

Discriminating the Indian Banks as regards their Extent of Shareholder Value Creation

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ABSTRACT

The creation of shareholder value is the increase in equity market value, the shareholder value-added, the shareholder return and the required return to equity. That is, when it surpasses shareholders' 'expectations'. The present study aims analysing the extent of shareholder value creation in Indian banks using various Accounting and Value Based measures of shareholder value creation and classifying these banks as either value creators or value destroyers for their shareholders. The study is based on secondary data obtained from the various data sources including Ace-Knowledge and Research Portal. A sample of 35 has been taken from Indian Banking Sector during the period spanning 2004-05 to 2013-14. ROCE and SHR are the most important determinants in discriminating between the two categories of banks.

Key Words: Shareholder Value Creation, Value Creators, Value Destroyers, Indian Banks, Discriminant Analysis

INTRODUCTION

Shareholders become the owners of a company by buying shares in a company for a market determined price. This is an asset for the shareholders and they expect the value of the asset to grow. A shareholder bears risk because the company can fail and the investor may possibly loose the entire investment in the company. Companies aim to use assets to generate revenue which is used to pay expenses that were incurred to generate the revenue and the leftover amount after deduction of all expenditure is the profit. This amount may either be retained for re-investment into profitable projects or distributed to shareholders.

The general hypothesis in most finance literature is that all the markets in which the firm operates are perfectly competitive. This hypothesis is the "economic justification" for the creation of shareholder value (CSV) as the principal goal of the firm (Booth, 1998). Although earnings figures are very important in their own rights, real corporate performances as compared to market benchmarks are the fundamental drivers of stock market values. Therefore, the key question to answer is whether the funds put into the care or protection of managers yields a higher return than the owners can get elsewhere. In other words, the creation of shareholder value is the increase in equity market value, the shareholder value-added, the shareholder return and the required return to equity. That is, when it surpasses shareholders' 'expectations'.

The modern day finance experts have started stressing on the Wealth Maximisation principle for the owners of the companies i.e. the Shareholders, which stresses on maximizing wealth through Shareholder Value Creation. *Wealth* creation refers to changes in the wealth of shareholders on a periodic (annual) basis. In case of exchange-listed firms, changes in shareholder wealth are inferred mostly from changes in stock prices, dividends paid, and equity raised during the period. Since stock prices reflect investor expectations about future cash flows, creating wealth for shareholders requires that the firm undertake investment decisions that have a positive net present value (NPV). Although used interchangeably, there is a concrete difference between value creation and wealth creation. The value perspective is based on measuring value directly from accounting-based information with some adjustments, while the wealth perspective relies mainly on stock market information. For a publicly

traded firm these two concepts are identical when (i) management provides all pertinent information to capital markets, and (ii) the markets believe and have confidence in management.

The present study aims analysing the extent of shareholder value creation in Indian banks using various Accounting and Value Based measures of shareholder value creation and classifying these banks as either value creators or value destroyers for their shareholders.

LITERATURE REVIEW:

Amalendu Bhunia (2012) examined the relationship between shareholder's value and financial variables and tested whether value based frameworks are applicable in Indian condition or not. The study is based on secondary data obtained from the various data sources including CMIE proccess database for the period from 1996 to 2010. A sample of 155 top companies has been taken from Indian industries during the period spanning 1996-2010. In the course of analysis, linear regression, factor analysis and multiple discriminant analysis have been modelled. Empirical results show that effect shareholder value creation might lead to more information and insight. Although large sample statistical research of the type of this study was a powerful means of identifying the general relationships between pairs of variables. **Anand, et.al. (1999)** revealed that EVA, REVA (Refined Economic Value Added) and MVA are better measures of business performance than NOPAT and EPS in terms of shareholders' value creation and competitive advantage of a firm. Since conventional management compensation systems emphasize sales / asset growth at expense of profitability and shareholders' value. Thus, EVA is a measure that shifts focus on an organizational culture of concern for value. **KPMG-BS Study (1998)** assessed top companies on EVA, sales, PAT (Profit after Tax), and MVA criteria. The survey has used the BSE 1000 list of companies using a composite index comprising sales, profitability and compounded annual growth rate of those companies covering the period 1996-97. Sixty companies have been found able to create positive shareholder value whereas 38 companies have been found to destroy it. Accounting numbers have failed to capture shareholder value creation or destruction as per the findings of the study. 24 companies have destroyed shareholder value by reporting negative MVA. **Madhu Malik (2004)** examined the relationship between shareholder wealth and certain financial variables like EPS, RONW and ROCE. By using correlation analysis, it was found that there was positive and high correlation between EVA and RONW, ROCE. There was a positive but low correlation between EVA and EPS. By using co – efficient of determination (r^2), EVA was compared with Traditional performance measures and it was found that not a single traditional performance measure explains to the fullest extent variation in shareholder wealth. **Shrikant Krupasindhu Panigrahi et al. (2014)** utilizes economic measures like Economic Value Added (EVA) and Market Value Added (MVA) combined with the accounting measures to perform a comparative study in order to conclude the most appropriate measures for the creation of shareholder's wealth. The EVA of 28 construction companies from the total 43 construction companies listed in Bursa Malaysia were selected for the study and analysed during the period of 2003 to 2012. It was found that very few of the construction companies were having positive EVA for the creation of Shareholder's wealth. It was also found that there is a strong relationship between created shareholder's value and economic value added. **Bhayani (2006)** studied economic value added of Cholamandalam Investment and Finance Co. Ltd for the period of 1998-99 to 2002-03. The company has been successfully able to create value for its shareholders. The company's earnings are much higher than the overall cost of capital. The traditional performance indicators are showing quite high values of ROCE, EPS growth as compared to EVACE. It is observed that the traditional parameters indicated quite a rosy and healthy picture of the company during all five years of the study.

