Performance Analysis of Indian Banks – A comparative study of Commercial Bank and Urban Cooperative Bank

[1]Prof. M. Guruprasad, [2]Mr. Pallav Kumar Goel, [3]Mr. Akarsh Kumar, [4]Mr. Ashish Jain

[1]Director Research, Head General Management, [2,3,4]Student (PGDM), Universal Business School, Karjat, India. [1]mguruprasad@ubs.org.in, [2]pallav.goel@ubs.org.in, [3]akarsh.kumar@ubs.org.in, [4]ashish.jain@ubs.org.in

ABSTRACT - Since the start of economic reforms, the banking sectors in India has undergone a lot of churn both in terms of competition and regulation. The Government of India took many initiatives to reform the Cooperative Banking Sector. These Banks must adhere to the various risk management norms of the Government. Thus, the basic intention of this paper was to understand the preparedness of Indian banks and in specific Urban Cooperative Banks (UCB's) in the context of economic reforms, recent policy developments. Hence, we tried to evaluate the performance of selected banks form the Urban Cooperative and a commercial bank. Evaluation of performance of banking sector is one of the most effective measure as well as indicator in order to evaluate the soundness of any economy. We did the analysis through the CAMEL analysis for the selected banks namely of AXIS and NKGSB bank for the period of 2015-16 to 2017-18 and are rated accordingly. The result of this research study indicates that the banks have been progressive, but in the wake of any crisis in the financial system or stronger regulations, it might be difficult for these banks to sustain their performance.

Keywords: Axis Bank, CAMEL Analysis, NKGSB, Overall Analysis, Performance Analysis, Urban Cooperative Bank

I. INTRODUCTION

The growth of Indian economy thrived with the era of LPG reforms in India. Financial sector and banking system were particularly the most vital sectors for development of any country. A sound and effective banking system is crucial for managed and accelerated economic growth. Proper supervision over this sector ensures the proper economic growth. Financial sector thus enhanced the structural changes in the real economy reflecting a paradigm shift towards augmented market orientation. The policy environment changes related to the operations of the banking system of both state and central governments directly and indirectly affect the performance of Indian Banking System. Reserve Bank of India (RBI) implemented Basel I norms from 1992 onwards which was followed by Basel II and Basel III. Thus, the banking sector was ushered in the era of both economic reforms in India and the emerging global regulations (Basel) in the nineties. The basic forte of UCBs lies in its dual capacity as a local grassroots initiative and as a local financial intermediary. The Indian economic reform process starts with the banking industry along with urban cooperative banking sector. The major policy developments of UCBs have been effective from the year 1992–1993, i.e. post LPG. Since the inception of the economic reforms, the Government of India has undertaken many initiatives to reform the Cooperative Banking Sector. To stay competitive, productive, processing volume of information and adhering to various risk management norms of the Government. The basic premise of this paper is to understand the context of economic reforms, recent policy developments both national and global regulations such as BASEL norms with specific to Urban Cooperative Banks UCBs.

II. OBJECTIVES OF THE STUDY

1. To compare and analyse the performance between the selected Urban cooperative bank and a scheduled commercial bank.

III. LITERATURE REVIEW

Misra and Aspal (2013) [1] studied the performance and financial soundness of State bank group comprising of State bank of India, State bank of Hyderabad, State bank of Patiala, State bank of Mysore, State bank of Bikaner and Jaipur and State bank of Travancore for three years i.e. from 2009-2011.One way ANOVA is applied to find whether significant difference exists between the means of CAMEL ratio. They found that State bank of India needs to focus on Capital adequacy and asset quality while State bank of Bikaner and Jaipur and state bank of Patiala need to

focus on improving management efficiency and earning quality, respectively.

Gupta (2014) [2] analyses the performance of public sector banks in India using CAMEL approach for five years from 2009 to 2013 and found that Andhra Bank stood at first rank followed by Bank of Baroda and state bank of Hyderabad while United bank of India secured the last rank.

