



## International Journal of Applied Business and Economic Research

ISSN : 0972-7302

available at <http://www.serialsjournal.com>

© Serials Publications Pvt. Ltd.

Volume 15 • Number 2 • 2017

### Can We Bank Upon Indian Banks? (Performance of Indian Banks for last 3 years–An Analysis)

Meenal Sharma<sup>1</sup>, Gurendra Nath Bhardwaj<sup>2</sup> and Shrey Kumar<sup>2</sup>

<sup>1</sup>Amity University, Manesar, HR, India. E-mail: [meenalmona@gmail.com](mailto:meenalmona@gmail.com)

<sup>2</sup>NIFT University, Neemrana, RJ 301705 India.

**Abstract:** Banking sector in India has played multiple roles in Indian economy namely economic development, reducing inequality and promotion of employment generating sectors. It has withered many storms and has played its part of being a catalyst in economic growth of the nation, particularly after the banking and financial sector reforms initiated during 1980s. However, it is a reality that this sector has been plagued with the problem of rising NPAs (Non-Performing Assets) and the asset quality of banks in general and public sector banks in particular, has steadily deteriorated. The problem has assumed dangerous proportions in recent past.

The present study intends to study the relative performance of Indian banks (private as well as public) on basis of three most important parameters and also identify the relationship between these three parameters. Finally, a comparison is also made between private and public sector banks on the basis of results derived.

The present work is a descriptive research based on secondary data collected from RBI warehouse, reports of other organizations and other published and reliable sources. The data so collected has been analyzed to develop relative performance indexes finally assigning grades to the banks on the basis of the three selected parameters viz., their % Net NPA (a negative parameter), business per employee and profit per employee (which are positive parameters). The scaling is based on the six sigma concepts. Therefore, the value of standard deviation and mean will be deciding factor for this grading. The recommendation and suggestions of study will be helpful to the banks, RBI, Government, Industry and other stakeholders of Indian banking industry.

**Keywords:** NPAs, Banking Sector, Profit per employee, Business per employee, Stressed Assets.

#### I. BACKGROUND/OBJECTIVES

##### Introduction

Presently, Indian banks are facing burden of about \$120 billion as stressed assets. (11.5% of total assets) which is posing a big threat to the survival of the banking industry. Hence, RBI has set a deadline of March

2017 for all banks to clean up their balance sheets. Stressed loans are basically divided broadly into two categories like first sustainable debt and second convertible debt. Sustainable debts, borrower will continue to pay, whereas second type of loan needs restructuring. This move provides corporate to convert half of the loan into equity.

Bad loans may increase upto 6.6% of loan by the end of March 2015. The RBI audit report says that banks have not taken care of NPA recognition properly, especially, in corporate loans. Infrastructure, power, steel and textile have been recognized more sensitive sectors from the view point of stressed assets. Provisioning for NPA requires asset recognition as per RBI norms. Assets are classified into four categories like standard, substandard, doubtful and loss.

NPA (Non-performing Assets) of any bank shows negative indicator. But in recent years a new term of stressed assets has been introduced, to check the financial health of the bank. Stressed Assets' is basically defined as (Stressed Assets = NPAs + Restructured Loans + Written off Assets).

Hence, the quality of assets is very important aspect of any banking company. The assets of banks include mainly loans given by the banks and amount invested in bonds and securities. The quality of assets indicates the extent of recovery of interest and principal from the said assets within stipulated period. If the recovery of any amount interest or principal is beyond that period, it directly affects the quality of assets. It is termed stressed asset. It has mainly three components-

### ***NPAs***

An asset, including a leased asset is classified as nonperforming when it ceases to generate income for the bank. This happens when the interest and or instalment of principal remains overdue for a period of more than 90 days in respect of a term loan. The banks classify NPA further into three categories based on the period for which they have remained as non performing, viz, substandard assets (which has remained NPA for less than or equal to 12 months), doubtful (if the asset remains in the substandard category for one year) and loss asset (when though the loss has been identified by the bank or external auditor but the amount has not been written off wholly.)

### ***Restructured Loans***

As the name suggests, when an attempt is made to salvage the problematic asset by measures such as extending the repayment period, reducing the interest rate, converting part of loan into equity, providing additional financing or using a combination of these methods, then it is termed as restructured loan.

### ***Written off Assets***

When the banks do not reflect the asset in its financial statements anymore, it is termed as written off assets. These will be reflected in bank's financial statements as being compensated in some other way.

