Financial Performance of Public and Private Sector Banks: An Application of Post-Hoc Tukey HSD Test

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ABSTRACT

Financial performance is the key indicator for any business organization. The survival growth and development of business depends on profitability. The profitability is the ratio which helps to measure the financial performance of business and indicates how far it has been successful. The present study attempts to analyze the financial performance of four major banks in India: SBI, PNB, ICICI and HDFC. The variables taken for the study are spread ratios, burden ratios and profitability ratios. The study brings out the comparative efficiency of SBI, PNB, ICICI and HDFC.

Keywords: Public and private sector banks, profitability ratios, financial performance, post Hoc Tukey test.

Introduction:

In the words of Lord Keynes, "Profit is the engine that drives the business enterprise". The primary objective of a business undertaking is to earn profits. Profit earning is considered essential for the survival of the business. A business needs profit not only for its existence but also for expansion and diversification. The investors want an adequate return on their investments, workers want higher wages, creditors want higher security for their interest and loan and so on. A business enterprise can discharge its obligations to various segments of society only through earning of profits. Profits are, thus, a useful measure of overall efficiency of business. How good is a company at running its business? Does its performance seem to be getting better or worse? Is it making any money? How profitable is it compared with its competitors? All of these very important questions can be answered by analyzing profitability ratios. Profitability Ratios show how successful a company is in terms of generating returns or profits on the Investment that it has made in the business. If a business is liquid and efficient it should also be Profitable.

This Ratios shows how profitable the business is, compared to previous years and to similar business. In limited company's they may be used by investors, shareholders or seeking investors. Every firm is most concerned with its profitability. One of the most frequently used tools of financial ratio analysis is profitability ratios which are used to determine the company's bottom line. Profitability measures are important to company managers and owners alike. If a small business has outside investors who have put their own money into the company, the primary owner certainly has to show profitability to those equity investors.

It is a financial metrics that are used to assess a business's ability to generate earnings as compared to its expenses and other relevant costs incurred during a specific period of time. For most of these ratios, having a higher value relative to a competitor's ratio or the same ratio from a previous period is indicative that the company is doing well. Profits to the management are the test of efficiency and a measurement of control; to owners, a measure of worth of their investment; to the creditors, the margin of safety; to employees, a source of fringe benefits; to Government, a measure of tax-paying capacity and the basis of legislative action; to customer, a hint to demand for better quality and price cuts; to an enterprise, less cumbersome source of finance for growth and existence and finally to the country, profits are an index of economic progress.

Review of literature:

Literature review is a study involving a collection of literatures in the selected area of research in which the scholar has limited experience. In the past, various studies relating to the financial performance of banks have been conducted by researchers.

Studies by Saveeta and Verma Sateesh (2001), Shravan Singh (2001), Kantawala Amita S (2004), Ketkar W Kusum et al. (2004), analyze the performance of banks from a profitability point of view, using various parameters.

Most of the studies (Ganesan P 2001; Rayapati Vijayasree, 2002; Das M R, 2002-2003; and Gupta V & Jain P K, 2003) compared the performance of public, private and foreign banks by using measures of profitability, productivity, and financial management (Trehan Ruchi and Sonu Nitti, 2003).
P Janaki Ramudu and S Durga Rao (2006) conducted a study on A Fundamental Analysis of Indian Banking Industry, by analyzing the performance of SBI, ICICI and HDFC.

Gunjan M Sanjeev (2009) conducted a study on Efficiency of Indian public sector banks and found that the efficiency of public sector banks not increased during the period 2003-07.

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

Raj Mohan S and Pashupati S (2010) conducted a study to evaluate the performance of TAICO bank using profitability ratios.

