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A STUDY OF LOAN PERFORMANCE, NPAS AND NET PROFIT IN NEW PRIVATE BANKS OF INDIA

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Abstract: *This paper studies the Loan Performance, Non Performing Assets (NPA) and Net Profit of new private banks in India between the time periods 2009-14. Private banking has witnessed growth. In this paper the author(s) examine some of the important measures of bank performance. These measures are indicators of the financial soundness or otherwise of banks. In addition to these measures the author(s) also study the growth in loan performance of new privae sector banks as this helps us understand the credit offtake in the economy. In continuation to the loan perfromance, Non-performing Assets (NPAs) are generally the result of either bad lending or wilful default. The impact of such NPAs is reflected in the net profit of banks, in the form of either loan write-offs or provisioning. By studying these related areas therefore it is possible to understand the performance of a bank better. In this paper an attempt has been made to evaluate the performance of new private banks on these parameters. By examining the relationship among banks equity, assets and deposit size to profitability such as ROE, ROA and NIM the paper is expected to be of help to the banking industry for the improvement or changes in their business model.*

1. INTRODUCTION TO THE TOPIC

This paper studies with the Loan Performance, NPA and Net Profit of new private banks in India. There has been a tremendous growth in private banking sector in India. In this paper the author(s) examine some of the important measures of bank performance. Loan performance of a bank helps us understand the credit offtake in the economy. Non-performing Assets (NPAs) are the result of either bad lending or wilful default. The impact of such NPAs is reflected in the net profit of banks, in the form of either loan write-offs or provisioning. By studying these related areas therefore it is possible to understand the performance of a bank better. In this paper an attempt has been made to evaluate the performance of new private banks on these parameters.

1.1. Industry Profile

The private-sector banks in India represent part of the Indian banking sector that is made up of both private and public sector banks. The private sector banks are

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split into two groups by financial regulators in India, old and new. The old private sector banks existed prior to the nationalisation in 1969. The new private sector banks are those that have gained their banking license since liberalization in the 1990s.

Old Private Sector Banks

The banks, which were not nationalized at the time of bank nationalization due to their small size and regional focus, are referred to as old private sector banks. Most of these banks are closely held by certain communities and their operations are mostly restricted to the areas in and around their place of origin.

New Private-sector Banks

The banks, which came in operation after 1991, with the introduction of economic reforms and financial sector reforms are called "new private-sector banks". However, there were certain criteria set for the establishment of the new private-sector banks, some of those criteria being, the bank should have a minimum net worth of Rs. 200 Crores, the promoters holding should be a minimum of 25% of the paid-up capital and within three years of the starting of the operations, the bank should offer shares to public and their net worth must be increased to Rs.300 Crores.

2. NEED FOR THE STUDY

The need for performance evaluation in an organization has been recognized since long. Periodic performance measurement, evaluation and strategic planning serve as an essential tool for future growth and development of Indian banks in the light of changing sectoral requirements. In this paper the authors analyze the comparative profitability performance of banks for the financial periods 2009-2014. By examining the relationship among banks equity, assets and deposit size to profitability such as ROE, ROA and NIM the paper is expected to be of help to the banking industry for the improvement or changes in their business model.

2.1. Review of Literature

Studies profitability of banks is innumerous. A review of select lierature in this area is as follows.Jha and Sarangi (2011) analyze the performance of seven public sector and private sector banks for the year 2009-10. They use three sets of ratios, operating performance, financial and efficiency ratios. Sharma (2010) assessed the bank failure resolution mechanism to analyze the powers given by the countries to their regulators to carry out resolution of failed banks among 148 countries. Pat (2009) made an assessment of the RBI's Report on "Trend and Progress of Banking' in India, 2007-08, which reported a relatively-healthy position of the Indian banking system. He noted that the various groups of banks reported improvements in net profits, return on assets and return on equity. Two basic indicators of sound banking system, namely, capital to risk weighted assets and quality of assets, also revealed considerable improvements over the years. Xiaochi Lin, Yi Zhang (2009) assessed the effect of bank ownership on performance. They specifically conducted a joint analysis of the static, selection, and dynamic effects of (domestic) private, foreign and state ownership. They found that the "Big Four" state-owned commercial bank were less profitable, less efficient, and had bad asset quality than other types of bank except for the "policy" bank. Singla HK (2008), in his paper, "financial performance of banks in India" in ICFAI Journal of Bank Management, has examined that how financial management plays a crucial role in the growth of banking. It is concerned with examining the profitability position of the selected sixteen banks of banker index for a period of six years (2001-06). The study reveals that the profitability position was reasonable during the period of study when compared with the previous years.With respect to the performances of private banking sector, foreign and national experts have undertaken a number of studies. Alejandro Minco, Ugo Panizza, Monica Yañez(2007), used a new dataset to reassess the relationship between bank ownership and bank performance, providing separate estimations for developing and industrial countries. Their study finds no strong correlation between ownership and performance for banks located in industrial countries. Omran (2007) analyzed both private and government banks relative performances and also evaluates the bank privatization process in Egypt by comparing the pre- and post privatization, performances of privatized banks and reported that private banks outperformed government banks. Chowdhury and Islam (2007) stated that deposits and loan advances of Nationalized Commercial Banks (NCBs) were less sensitive to interest rate changes than those of Specialized Banks (SBs). Thus innumerous papers have been published in the area of banking performance. In this paper the authors attempt to further the knowledge on banking in India.