Stressed assets in Indian banking industry have increased from 6% at the end of March 2011 to 11.1% by March 2015. Since 2013, a rapid increase in stressed assets has been observed. Public Sector banks have reported 13.5% stressed assets to total advance in comparison to private sector banks reporting 4.6% as on March 2015.

## **Review of Literature**

Pandey, 2016, explains the prospects of Indian banking industry with increasing NPA. The author opines that if the current situation is ignored, it would create a big financial danger to the economy. The paper suggested that four main ways to overcome the financial crises due to high NPA, especially in public sector banks. It proposed recapitalization of public sector banks by the government, overhauling of asset reconstruction companies, creation of a 'Bad Bank' by the Government and administrative reforms in public sector banks.

Sangmi and Nazir 2010, examined the financial position of banks by comparing two banks mainly Punjab National Bank and Jammu and Kashmir Bank. The study has used CAMEL model to assess the performance of the banks. It includes five main parameters like Capital Adequacy, Asset Quality, Management Capability, Earning Capacity and Liquidity. These five parameters were rated on a scale of 5 for five years (2001 to 2005). The CAMEL approach makes comparison on individual strength of banks based on static standards. Now a days, there is a need of different approach which evaluates asset quality of banks in various sectors of banks and also enables banks to have fair comparison with its peers. It's time to focus on relative measurement to identify the performance of banks than absolute approach.

Sathye, 2005, studies the impact of privatization on performance and efficiency of banks during 1998-2002 through difference of mean test. The variable for measuring performance of bank are return on assets, spread to working funds ratio, establishment expenses to total expenses ratio, loan out ratio, NPA to net advance ratio etc. To measure the efficiency of bank ratios like deposit per employee, advance per employee, net profit per employee were used. Public sector banks were classified into Nationalized Banks and State Bank Group. It was observed that in India, significant means of privatization was through IPO due to developed and efficient capital market.

## **OBJECTIVES**

The present study intends to assess the impact of NPAs, Business per Employee and Profit per Employee on overall performance of different public and private sector banks, to establish relationship among NPAs, Business per Employee and Profit per Employee and to compare performance of Public and Private Sectors Banks based on data for last three years.

## **Methods/Statistical Analysis**

In this paper, we have taken three basic parameters for evaluating a particular bank's performance relative to its peers in the industry. The objective of the paper to establish a cause and effect relationship between the most important negative performance indicators of a bank *i.e.* Net NPA to Advances and the two important positive indicators viz., Business per Employee and Profit per Employee is achieved by applying linear and multiple regression.

According to our observations, the parameters that have been taken

- (a) Net NPA to Advances
- (b) Business per employee and
- (c) Profit per employee, are of immense importance to assess any bank's profitability and its relative 'position' of strength/weakness in the banking industry.

Using a unique ranking methodology and the three main parameters, mentioned above; we have graded both private and public sector banks on basis of their relative performance in the industry.

## II. FINDINGS

### Hypothesis

For the present study, we have taken the following hypothesis.

$H_{01}$  = The value of Net NPA to advances has no significant impact on overall performance indicator of the banks.

$H_{11}$  = The value of Net NPA to advances has significant impact on overall performance indicator of the banks.

$H_{02}$  = The value of Business per employee has no significant impact on overall performance indicator of the banks.

$H_{12}$  = The Value of Business per employee has significant impact on credit deposit ratio of the bank

$H_{03}$  = The value of Profit per employee has no significant impact on overall performance indicator of the banks

$H_{13}$  = The value of Business per employee has significant impact on overall performance indicator of the banks

### Data Analysis

Most of the research work till now has concentrated on a single bank's individual strength and weaknesses using the CAMEL approach. This means that research work on banking that was studied for literature review has only concentrated on absolute grading of banks. The model developed in this research paper, however grades the individual banks relative to its peers in the industry.

In this research paper, we have considered the data for only public and private banks as the operational scenario of foreign banks is different from private and public sector.

We have taken 45 banks (25 public sector banks; 20 private sector banks) for the purpose of the study. We later omit ING Vyasa Bank from our final grading as the required data for the said bank is not available for the financial year 2015. Thus; the final grading is done for 44 banks of the industry.

The data has been taken from Indian Bank Association website ([www.IBA.org.in](http://www.IBA.org.in)). The data was available in three different units, viz., in percentage for Net NPA to Advances, Business per employee in crores and Profit per employee in lakhs. The methodology used in this research also eliminates the multiple unit problems of the data. We have first graded the banks for three financial years (2013, 2014 and 2015) based on the values of selected parameters. The range of every distribution (Range = Maximum Value – Minimum Value) is divided into 5 equal intervals, thus, calculating series of ranges for each year for all three parameters (Net NPA to Advances, Business per employee and Profit per employee).

