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PERFORMANCE EVALUATION OF KOTAK BANK AND STATE BANK OF INDIA USING CAMELS MODEL

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Abstract

*CAMELS model is an important tool in assessing the performance of financial institutions mainly Banks. This approach was adopted by RBI in the year 1996 following the recommendations of Padmanabham working committee (1995). This method evaluates parameters like **C**apital Adequacy ratio, **A**sset Quality, **M**anagement Efficiency, **E**arnings, **L**iquidity, and **S**ensitivity. In this study we have selected one commercial bank and one government Bank and evaluated using CAMELS model. The banks were ranked based on their score. The banks under the study are Kotak Mahindra Bank and State Bank of India.*

Keywords: *Capital Adequacy, Asset Quality, Management Efficiency, Earnings Ability, Sensitivity*

1. Introduction

With the liberalization and Economic reforms during early 1990's, there were many private players who entered banking business. These economic reforms aimed at improving competition, productivity, efficiency among the banks and also to make them follow international accounting standards. Since then the banking industry remained the backbone of economy as it pools all the small savings from individuals and pumps it into the capital market thus contributing the development of economy. Indian government's Scheme Pradhan Mantri Jan Dhan Yojana (PMJDY) aimed at making every Indian citizen own a bank account. Recently RBI has even allowed for establishing Payments Banks by framing new guidelines to monitor them. So,it is very important to evaluate the banks every quarter to know how well they are utilizing the governments schemes, and market opportunities and also their performance. So, a method to asses the banks performance was developed by USA, by the name CAMELS which is a 6-Dimensional approach. In this approach the bank is given ratings on a scale of 1 to 5 where 1 being good and 5 being poor.

2. Literature Review

Dr. Srinivasan (2016), have evaluated a total of 41 banks in India using CAMEL model and found the strategically significant difference in scores among private, public and foreign banks. He used the evaluation to rank them and allow for improvement by covering or working on their weaknesses. Karthik (2017), has evaluated 3 Indian Banks (ICICI, HDFC, and AXIS) for the period of 5 years 2012 to 2016 and ranked them along with pointing the risks that might lead them to failure. They found that HDFC bank was having highest operating ratios, and axis bank has the least in every parameter.

Vijay and Shriram (2017), have evaluated 11 commercial banks for a period from 2012 to 2016 and found that Kotak bank and HDFC bank are top 2 commercial banks in India. Their study also evaluated their financial position and soundness. They found that private sector banks have clearly outperformed public sector banks in every parameter of CAMEL model.

Wirnkar and Tanko (2008), Suggested the model to be renamed to CLEAM to reflect the weightage of importance of each factor. Suggested the best Capital adequacy ratio is the ratio of shareholders funds to total risk weighted assets. They also suggested that the best liquidity ratio is the ratio of demand liabilities to total deposits. They also suggested that other than CAMELS model, more research need to be done before judging a bank on its performance.

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3. Objectives

The paper concentrates on the following objectives.

1. To Evaluate the performance of Kotak Mahindra and SBI banks in India.
2. To use the statistical methods, CAMELS Model, and Secondary data.
3. To give recommendation based on their Ratings.

4. Research Methodology

To evaluate the performance of banks, we have selected the simplest and widely accepted framework called CAMELS model. The study is a subjective and gives the relative financial strength of a company when compared to other similar company. The various sub parameters used to evaluate are mentioned in below table.

The data for study is completely secondary data collected from their respective Annual reports.

Table. No. 1 Detailed Description of CAMELS model Components.

Parameter	Ratios	Formulae	Significance	Evaluation Criteria
Capital Adequacy	Capital Risk Adequacy Ratio	(Tier-I + Tier-II)/RWA	It measures the ability of a bank to absorb its losses from its risk assets.	Higher the better
	Debt/Equity Ratio	Total Outside Liabilities/ total assets	It indicates the banks financial leverage	Lower the better
	Coverage Ratio	Total Advance/Total Assets	It indicates the capital availability to meet the loss assets in NPA's	Higher the better
Asset Quality	Net NPA/Net Advance ratio	NPA/Net advance	It indicates the level of NPA in net advance	Lower the better
	Govt. Securities/ investment ratio	Government Securities / Total Investments	It indicates the banks risk appetite in investments.	Higher the better
	Gross NPA/ Net Advances	Gross NPA/ Net Advance	It reflects the quality of advances made by the bank.	Lower the better
Management Efficiency	Total advances / Total Deposit Ratio	Total Advance / Total Deposit	It indicates the banks ability to convert its deposits into higher earning advances	Higher the better
	Asset Turnover ratio	Total Income/ Total Assets	It measures the banks efficiency in using its assets to generate income.	Higher the better
	Business per employee ratio	Total Income/ number of employees.	It measures the banks employee strength.	Higher the better
Earning Ability	Return on Asset	Net Profit after tax / Total Assets	It indicates the returns earned on the assets used.	Higher the better
	Return on Equity	Net income / Avg. Shareholders Equity	It measures the earnings of the shareholders from their investment	Higher the better
	Cost to	Operating expenses	It measures the banks ability	Lower the