Dilip Kumar Jha and Durga sankar Sarangi (2011) conducted a study on Performance of new generation banks using modern techniques
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Methodology of the study:

The present study adopts analytical and descriptive research design. The data of the sample banks for a period of 2006-2010 have been collected from the annual reports published by the banks, Ace Analyzer, Moneycontrol.com. A finite sample size of four banks SBI, ICICI, PNB and HDFC selected for the purpose of study. The variables used in the analysis of the data are Interest earned as a percentage of total assets (IE/TA), interest expended as a percentage of total assets (IP/TA),spread as a percentage of total assets(SPR/TA),non interest expenditure as a percentage of total assets (NIE/TA),non interest income as a percentage of total assets(NII/TA),burden as a percentage of total assets (B/TA),operating profit as a percentage of total assets(OP/TA), net profit as a percentage of total assets(NP/TA). While analyzing and interpreting the results, the statistical tools used are arithmetic mean, one-way ANOVA, post Hoc Tukey HSD test for multiple comparisons using SPSS 18 and ranking method.

Results and Analysis:

Interest Earned as a Percentage of Total Assets (IE/TA):

This ratio is an indicator of the rate at which a bank earns returns by lending various funds. The IE/TA position of sample banks summarized in table 1 and discussed below.

The data in table 1 reveal that among all sample banks, HDFC sustained the highest average of 7.484 followed by PNB (7.152), ICICI (7.008) and SBI (6.79). HDFC is successful in earnings return by various funds. The IE/TA position of sample banks compared and tested under the following hypothesis.

Table 1 : Interest Earned as percentage of Total Assets						
Bank	2006	2007	2008	2009	2010	Mean
SBI	7.25	6.57	6.78	6.61	6.74	6.79
PNB	6.6	6.92	7.17	7.83	7.24	7.15
ICICI	5.69	6.38	7.7	8.2	7.07	7.008
HDFC	6.35	7.29	7.6	8.91	7.27	7.48

Source: Computed using MS-Excel spread sheets from the data available in www.aceanalyzer.com

H0: The IE/TA position of sample banks does not differ significantly
H1: The IE/TA position of sample banks differ significantly

Table 1.1 depicts that F value for between the banks is 0.791 and p value is 0.516 therefore null hypothesis H0 is accepted at 5% level of significance .Tukey test is being applied to make multiple comparisons as indicated in table 1.2. It is observed from table 1.2 the significant values corresponding all the mean differences were greater than 0.05. We conclude that the sample bank does not differ significantly during the study period and the mean differences also not significant.

Table 1.1 :ANOVA of IE/TA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.272	3	.424	.791	.516

Within Groups	8.573	16	.536	
Total	9.845	19		

Source: Secondary data processed through SPSS 18

Table 1.2: Multiple comparisons of IE/TA using Tukey HSD test

(I) Bank Name	(J) Bank Name	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
SBI	PNB	-.36200	.862	-1.6865	.9625
	ICICI	-.21800	.964	-1.5425	1.1065
	HDFC	-.69400	.461	-2.0185	.6305
PNB	SBI	.36200	.862	-.9625	1.6865
	ICICI	.14400	.989	-1.1805	1.4685
	HDFC	-.33200	.889	-1.6565	.9925
ICICI	SBI	.21800	.964	-1.1065	1.5425
	PNB	-.14400	.989	-1.4685	1.1805
	HDFC	-.47600	.736	-1.8005	.8485
HDFC	SBI	.69400	.461	-.6305	2.0185
	PNB	.33200	.889	-.9925	1.6565
	ICICI	.47600	.736	-.8485	1.8005

Source: Secondary data processed through SPSS 18

Interest Expenditure as a percentage of Total Assets (IP/TA):

This is a measure of the cost of funds incurred by the bank. Lesser the ratio, greater shall be the profit margin for the bank. The IP/TA position of sample banks summarized in table 2 and discussed below.

The data in table 2 reveal that among all sample banks, HDFC sustained the least average of 3.65 followed by PNB, SBI and ICICI.HDFC was highly successful in controlling the cost of funds incurred. The IP/TA position of sample banks compared and tested under the following hypothesis.