Further we have assigned grades to banks, ranging from *A* to *E*.

As Net NPA to Advances is a negative parameter for a bank's performance; the bank with lowest value for it has been awarded the rank A and so on other ranks have been assigned. On the other hand, Business per employee and profit per employee being the positive parameters; the bank for highest value for these are awarded rank A and so on further ranking is done.

On the basis of the ranks awarded to the banks, we have assigned Grade Points to each bank on a scale of 10.

Grade A = 10

Grade B = 8

Grade C = 6

Grade D = 4

Grade E = 2

To have a comprehensive analysis and come out with a relative picture of performance for all banks in the last three years; we have calculated a cumulative grade points for all three parameters for each bank. (Refer Table 1).

**Table 1**  
**Cumulative Grade Points of Banks**

<i>S. No.</i>	<i>Name of the Bank</i>	<i>CGPA of NPA</i>	<i>Name of the bank</i>	<i>CGPA of BPE</i>	<i>Banks</i>	<i>CGPA of PPE</i>	<i>Grand CGPA</i>	<i>Grade</i>
1.	YES Bank	30	YES Bank	14	YES Bank	24	68	A
2.	IDBI Ltd.	20	IDBI Ltd.	30	IDBI Ltd.	16	66	A
3.	Tamilnad Mercantile Bank Ltd.	30	Tamilnad Mercantile Bank Ltd.	14	Tamilnad Mercantile Bank Ltd.	22	66	A
4.	Axis Bank Ltd.	30	Axis Bank Ltd.	12	Axis Bank Ltd.	22	64	A
5.	Bank of Baroda	24	Bank of Baroda	22	Bank of Baroda	18	64	A
6.	Corporation Bank	22	Corporation Bank	24	Corporation Bank	16	62	B
7.	Bank of India	18	Bank of India	22	Bank of India	16	56	B
8.	HDFC Bank Ltd.	30	HDFC Bank Ltd.	6	HDFC Bank Ltd.	20	56	B
9.	Kotak Mahindra Bank Ltd.	30	Kotak Mahindra Bank Ltd.	6	Kotak Mahindra Bank Ltd.	20	56	B
10.	Nainital Bank Ltd.	30	Nainital Bank Ltd.	6	Nainital Bank Ltd.	18	54	B
11.	The Jammu and Kashmir Bank Ltd.	26	The Jammu and Kashmir Bank Ltd.	10	The Jammu and Kashmir Bank Ltd.	18	54	B
12.	Bank of Maharashtra	22	Bank of Maharashtra	16	Bank of Maharashtra	14	52	C
13.	ICICI Bank Ltd.	26	ICICI Bank Ltd.	6	ICICI Bank Ltd.	20	52	C
14.	RBL Bank	30	RBL Bank	10	RBL Bank	12	52	C
15.	Syndicate Bank	24	Syndicate Bank	14	Syndicate Bank	14	52	C
16.	The Federal Bank Ltd.	28	The Federal Bank Ltd.	8	The Federal Bank Ltd.	16	52	C

