

ECONOMIC VALUE ADDED AS A MEASURE OF PERFORMANCE: EVIDENCE FROM INDIA

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Economic Value Added (EVA), as a value based performance measure for companies, has been widely researched especially in the American and European context. This paper empirically analyses the performance of the non financial companies (comprising the CNX Nifty index) over a period of ten years from 2003-04 to 2012-13. Additionally, value creation in the form of EVA has been compared with Market Value Added (MVA) to identify whether there exists any relation between the two measures. Using panel data regression, an attempt has also been made to examine the relation between MVA, EVA and other accounting measures including Return on Capital Employed (ROCE), Return on Assets (ROA), Return on Equity (ROE) and Earnings per Share (EPS). The results indicate that EVA is a significant contributor to creation of market value. Except for ROCE, none of the other accounting measures effect creation of market value. Above all, the accounting profits may not be a true indicator of firm performance.

Key words: Economic Value Added (EVA), Market Value Added (MVA), Accounting Measures, CNX Nifty.

INTRODUCTION

Superiority of shareholders wealth vis-a-vis maximization of profits is a well established proposition in finance. Further, survival and growth of firms is dependent on their capabilities to generate economic profits compared to accounting profits. The creation of shareholders wealth is possible only when firms make economic profits. Economic profits are estimated after taking into account the opportunity cost of capital (Case et al, 2010).

Economic value added (EVA) is one of the measures that estimates the economic profits of the firms and hence goes beyond the accounting profits. The term EVA was coined by Stern Stewart & Co. in 1990. It is the surplus that remains after factoring the weighted

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average cost of capital of the firm. It is defined as the net operating profit after tax (NOPAT) less a capital charge that reflects a firm's overall cost of capital. In other words, a firm will be considered to have added value for its owners if it is able to generate surplus after covering all its costs including costs of financing and this is what EVA measures.

Generation of EVA by a firm during a given period of time can be gauged by comparing operating profits (after taxes) with the total cost of capital employed, thereby helping the management to ascertain whether the firm's operations have created shareholders wealth or not. Choosing a firm solely on the basis of profitability can at times be misleading (Pettit, 2000). Literature cites several empirical evidences, especially in the American and European context where EVA has been used to measure value creation (Clinton and Chen, 1998; Ismail, 2006). Also, it has been used in relation to other variables like employee compensation (Pettit and Ahmad (2000), market value based measures and accounting measures (Chen and Dodd (1997, Dimitrios et al., 2009). However, the superiority of EVA over the traditional methods of firm's performance remains a debatable issue. Above all, the wide variations in the method of estimating EVA, puts a challenge for researchers to explore more this interesting and important area of firm value creation.

The Indian corporate landscape remains grossly devoid of the application of EVA. A host of studies in the recent past have explored several aspects of EVA; a consensus on EVA as a value enhancing measure, at the global context, has not yet been established (Kaur and Narang, 2010). This paper is an attempt to analyze the EVA of the well performing, non-financial companies in the India economy that constitute the CNX Nifty Index over a ten year period from 2003-04 to 2012-13. It aims to achieve the following objectives. Firstly, to ascertain the EVA of non-financial Nifty companies and to assess whether they are able to generate sufficient operating profits to cover their total cost of financing. It also aims at examining if EVA has led to creation of market value for its shareholders. Further, the paper also investigates relation, if any, between MVA, EVA, ROCE, ROE, ROA and EPS of the companies concerned.

The paper is divided in five sections. Section one gives an introduction to the topic followed by empirical evidences from global and Indian context in Section two. Data and methodology have been elaborated in Section three. Results and discussions follow in Section four followed by conclusions, managerial implications, limitations and future scope of work in Section five.

RELEVANCE OF EVA: EVIDENCES FROM LITERATURE

The literature on EVA encompasses several aspects of valuation and performance based measures. Based on the objectives of this work, this section on review of literature has been organized around three main dimensions of EVA; (i) EVA as an appropriate performance based measure, (ii) EVA, MVA and their relationship and finally (iii) relatedness of EVA with other accounting based measures.