Singh (2015) [3] evaluates the overall profitability of four private sector banks i.e. AXIS Bank, ICICI bank, Karur Vysya Bank and Yes Bank. He measured the performance of the banks based on profitability ratios like interest spread, return on long term funds, net profit margin, adjusted cash margin, return on assets and return on net worth. He also applied ANOVA to find out the significant relationship between interest spread, return on long term funds, net profit margin, adjusted cash margin, return on assets and return on net worth among selected private sector banks.

In a study, conducted by Srinivasan and Saminathan (2016) [4], applied the CAMEL model to position the public sector, private sector and foreign banks on the basis of financial performance from 2012 to 2014.They discovered that there is a significant difference between the mean values of Camel ratios of public sector, private sector and foreign banks during the period of study.

Purohit and Bothra (2018) [5], in their study on performance of SBI and ICICI Bank using CAMEL model, found that ICICI bank needs to enhance its position in capital adequacy and asset quality while SBI needs to enhance its position in management efficiency, earning quality and liquidity.

A Study on Financial Performance of Commercial Banks in India: Application of Camel Model, Rohit Bansal and Anoop Mohanty (2013) [6] did analysis of 5 banks (Axis bank, Kotak Mahindra bank, HDFC bank, State Bank of India and ICICI bank for the period of 5 years i.e. from 2007 to 2012) and used CAMEL Model to determine the various ratios. From the weighted results of ratios and based on the overall performance, the banks are ranked as follows: HDFC bank is rated 1st, SBI as 2nd, Kotak Mahindra as 3rd, ICICI Bank as 4th and Axis Bank as 5th.

In a Study, Performance of Public sector banks in India using the CAMEL model conducted by Hare Krishna Karri, Kishore Meghani & Bharti Meghani Mishra (2015) [7}, found that Bank of Baroda is performing better than the Punjab national bank.

In a study conducted by Jaspreet Kaur, Manpreet Kaur and Dr. Simranjit Singh (2015) [8] on Performance of prime public sector banks using the CAMEL. The banks which are taken for study are Bank of Baroda, State Bank of India, Punjab National Bank, Bank of India, and Canara Bank from 2009 to 2014. There are many facets used to evaluate the working of banks by using regression analysis, weighted average cost of capital,and the CAMEL model.

Bank of Baroda was ranked first in CAMEL analysis. Punjab National Bank leads into Capital adequacy, Management efficiency and Earning capacity. Bank of India was at top in Asset Quality.

In a research conducted by G. L. Meena (2016) [9] on Financial Analysis of selected banks using CAMEL approach, they found that the four major dependent factors such as debt-equity ratio, earnings per employee, total assets to total deposits ratio, net non-performing assets to total advances ratio affects the financial operation of the banks while, the return on assets as an independent variable.

Jagjeet Kaur, Dr. Harsh Vineet Kaur (2016) [10] conducted a study on public sector bank's performance from 2004 to 2014 using CAMEL model. The findings of the study is that the first rank is occupied by Bank of Baroda, second by Punjab National Bank and last rank by Central Bank of India. Bank of Baroda and Punjab National bank were more steady banks. Canara bank & SBI were average performer. Union Bank, Bank of India, Syndicate Bank & CBI have given below average performance.

Muralidhara P. and Chokka Lingam (2017) [11] studied five nationalized banks to find the economic performance using the CAMEL model for a period of 10 years i.e. from 2006 and 2016. The study concluded that the Central Bank of India is at first place in three parameters.