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	income ratio	/ Net income	to meet its operating expenses from the income	better
Liquidity	Cash Assets / Total Assets Ratio	Cash Assets/ Total Assets	It measures the cash as a proportion on total assets.	Higher the better
	Liquid assets / Total deposit ratio	Liquid assets/ total deposits	It indicates the bank's ability to meet its deposit obligations.	Higher the better
	Cash to deposit ratio	Total cash / total Deposit	It measures the availability of cash.	Lower the better.
Sensitivity	Demand deposits / deposits	Demand deposits / deposits	It shows the obligations of the bank.	Lower the better

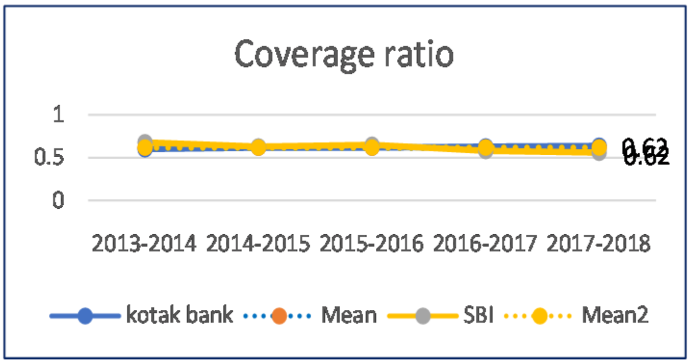
5. Results and Discussions

1. Capital Adequacy Ratios:

	Kotak Bank						**SBI**					
	2013-2014	**2014-2015**	**2015-2016**	**2016-2017**	**2017-2018**	**Average**	**2013-2014**	**2014-2015**	**2015-2016**	**2016-2017**	**2017-2018**	**Average**
CRAR (%)	18.83	17.17	16.34	16.77	18.22	17.47	12.96	12	13.12	13.11	12.6	12.76
Debt Equity Ratio	4.5	4.7	5.4	5.3	4.9	4.96	14	14.2	14.5	13.5	13.4	13.92
Coverage Ratio	0.6	0.62	0.62	0.63	0.64	0.62	0.68	0.63	0.65	0.58	0.56	0.62

Table no. 6.1 source: calculated from respective annual reports 2013-2018

After comparing the last five years data, both the banks have decent capital risk asset ratio. Kotak bank has a little higher CRAR ratio compared to SBI, but the amount of tier I and tier II assets are higher in SBI being a largest government bank in India but risk assets are also higher. The volumes of Tier I and Tier II are higher in SBI than Kotak Bank but the ratios are of Kotak Bank are Dominating those of SBI. So, it is found that both the banks will be able to absorb losses without disturbing the trading operation as well as meeting their liquidation requirements. Both the banks are safer for deposits. The ratios of Kotak Bank are found to have a higher deviation when compared to that of SBI's.



