

A detailed investigation of EVA in Indian Banking Sector and Its Impact on its Share Price: A study on Axis, HDFC and ICICI Bank

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ABSTRACT

A bank's management creates value when it takes decisions which provide benefits, in excess of costs. These welfares may come to banks in the near or distant future dependent on the strategies involved in decision making process.

The purpose of paper is to examine an appropriate way of evaluating bank's performance and also see which banks have been able to create or destroy shareholders wealth during 2010-2015. For research sample of three private bank is taken and for evaluation economic value added was calculated. In case of Axis Bank, share price doesn't influenced by EVA where as in case of HDFC and ICICI Bank, it does.

Keywords: Economic Value Added, EVA Disclosures, Private Banks in India, shareholders wealth, Share Price

I. INTRODUCTION

Indian Banking in the last decade has seen many changes like imposition of prudential standards, greater rivalry among banks, entry of new private banks, etc. This model shift in the Indian banking sector can be seen in terms of two dimensions first to operational aspect especially performance and risk-management structure and the second dimension relates to structural and external environment or exogenous aspects. Is evaluating Indian banks performance a rather straight forward issue? In the answer one might say that like a corporate, even banks can be arbitrated from the movement of their stock prices. However, bankstocks havenot been very active on exchanges. Author conclude that Indian banks have by and large failed to add values to their shareholders" wealth. So it is necessary to study performance of the bank by Economic value added (EVA) and examine its impact on share price. Along with this, other parameters like Market value added (MVA) and Return on Net Worth (RONW) considered for analysis.

II. LITERATURE REVIEW

(RAUL, May 2012,) Statedgrowing economy, financial sector reform, growing foreign investment, advantageous regulatory climate and demographic outline has led to India becoming one of the fastest expanding banking markets in the world. This paper shows an empirical investigation of various banks M & As in India. The investigation contains evaluation of value addition to the

shareholders of Banks in India after merger by using three value added metrics EVA, MVA and RONW.

(Thilakerathne, 2015) Studied transparency, disclosures and information sharing with stakeholders, command a significant degree of value to the associated financial statements of any corporate or business enterprise. Stockholders and investors are increasingly looking at the performance of companies which they have invested their hard funds. To meet such expectations, good governed companies do adopt practices which add to increase the value of financial statements and value to its readers. The ideas of free cash flow and the evaluation of business on a cash basis developed by MM (1961) were extended into the concept of the Economic Value Added.

(Stewart and Stern 1971) advocated measures have not presented the real shareholder value of an enterprise. Thus, the EVA is one of main assessment criteria of companies' commitment with shareholder value maximization. In this context, this research investigated the EVA disclosures in Sri Lankan listed companies. Analyzing annual reports of Sri Lankan largest 85 listed companies from 2009-13, the results showed that 15 numbers of listed companies, as a percentage of 17.65 of the sample disclosed the EVA statement in their annual reports. Univariate analysis was used to categorize the extent of EVA disclosures of listed companies in Sri Lanka and it was found that, presence of significant inconsistencies and loopholes in measurement of EVA and its major components of EVA reporting listed companies. Further, the study recommends the significance of implementing EVA disclosures as a obligatory requirement for Sri Lankan companies.

(Khan & al, 2012) Proposed most of the time information is too aggregated, too late and too distorted. EVA is a measure of true performance measurement and economic profit. It is distinct from other performance measures such as EPS, EBITDA, and ROIC by the mean of measuring both operational and financing costs of a running business, which makes EVA the comprehensive performance metric, and the one most closely aligned with the creation of shareholder value.

(Chauhan, 2012) Observed the shareholder's value creation in the petroleum industry of Indian. For the study author have divided petroleum into public sector firm and private sector firms. CMIE Prowess database from (2001-02 to 2010- 11. For each of the companies, they have calculated the all 10 years correlation between EVA of each year and each year's MVA, NOPAT, PAT, EPS and Market Capitalization. In the study period both the sector has created affirmative EVA and MVA.

(Shil, 2009) Proposed EVA is a value based performance measure that gives importance on value creation by the management. Profit maximization as a

concept is old, wealth maximization is matured and value maximization is today's intelligence. An earnest effort has been made to explain theoretical basis of EVA with its origination, definition, ways to make it tailored, adjustments required, scope and other related issues. The methodology used is a type of theoretical mining of logics resulting a step-by-step process essential for EVA application. As corporate plans to move from traditional to value based performance procedures, EVA would yield good result and the paper may become helpful to them to understand the methodology.