2.3. Objectives of Study

1. To analyze the performance of banks using financial ratios
2. To analyze the loan performance
3. To study the correlation between net profit of new private banks and total private banking industry.
4. To study the loan of new private sector banks vis-à-vis the total private banking industry.
5. To study the Non-Performing Assets of new private sector banks vis-à-vis the total private banking industry.

2.4. Research Methodology

The Private Banking industry comprises of old age and new age private banks. As per RBI data the following are the old and new age private banks in India:

Table 1
Old and New Private Banks in India

Sl.No	*Old Private Banks*	*New Private Banks*
1	Bank of Rajasthan Ltd	Development Credit bank
2	Catholic Syrian Bank Ltd.	HDFC Bank Ltd.
3	City Union Bank Ltd.	ICICI Bank Ltd.
4	Dhanalakshmi Bank Ltd.	IndusInd Bank Ltd.
5	Federal Bank Ltd.	Kotak Mahindra Bank Ltd.
6	ING Vysya Bank Ltd.	Axis Bank (earlier UTI Bank)
7	Jammu and Kashmir Bank Ltd.	Yes Bank Ltd.
8	Karnataka Bank Ltd.	
9	KarurVysya Bank Ltd.	
10	Lakshmi Vilas Bank Ltd.	

Since data pertaining to Development Credit Bank is sporadic, all the other new private banks have been considered for the study. Data for the study has been compiled from secondary sources such as Reserve Bank of India website and the website of the selected banks. The sources form the basis on which the calculations have been performed by the author(s). Major ratios concerning the banks, trend analysis and correlation has been used to draw inferences. This study relies on the financial information presented in the annual report of the banks and as such suffers from the limitation that these are based on published figures believed to be true.

3. DATA ANALYSIS & INTERPRETATION

3.1. Demand Deposit Ratio

Deposits represent the amount entrusted with the bank by the depositor and can be withdrawn as per his requirements. These amounts are parked in the current account- savings account (CASA) and can be used by the bank at any point of time. It is calculated as:

Demand deposit=Demand Deposit/Total Deposit

As shown in the table the mean Demand deposit ratio of Axis bank is higher (19.35) and is closely followed by HDFC bank (19.33).This indicates that there is intense competition between these two banks. As in the case of other banks they are quite behind compared to Axis bank with Yes Bank having the least demand deposit ratio. This may be due to the fact that Yes Bank has been in to corporate banking for a long time and is a new entrant in the retail banking category.

Table 2
Demand Deposit Ratio of New Private Banks(2009-14)

Year	*AXIS*	*HDFC*	*ICICI*	*INDUSIND*	*KOTAK*	*YES BANK*
2010	22.7655251	21.60733367	15.34401828	16.4985024	20.61499541	9.05706166
2011	19.5083076	22.2739774	15.41542734	18.2513099	19.06314089	8.56317103
2012	18.0614696	18.40561662	13.6880858	16.2150513	19.06314089	9.95766576
2013	19.1288591	17.65765841	12.61920559	16.325005	15.20725992	9.95417347
2014	17.3295395	16.73884331	13.02911546	16.1575133	14.80428964	9.45810782
Mean	19.3587402	19.33668588	14.01917049	16.6894764	17.75056535	9.39803595
SD	2.09057202	2.460606231	1.299469374	0.88270866	2.588417071	0.59986373
CV	10.7991119	12.72506698	9.269231545	5.2890135	14.58216693	6.38286274

Source: Computed by authors from RBI data base

3.2. Saving Deposit Ratio

Interest bearing accounts that can be withdrawn on demand by the depositor are referred to as savings deposits. The savings deposit ratio is calculated as:

Saving Deposit Ratio = Saving Deposit / Total Deposit.