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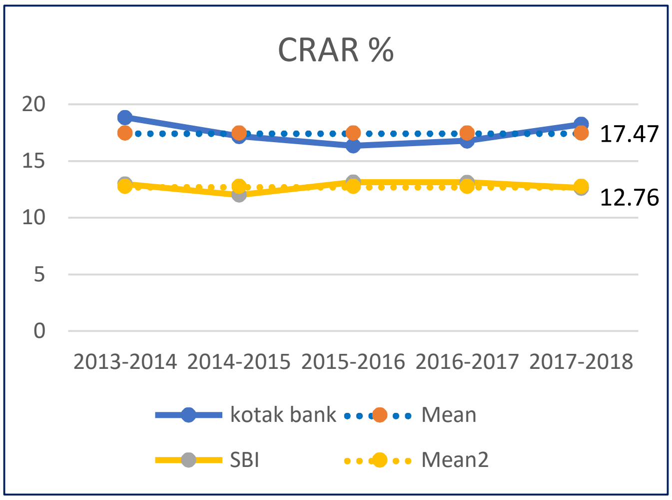
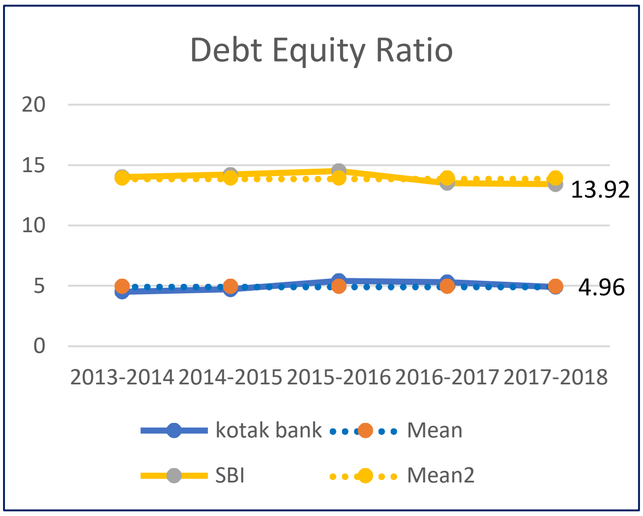
The debt equity ratio is considerably low for Kotak Mahindra Bank, and particularly when compared to SBI, the Debt Equity Ratio of SBI is dangerously High, SBI is aggressively focusing on growth through its risk linked debt assets. But again, the concept of high risk, high rewards apply. Since the assets are managed by debt, the earnings will be high, the bank can pay less taxes, and need not distribute any extra dividends. On the other hand, Kotak Bank is playing safer game with low risk but due to its efforts and it is still earning decent earnings even after paying more taxes and distributing dividends.

In terms of advances to assets, Both the banks are more or less performing uniquely. But in a closer look Kotak Bank is on steady inclination and growth. While SBI is not maintaining a stable ratio. The





advance to asset ratio also proves the aggressiveness of a bank in lending. If an average of last fives data is collected and calculated then both the banks have same average of 0.62.

2. Asset Quality

Table No.2- Asset Quality ratios of Select Banks

	Kotak Bank						**SBI**					
	2013-2014	**2014-2015**	**2015-2016**	**2016-2017**	**2017-2018**	**Average**	**2013-2014**	**2014-2015**	**2015-2016**	**2016-2017**	**2017-2018**	**Average**
Net NPA/Net Advance ratio	0.9	0.8	0.9	1.1	0.9	0.92	2.57	2.12	3.81	3.71	5.73	3.59
Govt. Securities/ investment ratio	0.54	0.59	0.68	0.63	0.69	0.63	0.78	0.77	0.77	0.76	0.8	0.78
Gross NPA/ Net Advances	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.04	0.06	0.07	0.11	0.07

source: calculated from respective annual reports 2013-2018

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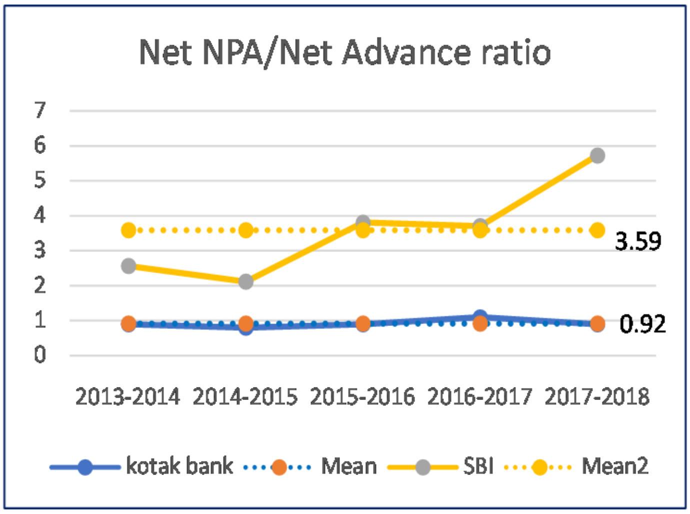

