

ECONOMIC VALUE ADDED BASED FINANCIAL PERFORMANCE ANALYSIS: A CASE STUDY OF TOP COMMERCIAL BANKS OF INDIA

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ABSTRACT

In recent year's public and private sector banks have shown a significant growth and a healthy competition in the banking space of India. These banks are the largest service providers and working with an aim of wealth creation and economic development of the country. This paper is an attempt to analyze the recent financial performance of these banks by taking the data of top ten public and private sector of Indian banking sector as a suitable sample. To measure the performance of these banks, The Economic Value Added approach is used as it is a value based accounting concept focuses on the wealth creation also. With the help of financial statements of these banks, this paper also focuses on finding the difference between the performance of public and private sector banks on the basis of Economic Value Addition and other related concepts.

KEYWORDS: EVA, ROI, SVA, Weighted Average Cost of Capital, Net Operating Profit After Tax.

Introduction

Joint Stock Company is one of the most popular forms of business organization. Commercial banks of India also run through this format of the business organization. Commercial banking companies play a significant role in wealth creation and economic development of our country. These banking companies are the back bone of our economy because they directly affect the output, income and employment level of the economy. Due to the large scale operation and public involvement, a periodical evaluation the financial performance of these banks is essential. In accounting practices various concepts and tools are developed to measure the financial performance, such as Shareholder's Value Added (SVA), Return on Investments (ROI), Economic Value Added (EVA), and Return on Assets (ROA), Cash Value Added (CVA), Economic Profit (EP), and Cash Flow Return on Investments (CFROI) etc. Out of all these tools, Economic Value Added (here referred as EVA) is an important concept used to analyze the financial performance of a firm and to find actual value of the business.

Economic Value Added (EVA)-Concept & Significance

It is a value based financial performance measurement tool, also showing the real value created by the company for its shareholders. EVA focuses on residual wealth created by firm; after all types of costs have been deducted including the firm's cost of capital invested. In simple terms EVA computes how much economic value created by the company, after taking into the account the cost of funds (debt

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and equity). EVA is the net operating profit minus and appropriate charge for the opportunity cost of all the capital invested in an enterprise or project.

EVA=Net Operating Profit After Tax-(Total Capital Employed * Weighted Average Cost Of Capital)

EVA is an important approach because:

- It can be applied to select more profitable project or investment for any business organization.
- It motivates the company to be more concern to the capital structure during the process of the financial planning.
- It is a tool of assessing the financial performance with focus on value creation.
- EVA make the management focus on minimize the cost of capital and maximize the return to shareholders.
- Positive EVA means management of the firm is successfully creating economic value for the business as well as for its shareholders.

Indian Commercial Banking Structure

Commercial bank refers to an institute or an organization which performs the function of accepting deposits, granting loans, making investments, with an aim to earn profit from these. In our country commercial banks are be divided mainly in following two categories:

- **Public Sector Banks:** A commercial bank in which Central Govt. of India holds more than 50% shares and also managed or regulated by the central Govt. of India, is known as Public Sector Bank. These banks are backbone of Indian economy. These banks are very old and have a greater credibility of general public. As on 30th Nov. 2017 total 21 public sector banks are operational in India. These banks have control on majority of total deposits and bank credit of entire commercial banking system of India.
- **Private Sector Banks:** A commercial bank controlled, managed and operated by private persons is called Private Sector Bank. In Last 25 years, growth of these banks in our country is noticeable and they also now play an important role in economy of our country. As on 30th Nov. 2017 total 23 private sector banks are operational in India. In term of quantity, value and amount public sector banks are well ahead of private sector banks, but performance and productivity of private sector banks is better than public sector banks.