(Hamidah, 2015) Have involved 30 Bank which go public and listed on the Indonesia Stock Exchange. This study used purposive sampling technique, using the data in of annual financial statements from 2011 to 2013. This study based on the simple regression analysis method, namely by using the F and t test, so as to determine the effect of the financial performance measurement results with the level of significance. All data were analyzed using SPSS and Eviews 7.0 software. Then, the results of the real-time study shows that there is a positive effect of the independent variables are represented by variables like ROCE, ROE, EPS, and EVA on Shareholders' Wealth.

(Patel & Patel, 2012)The objective of this study was to determine shareholders value (in terms of economic value added) of selected private sector banks during the last five years. I.e. since 2004-05 to 2009-2010. From study it was started that in year 2010, ICICI Bank has maximum NOPAT. The value of EVA was ranging from 14.48% to 91.14% during 2010. Only Kotak Mahindra bank has positive correlation. Rest of banks, has negative relation between their respective EVA & share price.

(Shah & Sengupta, 2009) Calculated financial performance and valuation by using various emerging techniques like EVA, CVA, and MVA. These rate a firm's true intrinsic value by inspecting a series of metrics that reflect its ability to boost shareholder's wealth, and compares the fundamental value to the firm's actual market valuation as expressed through all other member of MVA multiples.

(N.Sakthivel, 2011) Focused on the investors' objectives are purely based on the profitability and financial presentation of the company. So, investors before taking their investment decisions, they consider some factors which stimulates the corporate performance. For measuring the corporate financial performance, there are profitability measures and shareholders' value based measures. Profitability measures include ROI, ROE, EPS, and DPS etc., Shareholders valued based measures include Economic value added and MVA. This study is an attempt to examine the trend and growth of Shareholders' Value in terms of

EVA and MVA in Pharmaceutical Industry of Indian during 1997-98 to 2006-07.

III PROBLEM STATEMENT

The problem is that how well banks are performing and find out EVA in bank and its impact on share price. So that There need to find out the value of shareholders in term of EVA of banks and to study its trend and growth in Indian banking industry in terms of EVA and MVA(Market value added).

Research Objectives

- To study the shareholders' value in terms of Economic Value Added of selected banks during the last five years. I.e. since 2009-2010 to 2014-15.
- To examine Economic Value Added (EVA) in bank and its impacts on share price.
- To find how EVA can affect to the share price of Selected Banks.

Data Sources

Study is based on secondary data only. To find out EVA, we had taken data of balance sheet and profit / loss account. To have study we used data of share price.

The study comprises formal data of banks and values of share prices during the period of last six year i.e. 2008-09 to 2014-15.

Variables Used In The Study

- Net Operating Profit After Taxes (NOPAT) = (PBDT + Interest On RBI Loans + Interest On Others + Total Other Income) - Cash Taxes
- Invested Capital = (Total Equity & Reserves + Total Borrowings)
- Return On Invested Capital (ROIC) = (NOPAT / Invested Capital)
- Cost Of Equity (Ke) = $[R_f + b (R_m - R_f)]$ (CAPM)
- Weighted Average Cost Of Capital (WACC) = Weighted Cost Of Equity + Weighted Cost Of Debt
- Economic Value Added (EVA) = (ROIC – WACC)
- Market Value Added (MVA) = (Market Capitalization - Invested Capital)
- Normality test
- Correlation
- Regression analysis

- ANOVA

IV DATA ANALYSIS AND INTERPRETATION

Table-1 Normality Test

Table-2 Correlation

Table-3 Regression Statistics

Table-4 Net Operating Profit after Tax (NOPAT)

BETA

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 price vis BSE for each over all Beta of 2011-12 to 2014-15.

Formula: $nExy - (Ex)(Ey) \div nEx^2 - (Ex)^2$

Table-5 Beta Value

Table-6 Return on Invested Capital

Table-7 Economic Value Added

ANOVA Analysis

AXIS BANK

HO = EVA of Axis Bank did have significant impact on Stock price of Axis Bank

H1 = EVA of Axis Bank did not have significant impact on Stock price of Axis Bank

<Table- 8: Axis Bank ANOVA Analysis >

Here, the p-value of ANOVA is 0.005138, which is less than 0.05, which shows that EVA by axis bank did not have significant impact on stock price of Axis Bank.

HDFC BANK

HO = EVA of HDFC Bank did have significant impact on Stock price of HDFC Bank

H1 = EVA of HDFC Bank did not have significant impact on Stock price of HDFC Bank

<Table- 9: HDFC Bank ANOVA Analysis >

Here, the p-value of ANOVA is 0.238892, which is greater than 0.05, which shows that EVA by HDFC Bank did have significant impact on stock price of HDFC Bank.

ICICI BANK

HO = EVA of ICICI Bank did have significant impact on Stock price of ICICI Bank.

H1 = EVA of ICICI Bank did not have significant impact on Stock price of ICICI Bank.