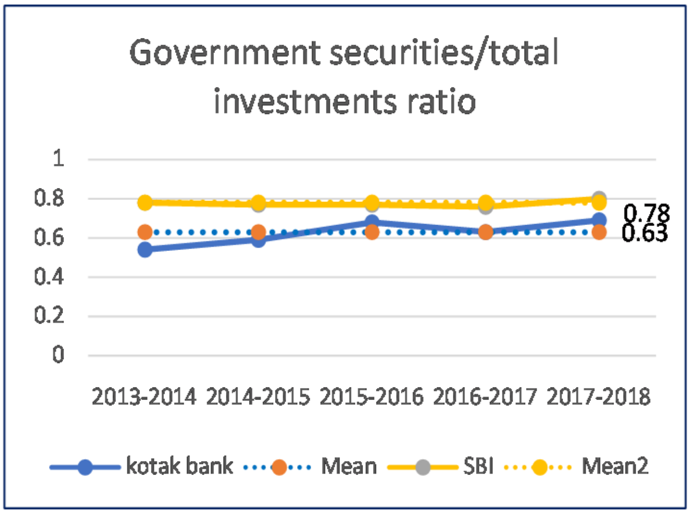

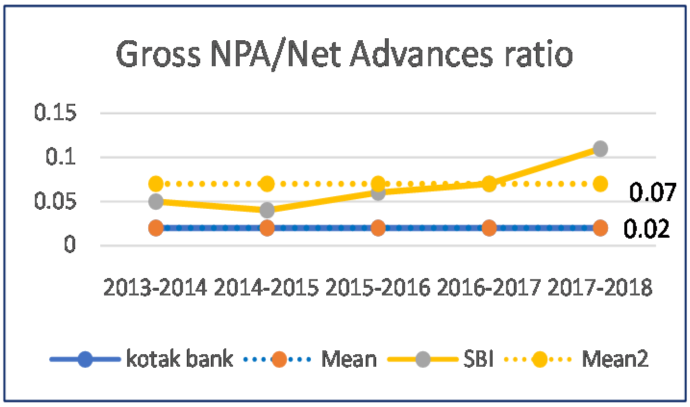

Kotak bank is impressively maintaining a low net NPA to advance ratio which is in fact more or less, being same over the past five years. The average of Kotak bank stood at 0.92. while the NPA to advance ratio of SBI, is high and it has significantly increased in the year 2018, once reason is the recent merger of various state banks in SBI, which added further NPA to its list. One latest trend int eh market is NBFC's buying those NPA's at a discount. Most private banks are selling their NPA's for instant cast. While SBI is not yet heard for selling such NPA's.

SBI has invested more in government securities out of their total investments, so their investments are safer and risk free. On the other hand Kotak bank was having low percent of government securities in 2013-2014 year, having high risk, but they changed their strategies and started shifting to government securities over the span of five years, so both the banks are looking for a safer investments these days. Gross NPA to Net advances ratio trend is almost similar to that of net NPA to advance ratio. As we can clearly observe from the charts, Kotak bank has the lowest and steady values, while SBI has unsteady, and no control over their gross NPA to advance. Kotak bank is clearly better compared to SBI.

3. Management Efficiency

Table no. 3- Management Efficiency Ratios of Select Banks

	Kotak Bank	**SBI**

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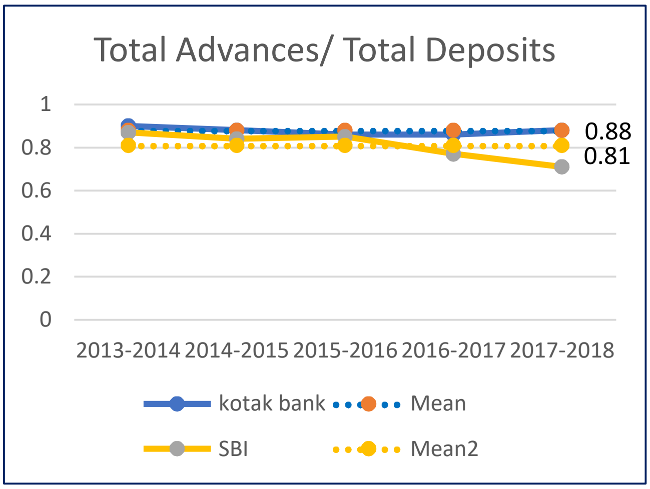
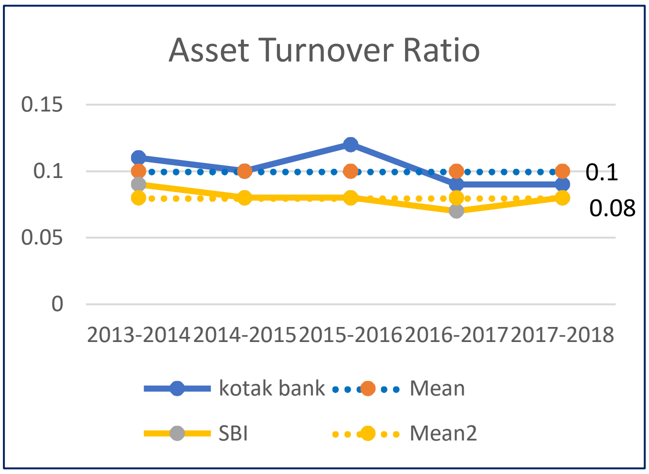
	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	Average	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	Average
Total Advances /Total Deposits	0.9	0.88	0.86	0.86	0.88	0.88	0.87	0.84	0.85	0.77	0.71	0.81
Asset turnover ratio	0.11	0.1	0.12	0.09	0.09	0.1	0.09	0.08	0.08	0.07	0.08	0.08
Business per employee ratio	6.78	7.05	7.51	8.35	9.04	7.75	10.63	12.34	14.11	16.24	16.7	14