Table 3
Savings Deposit Ratio of New Private Banks(2009-14)

Year	*AXIS*	*HDFC*	*ICICI*	*INDUSIND*	*KOTAK*	*YES BANK*
2010	23.964434	29.79418293	26.34356198	7.16941182	11.32491835	1.45899744
2011	21.5867595	22.87622053	29.64021337	8.90079313	12.1932204	1.77852699
2012	23.474306	29.99436753	29.76372848	11.0810644	13.85083721	5.09399074
2013	25.2471513	29.77625089	29.27093275	12.9956183	14.71604384	8.994993
2014	27.6837334	28.07590485	29.86710423	16.3882236	17.71841468	8.994993
Mean	24.3912769	28.10338535	28.97710816	11.3070222	13.9606869	5.26430023
SD	2.26169953	3.023123236	1.489334702	3.59272805	2.488692569	3.69107325
CV	9.27257535	10.75714971	5.139694044	31.7743077	17.82643352	70.1151736

Source: Computed by authors from RBI data base

As shown in the table above the ratio of savings deposit to total deposit is maximum in case of ICICI (28.97) followed by Axis bank (28.10). A high savings deposit ratio provides banks with the much needed funds.

3.3. Net Interest Margin

A measure of the return on a company's investments relative to its interest expenses is referrred to as net margin. The net interest margin helps the bank determine whether or not it has made wise investment decisions. A negative net interest margin indicates that interest expenses exceed investment returns and that the bank therefore has a net negative return. A positive net interest margin indicates the opposite. This ratio is calculated as:

Net Interest Margin = (Interest Received - Interest Paid)/ Total Assets

Table 4
Net Interest Margin of New Private Banks(2009-14)

Year	*AXIS*	*HDFC*	*ICICI*	*INDUSIND*	*KOTAK*	*YES BANK*
2010	2.77030441	3.769960947	2.232902879	25.061581	5.131655855	2.16574581
2011	2.77030441	3.801344799	2.219634164	30.1625314	4.75954445	2.11319019
2012	2.80706051	3.639073106	4.095570267	29.4384613	4.253913143	2.19330791
2013	2.83833821	3.949630811	2.583187313	30.459313	4.155380674	2.23884712
2014	3.11853694	3.759693343	2.770671384	33.216687	4.641639763	2.49162099
Mean	2.86090889	3.783940601	2.780393201	29.6677148	4.588426777	2.2405424
SD	0.14679888	0.111272305	0.771827659	2.94685006	0.395802669	0.14755299
CV	5.13119715	2.940646178	27.75965855	9.93285153	8.62610842	6.58559258

Source: Computed by authors from RBI data base

As shown in table Net Interest Margin (NIM) of Indusind is more than others i.e. 29.66 which shows that interest earned by Indusind bank is much more than expended and other banks are earning less interest compared to Indusind bank?

3.4. Credit Deposit Ratio

Credit Deposit Ratio (CDR), **represents** the proportion of loans generated by banks from the deposits received. This is generally considered to be a matter of management efficiency. The higher the conversion better it is for the bank.

CDR=Total advances/total deposits *100

Table 5
Credit Depost Ratio of New Private Banks(2009-14)

Year	*AXIS*	*HDFC*	*ICICI*	*INDUSIND*	*KOTAK*	*YES BANK*
2010	73.8434436	75.16562545	89.69837113	76.9404541	86.97480204	82.8145905
2011	75.2549375	76.69851019	95.90597517	95.9059752	100.2376564	74.8028684
2012	77.1268603	79.21156194	99.30634109	82.3063411	101.4057451	77.1058994
2013	77.9712441	80.91918422	99.19204357	81.8920436	94.98542964	70.1951393
2014	81.8904464	82.48553159	89.69054091	91.0454091	87.76315553	74.9851072
Mean	77.2173864	78.89608268	94.75865437	85.6180446	94.27335774	75.980721
SD	3.06792609	2.992584438	4.820398838	7.67217117	6.75652467	4.57764509
CV	3.97310274	3.793071007	5.087027533	8.96092781	7.166950273	6.02474554

Source: Computed by authors from RBI data base

As per table KOTAK bank displays maximum efficiency and is able to convert its deposits in to Credits. This bank is closely followed by Indusind and ICICI banks. The other banks are almost at the same level without much variation among them.

