

SHAREHOLDERS' WEALTH MEASUREMENT IN BANKING SECTOR IN INDIA THROUGH EVA

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ABSTRACT

Within the voluminous market efficiency literature, a large number of studies have investigated the relationship between accounting numbers and stock returns. Traditionally, most studies have focused on accounting profits, earnings and accruals, but more recently cash flows and residual income have attracted attention. This paper tries to highlight the significance of EVA, a trademarked variant of residual income, as an innovative parameter for shareholders' wealth measurement.

Keywords: EVA, Shareholders Wealth, Market Value, Wealth Creation.

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1.1 Introduction

The major participants of the Indian financial system are the commercial banks, the financial institutions (FIs), encompassing term-lending institutions, investment institutions, specialized financial institutions and the state-level development banks, Non-Bank Financial Companies (NBFCs) and other market intermediaries such as the stock brokers and money-lenders. The commercial banks and certain variants of NBFCs are among the oldest of the market participants. The FIs, on the other hand, are relatively new entities in the financial market place.

2.1 Objectives

1. To measure the shareholders wealth creation by computing EVA.
2. To assess the extent of and change in shareholders wealth creation.
3. To study the financial performance of four Indian banks i.e. SBI, BOI, ICICI and HDFC for three consecutive financial years F.Y.'s 2006-07 to 2008-09.

3.1 DATA ANALYSIS AND INTERPRETATION

3.1.1 Net Operating Profit After Tax (NOPAT):

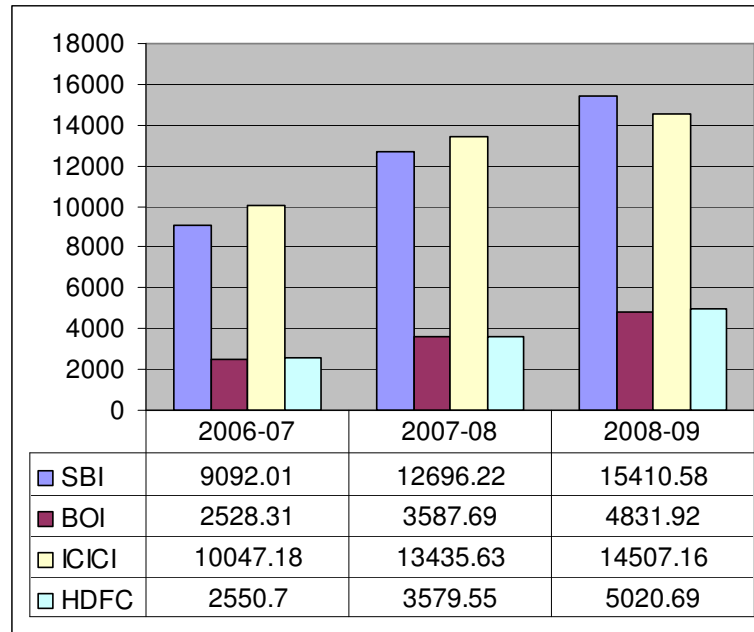
- (i) The NOPAT curriculum includes Interest Income, Other Income deducting interest on deposit and other operating expenses less tax so as to give an overall emphasis for Operating Profit.
- (ii) Net Operating Profit is considered instead of Net Profit so as to highlight the economic value of a firm.

$$\text{NOPAT} = (\text{Net profit} + \text{provisions \& contingencies} + \text{interest on borrowing}) \\ \text{less (taxes)}$$

NET OPERATING PROFIT			
	2006-07	2007-08	2008-09
SBI	12141	16406	20470
BOI	2938	4263	5989
ICICI	10585	14334	15866
HDFC	3048	4270	6075
TAX			
	2006-07	2007-08	2008-09
SBI	3048.99	3709.78	5059.42
BOI	409.69	675.31	1157.08
ICICI	537.82	898.37	1358.84
HDFC	497.3	690.45	1054.31
NOPAT			
	2006-07	2007-08	2008-09
SBI	9092.01	12696.22	15410.58
BOI	2528.31	3587.69	4831.92
ICICI	10047.18	13435.63	14507.16
HDFC	2550.7	3579.55	5020.69

As per the above tables, the following interpretation has been made.

1. Comparing all the four esteemed Banks for analysis, it can be seen that in 2006-07, ICICI bank leads the race by holding the highest NOPAT of Rs. 10,047 crores, and in 2007-08 it holds NOPAT of Rs. 13,435.63 crores and in 2008-09 it holds second position with Rs. 14,507 crores.
2. SBI stood second both in 2006-07 and 2007-08 holding NOPAT of Rs. 9,092 crores and Rs. 12,696 crores and holds first position in 2008-09 with Rs. 15410 crores.
3. HDFC Bank stood third in the race with an overall net operating profit after tax of Rs. 2,550 crores in 2006-07; Rs. 3,579 crores in 2007-08 and Rs. 5,020 crores in 2008-09.
4. Keeping BOI in the last stage with an overall NOPAT of Rs. 4,831 crores in 2008-09 respectively.



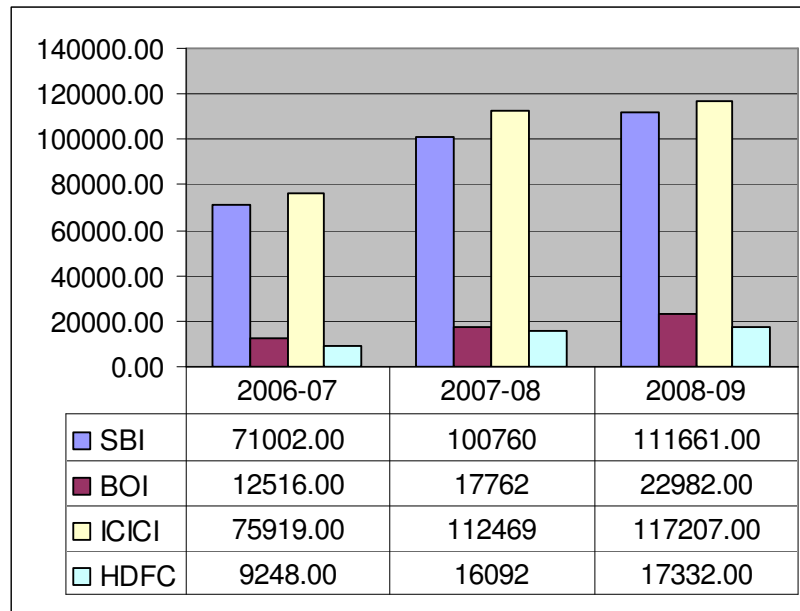
3.1.2 INVESTED CAPITAL:

The invested capital includes Total Equity and Reserves and borrowings excluding Total Deposits because these are the prime essentials for undermining the operations of a business unit.

$$\text{Invested Capital} = \text{Total equity \& Reserves} + \text{Total borrowings}$$

From the above, it can be proclaimed that ICICI Bank has made the highest capital investment each time in comparison with other banks with an investment of Rs. 1,17,207 crores in 2008-09; Rs. 1,12,469 crores in 2007-08 and Rs. 75,919 crores in 2006-07.