RESEARCH METHODOLOGY:

OBJECTIVE:

- To classify the selected Indian Banks as value creating or non-value creating banks as regards their extent of shareholder value creation with reference to Market Value Added (MVA) .

SAMPLING DESIGN:

The study uses data of Banks listed on Bombay Stock Exchange (BSE) for the period from 2004-05 to 2013-14. Banks with missing data are excluded from the study. The classification of private sector banks into “OLD BANKS” and “NEW BANKS” is considered as given by Department of Financial Services, Ministry of Finance: Government of India. Our final sample size is 36 Banks, 22 from Public Sector and 14 from Public sector for each period from Indian Banking Sector. The study is based on secondary data collected from Ace-Knowledge and Research Portal and Annual Reports of the banks collected from bank websites. The list of the banks in the final sample is given in the table below:

Table-1: Sample Description

Public Sector Banks	Private Sector Banks
State Bank of India (SBI)	Old Private Sector Banks
Bank Of Baroda (BOB)	Federal Bank Limited
DENA Bank (DENA)	ING VYSYA Bank Limited
CANARA Bank (CANARA)	Karnataka Bank Limited
IDBI Bank (IDBI)	KarurVysya Bank Limited
UNION BANK Of India (UBI)	Lakshmi Vilas Bank Limited (LVB)
Syndicate Bank	South Indian Bank Limited
Bank of Maharashtra(BOM)	City Union Bank Limited
Allahabad bank	New Private Sector Banks
Andhra Bank	Axis Bank Limited
Central Bank of India (CBI)	Development Credit Bank Limited (DCB)
Indian Bank	HDFC Bank Limited
Indian Overseas Bank (IOB)	ICICI Bank Limited
Punjab National Bank (PNB)	INDUSIND Bank Limited
UCO Bank	Kotak Mahindra Bank Limited
Vijaya Bank	YES Bank Limited
Bank of India(BOI)	
Corporation Bank	
Oriental Bank of Commerce (OBC)	
State Bank Bikaner & Jaipur (SBBJ)	
State Bank of Mysore (SB Mysore)	
State Bank of Travancore (SB Travancore)	

Model Specifications:

Discriminant Analysis :

Discriminant Analysis is carried out to classify the banks as value creating banks and non-value creating banks on the basis of Market value Added as a dependent variable, taking value 1 for the banks having MVA greater than the average MVA of the entire banking sector and 0 for the banks having MVA less than the average MVA of the entire banking sector. The independent variables of this model are: EVA, CVA, CFOP, FCF, EBIT, NOPAT, RONA, ROCE, EPS, P/E RATIO, FGV and SHR.

The form of the equation or Discriminant function is:

A linear combination of the variables used is formed into an equation:

$$Z = a + b_1X_1 + b_2X_2 + b_3X_3 + \dots + b_nX_n$$

Where Z = the discriminant score,

a= the Constant

b_i 's are the discriminant Coefficients; $i=1,2,\dots,n$

X_i 's= the independent Variables; $i=1,2,\dots,n$

Where, the Dependent Variable Z is MVADUMMY which is a dichotomous variable. The independent variables of this model are: EVA, CVA, CFOP, FCF, EBIT, NOPAT, RONA, ROCE, EPS, P/E RATIO, FGV and SHR. The variables used for this study are as follows:

Table-2: Variable Descriptions

Variable Name	Description
Cash Value Added (CVA)	Cash Flows Of Operating Activities – Taxes – (Interest + Dividend).
Economic Value Added (EVA)	$NOPAT - (IC_{t-1} * WACC\%)$
Future Growth Value (FGV)	MVA-COV
Current Operations Value (COV)	Where, $COV = NOPAT / WACC$
Free Cash Flow (FCF)	$FCF = NSL - OPC - ITX - IEX - FCI - RCI - WCI$
Cash Flow from Operations (CFOP)	Cash Flow From Operating Activities
Earnings Before Interest and Taxes (EBIT)	Revenue – Operating Expenses
Net Operating Profit After Tax (NOPAT)	Operating Profit(1-Tax Rate)
RONA	
ROCE	$EBIT / \text{Total Capital Employed}$
Earnings Per Share (EPS)	$NOPAT / \text{Number of Equity Shares}$
P/E RATIO	Market Price per Share / Earning Per Share
Shareholder Return (SHR)	$((P_t - P_{t-1}) + \text{Dividend}_t) / P_{t-1}$ Where, P= Market Price
MVA DUMMY(dependent variable)	1 for the banks having MVA greater than the average MVA of the entire banking sector and 0 for the banks having MVA less than the average MVA of the entire banking sector

DATA ANALYSIS AND INTERPRETATION:

Discriminant Analysis is carried out to classify the banks as value creating banks and non-value creating banks on the basis of Market value Added as a dependent variable, taking value 1 for the banks having MVA greater than the average MVA of the entire banking sector and 0 for the banks having MVA less than the average MVA of the entire banking sector.

Table-3:Group Statistics

MVADUMMY		Mean	Std. Deviation	CV(%)	Valid N (listwise)	
					Unweighted	Weighted
0	EVA	1376.867	2371.32	172.2257	225	225
	CVA	815.7615	4994.326	612.2287	225	225
	CFOP	1226.883	5123.684	417.6179	225	225
	FCF	-1397.23	3255.088	-232.967	225	225
	EBIT	23072.87	126844.9	549.7579	225	225
	NOPAT	1753.308	2885.289	164.5626	225	225
	EBIDT	23814.38	127981.8	537.4137	225	225
	RONA	1.268326	1.103539	87.00754	225	225
	ROCE	14.59844	7.727201	52.93167	225	225
	EPS	28.07138	36.19647	128.9444	225	225

	PERATIO	9.458057	15.37604	162.5708	225	225
	FGV	9899.896	124917.7	1261.808	225	225
	SHR	0.785718	4.156203	528.9686	225	225
1	EVA	2137.377	2512.424	117.5471	135	135
	CVA	1180.588	6384.227	540.7665	135	135
	CFOP	1555.101	6289.74	404.4586	135	135
	FCF	-2109.39	5119.502	-242.701	135	135
	EBIT	35687.22	137097.5	384.1641	135	135
	NOPAT	2479.969	2913.972	117.5003	135	135
	EBIDT	36894.79	138447.8	375.2504	135	135
	RONA	1.451723	0.764382	52.65339	135	135
	ROCE	18.6303	5.426275	29.12608	135	135
	EPS	30.42274	32.17591	105.7627	135	135
	PERATIO	15.54711	14.79548	95.16544	135	135
	FGV	55728.02	224903.2	403.5728	135	135
	SHR	2.514366	3.794602	150.9169	135	135
Total	EVA	1662.059	2449.622	147.3848	360	360
	CVA	952.5716	5550.514	582.6874	360	360
	CFOP	1349.965	5583.182	413.5798	360	360
	FCF	-1664.29	4063.648	-244.167	360	360
	EBIT	27803.25	130737.5	470.2237	360	360
	NOPAT	2025.806	2913.4	143.8144	360	360
	EBIDT	28719.54	131964.9	459.4953	360	360
	RONA	1.3371	0.992897	74.25751	360	360
	ROCE	16.11039	7.215756	44.78946	360	360
	EPS	28.95314	34.71638	119.9054	360	360
	PERATIO	11.74145	15.4253	131.3747	360	360
	FGV	27085.44	170616.7	629.9202	360	360
	SHR	1.433961	4.105496	286.3045	360	360

The above table shows that for ROCE and FCF are the most consistent variables with the least coefficient of variations in all the three cases: (1). MVA=1 (2) MVA =0 and (3) Total number of cases (360).

Table-4: Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	0.360 ^a	100.0	100.0	0.514

The last column of the above table indicates the canonical correlation which is the simple correlation coefficient between the discriminant score and their corresponding group membership. The square of the canonical correlation is $(0.514)^2 = 0.264196$ which means 26.42% of the variance in the discriminant model between the two categories of banks is due to the changes in the above predictor (independent) variables.