3.5. Debt Equity Ratio

The debt-to-equity ratio is a financial ratio indicating the relative proportion of Entity's equity and debt used to finance an entity's assets. If the ratio is increasing, the company is being financed by creditors rather than from its own financial sources which may be a dangerous trend. A debt-to-equity ratio is calculated by taking the total liabilities and dividing it by the shareholders' equity.

DER=Deposits/Share holders' funds

Table 6
Debt Equity Ratio of New Private Banks(2009-14)

Year	*AXIS*	*HDFC*	*ICICI*	*INDUSIND*	*KOTAK*	*YES BANK*
2010	8.80679776	7.889149447	3.913657352	11.1520076	2.723671571	8.67393763
2011	9.96049998	8.219715047	4.095107439	8.50158267	2.49139117	12.1080713
2012	9.65008199	8.244331194	4.229931656	8.9544874	2.826183974	10.5100557
2013	7.63001864	8.1804211	4.386913842	7.10235827	3.238674928	11.5288196
2014	7.35062765	8.448690841	4.53392191	6.69870111	2.984364822	10.4176795
Mean	8.6796052	8.196461526	4.23190644	8.4818274	2.852857293	10.6477127
SD	1.16902821	0.200717381	0.242508241	1.76324518	0.280271142	1.3111683
CV	13.4686796	2.448829659	5.730472641	20.7885058	9.824225797	12.3140841

Source: Computed by authors from RBI data base

As shown in table debt equity is ratio is maximum in case of YES BANK and variation is least in case of KOTAK and maximum in the case of ICICI bank.

3.6. Return on Assets

Return on assets is the ratio of annual net income to average total assets of a business during a financial year. It measures efficiency of the business in using its assets to generate net income. This ratio is calculated as: ROA=(Net profit/Total assets*100)

Table 7
Return on Assets Ratio of New Private Banks(2009-14)

Year	*AXIS*	*HDFC*	*ICICI*	*INDUSIND*	*KOTAK*	*YES BANK*
2010	1.39195306	1.325505645	1.107591099	9.90421856	2.408208629	1.31310152
2011	1.39668732	1.415671252	1.268082041	12.6506992	2.128765192	1.23229077
2012	1.4852215	1.528134492	1.321952502	13.9351852	2.003834377	1.3263242
2013	1.52085474	1.680177084	1.550960357	14.4759685	1.902895548	1.31243848
2014	1.62237415	1.72465108	1.649813479	16.1793386	2.054659065	1.48398705
Mean	1.48341815	1.534827911	1.379679896	13.429082	2.099672562	1.3336284
SD	0.09565775	0.169718988	0.219162038	2.34235807	0.19103223	0.09192491
CV	6.44846832	11.05785131	15.88499178	17.4424288	9.098191473	6.8928427

Source: Computed by authors from RBI data base

As shown in table Return on Assets (RoA) is highest in case of INDUSIND followed by Kotak and HDFC bank i.e., 2.09, 1.53 and 1.48 respectively and variation is more in case of ICICI. This return is related with overall profitability.

3.7. Return on Equity

One of the most important profitability metrics is return on equity (ROE). Return on equity reveals how much profit the bank has earned in comparison to the total amount of shareholder equity found on the balance sheet. The formula is **ROE=(Net profit/Share holder fund*100)**

Table 8
Return on Assets Ratio of New Private Banks(2009-14)

Year	*AXIS*	*HDFC*	*ICICI*	*INDUSIND*	*KOTAK*	*YES BANK*
2010	12.48697991	13.70240903	7.797579078	14.6264128	16.5693318	8.49185868
2011	18.18901387	15.47267498	9.350727798	14.2823389	14.6754291	19
2012	18.59919562	17.26716417	10.70356195	16.9658056	14.3440219	20.8910508
2013	15.64411869	18.57363792	12.48169197	13.9271211	14.4540439	22.3959107
2014	16.26788817	19.50010082	13.40105464	15.5893591	13.1659654	22.7160774
Mean	16.23743925	16.90319738	10.74692309	15.0782075	14.6417584	18.6989795
SD	2.439540855	2.342978409	2.275066424	1.22339975	1.22663378	5.89248423
CV	15.02417233	13.86115512	21.16946781	8.11369487	8.37763979	31.5123305

Source: Computed by authors from RBI data base

As shown in table RoE is maximum in case of YES BANK (18.69) followed by HDFC bank (16.90) with ICICI bank having least variation and YES BANK having most variation.

3.8. Capital Adequacy Ratio

Capital adequacy ratio (CAR) is the ratio which determines the bank's capacity to meet the time liabilities and other risks such as Credit risk and operational risk.This ratio in its most basic formulation, is comparable to the inverse of debt-to equity leverage formulations. Unlike traditional leverage, however, CAR recognizes that assets can have different levels of risk.