Whereas SBI holds the second spot, BOI holds the third spot and HDFC holding fourth spot in 2006-07. For 2007-08 and 2008-09 SBI did hold the second spot again with BOI holding the third spot and HDFC holding the fourth spot each respective year.

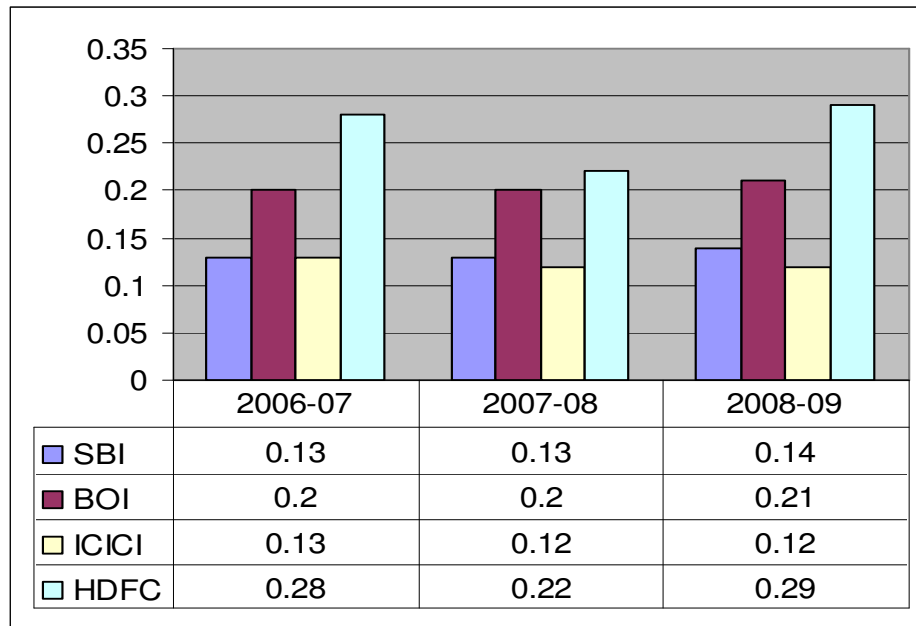


3.1.3 RETURN ON INVESTED CAPITAL (ROIC):

The return on invested capital signifies the return that the firm earns on the capital invested for a given period of time.

$$\text{ROIC} = \text{NOPAT} / \text{Capital Employed}$$

BANK	2006-07		2007-08		2008-09	
	NOPAT	Cap emp	NOPAT	cap emp	NOPAT	cap emp
SBI	9092.01	71002	12696.22	100760	15410.58	111661
BOI	2528.31	12516	3587.69	17762	4831.92	22982
ICICI	10047.18	75919	13435.63	112469	14507.16	117207
HDFC	2550.70	9248	3579.55	16092	5020.69	17332
ROIC						
BANK	2006-07		2007-08		2008-09	
SBI	0.13		0.13		0.14	
BOI	0.20		0.20		0.21	
ICICI	0.13		0.12		0.12	
HDFC	0.28		0.22		0.29	

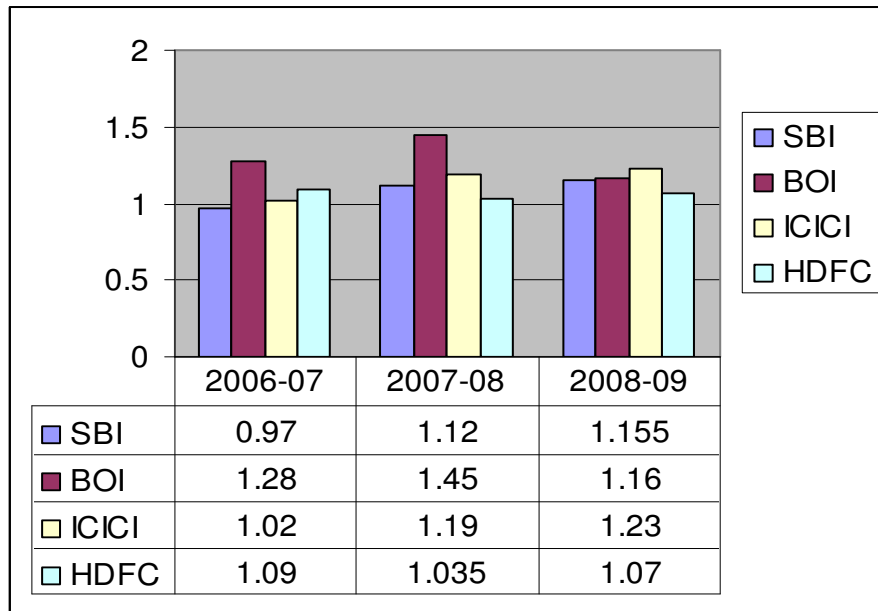


HDFC leads with the highest return each time with a return of 28% in 2006-07, 22% in 2007-08, 29% 2008-09. BOI stood at a second spot in all three years by receiving annual returns of 20% in 2006-07, 20% in 2007-08 and 21% in 2008-09 respectively leading SBI with annual returns of 13% in 2006-07 and 2007-08, 14% in 2008-09 respectively and ICICI Bank with 13% in 2006-07 and 12% in 2007-08 and 2008-09 respectively.

3.1.4 Beta (β)

Beta can be defined as a risk measuring factor for different capital allotments. Higher the Beta, higher the risk. Beta here has been calculated based on stock prices vis-a-vis SENSEX for each year separately.

$$n\sum xy - (\sum x)(\sum y) \div n\sum x^2 - (\sum x)^2$$



2006-2007	SENSEX (X)			SBI (Y)			X * X	XY	BETA (b)
	Close price	Change (Rs.)	Change %	Close price	Change (Rs.)	Change %			
Mar	11279.96			968.05					0.97
Apr	12042.56	762.6	6.76	913.65	-54.4	-5.62	45.71	-37.99	
May	10398.61	-1644	-13.65	831	-82.65	-9.05	186.35	123.49	
Jun	10609.25	210.64	2.03	727.4	-103.6	-12.47	4.10	-25.25	
Jul	10743.88	134.63	1.27	810.05	82.65	11.36	1.61	14.42	
Aug	11699.05	955.17	8.89	930	119.95	14.81	79.04	131.65	
Sep	12454.42	755.37	6.46	1028.3	98.3	10.57	41.69	68.25	
Oct	12961.9	507.48	4.07	1095.5	67.2	6.54	16.60	26.63	
Nov	13696.31	734.41	5.67	1314	218.5	19.95	32.10	113.01	
Dec	13786.91	90.6	0.66	1245.9	-68.1	-5.18	0.44	-3.43	
Jan	14090.92	304.01	2.21	1138.05	107.85	-8.66	4.86	-19.09	
Feb	12938.09	1152.8	-8.18	1039.15	-98.9	-8.69	66.93	71.10	
Ma	13072.1	134.01	1.04	992.9	-46.25	-4.45	1.07	-4.61	
Total			17.21			9.11	480.52	458.16	