<Table - 10: ICICI Bank ANOVA Analysis >

Here, the p-value of ANOVA is 0.196392, which is greater than 0.05, which shows that EVA by ICICI Bank did have significant impact on stock price of ICICI Bank.

Analysis and Interpretation

Correlation between Axis Bank Eva & Axis Bank Share Price is near to -1 where as in case of ICICI and HDFC correlation is -0.30 and -0.56 respectively. It should be noted that all the three banks have negative correlation. Beta of the HDFC bank is 1.37 which is lowest among sample, whereas beta value of ICICI is 1.58 which is highest. With the lowest beta and highest EVA percentage 37.64% in 2015 HDFC bank out perform in market as well as fundamentally. Along with this Table-VIII shows summary of research work. For future understanding of data analysis kindly refer table-1 to table-7.

V. CONCLUSION

EVA can be an important tool that bankers can use to measure and improve the financial performance of their bank. Since takes the interest of the bank's shareholders into consideration, the use of EVA by bank management may lead to different decisions than if management decisions than if management relied solely on other measure.

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 private sector banks in our country have already started considering their portfolio of services offered and what they should do in the future for reaming competitive in the industry. As public sector banks are likely to undergo major consolidation, suddenly for many Indian banks things have changed.

EVA appears to have an intuitive, straightforward approach. Measuring value created appears to be an important and relatively easy way to calculate

performance. EVA recognizes not only end results, but also the cost of the input of funds to get the results. EVA helps enormously the management and employees and the constituencies to see what should be actual objective of the company, since it makes clear to all what profitability is in real calculation. EVA as a value based measure is influenced by certain variables.

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List of Tables:**Table-1 normality test**

Particulars	AXIS BANK		HDFC BANK		ICICI BANK	
	EVA%	Share Price %	EVA%	Share Price %	EVA%	Share Price %
Mean	0.293583	0.149683	0.378800	0.339500	0.13875	0.1494
Standard Error	0.011055	0.205706	0.019747	0.355898	0.00582	0.2185
Median	0.290550	0.142850	0.377800	0.220100	0.138700	0.1887
SD	2.707866	0.503875	0.048367	0.871695	0.01425	0.5352
Variance	0.000733	0.253890	0.002339	0.759852	0.00020	1.1152
Skewness	0.476080	1.023044	0.210069	0.377356	-0.1270	0.0981
Kurtosis	-0.92805	2.114805	2.332917	0.062194	-1.9191	-2.15853

Table-2 Correlation

CORRELATION	CORRELATION VALUE
Correlation Between Axis Bank Eva & Axis Bank Share Price	-0.940885832
Correlation Between HDFC Bank Eva & HDFC Bank Share Price	-0.5687216
Correlation Between ICICI Bank Eva & ICICI Bank Share Price	-0.30199

Table-3 Regression Statistics

Regression Statistics	AXIS BANK	HDFC BANK	ICICI BANK
Multiple R	0.940886	0.568722	0.612232
R Square	0.885266	0.323444	0.374829
Adjusted R Square	0.856583	0.154305	0.218536
Standard Error	0.19082	0.801625	0.473108
Observations	6	6	6

Table-4: Net Operating Profit After Tax (NOPAT)

YEAR	2011	2012	2013	2014	2015
AXIS BANK	9025.02	13259.88	19361.78	24445.8	27014
HDFC BANK	10939.67	15217.59	21593.37	27656.43	32718.55
ICICI BANK	21179.58	25709.25	30856.81	36337.19	40457.67
Invested Capital					
AXIS BANK	33214.16	45266.71	56934.96	77058.96	88511.42
HDFC BANK	34438.18	39773.33	53771.19	69220.74	82917.62
ICICI BANK	145881.9	164644.92	200567.77	212043	227965.8