Review of Literature

Review of literature is a critical analysis of work related to our research topic. There are many books, reports; research papers etc are available on the analysis of the profitability, performance and various financial aspects of the Indian Banking Sector. Lots of literature is also available on Economic Value Added by various Indian and foreign companies of other sectors. Main findings from above review of literature are as under:

- Rappaport (1986) and Stewart (1991) argued that most of the performance measurement system failed to capture and encourage a corporation's strategy, producing mostly poor information leading to wrong decisions.
- Ehrbar (1998) states that the mandate under an EVA management system is to increase EVA as much as possible in order to maximise shareholder wealth.
- Lehn & Makhija (1997) provided positive results for the value relevance of EVA.
- Lovata & Costigan (2002) examined the consequences of adoption of the EVA financial management system.
- Young (1997) suggested that companies adopting EVA adjustments should limit the number of implemented adjustments to fewer than ten.
- Dodd and Chen (1996) found that stock returns and EVA per share are correlated as advocated by EVA adopters.
- Kramer & Peters (2001) reported that there is a weak correlation between EVA and Market Value Added (MVA).

Objective & Importance of Study

It is necessary to determine objectives before starting any research study. There are four main objectives of this study:

- To analyze the cost of capital or funds (debt and equity) collected by the top commercial banks of India.
- To measure the efficiency of the financial management of top commercial banks of India.
- To analyze the latest financial performance of Indian Commercial Banks on the basis of Economic Value added.
- To compare the performance of the Public and Private Sector banks on the basis of Economic Value Added in the Financial Year 2016-17.

Limitations of Study

- This research study is based on only top ten public sector and private sector banks of India, which are selected on the basis of the their total assets as on 31st March 2017.
- This research study is based on the financial performance of these banks only for F.Y. 2016-17.
- This research study is based on the analysis of the performance on the basis of the Economic Value Added (EVA) approach.
- In this research study the deposits of each and every bank treated as the debt and the interest on the same also included under the head of the interest cost.
- In this research study the rates of the dividend and the rates of the taxes are taken on the basis of the same F.Y. 2016-17.
- In this research study cost of equity is calculated on the basis of dividend per share (for the F.Y.2017-17) and market price per equity share at the end of the same financial year (as on 31st march 2017)

Hypothesis of Research Study:

Hypothesis is basically an assumption, which is useful to clear the objective of the research study. For this research study following null hypothesis taken-

Null Hypothesis (Ho)

“There is no significant difference between Economic Value Added by the public sector banks and private sector banks of India in Financial Year 2016-17.”

Research Methodology

This quantitative research study is mainly based on secondary or published data. Financial data of top ten public and private sector banks are collected from the annual reports of these banks. Other data related with the market price of equity shares collected from the business newspapers and Bombay Stock Exchange (BSE). So books, newspapers, annual reports, company websites, factsheets etc. are main source of data for this research study. For the Analysis or interpretation of data and testing the hypothesis it is essential to use statistical and accounting methods or research tools. So following accounting measurements, concepts, formulae and tools applied for this purpose:

- **Total Capital Employed (TCE):** **Net worth + Total Debt**
Net worth: Share Capital + Reserve & Surplus
Total Debt: Long Term Borrowings + Deposits
- **Cost of Debt (Before Tax) (K_d):**
Formula:-
$$\frac{\text{Interest Cost} * 100}{\text{Total Debt}}$$
- **Cost of Debt (After Tax) (K_{dt}):**
*Formula: - $K_{dt} = K_d * (1 - \text{Tax Rate})$*
(Note: Tax Rate is taken as 30%, which is corporate tax rate for the F. Y. 2016-17)
- **Cost of Equity (K_e):**
Formula:-
$$\frac{\text{Dividend Per Share} * 100}{\text{Market Price Per Equity Share}}$$

(Note: Since the dividend growth rate is fluctuating in each and every year, so the Growth rate of dividend is not considered in the above formula)

- **Weighted Cost of Debt (WK_d) :** Weight of Total Debt * K_{dt}

$$\text{Weight of Total Debt (W}_d) = \frac{\text{Total Debt}}{\text{Total Debt} + \text{Market Capitalisation}}$$

$$\text{Market Capitalisation} = \text{Total No. of Outstanding Shares} * \text{Market Price Per Equity Share}$$

- **Weighted Cost of Equity (WK_e) :** Weight of Equity * K_e

$$\text{Weight of Equity (W}_e) = \frac{\text{Market Capitalisation}}{\text{Total Debt} + \text{Market Capitalisation}}$$