2007-2008	SENSEX (X)			SBI (Y)			X * X	XY	BETA (b)
	Close price	Change (Rs.)	Change %	Close price	Change (Rs.)	Change %			
Mar	13072.1			992.9					1.12
Apr	13872.37	800.27	6.12	1105.25	112.35	11.32	37.48	69.27	
May	14544.46	672.09	4.84	1352.4	247.15	22.36	23.47	108.34	
Jun	14650.51	106.05	0.73	1525.3	172.9	12.78	0.53	9.32	
Jul	15550.99	900.48	6.15	1624.5	99.2	6.50	37.78	39.97	
Aug	15318.6	-232.39	-1.49	1599.5	-25	-1.54	2.23	2.30	
Sep	17218.1	1899.5	12.40	1950.7	351.2	21.96	153.76	272.26	
Oct	19837.99	2619.89	15.22	2068.15	117.45	6.02	231.52	91.61	
Nov	19363.19	-474.8	-2.39	2300.3	232.15	11.23	5.73	-26.87	
Dec	20286.99	923.8	4.77	2371	70.7	3.07	22.76	14.66	
Jan	17648.71	-2638.28	-13.00	2162.25	-208.75	-8.80	169.12	114.50	
Feb	17578.72	-69.99	-0.40	2109.7	-52.55	-2.43	0.16	0.96	
Mar	15644.44	-1934.28	-11.00	1598.85	-510.85	-24.21	121.08	266.44	
Total			21.94			58.25	805.63	962.79	

2008-2009	SENSEX (X)			SBI (Y)			X * X	XY	BETA (b)
	Close price	Change (Rs.)	Change %	Close price	Change (Rs.)	Change %			
Mar	15644.44			1598.85					1.155
Apr	17287.31	1642.87	10.50	1776.35	177.5	11.10	110.28	116.58	
May	16415.57	-871.74	-5.04	1443.35	-333	-18.75	25.43	94.53	
Jun	13461.6	2953.97	-17.99	1111.45	-331.9	-23.00	323.82	413.80	
Jul	14355.75	894.15	6.64	1414.75	303.3	27.29	44.12	181.26	
Aug	14564.53	208.78	1.45	1403.6	-11.15	-0.79	2.12	-1.15	
Sep	12860.43	-1704.1	-11.70	1465.65	62.05	4.42	136.90	-51.72	
Oct	9788.06	3072.37	-23.89	1109.5	356.15	-24.30	570.74	580.52	
Nov	9029.72	-758.34	-7.75	1086.85	-22.65	-2.04	60.03	15.82	
Dec	9647.31	617.59	6.84	1288.25	201.4	18.53	46.78	126.74	
Jan	9424.24	-223.07	-2.31	1152.2	136.05	-10.56	5.35	24.42	
Feb	8891.61	-532.63	-5.65	1027.1	-125.1	-10.86	31.94	61.36	
Ma	9708.5	816.89	9.19	1066.55	39.45	3.84	84.40	35.29	
Total			-39.72			-25.11	1441.89	1597.45	

2006-2007	SENSEX (X)			BOI (Y)			X * X	XY	BETA (b)
	Close price	Change (Rs.)	Change %	Close price	Change (Rs.)	Change %			
Mar	11279.96			132					1.28
Apr	12042.56	762.6	6.76	124	-8	-6.06	45.71	-40.97	
May	10398.61	-1643.95	-13.65	114.05	-9.95	-8.02	186.35	109.54	
Jun	10609.25	210.64	2.03	101.9	-12.15	-10.65	4.10	-21.58	
Jul	10743.88	134.63	1.27	110.9	9	8.83	1.61	11.21	
Aug	11699.05	955.17	8.89	142.65	31.75	28.63	79.04	254.53	
Sep	12454.42	755.37	6.46	162.15	19.5	13.67	41.69	88.26	
Oct	12961.9	507.48	4.07	173.6	11.45	7.06	16.60	28.77	
Nov	13696.31	734.41	5.67	200.95	27.35	15.75	32.10	89.26	
Dec	13786.91	90.6	0.66	207.9	6.95	3.46	0.44	2.29	

Jan	14090.92	304.01	2.21	190.9	-17	-8.18	4.86	-18.03
Feb	12938.09	-1152.83	-8.18	161.8	-29.1	-15.24	66.93	124.71
Mar	13072.1	134.01	1.04	167.8	6	3.71	1.07	3.84
Total			17.21			32.96	480.52	631.83

2007-2008	Close price	Change (Rs.)	Change %	Close price	Change (Rs.)	Change %	X*X	XY	BETA
Mar	13072.1			167.8					1.45
Apr	13872.37	800.27	6.12	192.4	24.55	14.63	37.48	89.57	
May	14544.46	672.09	4.84	210	17.65	9.18	23.47	44.46	
Jun	14650.51	106.05	0.73	232.8	22.75	10.83	0.53	7.90	
Jul	15550.99	900.48	6.15	258.6	25.8	11.08	37.78	68.13	
Aug	15318.6	-232.39	-1.49	244.6	-13.95	-5.40	2.23	8.06	
Sep	17218.1	1899.5	12.40	276.9	32.3	13.21	153.76	163.74	
Oct	19837.99	2619.89	15.22	357.3	80.4	29.04	231.52	441.81	
Nov	19363.19	-474.8	-2.39	350.7	-6.6	-1.85	5.73	4.42	
Dec	20286.99	923.8	4.77	365.5	14.75	4.21	22.76	20.07	
Jan	17648.71	-2638.28	-13.00	354.9	-10.6	-2.90	169.12	37.72	
Feb	17578.72	-69.99	-0.40	359.6	4.71	1.33	0.16	-0.53	
Mar	15644.44	-1934.28	-11.00	252.9	-106.66	-29.66	121.08	326.41	
Total			21.94			53.69	805.63	1211.76	

2008-2009	Close price	Change (Rs.)	Change %	Close price	Change (Rs.)	Change %	X*X	XY	BETA
Mar	15644.4			252.9					1.16
Apr	17287.3	1642.87	10.50	342.65	89.75	35.49	110.28	372.67	
May	16415.6	-871.74	-5.04	295	-47.65	-13.91	25.43	70.12	
Jun	13461.6	-2953.97	-17.99	216.65	-78.35	-26.56	323.82	477.93	
Jul	14355.8	894.15	6.64	271.5	54.85	25.32	44.12	168.16	
Aug	14564.5	208.78	1.45	267.35	-4.15	-1.53	2.12	-2.22	
Sep	12860.4	-1704.1	-11.70	282.6	15.25	5.70	136.90	-66.74	
Oct	9788.06	-3072.37	-23.89	240.7	-41.9	-14.83	570.74	354.21	
Nov	9029.72	-758.34	-7.75	250.35	9.65	4.01	60.03	-31.06	
Dec	9647.31	617.59	6.84	287.7	37.35	14.92	46.78	102.04	
Jan	9424.24	-223.07	-2.31	249.15	-38.55	-13.40	5.35	30.98	
Feb	8891.61	-532.63	-5.65	225.25	-23.9	-9.59	31.94	54.21	

Mar	9708.5	816.89	9.19	219.9	-5.35	-2.38	84.40	-21.82	
Total			-39.72			3.25	1441.89	1508.50	