M. Guruprasad(2011) [12] found that adapting to Basel norms has been demanding for some institutions than for others, based on factors including current risk management practices, business size, geographical spread, risk types, specific business, portfolio, and market conditions and implementation of Basel norms is likely to improve the risk management systems of banks as the banks aim for adequate capitalization to meet the underlying credit risks and strengthen the overall financial system of the country

An attempt was mad e by Dr.Vaidehi Daptardar and M.Guruprasad (2018) [13] to comprehend the trend in these key parameters with respect to Urban Cooperative Banks in recent times in general and a few selected in particular in post economic reform period after initiation of Basel norms. This study is done to analyse the performance of UCBs and with selected Scheduled Urban Cooperative Banks which are in existence for three decades and more. This study discovered that many UCBs at the National level and the selected UCBs have kept up with the proposed national and the Basel norms. The suggestions given by author is that there is an urgent need for policy for improving financial health of Grade III and IV UCBs and its high time to implement the concept of Umbrella organization mooted by the RBI committees.

IV. RESEARCH METHODOLOGY

The study of performance of banks were analysed based on a comparative analysis of a representative sample of banks

from the UCB's and a commercial bank consisting of one bank from each segment.

It is important to understand that in the said period, there has been a lot of churning in the Indian Banking Sector. With increase in competition one side and slowdown in key sectors of economy on the other side, the profitability of many banks declined with an increment in their Non-performing Assets (NPA's). Along with this, the banks are needed to adhere to the regulatory norms set up by the Reserve Bank of India (RBI) and international benchmarks requirements prescribed by the BASEL norms. Hence, the pressure on the Banks to perform is very high. So, it is important to understand the health of Banks in this juncture and understand their sustainability. There are various financial tools to measure the performance of the banks. One of the most important tools is the CAMEL model which lays emphasis on all the aspects of the performance measurement. Hence, we choose to use this model for our analysis.

The analysis is done with the help of the CAMEL model. The study was done for a period 2015 to 2018. The source of data was secondary data based on the information provided in the respective bank's annual reports. From this data the information related to the various components of CAMEL say Capital Adequacy, Asset quality, Management efficiency, earning quality and Liquidity were collected and computed.

CAMEL model of rating was developed initially by three federal banking supervisors of US namely- The Federal Reserve, The FDIC, THE OCC, as regulators. It is Uniform Financial Institution Rating System, provides a convenient method of analysing the financial soundness of banking system. The banks are evaluated under five parameters under the CAMEL- Capital Adequacy, Asset quality, Management efficiency, Earning quality and Liquidity.

Capital Adequacy Ratios (i) Capital Adequacy Ratio, (ii) Debt -Equity Ratio, (iii) Proprietary Ratio, (iv) Interest Coverage Ratio, (v) Total Advances to Total Assets Ratio, (vi) Government Securities to Total Investment ratio.

Assets Quality Ratios: (i) Net NPA to Net Advances, (ii) Gross NPA to Net Advances, (iii) Loan Loss Cover, (iv) Total Investments to Total Assets Ratio.

Management Capability Ratios: (i) Expenditure to Income Ratio, (ii) Total Advances to Total Deposits Ratio, (iii) Assets Turnover Ratio, (iv) Diversification Ratio, (v) Earning Per Employee, (vi) Business Per Employee.

Earnings Ratios: (i) Return on Assets, (ii) Return on Equity, (iii) Spread Ratio, (iv) Net Interest Margin, (v) Operating Profit to Working Fund Ratio, (vi) Interest Income to Total Income Ratio.

Liquidity Ratios: (i) Current Ratio, (ii) Quick Ratio, (iii) Liquid Assets to total Assets Ratio, (iv) Liquid Assets to Total Deposits Ratio, (v) Government Securities to Total Assets Ratio.

