ratio		Total Advances to Total Deposits Ratio		Group Rank (Low rank represents good performance)	
BANKS	%	RANK	%	RANK	AVG	RANK
BOB	67.95	4	0.68	4	4	4
UB	78.19	1	0.78	1	1	1
PNB	77.40	2	0.76	2	2	2
BOI	73.89	3	0.73	3	3	3



INTERPRETATION:

Union Bank is at top position due to best performance in both the ratio followed by Punjab National Bank. Bank of Baroda showed poor performance in both the ratios.

4. EARNING QUALITY:

This parameter provide importance on how a bank earns its profits. This also explains the sustainability and growth in earnings in the future. Earning quality represents the quality of a bank's profitability and its capability to maintain quality and earn consistently. This ratio measures the profitability or the operational efficiency of the banks.

4.1 Earnings per share: (EPS)

Earnings per share indicates the return earned per share. This ratio measures the market worth of the shares of the company (Banks). Higher earnings per share shows better future prospects of the Banks. EPS indicates whether the earning power of the bank has increased or not.

TABLE 12

EARNINGS PER SHARE RATIO				
	Bank of Baroda	**Union Bank**	**Punjab National Bank**	**Bank of India**
2013-14	**107.38**	**28.00**	**93.91**	**44.74**
2014-15	**15.83**	**28.10**	**16.91**	**26.57**
2015-16	**(-23.82)**	**20.42**	**(-20.82)**	**(-83.01)**
2016-17	**6**	**8.08**	**6.45**	**(-15.72)**
AVERAGE	**26.35**	**21.15**	**24.11**	**(-6.86)**
RANK	**1**	**3**	**2**	**4**
Source: Author's compilation from Bank Markets Performance, http://moneycontrol.com				

INTERPRETATION:

From the above table 12 it is clear that Bank of Baroda is on the top position with highest average of 26.35 % followed by Punjab National Bank with 24.11%. Bank of India have low score due to low ratio.

4.2 Return on Net worth (RON):

This ratio measures the overall profitability, the operational efficiency and borrowing policy of the enterprise. It indicates the relationship of net profit with capital employed in the business. The primary objective of business is to maximize its earnings and this ratio indicates the extent to which this primary objective of business is being achieved.

TABLE 13

RETURN ON NET WORTH RATIO (%)				
	Bank of Baroda	**Union Bank**	**Punjab National Bank**	**Bank of India**
2013-14	**13.21**	**9.70**	**9.39**	**9.70**
2014-15	**9.30**	**9.50**	**7.98**	**6.18**
2015-16	**(-11.92)**	**6.62**	**(-9.47)**	**(-19.36)**
2016-17	**4.21**	**2.71**	**3.01**	**(-4.60)**
AVERAGE	**3.70**	**7.13**	**2.73**	**(-2.02)**
RANK	**2**	**1**	**3**	**4**
Source: Author's compilation from Bank Markets Performance, http://moneycontrol.com				

INTERPRETATION:
From the above table 13 it is clear that Union Bank is on the top position with highest average of 7.13 % followed by Bank of Baroda with 3.7%. Bank of India have low score due to low ratio.

4.3 Return on Assets:
Higher return on asset means greater returns earned on assets deployed by the bank. This ratio measures the return on assets employed or efficiency in utilization of the assets.

TABLE 14

RETURN ON ASSETS RATIO (%)				
	Bank of Baroda	**Union Bank**	**Punjab National Bank**	**Bank of India**
2013-14	**0.69**	**0.52**	**0.64**	**0.51**
2014-15	**0.48**	**0.49**	**0.53**	**0.27**
2015-16	**(-0.80)**	**0.35**	**(-0.61)**	**0.94**
2016-17	**0.20**	**0.13**	**0.19**	**(-0.24)**
AVERAGE	**0.57**	**0.37**	**0.75**	**1.48**
RANK	**3**	**4**	**2**	**1**
Source: Author's compilation from Bank Markets Performance, http://moneycontrol.com				

INTERPRETATION:
From the above table 14 it is clear that Bank of India is on the top position with highest average of 1.48 % followed by Punjab National Bank with 0.75%. Union Bank have low score due to low ratio.

