EVA VS TRADITIONAL ACCOUNTING MEASURES: A PRE RECESSION CASE STUDY OF SELECTED IT COMPANIES

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ABSTRACT:

Purpose: The purpose of the study was to explain the explanatory power of EVA for shareholders value creation. The study provides empirical evidence on the relative and incremental information content of EVA and traditional performance measures, earnings, and cash flow. The inference from this paper is that IT companies should always try to maximize shareholders value. If this is not done then their stocks will not be able to stand in the market. This analysis helps us to dig below the surface numbers to tell us more about the underlying business and whether there is a prima facie case for using EVA as one of the range of performance measurement tools. The study focuses on Pre Recession time period.

Design/methodology/approach: The sample of study comprises selected IT companies traded in the main NSE stock exchange. The sample selected for the study comprised of nine IT companies listed in NSE stock exchange from the period 2003-04 to 2007-08. This sample was selected on the basic of judgmental sampling technique. Cause and effect relationship between individual traditional measures as independent variable and EVA as dependent variable was established by linear regression method. A comparison of outcomes of previous studies with ours shows that significant results depend on finding the appropriate variables (stock prices versus stock returns) and the correct dynamics linking the dependent and the explanatory variable.

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Value of research: Till now, various researches have been done in this area. The overriding message of this research is that Information Technology companies must always strive to maximize shareholders value without which their stock can never use fancied by the market. This research will be helpful for all the investor investing in India Capital market. This research is an attempt to establish the cause and effect and relationship between EVA and other traditional tools. The evidence of the majority of the empirical studies regarding EVA suggests that there is a positive relationship between EVA and shareholder value creation. However, when the explaining power of EVA versus traditional performance measures regarding equity market value or returns is considered, the results are mixed. Thus an attempt will be made to find that shareholders wealth of the firm is largely positively associated with or driven by its EVA generating capacity in Indian context.

INTRODUCTION:

Investors measure overall performance of a firm as a whole to decide whether to invest in the firm or to continue with the firm or to exit from it. In order to achieve goal congruence, managers' compensation is often linked with the performance of the responsibility centres and also with firm-performance. Therefore selection of the right measure is critical to the success of a firm. To measure performance of a firm we need a simple method for correctly measuring value created/ enhanced by it in a given time frame. All the current metrics trade off between the precision in measuring the value and its cost of measurement. In other words, each method takes into consideration the degree of complexities in quantifying the underlying measure. The more complex is the process, the more is the level of subjectivity and cost in measuring the performance of the firm. There is a continuous endeavour to develop a single measure that captures the overall performance, yet it is easy to calculate.

Most of the conventional performance measures directly relate to the current net income of a business entity with equity, total assets, net sales or similar surrogates of inputs or outputs. Examples of such measures are return on equity (ROE), return on assets (ROA) and operating profit margin. Each of these indices measures a different aspect of performance. It is important to note that none of these measures truly reflect the complete picture by themselves but have to be seen in conjunction with other metrics. These measures are also plagued by the firm level inconsistencies in the accounting figures as well as the inconsistencies in the valuation methods

used by accountants in measuring assets, liabilities and income of the firm. Economic value added (EVA) is a measure that captures the valuation principles.

EVA has become a very popular performance measure, perhaps because applying it has some powerful impacts on organizational behaviour. Unlike conventional profitability measures EVA helps the management and also other employees to understand the cost of equity capital. At least in big public companies, which do not have a strong owner, shareholders have often been conceived as a free source of funds.

The present research will be beneficial to students to know the effect on EVA of traditional Measures and to know about in-depth knowledge about EVA and other Traditional Measures. This research will be beneficial to corporate especially IT sector to know that EVA is also measure to calculate shareholders returns. This research will be beneficial to further research. The study is divided into 5 sections. Section 1 starts with Introduction of the topic continue with Review of Literature & Hypothesis development, and Objective of Study. Section 2 involves research Methodology. Section 3 talks about Results and their Discussion and Conclusion. Section 5 has references and Annexures.