The model of CAMEL in this study is shown				
Group		**Ratio**	**Formula**	**Important**
C	Capital Adequacy	CRAR	(Net Capital Funds/Risk Weighted Assets) x 100	Capital adequacy helps the bank in understanding the shock attractive capability during risk.
		Debt Equity Ratio	(Capital + Reserves) / (Deposits + Borrowing + Otherliabilities)	
		Coverage Ratio	[(Net Worth - Net NPA) / Total Assets]*100	
A	Assets Quality	Net NPAs to Net Advances Ratio	(Net NPAs / Net Advances)*100	Asset quality helps the bank in understanding the risk on the exposure of the debtors.
		Government Sec. to Investment Ratio	(Government Securities / Total Investments)*100	
		Standard Advances to Total Advances Ratio	[Standard Advances (Total Advances minis Gross NPAs)/ Total Advances] * 100	
M	Management Efficiency	Credit Deposit Ratio	(Total Advances / Total Deposits)*100	Management quality reflects the management soundness of a bank, it controls its cost and increases productivity, ultimately achieving higher profits.
		Business per Employee Ratio	(Total Advances Plus Total Deposits) / No. of Employees	
		Profit per Employee Ratio	Profit / Number of Employees	
E	Earning Quality	Return on Average Assets Ratio (ROA)	(Net profit after Tax / Average Assets)*100	Earning quality measures, the profitability and productivity of the bank, explains the growth and sustainability of future earnings capacity.
		Net Interest Margin Ratio	[(Interest Income Earned - Interest Expended)/ Average Invested Assets]*100	
		Return on Equity Ratio (ROE)	(Net Profit after Tax / Share Capital)*100	

L	Liquidity	Cash Assets to Total Assets Ratio	(Cash Assets / Total Assets)*100	Liquidity ratio in a bank measure the ability to pay its current obligations.
		Government Securities to Total Assets Ratio	(Government Securities /Total Assets Ratio)*100	
		Total Investment to Total Assets Ratio	(Total Investment / Total Assets Ratio) *100	

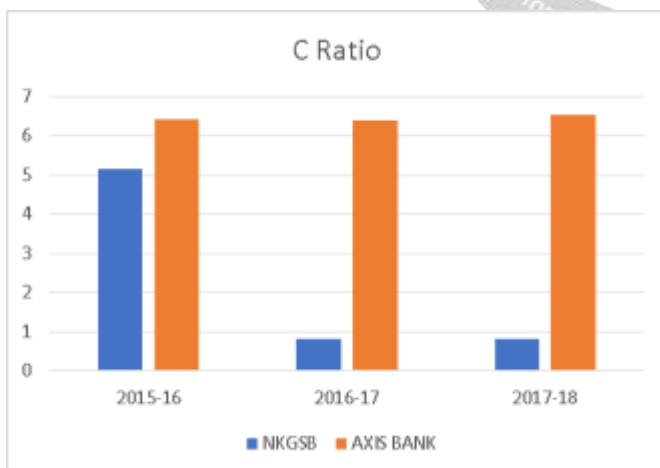## V.   ANALYSIS OF DATA

1. Capital Adequacy Ratio Analysis

Table 1.1 Capital Adequacy Ratio

C Ratio Analysis			
	2015-16	**2016-17**	**2017-18**
NKGSB	5.137	0.827	0.821
AXIS BANK	6.415	6.38	6.52

Chart 1.1 Capital Adequacy Ratio Line Graph

Chart 1.2 Capital Adequacy Histogram

The above table shows that Axis Bank has the highest capital adequacy ratio. However, both the banks do not meet the requirement of the minimum Basel II recommendations i.e. 8%. With regards to Debt Equity ratio , which represents the degree of leverage of a bank and indicates the relative proportion of shareholders' equity and debt used to finance a company's assets, it shows that

NKGSB bank is using minimum debt to run their business whereas Axis Bank is using maximum debt. With regards to total advances to total assets ratio it is found that Axis bank is very aggressive in lending.
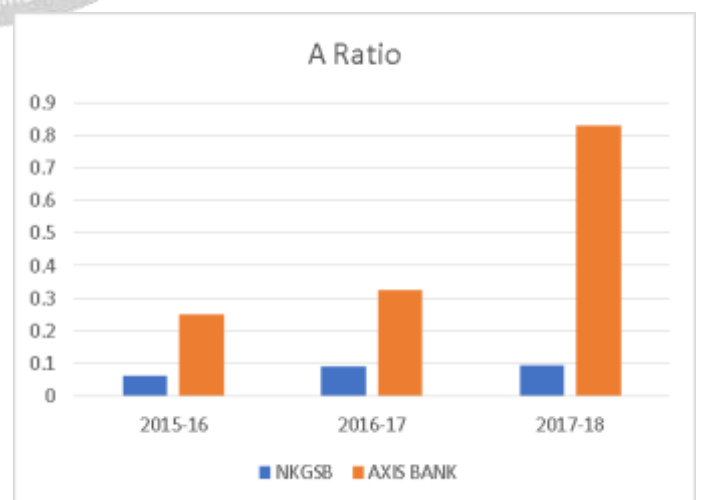
2. Asset Quality Ratio Analysis