H0: The IP/TA position of sample banks does not differ significantly
H1: The IP/TA position of sample banks differ significantly

Table 2 : Interest paid as percentage of Total Assets

Bank	2006	2007	2008	2009	2010	Mean
SBI	4.08	3.92	4.43	4.45	4.49	4.27
PNB	3.39	3.71	4.39	4.98	4.36	4.17
ICICI	3.8	4.75	5.87	5.99	4.84	5.05
HDFC	2.74	3.48	3.67	4.86	3.5	3.65

Source: Computed using MS-Excel spread sheets from the data
available in www.aceanalyzer.com

Table 2.1 depicts that F value for between the banks is 3.603 and p value is 0.037 therefore null hypothesis rejected at 0.05 level of significance i.e., the sample banks differ significantly in IP/TA

position during 2006-10.Tuket test is being applied to make multiple comparisons as indicated in table 2.2. In this table, the mean differences between HDFC and ICICI is -1.4 with p value 0.023 i.e., HDFC performed better than ICICI and the performance of SBI, PNB and HDFC does not differ significantly.

Table 2.1 : ANOVA of IP/TA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.014	3	1.671	3.603	.037
Within Groups	7.422	16	.464		
Total	12.436	19			

Source: Secondary data processed through SPSS 18

Table 2.2: Multiple comparisons of IP/TA using Tukey HSD test

(I) Bank Name	(J) Bank Name	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
SBI	PNB	.10800	.994	-1.1244	1.3404
	ICICI	-.77600	.308	-2.0084	.4564
	HDFC	.62400	.489	-.6084	1.8564
PNB	SBI	-.10800	.994	-1.3404	1.1244
	ICICI	-.88400	.211	-2.1164	.3484
	HDFC	.51600	.637	-.7164	1.7484
ICICI	SBI	.77600	.308	-.4564	2.0084
	PNB	.88400	.211	-.3484	2.1164
	HDFC	1.40000*	.023	.1676	2.6324
HDFC	SBI	-.62400	.489	-1.8564	.6084
	PNB	-.51600	.637	-1.7484	.7164
	ICICI	-1.40000*	.023	-2.6324	-.1676

Source: Secondary data processed through SPSS 18

Spread as percentage of Total Assets (SPR/TA):

It is the difference between the interest earned and interest paid. The ratio SPR/TA is measure of operating profitability and serves as a cushion for making various administrative and management expenses. The higher the ratio, the greater the profit margin of the bank. As it could be observed from table 3, among all the sample banks HDFC sustained the highest average of 3.834 followed by PNB, SBI and ICICI. The SPR/TA position of sample banks compared and tested using the following hypothesis

Table 3 : Spread as percentage of Total Assets

Bank	2006	2007	2008	2009	2010	Mean
SBI	3.17	2.65	2.35	2.16	2.25	2.52
PNB	3.21	3.21	2.78	2.85	2.88	2.99

| ICICI | 1.89 | 1.63 | 1.83 | 2.21 | 2.23 | 1.96 |
| HDFC | 3.61 | 3.81 | 3.93 | 4.05 | 3.77 | 3.83 |

Source: Computed using MS-Excel spread sheets from the data available in www.aceanalyzer.com

H0: The SPR/TA position of sample banks does not differ significantly
H1: The SPR/TA position of sample banks differ significantly

Table 3.1 depicts that F value for between the banks is 41.336 with p value 0.000 therefore null hypothesis is rejected at 5% level of significance. In order to make multiple comparisons Tukey test is being applied as indicated in table 3.2.

Table 3.1 :ANOVA of SPR/TA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	9.456	3	3.152	41.336	.000
Within Groups	1.220	16	.076		
Total	10.676	19			

Source: Secondary data processed through SPSS 18

In table 3.2, the mean differences between HDFC and SBI, PNB, ICICI was 1.318, 0.848, 1.876 with p values 0.000, 0.001, 0.000. We conclude that HDFC outperformed the remaining sample banks. The mean difference between SBI and ICICI is 0.558 with p value 0.026, the mean difference between PNB and ICICI is 1.028 with p value 0.000 i.e., both SBI, PNB performed better than ICICI.