Table-5: Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	0.735*	108.199	12	0.000

The value of Wilk's Lambda is 0.735 which indicates the significance of the discriminant function which is tested using Chi-square test with 12 degree of freedom at 5% level of significance. Since, the p-value is less than 0.05, it can be inferred that the discriminant function is significant and hence, can be used for further interpretation of the results.

Table-6: Unstandardized Discriminant Function

	(Constant)	EVA	CVA	CFOP	FCF	EBIT	NOPAT	RONA	ROCE	EPS	PERATIO	FGV	SHR
Function-1	-2.171	0	0.001	0.001	0	0	0.001	-0.058	0.091	-0.008	0.029	0	0.087

The estimated Unstandardized Discriminant Function from the above table can be written as:
 $Y = -2.171 + 0.001CVA - 0.001CFOP + 0.001NOPAT - 0.058RONA - 0.008EPS + 0.029PERATIO + 0.091ROCE + 0.087SHR$

The rest of the variables do not contribute in discriminating between the banks. ROCE followed by SHR are found to be the best predictors of MVA in the above discriminating function.

Table-7: Standardized Canonical Discriminant Function Coefficients

		EVA	CVA	CFOP	FCF	EBIT	NOPAT	RONA	ROCE	EPS	PERATIO	FGV	SHR
Function	1	0.839	4.564	4.676	0.046	1.878	2.282	-0.058	0.636	0.273	0.444	1.5	0.35

The results differ significantly when we use the standardised discriminant function which is without the constant term. The above table indicates that CVA is the most important variable followed by CFOP, NOPAT, FGV, ROCE, PERATIO and SHR. The variables EBIT, CFOP, EVA, EPS and RONA have inverse relationship with the dependent variable. ROCE and SHR are found to be the common discriminating variables for both standardised and unstandardized functions.

Table-8: Classification Results

		MVADUMMY	Predicted Group Membership		Total
			0	1	
Original	Count	0	171	54	225
		1	33	102	135
	%	0	76	24	100
		1	24.4	75.6	100
Cross-validated ^b	Count	0	169	56	225
		1	39	96	135
	%	0	75.1	24.9	100
		1	28.9	71.1	100

This table is also called confusion table or classificatory table. It indicates that out of 135 observations of Category-2, 102 are correctly classified as in Category-2, whereas, 33 are wrongly classified as in category-1. Similarly, out of 225 observations of Category-1, 171 are correctly classified as in Category-1, whereas, 54 are wrongly classified as in Category-2. Thus, out of total 360 observations, 273 observations are correctly classified by the discriminant function. Therefore, the Hit ratio = No. of correct predictions / total number of cases = 273/360 = 0.7583. Hence, the Hit Ratio is 75.83%.

Table-9:Structure Matrix

	ROC E	SH R	PERAT IO	EV A	FG V	NOP AT	RON A	FC F	EBI DT	EBI T	EPS	CV A	CFO P
Function 1	0.46 9	0.34 8	0.325	0.25 4	0.21 9	0.203	0.15	- 0.14 2	0.08	0.07 8	0.05 5	0.05 3	0.04 8

The structure matrix indicates the correlation between the discriminant score and each of the independent variables. The above table indicates that the correlation coefficient between the discriminant score and ROCE (0.469) followed SHR, PERATIO, EVA, FGV, NOPAT, EPS, CVA and CFOP are positively correlated with the discriminant score. Thus, ROCE and SHR are the most important determinants in discriminating between the two categories of banks. The change in the relative importance of the variables using structure matrix in comparison to what is obtained by standardised coefficients is due to inter-correlation between the predictor variables. But, the results of both, the standardised and unstandardized discriminant function indicate a better discriminating power of profitability measures as compared to the value added measures.

FINDINGS:

ROCE and SHR are the most important determinants in discriminating between the two categories of banks. The results of both, the standardised and unstandardized discriminant function indicate a better discriminating power of profitability measures as compared to the value added measures. The results of group membership indicate that amongst the public sector banks Corporation Bank, Bank of Baroda, Central Bank of India, Canara Bank and Indian Bank are value destroyers while rest of the public sector banks are value creator. Amongst the private sector banks, Federal bank only is found to be the value destroyer bank. Thus, there is a superior scope of value creation in Public sector banks as compared to the private sector banks.

CONCLUSION:

ROCE and SHR are the most important determinants in discriminating between the shareholder value creator and value destroyer banks. The results also indicate that public sector banks should take essential steps to increase their shareholder value. Thus, they should reduce their Non-Performing Assets in order to increase their profitability, thereby increasing their shareholder returns.

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