4.4 COMPOSITE EARNING QUALITY:

TABLE 15

	Earnings per share		Return on Net worth		Return on Assets		Group Rank (Low rank represents good performance)	
BANKS	%	RANK	%	RANK	%	RANK	AVG	RANK
BOB	26.35	1	3.70	2	0.57	3	2	1
UB	21.15	3	7.13	1	0.37	4	2.67	3
PNB	24.11	2	2.73	3	0.75	2	2.33	2
BOI	-6.86	4	-2.02	4	1.48	1	3	4

INTERPRETATION:
On the basis of group performance Bank of Baroda is at top position followed by Punjab National Banks. Bank of India is at bottom position among sample banks due to worse performance in Earnings per share ratio and Return on Net worth ratio.

5. LIQUIDITY RATIOS:
Liquidity is very important for any organization dealing with money. For a bank, Liquidity is a crucial aspect which represents its ability to meet its financial obligations. Liquidity ratios are calculated to measure the short-term financial soundness of the bank. The ratio assesses the capacity of the bank to repay its short-term liability. This ratio is also an effective source to ascertain, whether the working capital has been effectively utilised. Liquidity in the ratio means ability to repay loans. If a bank does not have sufficient liquidity, it may not be in a position

to meet its commitments and thereby may lose its credit worthiness.

5.1 Liquid Assets to Total Assets Ratio:

This ratio indicates the overall liquidity position of the bank. Liquid Assets Can converted into cash in short time with little or no loss in value. Liquid assets include cash in hand, balance with the RBI, balance with other banks (both in India an abroad) and money at call and short notice. Total assets include the revaluations of all the assets.

TABLE 16

LIQUID ASSTES TO TOTAL ASSETS RATIO (%)

	Bank of Baroda	Union Bank	Punjab National Bank	Bank of India
2013-14	19.87	6.60	8.15	10.68
2014-15	20.66	5.89	9.16	12.30
2015-16	19.82	7.27	11.09	16.14
2016-17	21.43	7.22	12.46	15.26
AVERAGE	20.45	26.98	10.22	13.60
RANK	2	1	4	3

Source: Author's compilation from Bank Markets Performance, http://moneycontrol.com

INTERPRETATION:

Here in the above table 16, Union Bank has highest liquidity and thus it scored first followed by Bank of Baroda. Punjab National Bank scored at bottom due to low average liquidity.

5.2 Liquid Assets to Total Deposits:

This ratio measures the liquidity available to the deposits of a bank.

TABLE 17

LIQUID ASSETS TO TOTAL DEPOSITS RATIO (%)

	Bank of Baroda	Union Bank	Punjab National Bank	Bank of India
2013-14	23.16	7.83	10.16	12.90
2014-15	24.07	7.12	11.31	14.40
2015-16	23.35	8.61	13.86	19.29
2016-17	24.97	8.67	14.51	17.79
AVERAGE	23.89	8.06	12.46	16.10
RANK	1	4	3	2

Source: Author's compilation from Bank Markets Performance, http://moneycontrol.com

INTERPRETATION:

Here in the above table 18, Bank of Baroda has highest average followed by Bank of India. Union Bank ranked lowest position due to its lowest average of the study period.

5.3 Liquid Assets to Demand Deposits:

This ratio measures the ability of a bank to meet the demand from deposits in a particular year.

TABLE 18

LIQUID ASSETS TO DEMAND DEPOSITS RATIO (%)

	Bank of Baroda	Union Bank	Punjab National Bank	Bank of India
2013-14	263.59	102.75	144.77	283.78
2014-15	282.32	107.09	168.65	354.82
2015-16	385.43	99.42	208.01	420.80
2016-17	352.38	125.02	194.78	337.83
AVERAGE	320.93	108.57	179.05	349.31
RANK	2	4	3	1

Source: Author's compilation from Bank Markets Performance, http://moneycontrol.com