Table 2.1 Asset Quality Ratio

A Ratio Analysis			
	2015-16	**2016-17**	**2017-18**
NKGSB	0.064	0.09	0.093
AXIS BANK	0.251	0.325	0.831

Chart 2.1 Asset Quality Line Graph

Chart 2.2 Asset Quality Ratio Histogram

The above table shows that NKGSB is having the lowest net non-performing assets against total assets. It shows that quality of CBI advances is not very good. With regards to Net non-performing assets to total assets Axis Bank is having best quality of loans
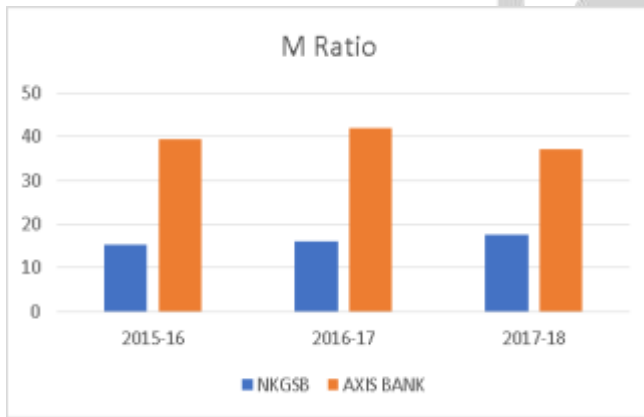
3.   Management Efficiency Ratio Analysis

Table 3.1 Management Efficiency Ratio

M Ratio Analysis			
	2015-16	**2016-17**	**2017-18**
NKGSB	15.217	15.968	17.619
AXIS BANK	39.3575	41.9925	37.095

Chart 3.1 Management Efficiency Ratio Line Graph

Chart 3.2 Management Efficiency Ratio Histogram

There are various parameters of management efficiency. Business per employee of Axis Bank is quite high which means it can secure maximum business per employee. The other parameter is profit per employee which indicates the contribution of each employee in the profitability of the banks . The maximum contribution is made by the employees of Axis bank. With regards to return on assets, NKGSB is the most profitable bank in relation to its assets. The last ratio calculated under this parameter is return on equity, NKGSB is the best performer
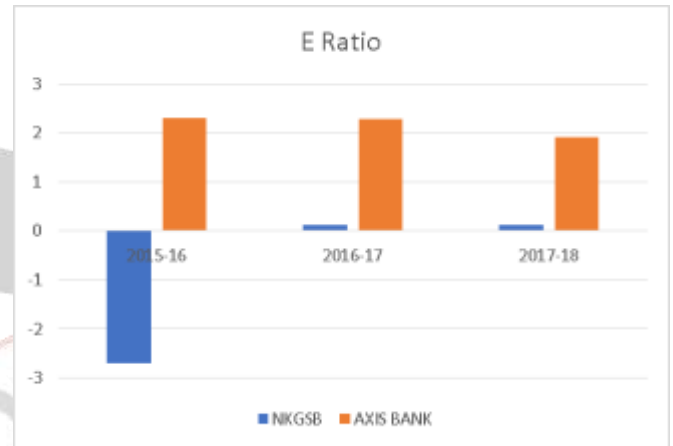
4.   Earning Quality Ratio Analysis

Table 4.1 Earning Quality Ratio

E Ratio Analysis			
	2015-16	**2016-17**	**2017-18**
NKGSB	-2.708	0.127	0.128
AXIS BANK	2.295	2.2775	1.9225

Chart 4.1 Earning Quality Ratio Line Graph

Chart 4.2 Earning Quality Ratio Histogram

Earnings, the primary source of increase in capital base, is examined with regards to interest rate policies and adequacy of provisioning. In addition, it also helps to support present and future operations of the institutions. Earnings and profitability ratio have increased considerably over the years.