In this case ICICI has the capacity to meet the time liabilities and other risks such as credit and operational risk, followed by KOTAK bank.

3.9. Operating Margin Ratio

Operating margin ratio or return on sales ratio is the ratio of operating income of a bank's business to its revenue. It is a profitability ratio showing operating income as a percentage of revenue and is calculated as **OMR= (Net income-operating expenses/total interest income*100)**

Table 9
Capital Adequacy Ratio of New Private Banks(2009-14)

Year	*AXIS*	*HDFC*	*ICICI*	*INDUSIND*	*KOTAK*	*YES BANK*
2010	15.8	16.45	19.4	15.33	19.3	20.6
2011	12.65	15.32	19.5	15.89	19.5	16.5
2012	13.66	15.71	18.52	13.85	17.09	17.9
2013	17	16.8	18.74	15.36	17	18.3
2014	16.07	16.07	19.08	13.83	18.9	14.4
Mean	15.036	16.07	19.048	14.852	18.358	17.54
SD	1.809455719	0.585106828	0.419189695	0.95032626	1.21832672	2.29194241
CV	12.03415615	3.64098835	2.200701882	6.39864166	6.63648939	13.0669465

Source: Computed by authors from RBI data base

Table 10
Operating Margin Ratio of New Private Banks(2009-14)

Year	*AXIS*	*HDFC*	*ICICI*	*INDUSIND*	*KOTAK*	*YES BANK*
2010	11.12537127	16.21303848	8.770124352	5.55653799	6.60387345	12.1449307
2011	11.76890502	17.01213418	9.23686051	10.2527934	6.16636583	14.0315452
2012	9.14152186	13.58450789	8.597151122	6.74067583	2.11106597	11.6705012
2013	10.12422797	13.04725935	12.11093228	6.82353643	16.4705641	10.6613612
2014	13.2203223	15.64976794	13.96830797	8.54700866	10.6618123	9.68193878
Mean	11.07606968	15.10134157	10.53667525	7.58411047	8.40273633	11.6380554
SD	1.559547103	1.710833721	2.388847138	1.83370845	5.43175031	1.64066241
CV	14.08032946	11.32901811	22.67173546	24.178293	64.6426366	14.097393

Source: Computed by authors from RBI data base

As shown in table operating margin of HDFC is maximum (15.10) followed by YES Bank (11.63).

3.10. Net Profit Margin Ratio

Net profit margin is the percentage of revenue remaining after all operating expenses, interest, taxes and preferred stock dividends (but not common stock dividends) have been deducted from a company's total revenue. It is caclculated as:

NPM= Net profit/Total income*100

Table 11
Net Profit Margin Ratio of New Private Banks(2009-14)

Year	*AXIS*	*HDFC*	*ICICI*	*INDUSIND*	*KOTAK*	*YES BANK*
2010	16.13555584	14.75788562	12.12907478	10.7440716	13.2032252	18.060327
2011	17.12488474	16.18242543	15.79113739	13.4167503	14.2279106	15.5870303
2012	15.10934158	15.88405563	15.75147351	12.597944	14.219724	13.6366991
2013	15.35389199	16.04648514	17.19382385	12.7145728	13.8192805	13.6176517
2014	16.34233423	17.28334693	17.96592412	13.8802563	14.5442316	13.8237382
Mean	16.01320168	16.03083975	15.76628673	12.670719	14.0028744	14.9450892
SD	0.807897015	0.899160029	2.242008844	1.19778261	0.51572237	1.92666797
CV	5.045193533	5.608939036	14.22027192	9.45315424	3.68297505	12.8916458

Source: Computed by authors from RBI data base

As per table HDFC bank enjoys more net profit than other banks at 16.03 and followed by AXIS at 16.01 and variation is also least in case of HDFC bank and much higher variation is seen in case of Indusind Bank.