- **Weighted Average Cost of Capital (WACC):**

Weighted Cost of Debt + Weighted Cost of Equity

- **Net Operating Profit after Tax (NOPAT):**

Net Operating Profit (before all extra ordinary expenses, losses, adjustments and incomes) - Tax Amount

- **Economic Value Added (EVA):** NOPAT - (TCE * WACC)

- **Student's t-Test :- For the test of Hypothesis**

$$\text{Formula:- } t = \frac{x_1 - x_2}{S} * \sqrt{\frac{n_1 * n_2}{n_1 + n_2}}$$

Brief Financials of the Top Ten Banks

Indian commercial banking system is very strong and diversified sector. Various types of more than hundred banks are operating to serve more than 700 millions of customers. This sector is working under the strict control, guidance and regulation of Reserve Bank of India, the central bank of India. Here is the brief financial profile of the top ten public and private sector banks of India:

Table 01: Top Ten Public & Private Sector Banks of India (on the Basis of Total Assets as On 31st March, 2017) Financials at a Glance (in Rs. Crore)

Public Sector Banks					
S. No.	Bank, Head Office & Establishment Year	Total Assets	Total Deposits	Total Advances	NOPAT
1.	State Bank of India (SBI) , Mumbai. (Est. year – 1806)	2550731.12	2044751.39	1725086.11	126435.92
2.	Punjab National Bank (PNB) , New Delhi. (Est. year – 1894)	704314.33	621704.02	439000.21	34032.66
3.	Bank of Baroda (BOB) Vadodara. (Est. year – 1908)	672589.87	601675.17	409016.60	30581.01
4.	Bank of India (BOI) , Mumbai. (Est. year – 1906)	611924.75	540032.01	394132.59	25893.95
5.	Canara Bank (CANARA) Bengluru (Est. year – 1906)	568464.34	495275.24	367259.78	32965.33
6.	Union Bank (UNION) Mumbai (Est. Year – 1919)	443593.65	378391.58	303838.56	24547.90
7.	IDBI Bank (IDBI) Mumbai. (Est. year – 1964)	347465.72	268538.10	228800.63	17240.51
8.	Syndicate Bank (SYNDICATE) Manipal (Est. year – 1925)	292220.57	260560.86	205921.69	17224.07
9.	Central Bank of India (CBI) Mumbai. (Est. year – 1911)	323904.78	296671.19	158250.16	15905.67
10.	Oriental Bank of Commerce (OBC) Gurugram. (E.Y. – 1943)	248052.94	219339.39	174050.77	12487.08
Private Sector Banks					
1.	HDFC Bank (HDFC) Maumbai (Est. year – 1994)	807130.87	643639.66	596798.02	51549.49
2.	ICICI Bank (ICICI) Mumbai (Est. year – 1994)	737546.29	490039.06	526766.63	42977.7

3.	AXIS Bank (AXIS) Ahmedabad (Est. year – 1993)	575172.20	414378.79	418671.22	30637.12
4.	Kotak Mahindra Bank (KOTAK) .Mumbai(EY 2004)	206139.28	157425.86	145406.13	13274.94
5.	Yes Bank (YES) Mumbai (Est. year – 2003)	203534.59	142873.86	132262.68	14128.68
6.	Indusind Bank (INDUS) Mumbai. (Est. year – 1994)	169672.04	126572.22	121982.79	11401.66
7.	Federal Bank (FEDERAL) Kochi. (Est. year – 1947)	112504.27	97664.56	78839.20	6577.7
8.	IDFC Bank (IDFC) Mumbai. (Est. year – 2015)	105148.46	40208.22	55799.41	7669.47
9.	Jammu & Kashmir Bank (JK) Srinagar. (EY– 1938)	79415.64	72463.09	53798.53	2626.65
10.	South Indian Bank (SIB) Thrissur (Est. year – 1929).	72923.74	66117.49	50338.66	4629.53

Source: Annual Report F.Y. 2016-17 of All the Banks

Economic Value Added By Top Ten Banks

Table 02: Net Worth & Market Capitalization of Top Ten Public & Private Sector Banks of India (For the Financial Year 2016-17) (In Rs. Crore)