source: calculated from respective annual reports 2013-2018

Total advances to total Deposits ratio, it is the managements ability to convert the banks available cash (deposits) into income earning advances (loans). From the data, both the banks have not utilized their funds to the maximum. Which might be impossible. The idle ratio is 0.08 to 0.09. So, both the banks under study are having decent ratios and efficient. Kotak bank has the highest ratio, compared to SBI. Their difference is only 0.07, which looks small, but that's huge if numbers are considered. And moreover SBI, being the Government bank, people trust it more and so they get more deposits that is one reason their deposits are more than advances. The scale at which SBI is operating and their deposits, advances are considerably high when compared to Kotak Bank. So SBI being operating with such large Numbers, it is still being efficient in managing the advance to deposits, is brilliant. So, both the banks have excellent Management efficiency.





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The asset turnover ratio of SBI is poor, the Bank has to efficiently plan and utilize their assets to increase their earnings, the average ratio of last five years is only 0.08, that means the bank is not even equaling its revenue to its asset value. So, the banks management has to put more effort in

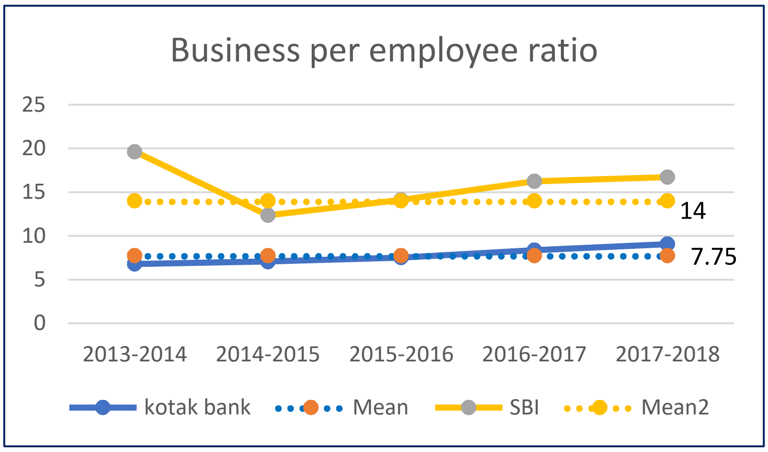
utilizing its true potential. On the other side Kotak bank is comparably performing better and able to generate more revenue with respect to its assets, and because of the merger between Kotak bank and Ing Vysya Bank in 2016, may the banks overall asset turnover ratio has dropped and now has remained constant at 0.09.

Business per employee looks strange in case of Kotak bank, since it being a private player, the business per employee should generally be high and in case of public/ government the ratio is assumed to be low. But the study showed that the SBI has high Business to employee ratio and Kotak bank has less Business to employee ratio. Both the banks are constantly improving their business over the last three years.

4. Earning Ability

Table No.4- Earning Ability Ratios of Select Banks

	Kotak Bank						**SBI**					
	2013-2014	**2014-2015**	**2015-2016**	**2016-2017**	**2017-2018**	**Average**	**2013-2014**	**2014-2015**	**2015-2016**	**2016-2017**	**2017-2018**	**Average**
Return on assets (%)	1.71	1.76	1.08	1.58	1.54	1.53	0.6	0.63	0.42	0.38	-0.18	0.37
Return on equity	12.24	13.19	8.72	12.35	10.89	11.48	9.2	10.2	6.89	6.69	-3.37	5.92
Cost to income ratio	23.38	26.06	27.29	25.16	25.73	25.52	22.2	21.11	20.89	20.94	21.51	21.33
source: calculated from respective annual reports 2013-2018												