EVA as a performance based measure

The findings of Stewart (1991) establishing EVA as a superior method of measuring corporate performance over the traditional accounting methods has been corroborated in several other studies carried out later. This pioneering work cites that EVA can remove the distortions in General Accepted Accounting Practice (GAAP) and covers all aspects of managerial decision making process. Tully(1993) identified EVA as a single method that captures firm performance and can serve as a guide for investors to make correct investment decisions, as well as guiding managers in identifying value adding business opportunities. Stewart (1994) emphasized the superiority of EVA as a measure of wealth creation and claimed it to be fifty percent better than traditional accounting measures in explaining changes in wealth of shareholders. Lehn and Makhija, (1996) concluded that EVA is superior to accounting profits as a measure of value creation because it recognizes the cost of capital and, hence, the riskiness of a firm's operations.

Similar to studies above, McClenahen (1998) conclude that the traditional performance measures based on accounting data were getting lesser priority and measures like EVA were gaining front seat. Brewer *et al.* (1999) report that EVA as a measure of performance should be used cautiously; other measure like Balanced Score card could be additionally employed. Yet, they note that EVA provides better goal congruence than measures like ROI.

Employing different measures to assess performance including EPS, ROI, ROE, etc., can at times yield conflicting results. EVA helps in eliminating such conflicts as it is a comprehensive measure of a firms performance (Kudla and Arendt, 2000).(Berry 2003) emphasize that EVA can be the best measure for public limited companies as it takes into account the full cost of capital including cost of equity which does not get reflected in accounting net income. Haque and Islam (2013) analyzed EVA in Bangladesh and recommend that decisions regarding choice of strategy, mergers ,etc., should be based

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on EVA. Sharma (2013) compared traditional financial performance measures and EVA for Infosys and observed EVA to be a superior performance measure than other traditional methods.

EVA and MVA: A comparative framework

Market Value Added is a concept that measures the extent to which value creation has taken place with reference to the book value of invested capital. Stewart(1991) conceives MVA as the present value of future stream of EVAs discounted at an appropriate rate of cost of capital thereby establishing a direct relation between EVA and MVA; in operational terms, it implies that consistent improvement in EVA drives market value of equity. The following paragraph enumerates relationship between EVA and MVA.

Adopting EVA as a measure of firm performance triggers increase in stock price (Burkette and Hedley 1997). Banerjee (2000) has examines the linkage between EVA and MVA in 200 Indian firms and notes that market value of firms can be predicted by estimating future EVA flows. Taub (2003) examines the relation between EVA, MVA and other variables and concludes that EVA explains changes in MVA seven times more than sales growth; it implies that EPS only explains about 3 per cent of the change in MVA. In the banking sector, Davidson (2003) explains that EVA enhances both performance and profitability of banks as well as improves stock performance. Hence, literature cites several evidences of EVA being a superior measure of firm performance. This paper attempts to establish this relationship, if it exists in the case of best performing Indian companies.

METHODOLOGY AND DATA

For estimating EVA and MVA and establishing relationship between EVA, MVA, ROCE, ROA, ROE and EPS, multiple regression has been carried out using panel data in Stata for a period of ten years from 2003-2004 to 2012-2013.

Sample Size and data sources

The sample data initially comprised of 39 non-finance companies that constitute the S&P CNX Nifty index. However, for seven companies, complete data for the ten years was not available; hence, these companies were excluded from the analysis resulting in a

final data set of 32 companies. The reason for selecting companies from the Nifty index was as these companies are considered to be the best performing companies in the country, hence, estimating EVA becomes relevant. The financial statements and accounting data were drawn from Ace Equity and Capitaline Plus database and the stock prices were taken from the website of National Stock Exchange (NSE).