Public Sector Banks					
S. No.	Bank	Share Capital	Reserve & Surplus	Net worth	Market Capitalisation
1	SBI	797.35	187488.71	188286.06	224932.43
2	PNB	425.59	37670.86	38096.45	31,663.90
3	BOB	426.09	39841.16	40267.25	40178.73
4	BOI	2777.35	29709.72	32487.07	37591.43
5	CANARA	597.29	27715.10	28312.39	17751.46
6	UNION	1228.44	22747.76	23976.20	19132.95
7	IDBI	2058.28	15087.08	17145.36	15595.56
8	SYNDICATE	904.54	11684.02	12588.56	6395.00
9	CBI	2585.17	15365.97	17951.14	25993.88
10	OBC	346.17	12326.77	12672.94	4839.46
Private Sector Banks					
1	HDFC	512.51	88949.84	89462.35	363,933.35
2	ICICI	1171.26	95737.57	96908.83	147,473.35
3	AXIS	479.01	55283.53	55762.54	120,423.11
4	KOTAK	922.32	26695.62	27617.94	158,537.58
5	YES	456.49	21597.57	22054.06	70,064.38
6	INDUS	613.35	19658.18	20271.53	86,129.67
7	FEDERAL	344.81	8597.57	8942.38	15,611.27
8	IDFC	3400.08	11277.97	14678.05	20,281.48
9	JK	52.15	5624.35	5676.50	3,883.03
10	SIB.	183.30	4421.34	4604.64	3,711.83

Source: Annual Report (2016-17) of All the Banks and Market Capitalization on the basis of Market price on 31st March 2017 as per Bombay Stock Exchange (BSE)

Analysis

- Public Sector Banks:** In the terms of reserves, net worth, and market capitalization SBI is well ahead of all the public sector banks, while in the terms of share capital BOI is at top position with a largest capital base. OBC has the minimum share capital and market capitalization also. Syndicate Bank has the minimum reserves and net worth.
- Private Sector Banks:** In the terms of reserves and net worth ICICI is well ahead of all the private sector banks, while in the terms of share capital IDFC and in the terms of market capitalization HDFC is at the top position. JK has the minimum share capital, While SIB has the minimum reserves, net worth and market capitalization..

Table 03: Total Debt & Interest Cost of Top Ten Public & Private Sector Banks of India
(For the Financial Year 2016-17) (In Rs. Crores)

Public Sector Banks					
S.No.	Bank	Borrowings	Deposits	Total Debt	Interest Cost
1	SBI	317693.66	2044751.39	2362445.05	113658.50
2	PNB	40763.34	621704.02	662467.36	32282.82
3	BOB	30611.44	601675.17	632286.61	28686.52
4	BOI	39405.67	540032.01	579437.68	27464.74
5	CANARA	39503.56	495275.24	534778.8	31515.87
6	UNION	41225.87	378391.58	419617.45	23756.64
7	IDBI	56363.98	268538.10	324902.08	22039.71
8	SYNDICATE	17475.52	260560.86	278036.38	16727.82
9	CBI	9282.45	296671.19	305953.64	18087.40
10	OBC	14592.19	219339.39	233931.58	13512.83
Private Sector Banks					
1	HDFC	74028.87	643639.66	717668.53	36166.73
2	ICICI	147556.15	490039.06	637595.21	32418.96
3	AXIS	105030.87	414378.79	519409.66	26449.04
4	KOTAK	21095.48	157425.86	178521.34	9572.78
5	YES	38606.67	142873.86	181480.53	10627.34
6	INDUS	22453.69	126572.22	149025.91	8343.07
7	FEDERAL	5897.32	97664.56	103561.88	5624.74
8	IDFC	50262.19	40208.22	90470.41	6515.39
9	JK	1276.05	72463.09	73739.14	4173.86
10	SIB.	1957.76	66117.49	68075.25	4171.65

Source: Annual Report (2016-17) of All the Banks

Analysis

- **Public Sector Banks:** In the terms of borrowings, deposits, total debt and interest cost SBI is well ahead of all the public sector banks while OBC has the minimum deposits, total debt and interest cost. CBI has the minimum borrowings.
- **Private Sector Banks:** In the terms of deposits, total debt and interest cost HDFC is well ahead of all the private sector banks, while in the terms of borrowings ICICI is at the top position. In the terms of borrowings JK, deposits IDFC, total debt and interest cost SIB is at the lowest position.