Table-5 Beta Value

Date	BSE	HDFC BANK	AXIS BANK	ICICI BANK
29/01/2011	16357.96	118.3	1025.5	830.4
26/02/2011	16429.55	121.69	1124.85	871.85
31/03/2011	17527.77	136.38	1169.1	952.7
30/04/2011	17558.71	1991.6	1268.2	950.5
31/05/2011	16944.63	1885.4	1228.4	867.05
30/06/2011	17700.9	1914.65	1242.95	862
30/07/2011	17868.29	2127.45	1345.4	904.45
31/08/2011	17971.12	2132.45	1324.85	977.3
30/09/2011	20069.12	2480.8	1531.2	1110.35
29/10/2011	20032.34	2278.1	1466.65	1161.65
30/11/2011	19521.25	2289.2	1367.9	1143.65
31/01/2012	18327.76	2042.85	1246.75	1020
28/02/2012	17823.4	2049.7	1223.9	971
31/03/2012	19445.22	2342.95	1403.65	1112.75
29/04/2012	19135.96	2292.5	1286	1114.25
31/05/2012	18503.28	2388.3	1278.6	1086
30/06/2012	18845.87	2502.6	1289	1093.1
29/07/2012	18197.2	487.4	1338.15	1037.75
30/08/2012	16676.75	471.15	1076.95	887.2
30/09/2012	16453.76	467.25	1021.45	875.35
31/10/2012	17705.01	489.05	1159.7	930.5
30/11/2012	16123.46	441.45	947.5	714.15
30/12/2012	15454.92	427.05	806.75	684.6
31/01/2013	17193.55	490.9	1074.2	902
29/02/2013	17752.68	517.8	1178.05	906.5
30/03/2013	17404.2	520.05	1145.9	887.25
30/04/2013	17318.81	542.2	1106.6	881.45
31/05/2013	16218.53	505.95	971.55	784.3
29/06/2013	17429.98	563.5	1015.8	899.6
31/07/2013	17236.18	587.85	1042.7	960.75
31/08/2013	17429.56	595.05	999.9	909.3
28/09/2013	18762.74	628.7	1136.75	1057.25
31/10/2013	18505.38	634.55	1183.65	1050.05
30/11/2013	19339.9	703.65	1316.35	1098.6
31/12/2013	19426.71	678.8	1356.5	1137.3
31/01/2014	19894.98	643.4	1505.2	1190.85
28/02/2014	18861.54	625.6	1343.3	1040.3
29/03/2014	18835.77	624.1	1301.25	1045.35
30/04/2014	19504.18	682.15	1493.1	1163.15
31/05/2014	19760.3	700.45	1430.65	1154.3
28/06/2014	19395.81	668.5	1323.05	1069.75

31/07/2014	19345.7	609.7	1034.05	909.3
30/08/2014	18619.72	593.8	835.75	804.3
30/09/2014	19379.77	593.7	1007.3	884.95
31/10/2014	21164.52	679.45	1222.9	1121.05
29/11/2014	20791.93	661.2	1155.3	1067.9
31/01/2015	20513.85	628.9	1119.55	988.5
28/02/2015	21120.12	667.5	1265.9	1043.7
31/03/2015	22386.27	748.85	1460.45	1245.45
BETA		1.37	1.49	1.58

Risk free rate 8.92% (April 2015)

Table-6 Return on Invested Capital

ROIC [NOPAT / Invested capital]	2011	2012	2013	2014	2015
AXIS BANK	27.17%	29.29%	34.01%	31.72%	30.52%
HDFC BANK	31.77%	38.26%	40.20%	39.95%	39.46%
ICICI BANK	14.52%	15.61%	15.38%	17.14%	17.75%

Table-7 Economic Value Added

EVA%	2011	2012	2013	2014	2015
AXIS BANK	25.61%	27.62%	31.89%	29.45%	28.66%
HDFC BANK	30.51%	36.96%	38.54%	37.92%	37.64%
ICICI BANK	11.98%	13.30%	12.74%	14.44%	15.34%

Table- 8 Axis Bank ANOVA Analysis

AXIS BANK	Sum of Squares	Df	Mean square	F	Significance
Regression	1.1238003063	1	1.123800	30.8363294	0.005138
Residual	0.1456487820	4	0.0364121955		
Total	1.2694490883	5			

Table- 9 HDFC Bank ANOVA Analysis

HDFC BANK	Sum of Squares	Df	Mean square	F	Significance
Regression	1.2288481565	1	1.2288481565	1.9123	0.238892
Residual	2.5704099835	4	0.6426024959		
Total	3.7992581400	5			

Table- 10 ICICI Bank ANOVA Analysis

ICICI BANK	Sum of Squares	Df	Mean square	F	Significance
Regression	0.536801	1	0.5368013	2.398245	0.196392
Residual	0.895323	4	0.2238309		
Total	1.432125	5			

Table-11 Summary of Hypothesis testing

HO HYPOTHESIS	H1 HYPOTHESIS	SIGNIFICANCE VALUE	Remarks
HO = EVA of Axis Bank did have significant impact on Stock price of Axis Bank	H1 = EVA of Axis Bank did not have significant impact on Stock price of Axis Bank	0.005138	Rejected
HO = EVA of HDFC Bank did have significant impact on Stock price of HDFC Bank	H1 = EVA of HDFC Bank did not have significant impact on Stock price of HDFC Bank	0.238892	Accepted
HO = EVA of ICICI Bank did have significant impact on Stock price of ICICI Bank.	H1 = EVA of ICICI Bank did not have significant impact on Stock price of ICICI Bank.	0.196392	Accepted

Note: If significance value from the ANOVA testing is greater than 0.05 the hypothesis will be accepted and less than 0.05 hypotheses will be rejected.

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