For NKGSB we could see an upward trend as the ratio was negative i.e., -2.707 in 2015-16, and then it began to increase, and it became 0.126 in 2016-17 and further it was 0.128 in 2017-18. For Axis Bank we could see a downward trend as the ratio was 2.29 in 2015-16, it began to decrease, and it became 2.27 in 2016-17 and further it was 1.92 in 2017-18.

5.   Liquidity Ratio Analysis

Table 5.1 Liquidity Ratio

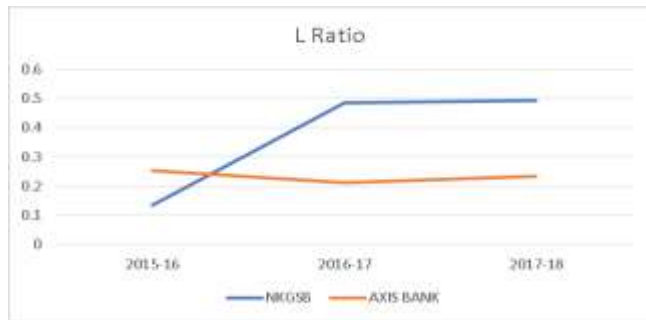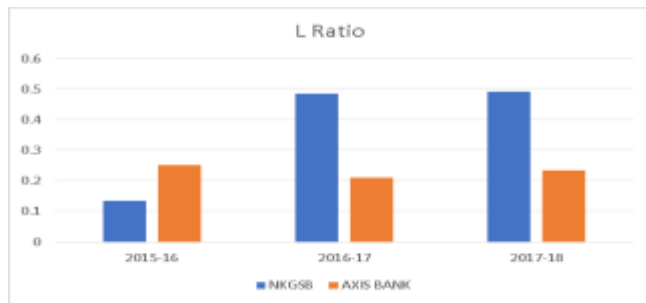| L Ratio Analysis			
	2015-16	**2016-17**	**2017-18**
NKGSB	0.135	0.485	0.492
AXIS BANK	0.252	0.2105	0.235

Chart 5.1 Liquidity Ratio Line Graph

Chart 5.2 Liquidity Ratio Histogram

An adequate liquidity position refers to a situation, where institution can obtain enough funds, either by increasing liabilities or by converting its assets quickly at a reasonable cost. An asset is liquid if it can easily be converted to cash. For NKGSB we could see an upward trend as the ratio was 0.135 in 2015-16, it began to increase, and it became 0.485 in 2016-17 and further it was 0.492in 2017-18. For Axis Bank we could see an upward trend as the ratio was 0.252 in 2015-16, it was decreased to 0.210 in 2016-17 and further it increased to 0.235 in 2017-18.

6. Overall trends in CAMEL RATIO

Table 6.1 CAMEL Analysis of NKGSB

CAMEL RATIOS OF NKGSB BANK			
	2015-16	**2016-17**	**2017-18**
C Ratio	5.137	0.827	0.821
A Ratio	0.064	0.09	0.093
M Ratio	15.217	15.968	17.619
E Ratio	-2.708	0.127	0.128
L Ratio	0.135	0.485	0.492

The Capital adequacy Ratio of NKGSB has decreased from 5.137 to 0.821 in 2017-18, which is indication of poor capital adequacy. The Asset quality ratio has increased from 0.064 to 0.093 in 2017-18. The Management Efficiency ratio has also increased from 15.217 to 17.619 in 2017-18. The Earning quality ratio has tremendously increased from -2.7 to 0.128 in 2017-18 which is a very good indication. Also, the Liquidity ratio has increased from 0.135 to 0.492 in 2017-18, which implies that the

bank's assets are more liquid in 2017-18 as compared to 2015-16.