Table 04: Capital Employed (Net worth + Total Debt) of Top Ten Public & Private Sector Banks of India (For the Financial Year 2016-17) (In Rs. Crores)

Public Sector Banks				
S.No.	Bank	Net worth	Total Debt	Total Capital Employed (TCE)
1	SBI	188286.06	2362445.05	2550731.11
2	PNB	38096.45	662467.36	700563.81
3	BOB	40267.25	632286.61	672553.86
4	BOI	32487.07	579437.68	611924.75
5	CANARA	28312.39	534778.8	563091.19
6	UNION	23976.2	419617.45	443593.65
7	IDBI	17145.36	324902.08	342047.44
8	SYNDICATE	12588.56	278036.38	290624.94
9	CBI	17951.14	305953.64	323904.78
10	OBC	12672.94	233931.58	246604.52
Private Sector Banks				
1	HDFC	89462.35	717668.53	807130.88
2	ICICI	96908.83	637595.21	734504.04
3	AXIS	55762.54	519409.66	575172.2
4	KOTAK	27617.94	178521.34	206139.28
5	YES	22054.06	181480.53	203534.59
6	INDUSIND	20271.53	149025.91	169297.44
7	FEDERAL	8942.38	103561.88	112504.26
8	IDFC	14678.05	90470.41	105148.46
9	JK	5676.5	73739.14	79415.64
10	SIB.	4604.64	68075.25	72679.89

Source: Annual Report (2016-17) of All the Banks

Analysis

- **Public Sector Banks:** SBI has the maximum total capital employed and OBC has the minimum total capital employed. Average capital employed for all the top ten public sector banks is Rs. 6,74,564 Crore, which is more than double of the average of private sector banks.
- **Private Sector Banks:** HDFC has the maximum total capital employed and SIB has the minimum total capital employed. Average capital employed for all the top ten private sector banks is Rs. 3,06,552.67 Crore.

Table 05: Calculation of Cost of Debt After Tax of Top Ten Public & Private Sector Banks of India (For the Financial Year 2016-17)

Public Sector Banks					
S. No.	Bank	Total Debt (In Rs. Crore)	Interest Cost (In Rs. Crore)	Cost of Debt Before Tax Kd(In %)	Cost of Debt After Tax Kdt (In %)
1	SBI	2362445.05	113658.5	4.81	3.37
2	PNB	662467.36	32282.82	4.87	3.41
3	BOB	632286.61	28686.52	4.54	3.18
4	BOI	579437.68	27464.74	4.74	3.32
5	CANARA	534778.8	31515.87	5.89	4.13
6	UNION	419617.45	23756.64	5.66	3.96
7	IDBI	324902.08	22039.71	6.78	4.75
8	SYNDICATE	278036.38	16727.82	6.02	4.21
9	CBI	305953.64	18087.4	5.91	4.14
10	OBC	233931.58	13512.83	5.78	4.04
Private Sector Banks					
1	HDFC	717668.53	36166.73	5.04	3.53
2	ICICI	637595.21	32418.96	5.08	3.56
3	AXIS	519409.66	26449.04	5.09	3.56
4	KOTAK	178521.34	9572.78	5.36	3.75
5	YES	181480.53	10627.34	5.86	4.10
6	INDUS	149025.91	8343.07	5.60	3.92
7	FEDERAL	103561.88	5624.74	5.43	3.80
8	IDFC	90470.41	6515.39	7.20	5.04
9	JK	73739.14	4173.86	5.66	3.96
10	SIB	68075.25	4171.65	6.13	4.29

Source: Own Computation on the basis of Total Debt & Interest Cost.

Analysis

- **Public Sector Banks:** IDBI has the highest cost of debt and BOB has the lowest cost of debt. Average cost of debt for all the top ten public sector banks is **3.85%**.
- **Private Sector Banks:** IDFC has the highest cost of debt and HDFC has the lowest cost of debt. Average cost of debt for all the top ten private sector banks is **3.95%**, which is slight higher than public sector banks.