Estimating the EVA, MVA and accounting measures

There is no unique method of estimating EVA. A spectrum of measuring EVA has been discussed ranging from Basic EVA (arrived at without making any adjustments), Disclosed EVA (arrived by making a dozen of adjustments), Tailored EVA (arrived at by making tailor made adjustments relevant to the organization) and True EVA (the accurate measure incorporating all relevant adjustments is difficult to estimate) (Ehrbar 1998 in Banerjee, 2000). This paper determines EVA that lies between basic and Disclosed EVA as estimated in Banerjee, 2000:

$$EVA = NOPAT - WACC \dots\dots\dots(1) \text{ and}$$

$$NOPAT = EBIT(1 - T) \dots\dots\dots(2) \text{ where,}$$

EBIT = Earnings after Tax (EAT)+ Provision for Taxes +Interest Expense+ Lease Rent- Extraordinary Income+ Extraordinary Expenses,

NOPAT (Net Operating Profit After Tax) = Profits derived by the company's operations after taxes but before financing costs,

WACC = Weighted Average Cost of Capital and T = Effective Tax Rate

While estimating the WACC, k_e , k_d and k_p represent the cost of cost of equity, after tax cost of debt and cost of preference shares respectively. k_e was estimated using the Capital Asset Pricing Model (CAPM). Hence, EVA is the profit earned by the firm less the cost of financing the firm's capital. Further, to take care of the firm size effect, standardized EVA or Economic Value Added as a percentage of Capital Employed (EVACE) was estimated as follows:

$$EVACE = \frac{EVA}{CE} \dots\dots\dots(3) \text{ where,}$$

CE = Capital Employed at the beginning of the year.

Market Value Added (MVA)

Another important concept introduced by Stewart (1991) is that of MVA which measures the value addition by market over the book value of the invested capital. MVA indicates to what extent the market displays confidence in the performance of the company.

$$MVA = \text{Market Value of Equity} - \text{Book Value of Equity} \dots\dots\dots(4)$$

Market Value of equity has been measured as the product average of the last thirty days adjusted closing market price and number of outstanding shares. MVA measures the total market value added to the stock of capital of a firm; hence, it is a cumulative measure (Fatemi *et al*, 2003). Since the sample companies emanate from different industries, hence to take care of size effect and industry effect, the MVA was standardized by the Capital Employed (CE) or Market Value Added as a percentage of Capital Employed (MVACE) was estimated as:

$$MVACE = \frac{EVA}{CE} \dots\dots\dots(5)$$

Relation between EVA, MVA and Accounting based measures of performance

To analyze the relation between EVACE, MVACE and traditional accounting based measures of firm performance, namely ROCE, ROE, ROA and EPS, multiple regression using panel data was undertaken. Since market value is assumed to reflect the firm performance, hence, MVACE was identified as the dependent variable and rest others as explanatory variables. Further, to ensure the appropriateness of this model, pooled regression, fixed effect and random effects models were used and tested using Breusch and Pagan Langrangian Multiplier Test and Hausman Specification Test.

RESULTS AND FINDINGS

The summary statistics with respect to EVA and MVA are presented in Table 1. It indicates that out of 32 companies, 22 companies have been able to generate economic value over the ten year period. However, 10 companies namely Hindalco Industries Ltd, BPCL, Tata Steel Ltd., J.P. Associates Ltd., Tata Power Ltd., Maruti Suzuki India Ltd. Jindal Steel Ltd., Tata Motors Ltd., L&T Ltd. and Reliance Industries Ltd., did not generate value for their shareholders over the period covered under the study.

Table 1. Summary Statistics: Relation between EVA and MVA

Economic Value Added	Market Value Added		
		Positive	Negative
	Positive	21	0
Negative	10	1	

Table 1 further indicates the relation between EVA and MVA of the sample companies. On an average, nearly 65% of the companies that generated economic value were also able to generate market value for the shareholders. However, firms that were not able to generate EVA, were generating market value as all these firms were reporting accounting profits over the given period. Hindalco was the only firm for which both EVA and MVA were negative.

The output of Pearson's Correlation between pairs of matrices is presented in Table 2. The result shows that EVACE (0.8505), ROA (0.5763), ROE (0.7116) and ROCE (0.7616) have strong positive correlation with MVACE. This implies that any increase in the independent variable EVACE, ROA, ROE and ROCE will result in increase of MVACE to the extent of coefficients obtained. It is revealing to note the weak and negative correlation of EPS (-0.0669) with MVACE. This implies that any increase in EPS will contribute to decrease in MVACE, although the impact would be negligible at 0.0669 times change in value of EPS.