*Cont. table 1*

S. No.	Name of the Bank	CGPA of NPA	Name of the bank	CGPA of BPE	Banks	CGPA of PPE	Grand CGPA	Grade
17.	The Karur Vysya Bank Ltd.	30	The Karur Vysya Bank Ltd.	8	The Karur Vysya Bank Ltd.	14	52	C
18.	City Union Bank Ltd.	28	City Union Bank Ltd.	6	City Union Bank Ltd.	16	50	C
19.	Indusind Bank Ltd.	30	Indusind Bank Ltd.	6	Indusind Bank Ltd.	14	50	C
20.	The South Indian Bank Ltd.	28	The South Indian Bank Ltd.	8	The South Indian Bank Ltd.	14	50	C
21.	Canara Bank	18	Canara Bank	16	Canara Bank	14	48	C
22.	Dena Bank	18	Dena Bank	16	Dena Bank	14	48	C
23.	Punjab and Sind Bank	16	Punjab and Sind Bank	20	Punjab and Sind Bank	12	48	C
24.	Vijaya Bank	22	Vijaya Bank	14	Vijaya Bank	12	48	C
25.	Development Credit Bank Ltd.	28	Development Credit Bank Ltd.	6	Development Credit Bank Ltd.	12	46	C
26.	Indian Bank	18	Indian Bank	14	Indian Bank	14	46	C
27.	Union Bank of India	20	Union Bank of India	12	Union Bank of India	14	46	C
28.	Andhra Bank	16	Andhra Bank	16	Andhra Bank	12	44	C
29.	Punjab National Bank	16	Punjab National Bank	14	Punjab National Bank	14	44	C
30.	State Bank of Hyderabad	20	State Bank of Hyderabad	10	State Bank of Hyderabad	14	44	C
31.	State Bank of Travancore	22	State Bank of Travancore	12	State Bank of Travancore	10	44	C
32.	The Karnataka Bank Ltd.	22	The Karnataka Bank Ltd.	10	The Karnataka Bank Ltd.	12	44	C
33.	Oriental Bank of Commerce	18	Oriental Bank of Commerce	10	Oriental Bank of Commerce	14	42	D
34.	State Bank of Bikaner and Jaipur	18	State Bank of Bikaner and Jaipur	8	State Bank of Bikaner and Jaipur	14	40	D
35.	The Catholic Syrian Bank Ltd.	20	The Catholic Syrian Bank Ltd.	10	The Catholic Syrian Bank Ltd.	10	40	D
36.	Allahabad Bank	12	Allahabad Bank	12	Allahabad Bank	14	38	D
37.	State Bank of Mysore	16	State Bank of Mysore	12	State Bank of Mysore	10	38	D
38.	The Lakshmi Vilas Bank Ltd.	18	The Lakshmi Vilas Bank Ltd.	10	The Lakshmi Vilas Bank Ltd.	10	38	D
39.	UCO Bank	14	UCO Bank	12	UCO Bank	12	38	D
40.	Central Bank of India	14	Central Bank of India	10	Central Bank of India	12	36	D
41.	State Bank of Patiala	14	State Bank of Patiala	10	State Bank of Patiala	12	36	D
42.	Indian Overseas Bank	12	Indian Overseas Bank	12	Indian Overseas Bank	8	32	E
43.	United Bank of India	6	United Bank of India	12	United Bank of India	14	32	E
44.	Dhanlaxmi Bank Ltd	14	Dhanlaxmi Bank Ltd	6	Dhanlaxmi Bank Ltd	10	30	E
	Average	22		12		15	48	
	SD	6.4		5.3		3.6	9.5	
	Median	21		12		14	48	

In order to statistically analyze the distribution, we have calculated mean and median of the distribution. Interestingly, value of mean and median is found to be the same, proving that we have a normal distribution. Statistically, the distribution can also be classified based on mean and standard deviation. Hence, a six sigma analysis has been made based on mean and standard deviation. In this analysis, we classify the 45 banks in 5 categories from *A* to *E*.

The banks awarded rank *A* has performed better relative to their peers on all the three parameters under consideration.

In order to comprehend the cause and effect relationship between the parameters and grade assigned to the banks, we have applied regression analysis; both simple and multiple regressions between cumulative Grade points of each parameter and Grand total of cumulative grade points. The results are discussed in the Table 2.

On basis of the results given in Table 3 and 4, we can conclude that the maximum contribution in overall performance of banks is reported by the parameter *viz.*, Profit per employee since the value of R square is the highest *i.e.* R square = 0.61. Since the value of R square is highest, we also conclude that the explanatory power of Profit per employee is greater than the other two parameters in the grade awarded to the banks representing its overall performance in the past three years, which is the period of our study.

On applying multiple regression on our data; the results are very interesting and validate our assumption that the three parameters selected by us contribute the maximum in determining overall performance of banks.

**Table 2**  
**Relationship between CGPA of Net NPA to Advances& Grand CGPA**

<i>Summary Output</i>								
<i>Regression Statistics</i>								
Multiple R	0.681139142							
R Square	0.463950531							
Adjusted R Square	0.451187448							
Standard Error	1.548644326							
Observations	44							
<i>Anova</i>								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	87.18052	87.18052	36.35098	3.61E-07			
Residual	42	100.7286	2.398299					
Total	43	187.9091						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	1.215678055	0.834395	1.456957	0.152565	-0.4682	2.899556	-0.4682	2.899556
X Variable 1	0.224166841	0.03718	6.029177	3.61E-07	0.149134	0.2992	0.149134	0.2992