Table 06: Calculation of Cost of Equity of Top Ten Public & Private Sector Banks of India (For The Financial Year 2016-17)

Public Sector Banks				
S.No.	Bank	Market Price (In Rs. Per Share)	Dividend (In Rs. Per Share)	Cost of Equity Ke (In %)
1	SBI	282.1	2.6	0.92
2	PNB	148.8	0	0
3	BOB	173.9	1.2	0.69
4	BOI	135.95	0	0
5	CANARA	297.2	1	0.34
6	UNION	155.75	0	0
7	IDBI	75.75	0	0
8	SYNDICATE	70.7	0	0
9	CBI	100.55	0	0
10	OBC	139.8	0	0

Private Sector Banks				
1	HDFC	1420.2	11	0.79
2	ICICI	251.82	2.5	0.99
3	AXIS	502.8	5	0.99
4	KOTAK	859.45	.6	0.07
5	YES	1534.85	12	0.78
6	INDUS	1404.25	6	0.43
7	FEDERAL	90.55	0.9	0.99
8	IDFC	59.65	0.75	1.26
9	JK	73.5	0.00	0
10	SIB	20.25	0.7	3.46

Note: Market Price is taken from Bombay Stock Exchange (BSE) as on 31st March 2017.

Source: Own Computation on the basis of Market Price & Dividend per Share.

Analysis

- **Public Sector Banks:** SBI has the highest cost of equity. Average cost of equity for all the top ten public sector banks is **0.20%**.
- **Private Sector Banks:** ICICI, AXIS and FEDERAL bank has the highest cost of equity, while JK has the lowest cost of equity. Average cost of equity for the entire top ten private sector banks is **0.98%**, which is almost five times than the average of the public sector banks.

Table 07: Weighted Average Cost of Capital (WACC) of Top Ten Public & Private Sector Banks of India (For the Financial Year 2016-17)

Public Sector Banks								
S.N.	Bank	Kdt	Ke	Wd	We	WKd	WKe	WACC. (In %)
1	SBI	3.37	0.92	0.91	0.09	3.07	0.08	3.15
2	PNB	3.41	0	0.95	0.05	3.26	0	3.25
3	BOB	3.18	0.69	0.94	0.06	2.99	0.04	3.03
4	BOI	3.32	0	0.94	0.06	3.12	0	3.12
5	CANARA	4.13	0.34	0.97	0.03	3.99	0.01	4.00
6	UNION	3.96	0	0.96	0.04	3.79	0	3.79
7	IDBI	4.75	0	0.95	0.05	4.53	0	4.53
8	SYNDICATE	4.21	0	0.98	0.02	4.12	0	4.12
9	CBI	4.14	0	0.92	0.08	3.81	0	3.81
10	OBC	4.04	0	0.98	0.02	3.96	0	3.96

Private Sector Banks								
1	HDFC	3.53	0.79	0.66	0.34	2.34	0.27	2.61
2	ICICI	3.56	0.99	0.81	0.19	2.89	0.19	3.08
3	AXIS	3.56	0.99	0.81	0.19	2.89	0.19	3.08
4	KOTAK	3.75	0.07	0.53	0.47	1.99	0.03	2.02
5	YES	4.10	0.78	0.72	0.28	2.96	0.22	3.17
6	INDUS	3.92	0.43	0.63	0.37	2.48	0.16	2.64
7	FEDERAL	3.80	0.99	0.87	0.13	3.31	0.13	3.44
8	IDFC	5.04	1.26	0.82	0.18	4.12	0.23	4.35
9	JK	3.96	0	0.95	0.05	3.76	0	3.76
10	SIB.	4.29	3.46	0.95	0.05	4.07	0.18	4.25

Source: Own Computation on the basis of Cost of Debt & Equity.

Analysis

- **Public Sector Banks:** IDBI has the highest WACC and BOB has the lowest WACC. Average WACC for all the top ten public sector banks is **3.68%**.
- **Private Sector Banks:** IDFC has the highest WACC and KOTAK has the lowest WACC. Average WACC for all the top ten private sector banks is **3.24%**, which is significantly lower than the public sector banks.