EVACE has the highest positive correlation coefficient at 0.8505, followed by ROCE and ROE at 0.7616 and 0.7116 respectively. Barring EPS, all the other explanatory variables are significantly correlated to MVACE at 5% level of significance. The same holds true for EVACE with all other variables used in the regression equation. Also, ROE, ROE and ROCE are significantly correlated with each other.

Table 2. Pearson's Correlation Matrix

	MVACE	EVACE	EPS	ROA	ROE	ROCE
MVACE	1.0000					
EVACE	0.8505	1.0000				
EPS	-0.0669	0.1045	1.0000			
ROA	0.5763	0.6932	0.2945	1.0000		
ROE	0.7116	0.8518	0.2193	0.8144	1.0000	
ROCE	0.7616	0.9003	0.2159	0.8228	0.9280	1.0000

Pooled and Random Effect Regression

To analyze the ten year data, multiple regression was run with pooled, fixed effect and random effect. The Breusch and Pagan Lagrangian Multiplier Test for Random Effects was conducted to identify the appropriate method to be adopted. Table 3 presents the findings of the test. The results of this test indicate that the Pooled Regression is not an appropriate model for the study at $p < 5\%$.

Table 3. Breusch and Pagan Lagrangian Multiplier Test for Random Effect

Breusch and Pagan Lagrangian Multiplier test for random effects		
MVACE[Company,t] = Xb + u[Company] + e[Company,t]		
Estimated results:		
	Var	sd = sqrt(Var)
MVACE	18.98465	4.357138
e	2.928521	1.711292
u	1.705693	1.306022
Test: Var(u) = 0	chi2(1) =	143.99
	Prob > chi2 =	0.0000

Based on the results obtained in Table 3, selection had to be made between Random Effect and Fixed Effect Regression models. Hausman Specification Test was conducted to differentiate and select between the two models. The results in Table 4 indicate that the Fixed Effect Model is more appropriate than the Random effect model for the given dataset at “p” < 5%.

Table 4. Hausman Specification Test

. Hausman Fixed .				
	Coefficients			
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	Fixed	Random	Difference	S.E.
EVACE	.1191902	.1581528	-.0389626	.0080376
EPS	-.0114567	-.0143102	.0028535	.0011448
ROA	.0326189	.0189711	.0136478	.0206464
ROE	.0253248	.0189727	.0063521	.0060855
ROCE	.0808421	.0628003	.0180419	.0080221
b = consistent under Ho and Ha; obtained from xtreg				
B = inconsistent under Ha, efficient under Ho; obtained from xtreg				
Test: Ho: difference in coefficients not systematic				
chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B)				
= 11.87				
Prob>chi2 = 0.0366				
(V_b-V_B is not positive definite)				

Therefore, based on the results obtained in Table 3 and Table 4, Fixed Effects Regression method was selected for analyzing the regression amongst variables. The results with the Fixed Effects method are presented in Table 5.

Table 5. Fixed Effects Regression Results

Fixed-effects (within) regression		Number of obs	=	319		
Group variable: Company		Number of groups	=	32		
R-sq: within	= 0.4370	Obs per group: min	=	9		
between	= 0.8426	avg	=	10.0		
overall	= 0.7298	max	=	10		
corr(u _i , X _b) = 0.4861		F(5, 282)	=	43.78		
		Prob > F	=	0.0000		
31						
MVACE	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
EVACE	.1191902	.0219378	5.43	0.000	.0760076	.1623729
EPS	-.0114567	.003279	-3.49	0.001	-.0179111	-.0050024
ROA	.0326189	.0379031	0.86	0.390	.1072278	.0419901
ROE	.0253248	.018786	1.35	0.179	.0623033	.0116537
ROCE	.0808421	.0224315	3.60	0.000	.0366877	.1249965
_cons	1.918276	.3145413	6.10	0.000	1.299129	2.537423
sigma_u	1.8549329					
sigma_e	1.7112921					
rho	.54021286	(fraction of variance due to u _i)				
F test that all u _i =0:		F(, 282) =	7.55	Prob > F = 0.0000		

The overall R squared value shows that 72.98% of the total market variations are explained by the five independent variables – EVACE, EPS, ROA, ROE, and ROCE. At 5% level of significance (“p” < 5%), coefficients of three variables, EVACE, EPS and ROCE, are statistically significant. The results indicate that EVACE and ROCE will significantly improve the MVACE; higher EVACE and ROCE tend to increase shareholders wealth. However, EPS is significant, but indicates a negative relationship with MVACE, implying that any increase in EPS will decrease MVACE. Hence, the results indicate that the use of EPS as a measure of firm performance may not be an appropriate method. Instead, the focus of the management should be on EVACE and ROCE to maximize shareholders' wealth.