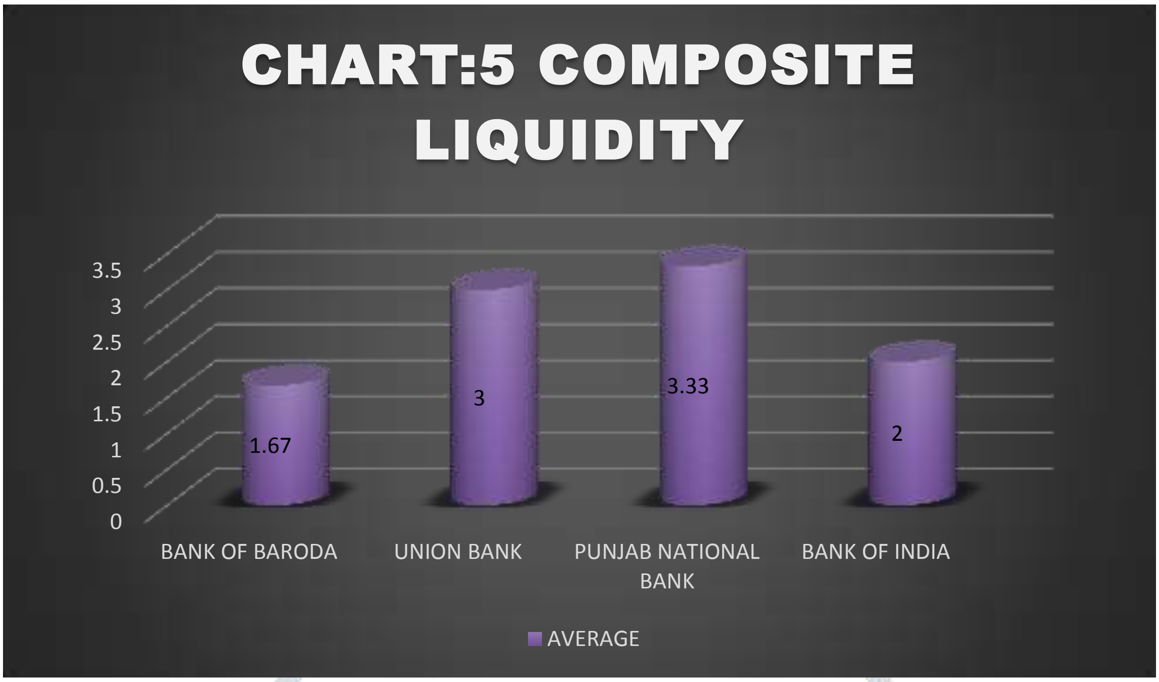
INTERPRETATION:

Bank of India has highest average compare to other banks followed by State Bank of Baroda. Union Bank scored lowest with least ratio.

5.4 COMPOSITE LIQUIDITY:

TABLE 19

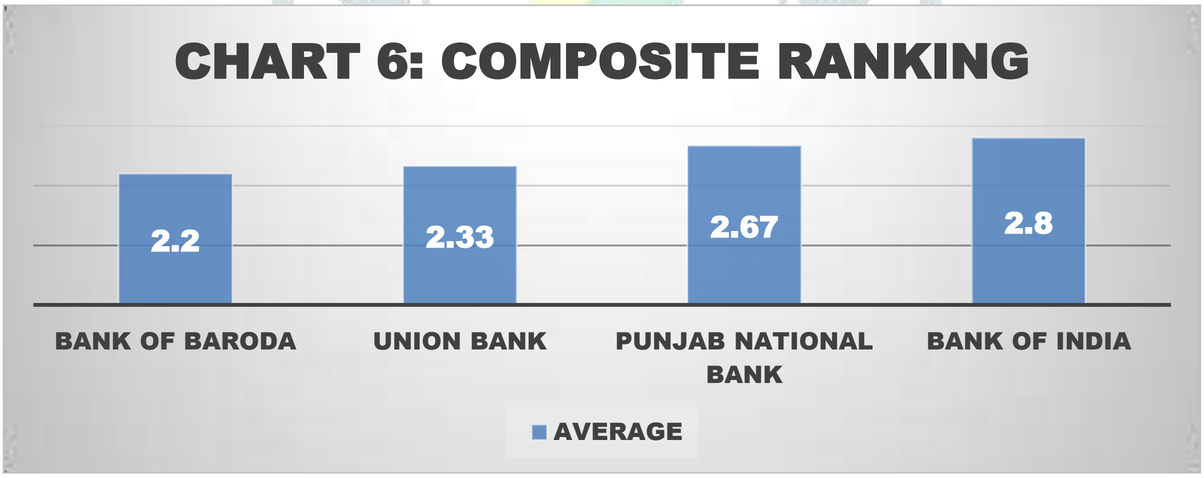
	Liquid Assets to Total Assets		Liquid Assets to Total Deposits		Liquid Assets to Demand Deposits		Group Rank 108.	
BANKS	%	RANK	%	RANK	%	RANK	AVG	RANK
BOB	20.45	2	23.89	1	320.93	2	1.67	1
UB	26.98	1	8.06	4	108.57	4	3	3
PNB	10.22	4	12.46	3	179.05	3	3.33	4
BOI	13.60	3	16.10	2	349.31	1	2	2