3.11. Time Deposits

This ratio represents the proportion of demand deposits in the total deposits mobilized by a bank and is calculated as: **TD=Demand Deposits/Total deposits**

Table 12
Time Deposits Ratio of New Private Banks(2009-14)

Year	*AXIS*	*HDFC*	*ICICI*	*INDUSIND*	*KOTAK*	*YES BANK*
2010	53.27004065	22.23781982	58.31241974	76.3320833	68.0600862	89.4839409
2011	58.9049329	16.91285054	54.94435928	72.847897	68.7436387	89.658302
2012	58.46422436	51.60001581	57.11778356	72.7038843	68.64404	84.9605506
2013	50.23643295	52.56609069	58.10986166	70.6793746	70.0766962	81.0508335
2014	54.9867271	55.18664022	55.47685117	67.4542631	67.4772957	77.969759
Mean	55.17247159	39.70068342	56.79225508	72.0035004	68.6003514	84.6246772
SD	3.632668636	18.51461994	1.524628055	3.2553434	0.96891365	5.15079917
CV	6.584205005	46.63551946	2.684570374	4.52109047	1.41240333	6.08663967

Source: Computed by authors from RBI data base

From this above table YES bank has been successful in collecting huge deposits compared to other banks because this bank pays a slightly higher percentage of interest to all depositors per anum.

3.12. Correlation Co-Efficient Matrix

AXIS BANK

	DDR	*SDR*	*NIM*	*CDR*	*DER*	*ROA*	*ROE*	*CAR*	*OMR*	*NPM*	*TD*
DDR	1										
SDR	(0.4)	1									
NIM	(0.627)	.882*	1								
CDR	(0.81)	0.858	**.929***	1							
DER	0.236	-.928*	-0.726	-0.73	1						
ROA	(0.772)	.890*	**.908***	**.994****	-0.771	1					
ROE	-0.79	-0.92	0.04	0236	0.49	0.11	1				
CAR	0.098	0.777	0.417	0.429	-.914*	0.508	-0.674	1			
OMR	-0.104	0.429	0.667	0.385	-0.389	0.325	-0.182	0.124	1		
NPM	0.183	-0.249	0.077	-0.2	0.216	-0.285	-0.003	-0.388	0.766	1	
TD	-0.286	-0.533	-0.131	-0.17	0.775	-0.255	0.709	-.942*	0.019	0.352	1

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).
Source: Collected and computed from RBI data base

This table shows that credit depost ratio and net interest margin have a high degree of positive association, return on assets has high positive association with net interest margin and credit deposit ratio while capital adequacy ratio and time deposits ratio has high negative association with debt-equity ratio and capital adequacy ratio respectively.

3.13. Correlation Co-efficient Matrix

HDFC BANK

	DDR	*SDR*	*NIM*	*CDR*	*DER*	*ROA*	*ROE*	*CAR*	*OMR*	*NPM*	*TD*
DDR	1										
SDR	-0.538	1									
NIM	-0.056	-0.082	1								
CDR	-.949*	0.25	0.162	1							
DER	-0.659	-0.241	-0.123	0.825	1						
ROA	-.932*	0.241	0.282	**.992****	0.784	1					
ROE	-.926*	0.193	0.173	**.995****	0.848	**.989****	1				
CAR	-0.387	0.721	0.594	0.228	-0.347	0.298	0.172	1			
OMR	0.687	-0.697	-0.153	-0.54	-0.145	-0.555	-0.552	-0.491	1		
NPM	-0.631	-0.297	0.035	0.827	.974**	0.802	0.841	-0.253	-0.04	1	
TD	**-.985****	0.595	-0.015	**.905***	0.613	.883*	.891*	0.359	-0.781	0.55	1

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).
Source: Collected and computed from RBI data base

This table shows Credit Deposit Ratio has high positive association with Return on Assets and Credit Deposit Ratio. Similarly Return on Equity has high positive association with Return on Assets. Also Term Deposit shares high positive association with Credit Deposit Ratio and negative association with Demand deposit ratio.

3.14. Correlation Co-efficient Matrix

ICICI BANK

	DDR	*SDR*	*NIM*	*CDR*	*DER*	*ROA*	*ROE*	*CAR*	*OMR*	*NPM*	*TD*
DDR	1										
SDR	-.532	1									
NIM	-.413	.443	1								
CDR	-.813	.902*	.490	1							
DER	.895*	.734	.287	.942*	1						
ROA	.882*	.680	.147	.894*	.988**	1					
ROE	-.922*	.714	.281	.931*	.997**	.990**	1				
CAR	.767	-.442	-.835	-.604	-.519	-.435	-.549	1			
OPM	-.734	.406	-.163	.676	.874	.924*	.872	-.140	1		
NPM	-.768	.896*	.239	.958*	.938*	.929*	.932*	-.434	.757	1	
TD	-.153	-.634	.082	-.418	-.287	-.266	-.225	-.360	-.230	-.482	1

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).
Source: Collected and computed from RBI data base

This table shows – Savings Deposit Ratio is positively correlated with Credit Deposit Ratio, Net Profit Margin is positivey correlated with Credit Deposit Ratio, Debt Equity ratio, Return on Assets and Return on Equity.