Table 6.2 CAMEL Analysis of AXIS Bank

CAMEL RATIOS OF AXIS BANK			
	2015-16	**2016-17**	**2017-18**
C Ratio	6.415	6.38	6.52
A Ratio	0.251	0.325	0.831
M Ratio	39.3575	41.9925	37.095
E Ratio	2.295	2.2775	1.9225
L Ratio	0.252	0.2105	0.235

The Capital adequacy Ratio of Axis Bank has increased from 6.4 to 6.5 in 2017-18, which is indication of good capital adequacy. The Asset quality ratio has increased from 0.251 to 0.831 in 2017-18. The Management Efficiency ratio has decreased from 39.35 to 37.09 in 2017-18. The Earning quality ratio has also decreased from 2.295 to 1.922 in 2017-18 which is not a very good indication. Also, the Liquidity ratio has decreased from 0.252 to 0.235 in 2017-18, which implies that the bank's assets are less liquid in 2017-18 as compared to 2015-16

Extra Analysis

NKGSB			
	2015-16	2016-17	2017-18
CRAR	12.70	12.32	12.63
GROSS NPA	3.8	4.76	5.97
NET NPA	2.19	2.94	3.66
ROA	0.70	0.62	0.61

AXIS BANK			
	2015-16	2016-17	2017-18
CRAR	15.29	16.57	14.95
GROSS NPA	6.88	21.280	34.249
NET NPA	2.522	8.627	16.592
ROA	1.72	0.65	0.04

VI.   CONCLUSION

Overall, the banks are progressive as indicated by their business growth over a period. It has been measured by the CAMEL ratings that the selected banks have improved their performance (NKGSB & AXIS) in most of the selected indicators. In case of the NKGSB, however there has been a decline in the performance of the Capital Adequacy ratio in the selected three-year period. However, the Earnings ratio has improved from negative value to positive. Whereas, we observe a volatile cyclical performance of these key ratios in the case of the AXIS, it goes down in one period and comes up in another period. We could see an upward trend

in the liquidity ratio for both the banks However, AXIS bank performed better in comparison with NKGSB across the CAMEL values. This indicates that overall, the banks have been progressive, but in the wake of any crisis in the financial system or stronger regulations, these banks may find it challenging to sustain their performance.

A strong banking sector is important for flourishing economy. The failure of the banking sector may have an adverse impact on other sectors. Globalization has resulted into the rapid transformation of the financial system all over the world. Cooperative banks are expected to support the economically weaker section of the society. Today, the Scheduled Urban Cooperative banks are expected to support all sections of borrowers by financing them to start a new business or for agricultural purpose the banks accept deposits from the members and lend money to needy persons. Since their main objective is to support priority sector, farmer, agriculturist, SSI, artisans, small traders, and salary earners. Cooperative banks need to improve their risk management practices and integrate them into business strategy implementation. Measures like improving risk management practices considering the BASEL context is important since higher NPA in banks increases the systemic risk and impact the capital availability which is an important component of BASEL norms.

From the above observations, we suggest that the banks must take relevant measures to improve consistency in their performance especially in the present context of raising NPA's and bank's failure.

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VIII.   ANNEXURE FOR CALCULATION OF CAMEL RATIO

CALCULATION OF CAMEL RATIO OF NKGSB BANK

Calculation of C Ratio			
	2015-16	2016-17	2017-18
Capital Adequacy	17.7610	0.0002	0.0002
Advance to Assets	0.6420	0.6190	0.6490
Debt to Equity Ratio	1.1440	1.6910	1.6360
Govt Sec. to Total Investments	0.9998	0.9998	0.9997
Average C Ratio	5.137	0.827	0.821