**Table 3**  
**Relationship between CGPA of Business per Employee and Grand CGPA**

<i>Summary Output</i>								
<i>Regression Statistics</i>								
Multiple R	0.385875							
R Square	0.148899							
Adjusted R Square	0.128635							
Standard Error	1.95137							
Observations	44							
<i>Anova</i>								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	27.97955	27.97955	7.347868	0.009682			
Residual	42	159.9295	3.807846					
Total	43	187.9091						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	4.205059	0.739932	5.683032	1.13E-06	2.711815	5.698302	2.711815	5.698302
X Variable 1	0.152213	0.056153	2.710695	0.009682	0.038892	0.265534	0.038892	0.265534

**Table 4**  
**Relationship between CGPA of Profit per Employee and Grand CGPA**

<i>Summary Output</i>								
<i>Regression Statistics</i>								
Multiple R	0.784334963							
R Square	0.615181334							
Adjusted R Square	0.606018984							
Standard Error	1.312131361							
Observations	44							
<i>Anova</i>								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	115.5982	115.5982	67.14231	3E-10			
Residual	42	72.31093	1.721689					
Total	43	187.9091						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.632527106	0.838643	-0.75423	0.454921	-2.32498	1.059923	-2.32498	1.059923
X Variable 1	0.460550459	0.056206	8.194041	3E-10	0.347123	0.573978	0.347123	0.573978



In the results given in Table 5, the value of R square comes out to be 0.92 which means that the three parameters selected have collective explanatory power of 92 per cent in the Grand CGPA of banks and their ranking awarded on its basis.

**Table 5**  
**Multiple Regression Analysis between Grand CGPA and CGPA of Net NPA to Advance, Profit per Employee and Business Per Employee**

<i>Summary Output</i>								
<i>Regression Statistics</i>								
Multiple R	0.962347167							
R Square	0.92611207							
Adjusted R Square	0.920570476							
Standard Error	0.589156467							
Observations	44							
<i>Anova</i>								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	3	174.0249	58.00829	167.1201	1.17E-22			
Residual	40	13.88421	0.347105					
Total	43	187.9091						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-4.141107081	0.464217	-8.92063	4.67E-11	-5.07932	-3.20289	-5.07932	-3.20289
X Variable 1	0.19417597	0.019345	10.03728	1.73E-12	0.155077	0.233275	0.155077	0.233275
X Variable 2	0.212133957	0.018447	11.49936	2.96E-14	0.17485	0.249418	0.17485	0.249418
X Variable 3	0.237107566	0.033102	7.162988	1.11E-08	0.170206	0.304009	0.170206	0.304009



**Figure 1: No. of Private and Public Sector Banks in each Grade**

**Table 6**  
**Ranking of Private and Public Sector Banks**

<i>S. No.</i>	<i>Name of the Bank</i>	<i>Grand CGPA</i>	<i>Grade</i>	<i>Type of Bank</i>
1.	YES Bank	68	<i>A</i>	Private
2.	IDBI Ltd.	66	<i>A</i>	Public
3.	Tamilnad Mercantile Bank Ltd.	66	<i>A</i>	Private
4.	Axis Bank Ltd.	64	<i>A</i>	Private
5.	Bank of Baroda	64	<i>A</i>	Public
6.	Corporation Bank	62	<i>B</i>	Public
7.	Bank of India	56	<i>B</i>	Public
8.	HDFC Bank Ltd.	56	<i>B</i>	Private
9.	Kotak Mahindra Bank Ltd.	56	<i>B</i>	Private
10.	Nainital Bank Ltd.	54	<i>B</i>	Public
11.	The Jammu and Kashmir Bank Ltd.	54	<i>B</i>	Private
12.	Bank of Maharashtra	52	<i>C</i>	Public
13.	ICICI Bank Ltd.	52	<i>C</i>	Private
14.	RBL Bank	52	<i>C</i>	Private
15.	Syndicate Bank	52	<i>C</i>	Private
16.	The Federal Bank Ltd.	52	<i>C</i>	Private
17.	The Karur Vysya Bank Ltd.	52	<i>C</i>	Private
18.	City Union Bank Ltd.	50	<i>C</i>	Private
19.	Indusind Bank Ltd.	50	<i>C</i>	Private
20.	The South Indian Bank Ltd.	50	<i>C</i>	Private
21.	Canara Bank	48	<i>C</i>	Public
22.	Dena Bank	48	<i>C</i>	Public
23.	Punjab and Sind Bank	48	<i>C</i>	Public
24.	Vijaya Bank	48	<i>C</i>	Public
25.	Development Credit Bank Ltd.	46	<i>C</i>	Private
26.	Indian Bank	46	<i>C</i>	Public
27.	Union Bank of India	46	<i>C</i>	Public
28.	Andhra Bank	44	<i>C</i>	Public
29.	Punjab National Bank	44	<i>C</i>	Public
30.	State Bank of Hyderabad	44	<i>C</i>	Public
31.	State Bank of Travancore	44	<i>C</i>	Public
32.	The Karnataka Bank Ltd.	44	<i>C</i>	Private
33.	Oriental Bank of Commerce	42	<i>D</i>	Public
34.	State Bank of Bikaner and Jaipur	40	<i>D</i>	Public