3.15. Correlation Co-efficient Matrix

INDUSIND BANK

	DDR	*SDR*	*NIM*	*CDR*	*DER*	*ROA*	*ROE*	*CAR*	*OMR*	*NPM*	*TD*
DDR	1										
SDR	-.487	1									
NIM	-.040	.881*	1								
CDR	-.808	.290	-.156	1							
DER	.120	-.892*	-.954*	.141	1						
ROA	-.318	.953*	.953*	.017	-.940*	1					
ROE	-.441	.228	.150	.241	.040	.294	1				
CAR	.704	-.629	-.418	-.526	.290	-.593	-.869	1			
OMR	.729	.219	.632	-.639	-.497	.378	-.160	.183	1		
NPM	.215	.721	.962**	-.370	-.874	.851	.121	-.283	.807	1	
TD	.266	-.972**	-.961**	-.101	.951*	-.966**	-.132	.503	-.439	-.854	1

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).
Source: Collected and computed from RBI data base

The above table shows- Return on Assets is positively correlated with Savings Deposit Ratio and Net Interest Margin while Net Profit Margin ratio and Net Interest Margin share high positive association.

3.16. Correlation Co-efficient Matrix

KOTAK MAHINDRA BANK

	DDR	*SDR*	*NIM*	*CDR*	*DER*	*ROA*	*ROE*	*CAR*	*OMR*	*NPM*	*TD*
DDR	1										
SDR	-.893*	1									
NIM	.558	-.463	1								
CDR	.569	-.597	-.112	1							
DER	-.775	.634	-.638	-.651	1						
ROA	.723	-.616	.950*	-.059	-.605	1					
ROE	.787	-.884*	.595	.160	-.378	.776	1				
CAR	.348	-.276	.906*	-.011	-.698	.739	.282	1			
OMR	-.774	.443	-.306	-.582	.758	-.411	-.245	-.227	1		
NPM	-.532	.698	-.441	.115	.029	-.632	-.934*	-.091	-.061	1	
TD	-.174	-.201	-.641	.319	.404	-.549	.070	-.638	.463	-.203	1

*. Correlation is significant at the 0.05 level (2-tailed).
Source: Collected and computed from RBI data base

This table shows-Net Interest Margin ratio shares high positive association with Return on Assets and Capital Adequacy Ratio.

3.17. Correlation Co-efficient Matrix

YES BANK

	DDR	*SDR*	*NIM*	*CDR*	*DER*	*ROA*	*ROE*	*CAR*	*OMR*	*NPM*	*TD*
DDR	1										
SDR	.724	1									
NIM	.338	.765	1								
CDR	-.364	-.701	-.242	1							
DER	-.047	.252	-.118	-.843	1						
ROA	.384	.674		.969**	-.033	-.331	1				
ROE	.478	.761	.467	-.862	.732	.318	1				
CAR	.047	-.501	-.668	.507	-.517	-.532	-.751	1			
OMR	-.715	-.876	-.861	.276	.242	-.873	-.410	.297	1		
NPM	-.678	-.809	-.468	.790	-.588	-.367	-.966**	.617	.519	1	
TD	-.652	-.976**	-.883*	.583	-.145	-.812	-.719	.592	.918*	.759	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
Source: Collected and computed from RBI data base

This table shows Return on Assets shares high positive association with Net Interest Margin while there is high positive association between Term Deposits and Operating Margin Ratio.

3.18. Comparative Loan performance of New Private Banks (2009-14)

Banks	*2010*	*Percentage*	*2014*	*Percentage*
AXIS BANKS	1,043,431,188	21.565299	2,300,667,584	21.8238866
HDFC	1,258,305,939	26.006261	3,030,002,712	28.7422817
ICICI BANK	1,812,055,971	37.45098792	3,387,026,492	32.128971
INDUS	205505887	4.24732934	551018359	5.22690122
KOTAK	297,242,869	6.143319674	716,925,240	6.80067615
YES BANK	221,931,232	4.586803069	556,329,622	5.27728329
Total	4,838,473,086		10,541,970,009	
Average	48384730.86		105419700.09	

Source: Collected and computed from RBI database

This table shows the loan performance of Indian private banks during 2009-2014. At the end of the year 2010, the amounts of total loans of selected private banks were Rs 1,04,34,31,188 Crore. However after 5 years, it reached to 2300 Crore in 2014. It was increased by100% in 5 years. It was great achievement for these selected private banks. Here only three banks where increased their loans like HDFC BANK 2%, INDUS IND BANK 1%, YES BANK 1%, and other banks are remains same level only. People will not prefer loans from these banks because of high rate of interest.