Table 08: Economic Value Added (EVA) by Top Ten Public & Private Sector Banks of India (For The Financial Year 2016-17) (In Rs. Crore, except WACC)

Public Sector Banks						
S. N.	Bank	NOPAT	TCE	WACC	TCE * WACC	EVA
1	SBI	126435.92	2550731.11	3.15	80348.03	46087.89
2	PNB	34032.66	700563.81	3.25	22768.33	11264.33
3	BOB	30581.01	672553.86	3.03	20378.38	10202.63
4	BOI	25893.95	611924.75	3.12	19092.05	6801.90
5	CANARA	32965.33	563091.19	4.00	22523.65	10441.68
6	UNION	24547.90	443593.65	3.79	16812.20	7735.70
7	IDBI	17240.51	342047.44	4.53	15494.75	1745.76
8	SYNDICATE	17224.07	290624.94	4.12	11973.75	5250.32
9	CBI	15905.67	323904.78	3.81	12340.77	3564.90
10	OBC	12487.08	246604.52	3.96	9765.54	2721.54
Private Sector Banks						
S. N.	Bank	NOPAT	TCE	WACC	TCE * WACC	EVA
1	HDFC	51549.49	807130.88	2.61	21066.12	30483.37
2	ICICI	42977.7	734504.04	3.08	22622.72	20354.98
3	AXIS	30637.12	575172.2	3.08	17715.31	12921.81
4	KOTAK	13274.94	206139.28	2.02	4164.01	9110.93
5	YES	14128.68	203534.59	3.17	6452.05	7676.63
6	INDUS	11401.66	169297.44	2.64	4469.45	6932.21
7	FEDERAL	6577.7	112504.26	3.44	3870.15	2707.55
8	IDFC	7669.47	105148.46	4.35	4573.96	3095.51
9	JK	2626.65	79415.64	3.76	2986.03	-359.38
10	SIB	4629.53	72679.89	4.25	3088.89	1540.64

Source: Own Computation on the basis of WACC, Cap. Employed and NOPAT.

Analysis

- **Public Sector Banks:** SBI has created the highest positive EVA and IDBI has created the lowest EVA, which is also positive. The average EVA for all the top ten public sector banks is Rs. 10,581.67 Crore.
- **Private Sector Banks:** HDFC has created the highest positive EVA and JK has created the negative EVA, which is also the lowest one. The average EVA for all the top ten private sector banks is Rs. 9446.23 Crore, which is less than the average EVA create by public sector banks.

Test of Hypothesis

Table 08: Test of Hypothesis by Student's T-Test

[H₀: There is no significant difference between average Economic Value Added (EVA) by Public and Private Sector Banks of India for the financial year 2016-17]

S.No	Particulars	Public Sector Banks	Private Sector Banks.
1.	No of banks sample (n)	n ₁ = 10	n ₂ = 10
2.	Average EVA (x)	x ₁ = 105.82	x ₂ = 94.46
3.	Sum of the squares of deviations	(d1) ² = 150122.05	(d2) ² = 82759.57
4.	(S) :	$\sqrt{\frac{\sum(d1)^2 + \sum(d2)^2}{n1 + n2 - 2}} = 113.73$	
5.	Student's T – Test	$\frac{x1 - x2}{S} \times \sqrt{\frac{n1 * n2}{n1 + n2}} = 0.22$	
6.	Degree of freedom (d.f.)	(n1+ n2 -2) = 18	
7.	Critical Value at 18 d.f. and 5% significance level	2.101	
8.	Result	Calculated Value Critical Value 0.22 2.101 H ₀ : Accepted	

Source: Own computations on the basis of available EVA

Final Interpretation and Inference

On going through the above all tables and analysis following inferences can be made on the financial performance of these banks:

• **Shareholder's Fund (Net worth) :** As on 31st March 2017 total share capital of top public sector banks stood at Rs. 12,146.27 Crore, which is 49.30% more than the total share capital of top private sector banks (Rs.8,135.28 Crore). However, the total reserves of public sector banks stood at Rs.3, 99,637.15 Crore, which is 19.86% more than the total reserves of private sector banks (Rs.3,

33,422.15 Crore). These figures showing that in terms of the wealth creation for the shareholders the private sector banks are well ahead of public sector banks as reserve to capital ratio of private sector banks is 40.98 times, however for public sector banks it is stood at 32.9 times. We can also observe this difference in the book value and market price of shares of both the types of banks.