Table 3.2: Multiple comparisons of SPR/TA using Tukey HSD test

(I) Bank Name	(J) Bank Name	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
SBI	PNB	-.47000	.069	-.9697	.0297
	ICICI	.55800[*]	.026	.0583	1.0577
	HDFC	-1.31800[*]	.000	-1.8177	-.8183
PNB	SBI	.47000	.069	-.0297	.9697
	ICICI	1.02800[*]	.000	.5283	1.5277
	HDFC	-.84800[*]	.001	-1.3477	-.3483
ICICI	SBI	-.55800[*]	.026	-1.0577	-.0583
	PNB	-1.02800[*]	.000	-1.5277	-.5283
	HDFC	-1.87600[*]	.000	-2.3757	-1.3763
HDFC	SBI	1.31800[*]	.000	.8183	1.8177
	PNB	.84800[*]	.001	.3483	1.3477
	ICICI	1.87600[*]	.000	1.3763	2.3757

Source: Secondary data processed through SPSS 18

Non Interest Expenditure as percentage of Total Assets (NIE/TA):

This ratio indicates share of manpower expenses and other contingent expenses from the total assets. A reduction in this expenditure is a better sign for profitability of the bank.

The NIE/TA position of sample banks depicted in table 4 and discussed below.

The data in table 4 reveal that, SBI was highly successful in controlling man power expenses, establishment expenses and other expenses from total assets. SBI was at top place with least average of 2.984 followed by PNB (3.22), ICICI (3.72) and HDFC (4.932). The NIE/TA position of sample banks compared and tested using the following hypothesis.

H0: The NIE/TA position of sample banks does not differ significantly
H1: The NIE/TA position of sample banks differ significantly

Table 4 : Non interest expenditure as percentage of Total Assets

Bank	2006	2007	2008	2009	2010	Mean
SBI	3.91	3.05	2.63	2.53	2.8	2.98
PNB	4.48	3.33	2.75	2.78	2.76	3.22
ICICI	6.47	2.74	2.99	3.22	3.18	3.72
HDFC	7.22	4.21	4.45	4.62	4.16	4.93

Source: Computed using MS-Excel spread sheets from the data available in www.aceanalyzer.com

Table 4.1 depicts that F value for between the banks is 7.853 and p value is 0.002 therefore null hypothesis is rejected at 0.05 level of significance i.e., the sample banks differ significantly in NIE/TA position during the period of study. In order to make multiple comparisons Tukey test applied as indicated in table 4.2. The mean difference between SBI and HDFC is -1.298 with p value 0.004, the mean difference between PNB and HDFC is -1.062 with p value 0.019, the mean difference between ICICI and HDFC is -1.346 with p value 0.003 i.e., the performance of SBI,ICICI and PNB is better than HDFC.

Table 4.1: ANOVA of NIE/TA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.954	3	1.985	7.853	.002
Within Groups	4.043	16	.253		
Total	9.997	19			

Source: Secondary data processed through SPSS 18

Table 4.2: Multiple comparisons of NIE/TA using Tukey HSD test

(I) Bank Name	(J) Bank Name	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
SBI	PNB	-.23600	.879	-1.1456	.6736
	ICICI	.04800	.999	-.8616	.9576
	HDFC	-1.29800[*]	.004	-2.2076	-.3884
PNB	SBI	.23600	.879	-.6736	1.1456

	ICICI	.28400	.808	-.6256	1.1936
	HDFC	-1.06200*	.019	-1.9716	-.1524
ICICI	SBI	-.04800	.999	-.9576	.8616
	PNB	-.28400	.808	-1.1936	.6256
	HDFC	-1.34600*	.003	-2.2556	-.4364
HDFC	SBI	1.29800*	.004	.3884	2.2076
	PNB	1.06200*	.019	.1524	1.9716
	ICICI	1.34600*	.003	.4364	2.2556

Source: Secondary data processed through SPSS 18

Non Interest Income as Percentage of Total Assets (NII/TA):

This ratio indicates the non-fund-based incomes include commission, brokerages, service charges and miscellaneous receipts. The NII/TA position of sample banks depicted in table 5 and discussed below. The data in table 5 reveal that it was ICICI highly successful in terms of NII/TA followed by HDFC, SBI and PNB.The NII/TA position of ICICI was substantially higher than other sample banks during the period of study. The sample banks are compared and tested under the following hypothesis.