3.22. Correlation between Net Profit of Bank and Total Private Banks during 2009 –14: (Rs. in crores)

BANKS	*2010*	*2011*	*2012*	*2013*	*2014*	*Correlation*
AXIS	25	34	42	52	62	0.977645228
HDFC	29	39	52	67	85	0.987542041
ICICI	40	52	65	83	98	0.976790555
INDUS	4	6	8	10	14	0.992954592
KOTAK	13	16	19	22	25	0.976244191
YES BANK	5	7	10	13	16	0.979876142
Total banking industry	10,799	14,610	18,794	24,056	35,510	

Source: Collected and computed from RBI data base

This table shows the correlation between the net profit of individual bank and the total private banking industry from 2009-2014. This data states that there is a positive correlation between them. HDFC is highly correlated with the total private banking industry.

3.23. Correlation between Loans of Bank and Total Private Banks during 2009–2014 (Rs. in crores)

Banks	*2010*	*2011*	*2012*	*2013*	*2014*	*Correlation*
AXIS	1,043	1,424	1,698	1,970	2,301	0.98194652
HDFC	1,258	1,600	1,954	2,397	3,030	0.99832439
ICICI	1,812	2,164	2,537	2,902	3,387	0.99307899
INDUS	206	262	351	443	551	0.99313794
KOTAK	297	412	531	663	717	0.95677158
YES BANK	222	344	343	379	556	0.96203398
Total banking industry	6,324	7,975	9,664	11,432	14,996	

Source: Collected and computed from RBI data base

This table shows the correlation between the loans of individual bank and the total private banking industry from 2010-2014.This data states that there is a positive correlation between them. HDFC is highly correlated with the total private banking industry.

3.24. Correlation between NPA of Bank and Total Private Banks during 2009 – 2014 (Rs. in crores)

Banks	*2010*	*2011*	*2012*	*2013*	*2014*	*Correlation*
AXIS	1,318.00	1,599.42	1,806.30	2,393.42	3,146.41	0.971945738
HDFC	1,821.89	1,698.48	2,003.17	2,373.92	3,100.75	0.979427949
ICICI	9,627	9,816	9,563	9,647	1,055.40	-0.94351854
INDUS	255.47	265.86	347.08	457.78	620.79	0.970887042
KOTAK	767	603	614	758.1	1059.4	0.890402943
YES BANK	602.2	805.24	959.02	943.23	1749.2	0.971899257
Total banking industry	17,384	17,972	18,321	19,992	24,542	

Source: Collected and computed from RBI data base

This table shows the correlation between the NPA of individual bank and the total private banking industry from 2009-2014.This data states that there is a positive correlation between them. HDFC is highly correlated with the total private banking industry.

4. RESULTS & CONCLUSIONS

4.1. Results

Based on the loan performance of the New Private Banks, it has been observed that the credit offtake in the economy has more than doubled during the tenure of the study. This indicates that the private banking industry has been growing.

However not all the private banks seem to have capitalised on this growth story. The ratios calculated reveal that there are marked areas of improvement for private banks. Ratios indicate lending and financing mismatches do exist which needs to be rectified. As far as correlation between the banking industry and new private banks are concerned banks do generally share a positive correlation. Net profits of the industry and the seleced banks seems to have moved in tandem

4.2. Conclusion

The study reveals that it is right time to take suitable and stringent measures to get rid of NPA problem. An efficient management information system should be developed. The bank staff involved in sanctioning the advances should be trained about the proper documentation, and motivated to take measures in preventing advances turning into NPA. Public banks must pay attention on their functioning to compete with private banks. Banks should be well versed in proper selection of borrower/projects and in analyzing the financial statements.

Indian banking system has undergone a drastic change since liberalization. With the increasing levels of Globalization Liberalization, Privatization and new reforms of the Indian banking sector, competition will intensify further and the new generation private sector bank has best used the technology and manpower in an effective and efficient way. These have made them to attract more customers and made them to grower faster and stronger. The study reveals that the private banking sector has very sound financial position especially in terms of net worth reserves and deposit and they contribute very much to the overall development of economy.

In the light of the above conclusions the following suggestions is made: the NPAs of new private banks shoud be conrolled, otherwise it will affect the asset quality in the long run. Also, the burden of expenses should be controlled; otherwise the profit of the bank will be eaten away by the increased burden in the long-run.

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