2006-2007	SENSEX (X)			ICICI (Y)			X * X	XY	BETA (b)
	Close price	Change (Rs.)	Change %	Close price	Change (Rs.)	Change %			
Mar	11279.96			589.25					1.02
Apr	12042.56	762.6	6.76	590.25	1	0.17	45.71	1.15	
May	10398.61	-1644	-13.65	536.05	-54.2	-9.18	186.35	125.35	
Jun	10609.25	210.64	2.03	487.4	-48.65	-9.08	4.10	-18.38	
Jul	10743.88	134.63	1.27	554.05	66.65	13.67	1.61	17.35	
Aug	11699.05	955.17	8.89	596.5	42.45	7.66	79.04	68.12	
Sep	12454.42	755.37	6.46	699.05	102.55	17.19	41.69	111.00	
Oct	12961.9	507.48	4.07	776.85	77.8	11.13	16.60	45.35	
Nov	13696.31	734.41	5.67	871.45	94.6	12.18	32.10	69.00	
Dec	13786.91	90.6	0.66	890.4	18.95	2.17	0.44	1.44	
Jan	14090.92	304.01	2.21	940.5	50.1	5.63	4.86	12.41	
Feb	12938.09	1152.8	-8.18	831.9	-108.6	-11.55	66.93	94.47	
Mar	13072.1	134.01	1.04	853.1	21.2	2.55	1.07	2.64	
Total			17.21			42.55	480.52	529.89	

2007-2008	SENSEX (X)			ICICI (Y)			X * X	XY	BETA (b)
	Close price	Change (Rs.)	Change %	Close price	Change (Rs.)	Change %			
Mar	13072.1			853.1					1.19
Apr	13872.37	800.27	6.12	865.9	12.8	1.50	37.48	9.19	
May	14544.46	672.09	4.84	918.9	53	6.12	23.47	29.65	
Jun	14650.51	106.05	0.73	955.3	36.4	3.96	0.53	2.89	
Jul	15550.99	900.48	6.15	927.05	-28.25	-2.96	37.78	-18.18	
Aug	15318.6	-232.39	-1.49	884.65	-42.4	-4.57	2.23	6.83	
Sep	17218.1	1899.5	12.40	1063.15	178.5	20.18	153.76	250.20	
Oct	19837.99	2619.89	15.22	1257	193.85	18.23	231.52	277.44	
Nov	19363.19	-474.8	-2.39	1184.65	-72.35	-5.76	5.73	13.78	
Dec	20286.99	923.8	4.77	1232.4	47.75	4.03	22.76	19.23	

Jan	17648.71	-2638.28	-13.00	1145.65	-86.75	-7.04	169.12	91.54
Feb	17578.72	-69.99	-0.40	1090.95	-54.7	-4.77	0.16	1.89
Mar	15644.44	-1934.28	-11.00	770.1	320.85	-29.41	121.08	323.62
Total			21.94			-0.49	805.63	1008.08

2008-2009	Close price	Change (Rs.)	Change %	Close price	Change (Rs.)	Change %	X*X	XY	BETA
Mar	15644.44			770.1					
Apr	17287.31	1642.87	10.50	879.4	109.3	14.19	110.28	149.04	
May	16415.57	-871.74	-5.04	788.3	-91.1	-10.36	25.43	52.24	
Jun	13461.6	2953.97	-17.99	630.2	-158.1	-20.06	323.82	360.90	1.23
Jul	14355.75	894.15	6.64	634.85	4.65	0.74	44.12	4.90	
Aug	14564.53	208.78	1.45	671.5	36.65	5.77	2.12	8.40	
Sep	12860.43	-1704.1	-11.70	534.85	136.65	-20.35	136.90	238.10	
Oct	9788.06	3072.37	-23.89	399.35	-135.5	-25.33	570.74	605.24	
Nov	9092.72	-695.34	-7.10	351.4	-47.95	-12.01	50.47	85.30	
Dec	9647.31	554.59	6.10	448.35	96.95	27.59	37.20	168.28	
Jan	9424.24	-223.07	-2.31	416.3	-32.05	-7.15	5.35	16.53	
Feb	8891.61	-532.63	-5.65	328.1	-88.2	-21.19	31.94	119.74	
Mar	9708.5	816.89	9.19	332.6	4.5	1.37	84.40	12.60	
Total			-39.81			-66.78	1422.75	1821.27	

2006-2007	SENSEX (X)			HDFC (Y)			X * X	XY	BETA (b)
	Close price	Change (Rs.)	Change %	Close price	Change (Rs.)	Change %			
Mar	11279.96			773.5					
Apr	12042.56	762.6	6.76	826.6	53.1	6.86	45.71	46.41	1.09
May	10398.61	1643.95	-13.65	740.2	-86.4	-10.45	186.35	142.69	
Jun	10609.25	210.64	2.03	791.15	50.95	6.88	4.10	13.94	
Jul	10743.88	134.63	1.27	795.05	3.9	0.49	1.61	0.63	
Aug	11699.05	955.17	8.89	853.15	58.1	7.31	79.04	64.97	
Sep	12454.42	755.37	6.46	926	72.85	8.54	41.69	55.13	
Oct	12961.9	507.48	4.07	1004.05	78.05	8.43	16.60	34.34	
Nov	13696.31	734.41	5.67	1118.4	114.35	11.39	32.10	64.53	
Dec	13786.91	90.6	0.66	1069.75	-48.65	-4.35	0.44	-2.88	
Jan	14090.92	304.01	2.21	1078.15	8.4	0.79	4.86	1.73	
Feb	12938.09	1152.83	-8.18	932.6	145.55	-13.50	66.93	110.45	
Mar	13072.1	134.01	1.04	949.4	16.8	1.80	1.07	1.87	
Total			17.21			24.19	480.52	533.81	
2007-2008	Close price	Change (Rs.)	Change %	Close price	Change (Rs.)	Change %	X*X	X*Y	BETA
Mar	13072.1			949.4					
Apr	13872.37	800.27	6.12	1026.2	76.75	7.48	37.48	45.79	1.035
May	14544.46	672.09	4.84	1139.8	113.6	9.97	23.47	48.29	
Jun	14650.51	106.05	0.73	1144.1	4.35	0.38	0.53	0.28	
Jul	15550.99	900.48	6.15	1198.7	54.55	4.55	37.78	27.97	
Aug	15318.6	-232.39	-1.49	1171.3	-27.35	-2.34	2.23	3.49	
Sep	17218.1	1899.5	12.40	1439.1	267.75	18.61	153.76	230.71	
Oct	19837.99	2619.89	15.22	1653.1	214.05	12.95	231.52	197.02	
Nov	19363.19	-474.8	-2.39	1719	65.9	3.83	5.73	-9.18	
Dec	20286.99	923.8	4.77	1727.8	8.8	0.51	22.76	2.43	
Jan	17648.71	2638.28	-13.00	1568	-159.8	-10.19	169.12	132.54	
Feb	17578.72	-69.99	-0.40	1453.5	114.55	-7.88	0.16	3.13	
Mar	15644.44		32.94	1320	-133.5	37.87	684.55	682.47	