̄ **Cost of Equity:** The Average Cost of Equity of the Public Sector Banks is Almost Nominal (0.20%), Because Out of Ten Banks Only Three Banks Have Paid. The Dividend for the F.Y. 2016-17. Lower Credit Growth, Lower Net Interest Margin (NIM), Higher Provisioning For Bad and Doubtful Debts, Etc. Are Some Main Reasons for the Non Distribution of Dividend in this Financial Year. It Means Shareholders Are Not Getting Even A Minimum Return on Their Investments From The Side of These Banks. However, The Market Price Per Share of These Banks is at Reasonable High Level. So These Banks Are Not Successful In Giving A Minimum Return To Their Stakeholders, But They Are Successful To Create Wealth For Their Shareholders in Form of Higher Market Price. On Other Hand the Performance of the Private Sector Banks is Much Better than the Public Sector Banks. Its Average Cost of Equity (0.98%) Is Well Over the Public Sector Banks. It Is Also More than the Normal Return to their Shareholders. Market Price Per Share of these Banks is Also Much Higher than the Public Sector Banks, So the Stake Holders are also Getting the Opportunity of Wealth Creation.

̄ **Cost of Debt:** In this term the performance of both types of banks is almost equal. The average cost of debt is less than 4% for both types of banks. The difference in average cost of both type of banks is nominal, it means these banks are able to collect the debt at significantly lower rate. Huge deposits, (especially through savings and current accounts), continuously decreasing interest rates, demonetization etc are the main reasons for this. However there is a significant difference of total debt is existed in various public and private sector banks as well. As on 31st March 2017 total debt of public sector banks stood at Rs. 63,33,856.63 Crore, which is 132% more than the total debt of private sector banks (Rs.27,19,547.86 Crore).

̄ **Total Capital Employed (TCE) & WACC:** As on 31st March 2017 TCE of public sector banks stood at Rs. 67,45,640.05 Crore, which is 120% more than the TCE of private sector banks (Rs.30,65,526,68 Crore).. The TCE of public sector banks is more than double of private sector banks just only due to huge amount of total debt of public sector banks, because the net worth of public sector banks is only 19% more than the private sector banks. The WACC of public sector banks is greater than the WACC of private sector banks due to the higher weight of debt in the capital structure of public sector banks.

̄ **NOPAT:** As on 31st March 2017 total NOPAT of top public sector banks stood at Rs. 3,37,314.10 Crore, which is 81.87% more than the NOPAT of top private sector banks (Rs.1,85,472.96 Crore). It means in the terms of the profit earnings the public sector banks are well ahead of private sector banks. But Return on Investment (ROI) (NOPAT * 100/ TCE) ratio of private sector banks is 6.05%, however for public sector banks it is at only 5%. So the profitability of private sector banks is much better than the public sector banks.

Conclusion

With the analysis of the financial performance of top public and private sector banks of India through the EVA approach, we have also measure some other area of the financial performance area. Financial management of the private sector banks is more efficient and effective than the public sector banks because:

- ̄ In terms of the wealth creation for the shareholders the private sector banks are well ahead of public sector.
- ̄ The book value and market price of shares of private sector banks is more than the public sector banks.
- ̄ Average cost of equity of private sector banks is well over the public sector banks. It is also more than to the normal return to their shareholders.
- ̄ The profitability (ROI Ratio) of private sector banks is much better than the public sector banks.
- ̄ The WACC of private sector banks is significantly lower than the WACC of public sector banks.

However the public sector banks are successfully managing a very huge amount of the debt with lower cost of debt than the private sector banks. The average EVA of top ten public sector banks is also greater than the average EVA of private sector banks. According to the result of the test of the hypothesis there is no significant difference between the EVA of public and private sector banks. Both types of banks are contributing a positive Eva to the nation. It means both type of banks are successfully creating wealth for their investors (shareholders and creditors).

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