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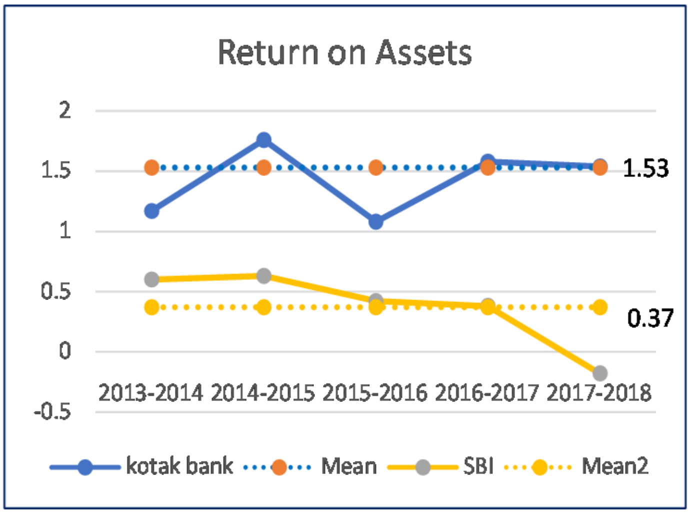

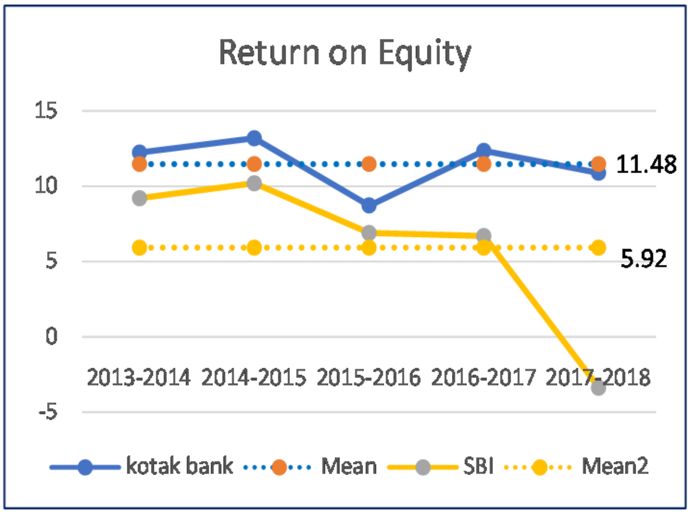

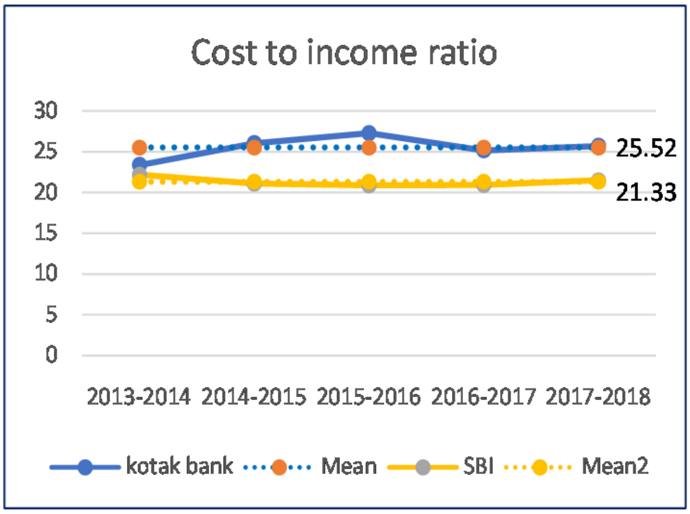

I. RETURN ON ASSETS – After comparing both the banks Kotak bank has more income and less assets and SBI vice versa. Kotak bank has net income more than assets and such income over assets is consistent over the years & in case of SBI has lower return on assets while compared to Kotak & in the year 2017-18 such return on assets decreased drastically which may be due to lower net income or sudden increase of assets. So, Kotak bank is better than SBI due to consistent net income over the years.

II. RETURN ON EQUITY - after comparing both the banks, in 2015-16 of Kotak bank there might be decrease in net income or reduction of equity capital i.e., through issue of fresh equity capital, which as result in sudden fall in return on equity. By last 5 years there is a Increase in net income of Kotak bank. In the year 2015-16 of SBI, there is decrease in net income or issue of fresh equity capital and in the year 2015-16 & 2016-17, there is a consistence in return on equity while in 17-18 sudden decrease in return on equity by more than 9% which might be due to heavy losses. despite of reduction in return on equity, to some extent Kotak bank is better than SBI.

III. COST TO INCOME - Ifthe ratio is less than1, it implies the bank has excess of income over operating expense. First 3 years of Kotak bank, there is a rise in cost to income ratio. in while in SBI there is consistence reduction of cost to income ratio which favorable to the bank. while next two years of Kotak bank there is fall in cost to income ratio due to decrease in operating expenses or increase in net income. then last two years of SBI there is an increase in operating expenses or decrease in net `income. so, SBI is better than Kotak bank due to SBI is maintaining consistence in lower cost to income ratio compared to Kotak bank.