		1934.28							
Total			65.88			75.73	1369.10	1364.94	

2008-2009	Close price	Change (Rs.)	Change %	Close price	Change (Rs.)	Change %	X*X	XY	BETA
Mar	15644.44			1319.95					1.07
Apr	17287.31	1642.87	10.50	1514.85	194.9	14.77	110.28	155.06	
May	16415.57	-871.74	-5.04	1357.85	-157	-10.36	25.43	52.26	
Jun	13461.6	-2953.97	-17.99	1002.3	-	-26.18	323.82	471.19	
Jul	14355.75	894.15	6.64	1095.25	92.95	9.27	44.12	61.60	
Aug	14564.53	208.78	1.45	1277.25	182	16.62	2.12	24.17	
Sep	12860.43	-1704.1	-11.70	1229	-48.25	-3.78	136.90	44.20	
Oct	9788.06	-3072.37	-23.89	1023.65	-	-16.71	570.74	399.17	
Nov	9029.72	-758.34	-7.75	920.4	-	-10.09	60.03	78.15	
Dec	9647.31	617.59	6.84	997.6	77.2	8.39	46.78	57.37	
Jan	9424.24	-223.07	-2.31	924.6	-73	-7.32	5.35	16.92	
Feb	8891.61	-532.63	-5.65	884.85	-39.75	-4.30	31.94	24.30	
Mar	9708.5	816.89	9.19	967.85	83	9.38	84.40	86.18	
Total			-39.72			-20.31	1441.89	1470.56	

For 2006-2007, the Beta for BOI was highest stating its risk parameters of 1.28, HDFC at the second stage with a beta of 1.09 and ICICI bank at the third spot with a beta of 1.02 and SBI with the least risk concerned beta of 0.97.

For 2007-08, again Beta for BOI was highest i.e.1.45, Beta of ICICI was 1.19, Beta of SBI increased to 1.12 and the least risk was of HDFC bank with Beta of 1.03.

For 2008-09, the scenario was bit different. Beta for ICICI bank was the highest with 1.23 stating their risk parameters. BOI at the second stage with a beta of 1.16, SBI at the third spot with beta of 1.15 and HDFC with the least risk concerned beta of 1.07.

3.1.5 COST OF EQUITY (Ke)

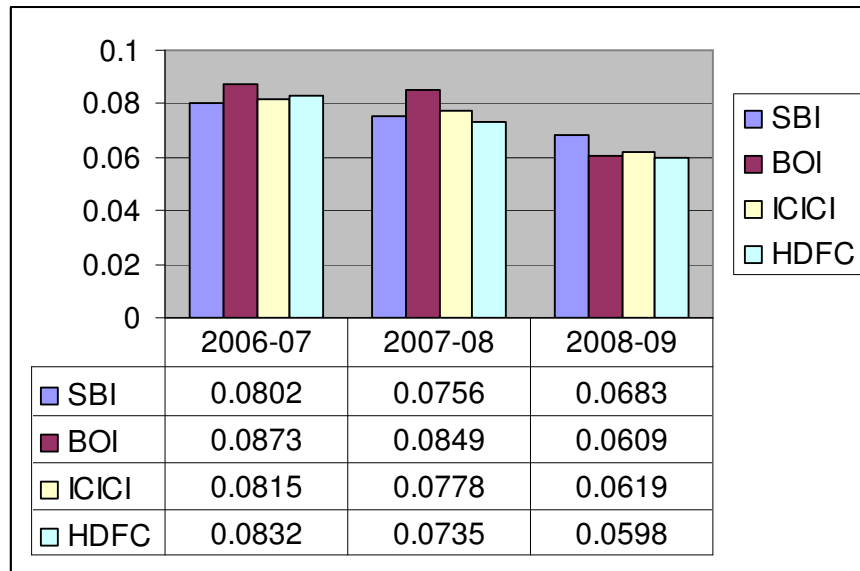
It determines the expected rate of return for the investors. The cost of equity is calculated for the following banks using CAPM model and taking inputs such as Rf (365 days T-bills rate same for each year i.e. 4.55%), Rm (Market risk) and β .

$$K_e = R_f + \beta (R_m - R_f)$$

2006-07	Rf	beta	Rm	Rm-Rf	Beta (Rm-Rf)	Ke=Rf+beta(Rm-Rf)
SBI	4.55	0.97	1.43	3.58	3.4726	8.0226
BOI	4.55	1.28	1.43	3.27	4.1856	8.7356
ICICI	4.55	1.02	1.43	3.53	3.6006	8.1506
HDFC	4.55	1.09	1.43	3.46	3.7714	8.3214

2007-08	Rf	beta	Rm	Rm-Rf	Beta (Rm-Rf)	Ke=Rf+beta(Rm-Rf)
SBI	4.55	1.12	1.83	2.72	3.0464	7.5964
BOI	4.55	1.45	1.83	2.72	3.944	8.494
ICICI	4.55	1.19	1.83	2.72	3.2368	7.7868
HDFC	4.55	1.03	1.83	2.72	2.8016	7.3516

2008-09	Rf	beta	Rm	Rm-Rf	Beta (Rm-Rf)	Ke=Rf+beta(Rm-Rf)
SBI	4.6	1.15	-3.31	1.29	1.4835	6.0835
BOI	4.6	1.16	-3.31	1.29	1.4964	6.0964
ICICI	4.6	1.23	-3.31	1.29	1.5867	6.1867
HDFC	4.6	1.07	-3.31	1.29	1.3803	5.9803



In 2006-07, BOI offered the highest cost of equity to its equity shareholders taking the utmost risk in the firm and likewise gained a return of 8.73%, leading HDFC offering 8.32%, ICICI offering 8.15% and SBI with the least cost of equity of 8.02%.

Whereas in 2007-08, again BOI offered highest cost of equity of 8.45% , leading ICICI bank offering 7.77%, SBI offering 7.56%, and HDFC with the least cost of equity of 7.35%.

But the scenario was totally different in 2008-09, when SBI offered the highest cost of equity with 6.83% leading ICICI offering 6.19%, BOI offering 6.09% and the HDFC offering the least return of 5.98%.

3.1.6 Cost of Debt (Kd)

It can be defined as the total interest paid divided by the total borrowings by a firm.

$$K_i = (\text{Total Interest Expense} - \text{Interest on Deposit}) / \text{Total Borrowings}$$

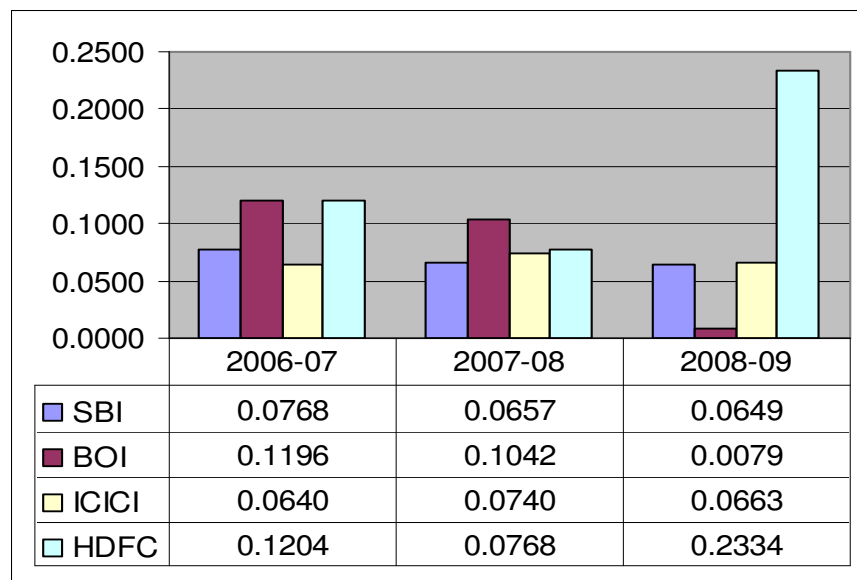
$$\text{Cost of Debt (Kd)} = K_i(1-T) \text{ (where } T = \text{Tax @ 30\%)}$$