Table 3.1 Calculation of Capital Adequacy Ratio of NKGSB

Calculation of A Ratio			
	2015-16	2016-17	2017-18
Net NPA to Net Advances	0.0002	0.0288	0.0357
Total Investments to Total Assets	0.1913	0.1927	0.1836
Net NPA to Total Assets	0.0004	0.0476	0.0597
Average A Ratio	0.064	0.090	0.093

Table 3.2 Calculation of Asset Quality Ratio of NKGSB

Calculation of M Ratio			
	2015-16	2016-17	2017-18
Total Expenses to Total Income	0.852	3.623	3.009
Total Advances to Deposits	0.751	0.723	0.765
Total income to Total Assets	0.009	0.008	0.001
Diversification Ratio	1.445	1.553	1.273
Profit per employees	376194.399	402333.621	419446.845
Business per employee	540032.949	555747.623	628262.748
Average M Ratio	152705.067	159681.192	174619.107

Table 3.3 Calculation of Management Efficiency Ratio of NKGSB

Calculation of E Ratio			
	2015-16	2016-17	2017-18
Net Profit Margin	0.697	0.724	0.668
Return on Equity	0.989	0.985	0.994
Net Interest Margin	-13.947	-1.526	-1.563
Interest spread	-1.723	-0.630	-0.444
Interest income to Total income	0.445	1.080	0.970
Average E Ratio	-2.708	0.127	0.125

Table 3.4 Calculation of Earning Quality Ratio of NKGSB

Calculation of L Ratio			
	2015-16	2016-17	2017-18
Cash to Deposits	0.0882	0.1099	0.0874
Govt sec to Total asset	0.1913	0.1927	0.1835
Total investment to Total asset	0.1913	0.1927	0.1836
Interest Expended	0.0669	1.4443	1.5137
Average L Ratio	0.134	0.485	0.492

Table 3.5 Calculation of Liquidity Ratio of NKGSB

CALCULATION OF CAMEL RATIO OF AXIS BANK

Calculation of C Ratio			
	2015-16	2016-17	2017-18
Capital Adequacy	15.09	15.29	14.95
Advance to Assets	0.61	0.64	0.62
Debt to Equity Ratio	9.34	8.88	9.79
Govt Sec. to Total Investments	0.62	0.71	0.72
Average C Ratio	6.415	6.38	6.52

Table 3.6 Calculation of Capital Adequacy Ratio of Axis Bank

Calculation of A Ratio			
	2015-16	2016-17	2017-18
Net NPA to Net Advances	0.46	0.74	2.27
Total Investments to Total Assets	0.29	0.23	0.21
Net NPA to Total Assets	0.003	0.005	0.014
Average A Ratio	0.251	0.325	0.831

Table 3.7 Calculation of Asset Quality Ratio of Axis Bank

Calculation of M Ratio			
	2015-16	2016-17	2017-18
Total Advancement to Total Deposits	0.88	0.96	0.92
Business Per employee	137.1	148.4	140
Profit per employee	1.7	1.8	0.7
Return on Equity	17.75	16.81	6.76
Average M Ratio	39.3575	41.9925	37.095

Table 3.8 Calculation of Management Efficiency Ratio of Axis Bank

Calculation of E Ratio			
	2015-16	2016-17	2017-18
Interest income to total Income	0.81	0.81	0.79
Operating profit to total Asset	3.17	3.22	3.08
Net Margin to Total Asset	3.37	3.36	3.17
Return on Assets	1.83	1.72	0.65
Average E Ratio	2.295	2.2775	1.9225

Table 3.9 Calculation of Earning Quality Ratio of Axis Bank

Calculation of L Ratio			
	2015-16	2016-17	2017-18
Liquid Asset to total Asset	0.078	0.063	0.084
Liquid asset to demand deposits	0.64	0.52	0.58
Liquid asset to total deposits	0.112	0.093	0.121
Approved Security to total Assets	0.178	0.166	0.155
Average C Ratio	0.252	0.2105	0.235

Table 3.10 Calculation of Liquidity Ratio of Axis Bank