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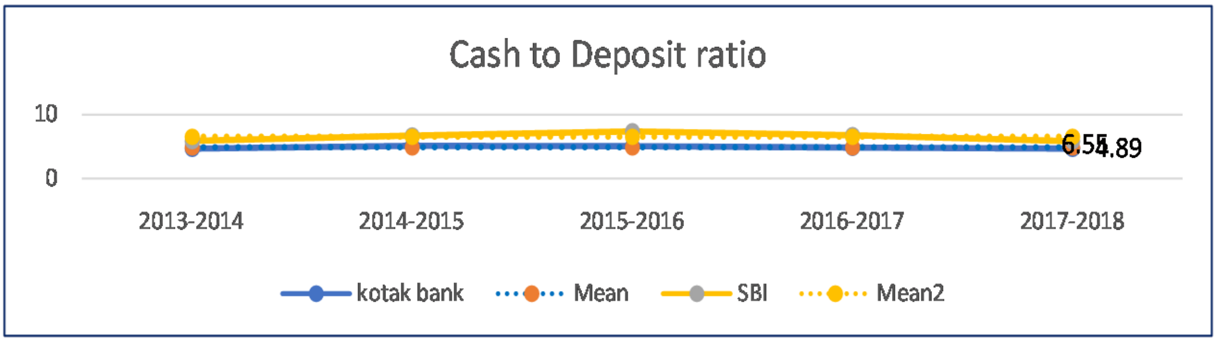


5.Liquidity Ratio

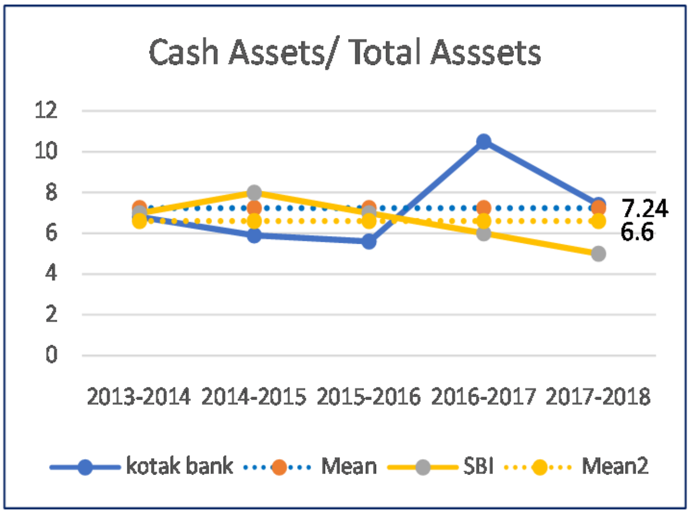
Table No.5 – Liquidity Ratios of Select Banks

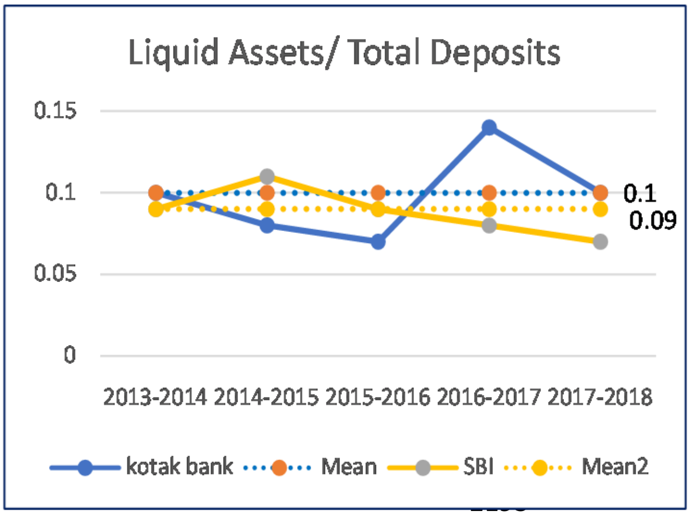
	Kotak Bank						**SBI**					
	2013-2014	**2014-2015**	**2015-2016**	**2016-2017**	**2017-2018**	**Average**	**2013-2014**	**2014-2015**	**2015-2016**	**2016-2017**	**2017-2018**	**Average**
Cash assets/ total assets	6.8	5.9	5.6	10.5	7.4	7.24	7	8	7	6	5	6.6
Liquid assets/ total deposits	0.1	0.08	0.07	0.14	0.1	0.1	0.09	0.11	0.09	0.08	0.07	0.09
Cash to deposit ratio	4.68	5.13	5.07	4.86	4.69	4.89	5.89	6.76	7.42	6.82	5.86	6.55

source: calculated from respective annual reports 2013-2018

Cash assets / total assets -

Kotak bank has high cash assets, it means they will be quickly able to meet their liquidity requirements. And in the year 2016-2017, we can observe there is a sudden increase to 10.5 that is because of the merger with Ing-Vysya Bank, so they got adequate cash assets. On the other side, SBI





has low ratio comparably, but the unseen perspective is the that the idle cash will not make any money, so SBI is managing its cash effectively. But as per theory definitions Kotak bank is better since it will be able to meet its liquidity requirements with ease.