INTERPRETATION:
On the basis of group averages of three ratios of liquidity as expressed in table, Bank of Baroda is at the top position with group average of 1.67, followed by Bank of India with average of 2. Punjab National Bank scored the last position with average 3.33 due to its poor performance in Liquid Assets to Total Assets.

TABLE 20: COMPOSITE RANKING (OVERALL PERFORMANCE)
In order to assess the overall performance of Selected four Public Sector Banks, the composite rating and results are presented in the following table:

BANKS	C	A	M	E	L	AVERAGE	Rank (Lower Average, Good Performance)
BOB	2.33	1	4	2	1.67	2.20	1
UB	3	2	1	2.67	3	2.33	2
PNB	1.67	4	2	2.33	3.33	2.67	3
BOI	3	3	3	3	2	2.80	4



INTERPRETATION:
It is clear from the above table 20 that Bank of Baroda is ranked at top position with low average (2.20) followed by Union Bank (2.33) and Bank of India (2.80) was at bottom position among all the four public banks.

SUMMARY OF FINDINGS, CONCLUSIONS AND SUGGESTIONS:
Based on the above analysis, the following are the summary of findings; conclusions and suggestions about the comparative financial performance of the AXIS and KOTAK MAHINDRA bank are drawn:

1) The Composite capital adequacy ratio of Punjab National Bank and Bank of Baroda is more than the Basel Accord norms. We conclude that both the banks are good with respect capital adequacy because it is above the Basel norms.
2) The Composite asset quality of Bank of Baroda is the best with least average and high score followed by Union bank while the poor performer in composite asset quality is Punjab National Bank.
3) In the Composite Management Efficiency, the Union Bank is at top position while Bank of Baroda showed poor performance in both the ratios.

4) In Composite Earning Quality the Bank of Baroda is at top position followed by Punjab National Banks while Bank of India is at bottom position among sample banks due to worse performance in Earnings per share ratio and Return on Net worth ratio.
5) In Composite Liquidity, Bank of Baroda is at the top position followed by Bank of India while Punjab National Bank scored the last position due to its poor performance in Liquid Assets to Total Assets.
6) From Composite Ranking it is cleared that Bank of Baroda is ranked at top position with low average (2.20) followed by Union Bank (2.33) and Bank of India (2.80) was at bottom position among all the four public banks.

CONCLUSION:

The current study on four banks has been conducted to examine the performance of Selected Public sector Banks by using CAMEL Model during the period 2013-14 to 2016-17 (four years). The study reveals that Punjab National Bank is at top position in terms of Capital Adequacy. Bank of Baroda was at top position in terms of Asset Quality. In context of Management Efficiency, Union Bank is at top position. In the terms of Earnings Quality and Liquidity, Bank of Baroda is at first position. Composite Performance shows that Bank of Baroda is ranked first among all four sample banks followed by Union Bank and Punjab National Bank. Bank of India is at bottom position in CAMEL ranking.

LIMITATIONS OF THE STUDY

Here study covers only four financial years from 2013-14 to 2016-17.
The audited data for most of the banks for the year 2017 was not available, so 2017 cannot taken into consideration.
The data is collected exclusively from the financial statements of each banks for different years.
It may be possible that the data shown in the annual reports may be window dressed which does not show the actual position of the banks.
The published data is not uniform and not properly disclosed by the banks.

SCOPE FOR FURTHER RESEARCH

Capital Adequacy ratio (CAR) is a ratio that regulators in the banking system use to watch bank's health, specifically bank's capital to its risk. Regulators in most countries define and monitor CAR to protect depositors, thereby maintaining confidence in the banking system. This research paper and its findings may be of considerable use to banking institutions, policy makers and to academic researchers in the area of banking performance evaluation with special reference to capital adequacy.

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