2006-07	Tot int exp	Int on dep	int paid	Borrowings	Ki	(1-T)	Ki(1-T)
SBI	23436.82	19083.58	4353.24	39703.00	0.11	0.70	0.0768
BOI	5739.86	4608.40	1131.46	6620.83	0.17	0.70	0.1196
ICICI	16358.50	11647.71	4710.79	51526.03	0.09	0.70	0.0640
HDFC	3179.45	2695.39	484.06	2815.39	0.17	0.70	0.1204

2007-08	Tot int exp	Int on dep	int paid	Borrowings	Ki	(1-T)	Ki(1-T)
SBI	31929.08	27072.58	4856.50	51727.41	0.09	0.70	0.0657

BOI	8125.95	7058.48	1067.47	7172.45	0.15	0.70	0.1042
ICICI	22725.93	15785.16	6940.78	65648.43	0.11	0.70	0.0740
HDFC	4887.11	4382.73	504.38	4594.92	0.11	0.70	0.0768

2008-09	Tot int exp	Int on dep	int paid	Borrowings	Ki	(1-T)	Ki(1-T)
SBI	42915.29	37936.85	4978.45	53713.68	0.09	0.70	0.0649
BOI	1084.85	977.65	107.19	9486.98	0.01	0.70	0.0079
ICICI	23484.24	17110.24	6374.00	67323.69	0.09	0.70	0.0663
HDFC	8911.10	8015.45	895.65	2685.84	0.33	0.70	0.2334



In 2006-07, HDFC has offered the highest cost of debt offering 12.04% leading BOI having 11.96%, SBI and ICICI offering 7.68% and 6.40%.

In 2007-08, BOI has made cost of debt offering 10.42%, HDFC was on the second spot with 7.68% and ICICI and SBI ruled the third and fourth spot with 7.40 % and 6.57% respectively.

In 2008-09, HDFC offered the highest cost of debt i.e. 23.34 % as total borrowings were low as compared to previous years, leading ICICI having 6.63%, SBI offering 6.49% and BOI offering 1% as borrowing increased as compared to previous years.

3.1.7 COST OF CAPITAL (WACC)

The weighted average cost of capital (WACC) is the minimum rate of return on capital required to compensate debt and equity investors for bearing risk.

WACC = Weighted cost of Equity + Weighted cost of Debt

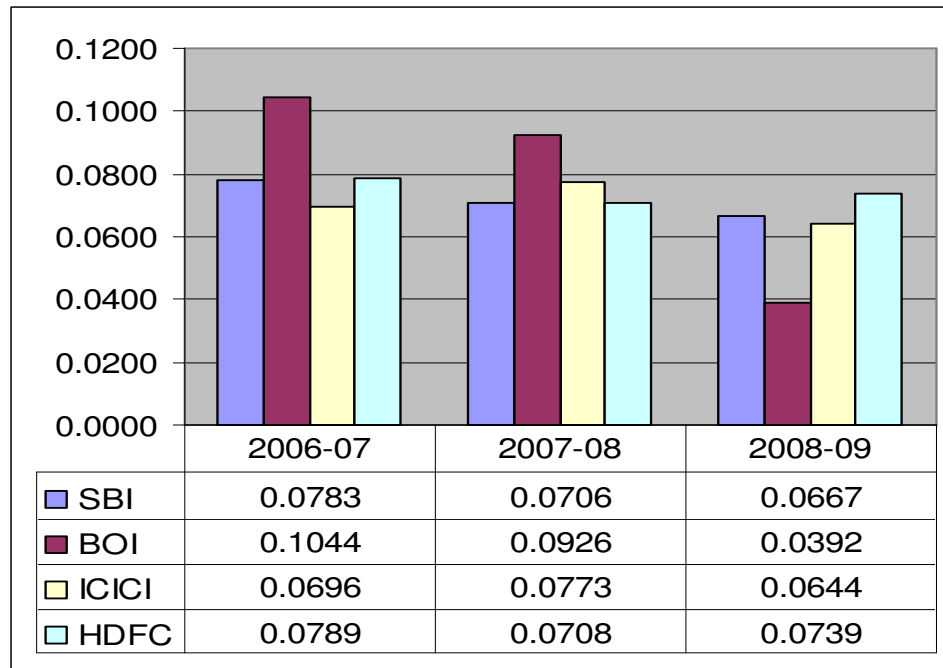
	Cost of equity			Cost of debt		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
SBI	0.0802	0.0756	0.0683	0.0768	0.0657	0.0649
BOI	0.0873	0.0849	0.0609	0.1196	0.1042	0.0079
ICICI	0.0815	0.0778	0.0619	0.0640	0.0740	0.0663
HDFC	0.0832	0.0735	0.0598	0.0688	0.0642	0.1538

	Weight of equity			Weight of debt		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
SBI	0.44	0.49	0.52	0.56	0.51	0.48
BOI	0.47	0.60	0.59	0.53	0.4	0.41
ICICI	0.32	0.88	0.43	0.68	0.12	0.57
HDFC	0.70	0.71	0.85	0.3	0.29	0.15

Weighted cost of equity= Weight of equity x cost of equity

Weighted cost of debt= Weight of debt x cost of debt

WACC			
	2006-07	2007-08	2008-09
SBI	0.0783	0.0706	0.0667
BOI	0.1044	0.0926	0.0392
ICICI	0.0696	0.0773	0.0644
HDFC	0.0789	0.0708	0.0739



In 2006-07, the WACC for BOI was the highest of 10.44 % because the proportion of equity for the firm was very high for the bank as against its proportion of borrowings. HDFC, SBI and ICICI stood firm on second, third and fourth spot with 7.89%, 7.83% and 6.96% respectively.

In 2007-08, again the WACC for BOI was the highest of 9.26%. ICICI, HDFC and SBI stood at second, third and fourth spot with 7.73%, 7.08% and 7.06% respectively.

In 2008-09, the WACC was highest for HDFC at 7.39%, for SBI it was 6.67%, ICICI 6.44% and is very low for BOI at 3.92% respectively.

3.1.8 CAPITAL CHARGE

Capital charge is the total cost planned with to the bank to pay interest and dividend for fulfilling the criterias of equity holders and debt-borrowers.