CONCLUDING OBSERVATIONS

The results from the study lead to draw the following conclusions. Accounting profitability cannot be presumed to be a basis of wealth creation for shareholders. This can be gauged from the fact that despite the 32 firms from Nifty Index were well

performing, nearly one third were not able to generate economic value. All firms that could generate EVA reported wealth generation as well in the form of MVA. Hence, it can be concluded on an overall basis that EVA influences wealth formation to maximum extent out of all the explanatory variables. This further gets corroborated from the regression results that indicate significant positive impact of EVACE on MVACE.

All the accounting measures including EPS, ROE and ROA do not affect market value creation. It is surprising to note that EPS negatively contributes to market value creation. This finding emphasizes the fact that EPS can be a misnomer in terms of interpreting financial results. ROCE captures the total capital invested in a firm, hence, ROCE inducing market value creation is well justified on theoretical as well as empirical grounds. The ranking of the sample firms (Appendix 1) indicates that Hindustan Unilever Ltd. remains the best performer both in terms of economic value creation and shareholders wealth generation. Hence, the supremacy of Stewart's claim of EVA being a true indicator of firm performance gets validated in this study.

However, the study suffers from certain limitations. A sample size of 32 firms may be considered inadequate to generalize the results. Further, estimating the cost of equity using CAPM may be influenced by the wide fluctuations in market performance that cannot be controlled for on an absolute basis. The results of the study can be improved by including a larger dataset and including more explanatory variables. Further, MVA is a cumulative value. Better results can be obtained by using incremental MVA in the regression equation. Sector-wise analysis can also be conducted to get better insights on the subject.

REFERENCES

- Banerjee, A.**, (2000). Linkage between Economic Value Added and Market Value: An Analysis. *Vikalapa*, (25), 3, p.23-36
- Berber N., Pasula M. and Radosevic M.** (2012) Economic Value Added in Function of Determining Incentive Compensation Systems. *Journal of Engineering Management and Competitiveness*, 2(2), p.81-86
- Berry, J.** (2003) ROI Guide: Economic Value Added. *Internet Week*, February, 2003.
- Brewer, P. C., Chandra, G., Hock, C. A.** (1999) Economic Value Added, (EVA™): Its Uses and Limitations. *S.A.M. Advanced Management Journal*. 64(2), p. 4-11.
- Burkette, G. D., & Hedley, T. P.** (1997). The Truth About Economic Value Added. *CPA Journal*, 67(7), p.46-49.
- Case K.E., Fair R.C. and Oster S.M.** Input Demand: The Capital Market and the Investment Decision. In *Principles of Economics*. Prentice Hall. 10th edition.