H0: The NII/TA position of sample banks does not differ significantly
H1: The NII/TA position of sample banks differ significantly

Table 5: Noninterest income as percentage of Total Assets

Bank	2006	2007	2008	2009	2010	Mean
SBI	1.5	1.19	1.21	1.32	1.42	1.33
PNB	0.88	1.07	1	1.18	1.2	1.07
ICICI	1.66	2.01	2.2	2	2.06	1.99
HDFC	1.59	1.66	1.71	1.8	1.71	1.69

Source: Computed using MS-Excel spread sheets from the data available in www.aceanalyzer.com

Table 5.1 depicts that F value for between the banks is 40.482 and p value is 0.000 therefore null hypothesis is rejected i.e., the sample banks differ significantly in terms of NII/TA. From multiple comparisons table 5.2 the mean differences between ICICI and SBI,PNB,HDFC was 0.658,0.92,,0.292 with p values 0.000,0.000,0.0023 i.e., the mean differences were significant. We conclude that ICICI bank outperformed other sample banks in terms of non-fund-based income. The mean differences between HDFC and SBI, ICICI was 0.366, 0.628 with p values 0.004, 0.000 i.e., HDFC bank performed better than SBI, PNB in terms of NII/TA. Further it is infer that the two private sector banks performed better than the leading public sector banks in terms of NII/TA.

Table 5.1 :ANOVA of NII/TA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.452	3	.817	40.482	.000
Within Groups	.323	16	.020		
Total	2.775	19			

Source: secondary data processed through SPSS 18

Table 5.2: Multiple comparisons of NII/TA using Tukey HSD Test

(I) Bank Name	(J) Bank Name	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
SBI	PNB	.26200[*]	.045	.0049	.5191
	ICICI	-.65800[*]	.000	-.9151	-.4009
	HDFC	-.36600[*]	.004	-.6231	-.1089
PNB	SBI	-.26200[*]	.045	-.5191	-.0049
	ICICI	-.92000[*]	.000	-1.1771	-.6629
	HDFC	-.62800[*]	.000	-.8851	-.3709
ICICI	SBI	.65800[*]	.000	.4009	.9151
	PNB	.92000[*]	.000	.6629	1.1771
	HDFC	.29200[*]	.023	.0349	.5491
HDFC	SBI	.36600[*]	.004	.1089	.6231
	PNB	.62800[*]	.000	.3709	.8851
	ICICI	-.29200[*]	.023	-.5491	-.0349

Source: Secondary data processed through SPSS 18

Burden as percentage of Total Assets (B/TA):

Burden is the difference between non-interest expenditure and non-interest income. The lesser the ratio, the better shall be the profitability. The B/TA position of sample banks depicted in table 6 and discussed below.

The data in table 6 revealed that it was SBI was at the top place with an average ratio of 1.656 followed by ICICI (1.734), PNB (2.154) and HDFC (3.238). The B/TA position of sample banks compared and tested using the following hypothesis.
H0: The B/TA position of sample banks does not differ significantly
H1: The B/TA position of sample banks differ significantly

Table 6: Burden as percentage of Total Assets

Bank	2006	2007	2008	2009	2010	Mean
SBI	2.41	1.86	1.42	1.21	1.38	1.66
PNB	3.6	2.26	1.75	1.6	1.56	2.15
ICICI	4.81	0.73	0.79	1.22	1.12	1.73
HDFC	5.63	2.55	2.74	2.82	2.45	3.24

Source: Computed using MS-Excel spread sheets from the data available in www.aceanalyzer.com

Table 6.1 depict that F value for between the banks is 9.454 and p value is 0.001 there fore null hypothesis rejected. From multiple comparisons table 6.2, the mean differences between SBI and HDFC is -0.932 with p value 0.048 i.e., the performance of SBI is better than HDFC. The mean difference between ICICI and PNB, HDFC was -1.204,-1.638 with p values 0.009, 0.001 respectively i.e., the performance of ICICI was good when compared to PNB, HDFC.