Capital Charge = Cost Of Capital (WACC) x Capital Invested

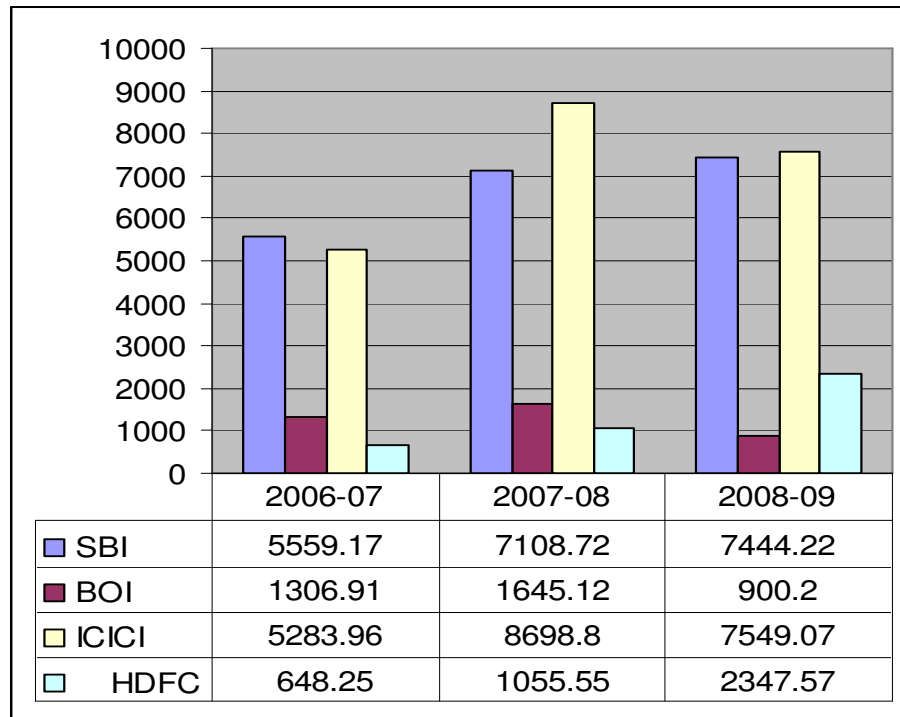
2006-07			
	WACC	Capital invested	Capital charge
SBI	0.078296	71002	5559.17
BOI	0.104419	12516	1306.91
ICICI	0.069600	75919	5283.96

HDFC	0.070096	9248	648.25

2007-08			
	WACC	Capital invested	Capital charge
SBI	0.070551	100760	7108.72
BOI	0.092620	17762	1645.12
ICICI	0.077344	112469	8698.80
HDFC	0.065595	16092	1055.55

2008-09			
	WACC	Capital invested	Capital charge
SBI	0.066668	111661	7444.22
BOI	0.039170	22982	900.20
ICICI	0.064408	117207	7549.07
HDFC	0.140640	17332	2437.57

ICICI bank provides the highest amount of capital charge to investors in each year amounting to Rs. 8,698.8 crores in 2007-08, Rs. 7,549.07 crore in 2008-09 and Rs. 5,283.96 crores in 2006-07 because they had huge amount of capital investment. SBI gained the second spot of capital charge of Rs. 5,559.17 crores in 2006-07; Rs. 7,108.72 crores in 2007-08 and Rs. 7,444.22 crores in 2008-09. Whereas Capital charge of BOI and HDFC in 2006-07 was Rs. 1,306.91 and Rs. 648.25 crores, in 2007-08 it was Rs. 1,645.12 and Rs. 1,055.55 crore and in 2008-09 it was Rs. 900.2 and Rs. 2,347.57 respectively.



3.1.9 Economic Value Added (in %)

(EVA - As a measure of Value creation through Management of Profits)

This concern is used by the following sequence:

ROIC which includes NOPAT divided by capital employed minus WACC which pertains the addition of weighted cost of equity and weighted cost of debt.

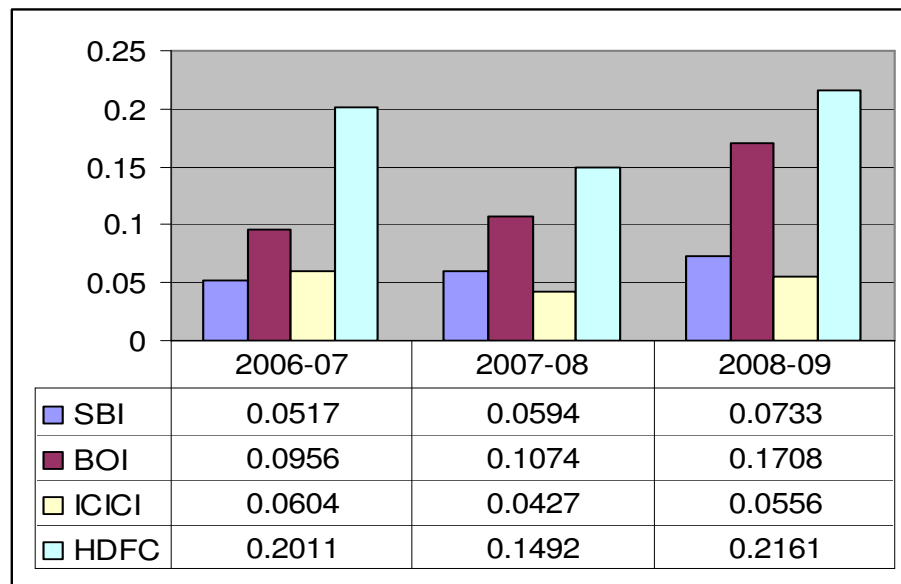
EVA in % = ROIC - WACC

	ROIC		
	2006-07	2007-08	2008-09
SBI	0.13	0.13	0.14
BOI	0.2	0.2	0.21
ICICI	0.13	0.12	0.12
HDFC	0.28	0.22	0.29

	WACC		
	2006-07	2007-08	2008-09
SBI	0.0783	0.0706	0.0667
BOI	0.1044	0.0926	0.0392
ICICI	0.0696	0.0773	0.0644

HDFC	0.0789	0.0708	0.0739
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	EVA (%)		
	2006-07	2007-08	2008-09
SBI	0.0517	0.0594	0.0733
BOI	0.0956	0.1074	0.1708
ICICI	0.0604	0.0427	0.0556
HDFC	0.2011	0.1492	0.2161



As from the above table it can be concluded that in creating the economic value, HDFC bank stands firm at the top spot with 20.11% in 2006-07, 14.92% in 2007-08 and 21.61% in 2008-09.

BOI too gave consistent performance in 2006-07, 2007-08 and 2008-09 giving the economic value added of 9.56%, 10.74% and 17.08% with second spot.

SBI was steady with third spot in 2007-08 and 2008-09 giving economic value of 5.94% and 7.33%, but stood fourth in 2006-07 with 5.17% respectively.

ICICI Bank stood third position in 2006-07 giving economic value of 6.04%, but stood fourth in both 2007-08 and 2008-09 giving economic value of 4.27% and 5.56% respectively.