Liquid assets / Total deposits –

Both Kotak bank and SBI has fewer liquid assets which are not adequate to pay off its total deposits. IN the last 5 years data of Kotak bank there is are fluctuations in ratio. But SBI has consistent decrease in last 3 years. So. Kotak bank is more favorable than SBI

Cash to deposit Ratio -

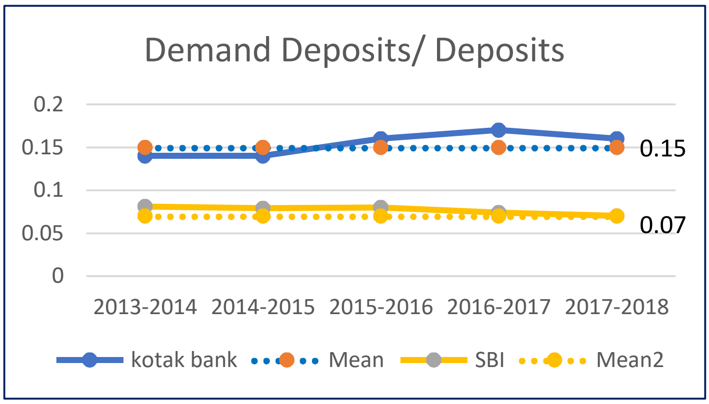
Over the period of 5 years Kotak bank-maintained Cash to deposit Ratio of 4-5% but SBI has maintained consistent Cash to deposit Ratio of 5-6% due to adequate maintenance of cash. so, SBI is more preferable in this case than Kotak bank.

6. Sensitivity Ratios:

Table No.6: Sensitivity Ratios of Select Banks

	Kotak Bank						SBI					
	2013-2014	**2014-2015**	**2015-2016**	**2016-2017**	**2017-2018**	**Average**	**2013-2014**	**2014-2015**	**2015-2016**	**2016-2017**	**2017-2018**	**Average**
Demand deposits/ deposits	0.14	0.14	0.16	0.17	0.16	0.15	0.081	0.079	0.080	0.074	0.070	0.07

Table no.6.6 source: calculated from respective annual reports 2013-2018



The demand deposits to deposit ratio is very low for both the banks. SBI is having lowest among the two banks, it only indicates that the bank has lowest obligation when compared to Kotak Bank.

7. Overall Ranking

Table-7: Overall Comparative Analysis of Select Banks

		Kotak Bank		SBI	
		Average	**Rank**	**Average**	**rank**
Capital Adequacy	CRAR (%)	17.47	I	12.76	II

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ratio	Debt Equity Ratio	4.96	I	13.92	II
	Coverage Ratio	0.62	Tie	0.62	Tie
Asset Quality	Net NPA/Net Advance ratio	0.92	I	3.59	II
	Govt. Securities/ investment ratio	0.63	II	0.78	I
	Gross NPA/ Net Advances	0.02	I	0.07	II
Management Efficiency	Total Advances /Total Deposits	0.88	I	0.81	II
	Asset turnover ratio	0.1	I	0.08	II
	Business per employee ratio	7.75	II	14	I
Earnings ability	Return on assets (%)	1.53	I	0.37	II
	Return on equity (%)	11.48	I	5.92	II
	Cost to income ratio	25.52	II	21.33	I
Liquidity Ratio	Cash assets/ total assets (%)	7.24	I	6.6	II
	Liquid assets/ total deposits	0.1	I	0.09	II
	Cash to deposit ratio	4.89	I	6.55	II
Sensitivity Ratios	Demand deposits/ deposits	0.15	II	0.07	I

Table no. 6.7

6. Conclusions

CAMELS model is a very useful too in evaluating the banks performance. It helped us identify the banks weakness and areas of improvement. From the study Kotak bank is found to be highly efficient in maintaining capital adequacy, the quality of assets is also good, management efficiency is also good but should work on business per employee. The earnings are also high in Kotak bank. So, to conclude, Kotak bank has performed well as of now. While SBI is avoiding all risk and playing it safe with all other ratios being maintaining at moderate levels.

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