Table 6.1: ANOVA of B/TA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	7.420	3	2.473	9.454	.001
Within Groups	4.186	16	.262		
Total	11.606	19			

Source: Secondary data processed through SPSS 18

Table 6.2: Multiple comparisons of B/TA using Tukey HSD test

(I) Bank Name	(J) Bank Name	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
SBI	PNB	-.49800	.439	-1.4235	.4275
	ICICI	.70600	.170	-.2195	1.6315
	HDFC	-.93200[*]	.048	-1.8575	-.0065
PNB	SBI	.49800	.439	-.4275	1.4235
	ICICI	1.20400[*]	.009	.2785	2.1295
	HDFC	-.43400	.551	-1.3595	.4915
ICICI	SBI	-.70600	.170	-1.6315	.2195
	PNB	-1.20400[*]	.009	-2.1295	-.2785
	HDFC	-1.63800[*]	.001	-2.5635	-.7125
HDFC	SBI	.93200[*]	.048	.0065	1.8575
	PNB	.43400	.551	-.4915	1.3595
	ICICI	1.63800[*]	.001	.7125	2.5635

Source: Secondary data processed through SPSS 18

Operating Profit as percentage of Total Assets (OP/TA):

Operating profit denotes the operating performance and the performance to earn the returns from investments. Operating profit as a percentage of total asset is an indicator of a banks operational efficiency.

The OP/TA position of sample banks summarized and depicted in table 7 and discussed below. The data in table 7 reveal that it was HDFC which is highly successful in operational efficiency with an average of 2.834 followed by PNB (2.21), SBI (1.896) and ICICI (1.774). The OP/TA position of sample banks compared and tested using the following hypothesis.

H0: The OP/TA position of sample banks does not differ significantly

H1: The OP/TA position of sample banks differ significantly

Table 7: Operating Profit as percentage of Total Assets

Bank	2006	2007	2008	2009	2010	Mean
SBI	2.29	1.77	1.82	1.86	1.74	1.896
PNB	2.01	2.23	2.01	2.33	2.47	2.21
ICICI	0.15	1.7	1.99	2.35	2.68	1.77
HDFC	2.81	2.81	2.83	2.83	2.89	2.83

Source: Computed using MS-Excel spread sheets from the data available in www.aceanalyzer.com

Table 7.1 depicts that F value for between the sample banks is 4.268 with p value 0.021 therefore null hypothesis rejected at 0.05 level of significance i.e., the sample banks differ significantly in the position of OP/TA during 2006-10. Tukey test applied to make multiple comparisons as indicated in table

7.2.The mean difference between HDFC and SBI is 0.938 with p value0.047 and the mean difference between HDFC and ICICI is 1.06 with p value 0.023. These mean differences were significant. We conclude that HDFC performed better than SBI and ICICI. Also it is clear from table 7.2 the operational efficiency position of SBI, PNB and ICICI does not differed significantly during 2006-10.

Table 7.1: ANOVA of OP/TA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.370	3	1.123	4.268	.021
Within Groups	4.211	16	.263		
Total	7.582	19			

Source: Secondary data processed through SPSS 18

Table 7.2: Multiple comparisons of OP/TA using Tukey HSD test

(I) Bank Name	(J) Bank Name	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
SBI	PNB	-.31400	.769	-1.2423	.6143
	ICICI	.12200	.981	-.8063	1.0503
	HDFC	-.93800[*]	.047	-1.8663	-.0097
PNB	SBI	.31400	.769	-.6143	1.2423
	ICICI	.43600	.550	-.4923	1.3643
	HDFC	-.62400	.258	-1.5523	.3043
ICICI	SBI	-.12200	.981	-1.0503	.8063
	PNB	-.43600	.550	-1.3643	.4923
	HDFC	-1.06000[*]	.023	-1.9883	-.1317
HDFC	SBI	.93800[*]	.047	.0097	1.8663
	PNB	.62400	.258	-.3043	1.5523
	ICICI	1.06000[*]	.023	.1317	1.9883

Source: Secondary data processed through SPSS 18

Net Profit as Percentage of Total Assets (NP/TA):

This ratio is an indicator of excellent utilization of resources. It is also known as return on assets. The NP/TA position of sample banks summarized and depicted in table 8 and discussed below.
Among the sample banks HDFC could make the highest NP/TA of 1.246 followed by PNB, ICICI and SBI. The NP/TA position of sample banks compared and tested using the following hypothesis.
H0: The NP/TA position of sample banks does not differ significantly
H1: The NP/TA position of sample banks differ significantly.