3.1.10 Economic Value Added (in Rs.)

(EVA: As a measure of value creation through Management of Capital)

This scenario is used by the following consequence:

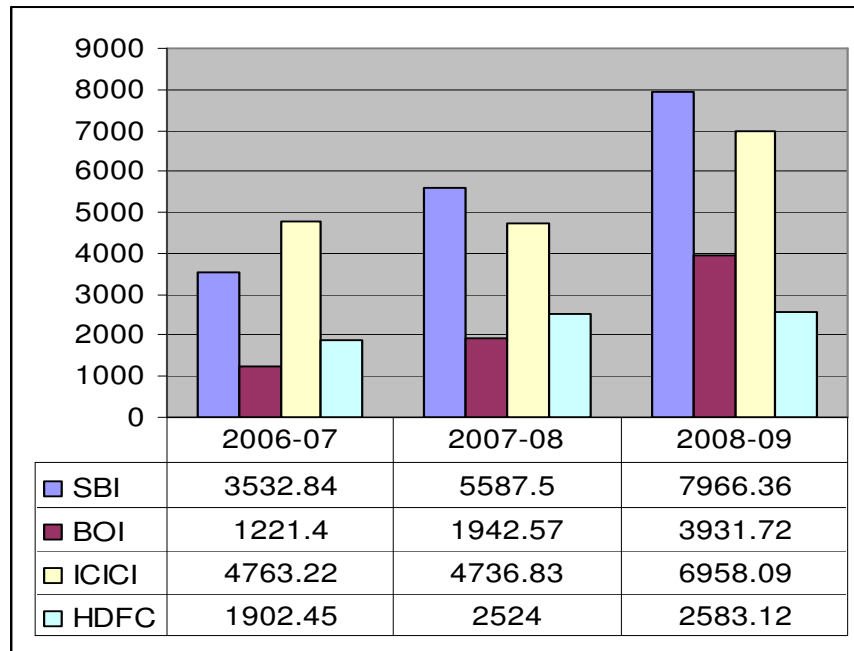
NOPAT including net operating profit less tax subtracting capital charge comprising of cost of capital multiplied by capital employed gives the title at a substantial exposure.

$$\text{EVA} = \text{NOPAT} - (\text{WACC} \times \text{Invested Capital})$$

NOPAT			
	2006-07	2007-08	2008-09
SBI	9092.01	12696.22	15410.58
BOI	2528.31	3587.69	4831.92
ICICI	10047.18	13435.63	14507.16
HDFC	2550.7	3579.55	5020.69

Capital Charge = (WACC x Invested Capital)			
	2006-07	2007-08	2008-09
SBI	5559.17	7108.72	7444.22
BOI	1306.91	1645.12	900.2
ICICI	5283.96	8698.8	7549.07
HDFC	648.25	1055.55	2437.57

EVA			
	2006-07	2007-08	2008-09
SBI	3532.84	5587.5	7966.36
BOI	1221.4	1942.57	3931.72
ICICI	4763.22	4736.83	6958.09
HDFC	1902.45	2524	2583.12



SBI holds higher size of balance sheet and therefore it is consistent enough to stand firm and provide higher EVA each time revealing Rs. 5,587.5 crores in 2007-08 and Rs. 7,966.36 crores in 2008-09, but stood second in 2006-07 with EVA of Rs. 3,532.84 crores, but being highest in the next two years proves it as the top public sector bank in the nation.

Whereas ICICI Bank stood at the second place with the EVA of Rs. 4,736.83 crores in 2007-08 and Rs. 6,958.09 crores in 2008-09. But it stood first in 2006-07 with EVA of Rs. 4,763.45 crores respectively.

HDFC and BOI stood third and fourth with EVA of Rs. 1,902.45 crores and Rs. 1,221.4 crores in 2006-07; Rs. 2,524 crores and Rs. 1,942.57 crores in 2007-08.

BOI stood third in 2008-09 with EVA of Rs. 3,931.72 crores and HDFC stood fourth with Rs. 2,583.12 crores respectively.

4.1 CONCLUSION

Banking industry in India is undergoing a rapid metamorphosis. Their role of a traditional banker has been replaced with financial services provider for the clients. Most of the PSU and private sector banks in our country have already started looking at their portfolio of services offered and what they should do in the future for remaining competitive in the industry. As public sector banks are likely to undergo major consolidation, suddenly for many Indian banks things have changed. The following factors of interpretation serve the purpose of analyzing the overall concern of proving the study.

4.1.1 NOPAT

	2006-07	2007-08	2008-09
PUBLIC BANKS	11620.32	16283.91	20242.5
PRIVATE BANKS	12597.88	17015.18	19527.85

The public sector banks and private sector banks have very less gap in their values, then too public sector banks lead the private banks when NOPAT is emphasised for the year 2008-09, in terms of the analysis where SBI was in the front spot respectively as it is the leading bank in India.

4.1.2 CAPITAL CHARGE

	2006-07	2007-08	2008-09
PUBLIC BANKS	6866.08	8753.84	8344.42
PRIVATE BANKS	5932.21	9754.35	9896.64

The capital charge factor determines the impact that Private Banks have a greater focus than public sector banks in each year except in 2006-07 respectively. As being a private bank, they have to increase their image in market by giving higher return to their shareholders.

4.1.3 ROIC

	2006-07	2007-08	2008-09
PUBLIC BANKS	0.33	0.33	0.35
PRIVATE BANKS	0.41	0.34	0.41

ROIC gave an equal importance to both the sectors concerned including public sector and private sector in 2007-08 respectively, but 2006-07 and 2008-09 predicted that private sectors were more effective than public sectors by a small margin.

4.1.4 WACC

	2006-07	2007-08	2008-09
PUBLIC BANKS	0.1827	0.1632	0.1059
PRIVATE BANKS	0.1485	0.1481	0.1383

WACC for public sector banks gave a clear indication of effectiveness in 2006-07 and 2007-08 but had a failure in the respective year of 2008-09 where private sector banks did lead the game.

4.1.5 EVA (%)

	2006-07	2007-08	2008-09
PUBLIC BANKS	0.1473	0.1668	0.2441
PRIVATE BANKS	0.2615	0.1919	0.2717

The EVA in percentage terms was higher for private banks for all the three years because the amount of invested capital is low compared to public sector banks.

4.1.6 EVA (Rs.)

	2006-07	2007-08	2008-09
PUBLIC BANKS	4754.24	7530.07	11898.08
PRIVATE BANKS	6665.67	7260.83	9541.21

The EVA in rupees terms was higher for public sector banks compared to private sector banks in the years 2007-08 and 2008-09, due to their invested capital gives higher return to public sector banks so as to generate a consistent amount of NOPAT. But in 2006-07 private sector banks had a bit more effectiveness than public sector bank.

5.1 FINDINGS

After the detailed analysis of financial data and qualitative information of the selected banks, the following findings have been derived:

- 1) It was found during the analysis that in Public Sector BOI ruled the market in terms of creating shareholders value in terms of amount where in the Private Sector HDFC was at the top spot in terms of percentage.

- 2) It was found that after bearing all the expenditures including firms' return to all stakeholders, the remaining wealth i.e. EVA is accumulated by the shareholders after being reinvested so as to create an increment in its wealth resources.
 - 3) As the result of the analysis it was found that all the selected Banks have been creating an EVA and value addition for its shareholders throughout 3 years.
 - 4) It was found that all banks are creating shareholders' value in terms of capital gain as well as reinvestment of the remaining profit into the business which will surely influence the stock prices in future
 - 5) It was found that the reinvestment criteria and its impact will be a great deal for the firm's expected success and value creations for the firm in the mere future.
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