*Cont. table 6*

<i>S. No.</i>	<i>Name of the Bank</i>	<i>Grand CGPA</i>	<i>Grade</i>	<i>Type of Bank</i>
35.	The Catholic Syrian Bank Ltd.	40	D	Private
36.	Allahabad Bank	38	D	Public
37.	State Bank of Mysore	38	D	Public
38.	The Lakshmi Vilas Bank Ltd.	38	D	Private
39.	UCO Bank	38	D	Public
40.	Central Bank of India	36	D	Public
41.	State Bank of Patiala	36	D	Public
42.	Indian Overseas Bank	32	E	Public
43.	United Bank of India	32	E	Public
44.	Dhanlaxmi Bank Ltd	30	E	Private

In order to make a comparative analysis of Private and Public sector banks; we have found out the number of private and public sector banks in each rank category. As is evident by the tables below, Private sector banks are relatively better performers compared to their public sector counterparts. It is evident from above graph that most of the public sector banks lay from C to E category.

Another important aspect is relationship between NPAs and Profit per employee shown in Table 8, which indicates that the higher level of NPAs affects profit more than the Business per Employee. It has been also noticed that frauds in banking sectors has increase rapidly in recent years, which have drastically impacted NPAs as well as stressed assets, which demands research on impact of banking frauds on NPAs and overall performance of banks.

**Table 7**  
**No. of Private and Public Sector Banks in each Grade**

<i>Rank of the Bank</i>	<i>No. of Private Sector Banks</i>	<i>No. of Public Sector Banks</i>
A	3	2
B	3	3
C	10	11
D	2	7
E	1	2

**Table 8**  
**Correlation among NPAs, Business Per Employee and Profit per Employee**

	<i>CGPA of NPA</i>	<i>CGPA of BPE</i>	<i>CGPA of PPE</i>
CGPA of NPA	1		
CGPA of BPE	-0.28614	1	
CGPA of PPE	0.606758	0.04191	1

## **CONCLUSION/IMPROVEMENTS**

### **Future Scope**

The banking sectors are changing so rapidly that it requires quality research in different areas of banking to assess timely progress of banking sector especially in India. Stressed assets include three main variables out of which we have studied one (NPAs), therefore the impact of rest two viz., restructured loans and written off losses also need to be examined in future.

### **Conclusion**

It's a well-recognized fact that NPA affect the banking business as well as the reputation of the banks. Its impact is not only financial but also social as the trust level of customer decreases on the banks carrying higher NPA. In the present study, we established the relationship of three main parameters of banking business (Net NPA to Advances, Business per employee and Profit per employee) and attempted to provide a picture of the Indian banking industry by assessing the performance of major banks using available data for last three years. On the basis of the present study, we can safely say that even seemingly large Indian banks like SBI, ICICI, PNB, and BOB etc. are not appearing to be 'strong' banks as per their awarded rating on basis of parameters like Net NPA to advances, business per employee and profit per employee.

## **REFERENCES**

- Pandey, Ashish, (2016), The Indian banking system: A ticking time bomb, <https://mpra.ub.uni-muenchen.de/71792/> MPRA Paper No. 71792, posted 7 June 2016 19:00 UTC.
- RBI eases stressed asset restructuring rules for banks, Reuters (Jun 14, 2016), 09.06 PM IST.
- Sangmi, Mohi-ud-Din, m, and Nazir, Tabassum, (2010), Analyzing Financial Performance of Commercial Banks in India: Application of CAMEL Model, Pak. J. Commer. Soc. Sci. 2010 Vol. 4 (1), 40-55.
- Sathye, Milind (2005), Privatization, Performance, and Efficiency: A Study of Indian Banks, Vikalpa Volume 30 , No 1, January - March 2005.
- What is stressed assets? Indian Economy, <http://www.indianeconomy.net/splclassroom/145/whatisstressedassets/>