Table 8: Net Profit as percentage of Total Assets

Bank	2006	2007	2008	2009	2010	Mean
SBI	0.89	0.8	0.93	0.95	0.87	0.89
PNB	0.99	0.95	1.03	1.25	1.32	1.11
ICICI	1.01	0.9	1.04	0.99	1.11	1.01
HDFC	1.24	1.25	1.19	1.22	1.33	1.25

Source: Computed using MS-Excel spread sheets from the data available in www.aceanalyzer.com

Table 8.1: ANOVA of NP/TA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.345	3	.115	11.631	.000
Within Groups	.158	16	.010		
Total	.503	19			

Source: Secondary data processed through SPSS 18

Table 8.2: Multiple Comparisons of NP/TA using Tukey HSD test

(I) Bank Name	(J) Bank Name	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
SBI	PNB	-.22000[*]	.014	-.3999	-.0401
	ICICI	-.12200	.251	-.3019	.0579
	HDFC	-.35800[*]	.000	-.5379	-.1781
PNB	SBI	.22000[*]	.014	.0401	.3999
	ICICI	.09800	.428	-.0819	.2779
	HDFC	-.13800	.167	-.3179	.0419
ICICI	SBI	.12200	.251	-.0579	.3019
	PNB	-.09800	.428	-.2779	.0819
	HDFC	-.23600[*]	.008	-.4159	-.0561
HDFC	SBI	.35800[*]	.000	.1781	.5379
	PNB	.13800	.167	-.0419	.3179
	ICICI	.23600[*]	.008	.0561	.4159

Source: Secondary data processed through SPSS 18

Table 8.1 depicts that F value for between the sample banks is 11.631 and p value is 0.000 therefore null hypothesis rejected at 0.05 level of significance i.e., the sample banks differed significantly in utilization of resources.Tukey test is being applied as indicated in table 8.2 to make multiple comparisons.

The mean difference between HDFC and SBI, ICICI was 0.358, 0.236 with p values0.000, 0.008 respectively. HDFC performed better than SBI and ICICI. The mean difference between PNB and SBI is 0.22 and p value 0.014 i.e., PNB performed better than SBI

Table 9: Overall performance Analysis: Ranking Method

Bank	IE/TA	IP/TA	SPR/TA	NIE/TA	NII/TA	B/TA	OP/TA	NP/TA	Total	Rank
SBI	4	3	3	1	3	1	3	4	22	III
PNB	2	2	2	2	4	3	2	2	19	II
ICICI	3	4	4	3	1	2	4	3	24	IV
HDFC	1	1	1	4	2	4	1	1	15	I

As indicated in table 10, ranks are assigned to every bank on the basis of their performance in each aspect separately and then the total obtained is given individually. The bank having the least total is considered the best among all. The results of overall ranks of the sample banks indicated that HDFC bank is the top most banks, followed by PNB SBI, and ICICI.

Conclusion:

Profitability, which aims at developing an insight into economic performance of the banks, is of paramount importance from the view point of investment decisions. The present study is conduct to examine the profitability position of four major banks in Indian banking sector. The study reveals that the sample bank does not differ significantly in earning returns by lending various funds.

- The cost of funds incurred by SBI,PNB,ICICI and HDFC does not differ significantly during 2006-2010
- HDFC outperformed SBI, PNB and ICICI in terms of spread as a percentage of Total Assets.
- The share of manpower expenses, establishment expenses and other contingent expenses is the same for SBI, PNB and ICICI. These banks performed better than HDFC in front of non-interest expenditure as percentage of total assets
- ICICI bank proved to be good in terms of non-fund-based income.
- In terms of burden as percentage of total assets SBI was at top place.
- It's again HDFC out performed SBI, PNB and ICICI in front of Operational efficiency and excellent utilization of resources.
- The study also revealed that HDFC rated top followed by PNB, SBI and ICICI based on overall performance.

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