- Chen, S. & Dodd, J. L.**, (1997). Economic Value Added (EVA™): An Empirical Examination Of A New Corporate Performance Measure. *Journal of Managerial Issues*, 9(3), p. 318-333
- Clinton, D., & Chen, S.** (1998). Do New Performance Measures Measure Up? *Management Accounting*, 38, p.40-43
- Davidson, S.** (2003), Analysis Tools Help Improve Bank Performance and Value. *Community Banker*, February, p. 48–50.
- Dimitrios, I., Sevic, Z., & Nikolaos, G. T.** (2009). Modeling traditional accounting and modern value-based performance measures to explain stock market returns in the Athens Stock Exchange (ASE). *Journal of Modeling in Management*, 4(3), p.182-201
- Haque M. R. and Islam M. F.** (2013) Economic Value added as a measurement tool of Financial Performance: a case study of Square Pharmaceuticals Limited. *Journal of Science and Technology*, 11, 17-20.
- Ismail, A.**, (2006). Is economic value added more associated with stock return than accounting earnings? The UK evidence. *International Journal of Managerial Finance*, 2(4), p. 343-353
- Kaur M. and Narang S.** (2010). EVA Disclosures in the Annual Reports of Indian Companies: An Empirical Study. *Global Business Review*, 11(3), p. 395–420
- Kudla, R. J., Arendt, D. A.** (2000) Making EVA™ Work. *Corporate Finance*, p.98–103.
- Lehn K. and Makhija A.K.**, (1996) EVA & MVA as performance measures and signals for strategic change, *Strategy & Leadership*, 24(3) p. 34 - 38
- McClenahan, John S.**, Accounting for Change. *Industrial Week*, Cleveland, p.65, September 21, 1998.
- Pettit, J., & Ahmad, A.**, (2000). Compensation Strategy for the New Economy Age. *Stern Stewart & Co. Research*
- Pettit, J.** (2000). EVA and Strategy. *Stern Stewart & Co. Research*
- Raiyani J. R. and Joshi N. K.** (2011) EVA Based Performance measurement: A Case Study of SBI and HDFC Bank. *Management Insight*, VII (1), p. 31-43
- Ray S.** (2012) Efficacy of Economic Value Added Concept in Business Performance Measurement. *Advances in Information Technology and Management*, 2(2), 2012, p.260-267
- Sharma A.** (2013), A Comparative Analysis of Traditional Measures of Financial performance and Economic Value Added. *International Journal of Applied Research and Studies*, 2(5)
- Stewart, B.**, (1991). *The Quest for Value: A Guide for Senior Managers*. New York, Harper Collins
- Stewart, G. B.** (1994), EVA: Fact and Fantasy. *Journal of Applied Corporate Finance*, 7 (20), pp. 71–84.
- Taub S** (2003). MVPs of MVA. *CFO Magazine*. p. 59-66
- Tully, S.** 1993. The Real Key to Creating Wealth. *Fortune*, 128(6), p.38-50.

Appendix 1. Ranking of Companies based on EVACE and MVACE

Ranking of the sample firms based on EVACE and MVACE indicate a mixed pattern. Except for Hindustan Lever, BHEL, Power Grid, ITC and NTPC that appear identical or very close in ranking based on both EVACE and MVACE, for remaining firms, the correspondence varies. However this discrepancy will be there as EVA is estimated every year whereas, MVA is a cumulative figure; hence, a method to overcome this drawback is to use incremental MVA and compare it with corresponding EVA every year. However, the top ten firms in terms of EVACE also occupy the ranks amongst top thirteen firms as per MVACE rankings (although not in similar order). This indicates that the positive EVA generating firms standardized with respect to capital employed are also the once adding market value.

Ranking of companies based on EVA and MVA: A Comparison

Company Names	Ranking based on EVA/Invested Capital	Ranking based on MVA/Invested capital
Hindustan Unilever Ltd.	1	1
Hero MotoCorp Ltd.	2	5
TCS Ltd.	3	2
Asian Paints Ltd.	4	3
Sesa Sterite Ltd.	5	18
Infosys Ltd.	6	4
ITC Ltd.	7	6
Lupin Ltd.	8	15
Sun Pharmaceuticals Industries Ltd.	9	7
Wipro Ltd.	10	8
HCL Technologies Ltd.	11	10
Cipla Ltd.	12	12
ACC Ltd.	13	17
Bharat Heavy Electricals Ltd.	14	9
Oil & Natural Gas Corporation Ltd.	15	25
Mahindra & Mahindra Ltd.	16	16
Jindal Steel & Power Ltd.	17	23
Ambuja Cements Ltd.	18	22
Bharti Airtel Ltd.	19	11
GAIL (India) Ltd.	20	26
Grasim Industries Ltd.	21	24
Ranbaxy Laboratories Ltd.	22	14
Tata Motors Ltd.	23	19
Tata steel Ltd.	24	30
JP Associates Ltd.	25	29
Larsen & Turbo Ltd.	26	13
Dr. Reddys Laboratories Ltd.	27	20
Bharat Petroleum Corporation Ltd.	28	31
Maruti Suzuki India Ltd.	29	21
Reliance Industries Ltd.	30	27
Tata Power Company Ltd.	31	28
Hindalco Industries Ltd.	32	32