REVIEW OF LITERATURE:

A brief review of literature as available tells us that no common conclusion can be reached upon. Like, Harris, and Ohlson (1992) observed that Economic Value Added (EVA) is an increasingly popular corporate performance measure one that is often used by companies not only for evaluating performance, but also as a basis for determining incentive pay. Rice (1996) said that previously they used several measurements to gauge the financial outlook from earnings per share to discounted cash flow and return on average assets. At the company now every decision and every action result from analysis that uses EVA principles. Ray, Russ (2001) observed that the missing link between EVA and improved financials is actually productivity. Salomon and Laya (1967) studied the accounting rate of return (ARR) and the extent to which it approximates the true return measured with IRR. De Villiers (1989) studied the relationship between accounting and true rate of return with different asset structures and suggested.

Thenmozhi, M. (2000) compared EVA and traditional performance measures EPS, RONA and ROCE. The study shows that the traditional measures do not reflect the real value of shareholders and EVA has to be measured to have an idea about the shareholders value. Stewart

(1990) has first studied this relationship with market data of 618 U.S. companies. He states that EVA and MVA correspond each other in reality quite well among US companies (the data was from late 1980's).

Worthington & West (1992–1998) examined whether EVA is more highly associated with stock returns than other commonly-used accounting-based measures. An analysis of the components of EVA confirms that the GAAP-related adjustments most closely associated with EVA are significant at the margin in explaining stock returns.

Kantor, Uyemura and Pettit (1996) from Stern Stewart & Co presented findings on the relationship between EVA and MVA with 100 bank holding companies. They calculate regressions to 5 performance measures including EPS, Net Income, ROE, ROA and EVA. Biddle. Bowen and Wallace (1996) presented evidence on the relative and incremental information content of EVA, residual income, earnings and operating cash flow. Dodd and Chen (1996) studied the correlation between stock returns and different profitability measures including EVA, non-adjusted residual income, ROA, EPS and ROE.

Milunovich and Tsuei (1996) found EVA to correlate somewhat better with MVA than the other measures. Storrie & Sinclair (1997) present also that EVA based on historical values can be somewhat misleading.

O'Byrne (1996) found that changes in EVA explain 55% of variations in changes in market value. Lehn and Makhija (1996) studied EVA and MVA as performance measures and found out that both measures correlate positively with stock returns and that the correlation is slightly better than with traditional performance measures like return on assets (ROA), return on equity (ROE) and return on sales (ROS). Additionally they study how companies' performance, as measured in terms of EVA and MVA, affect on the CEO firings.

Lee (1995) researched the use of EVA as a corporate performance measurement tool. His main research finding was that, within the context of the JSE, EVA is at best marginally better than measures such as ROA and ROE. Lloyd (1996) examined the use of four traditional share valuation techniques that are based on different versions of economic value added. Pretorius (1997) and Jansen (1998) both researched EVA as an investment decision-making measure. Easton and Harris (1991), study does not support the assertion that EVA is the best measure for valuation purpose.

Grant (1996) calculates regression statistics between the MVA-to-capital and EVA-to-capital ratios from the data of 983 firms. Pittsburg; Spring, Chen; Dodd; (2001) stated in their study empirically examines the value-relevance of three profitability measures Operating Income (0I), Residual Income (RI), and Economic Value Added EVA(TM). Haven and Sheikholeslami; (2001) researched current literature by investigating the efficacy of two recently developed (and highly publicized) corporate performance metrics, EVA and MVA (Dodd and Johns, 1999), in explaining the cross-sectional variation in CEO compensation.

Norcross; 2001, Shrieves, Wachowicz Jr (2001) set forth the relationship of free-cash-flow and economic value added concepts to each other and to more traditional applications of discounted-cash-flows thinking. Colvin (2000) found that the earnings measure most closely correlated with stock performance is Economic Value Added (EVA). Shand(2000) said that the objective of EVA is to understand which business unit's best leverage their assets to generate returns and maximize shareholder value. Shawn Tully(1999) studied over the past 5 years, more and more and companies- as well as brokerages and money managers – have converted to the concept of economic value added (EVA).

Winter and Young (1999) concluded that most companies that adopt EVA are probably better off making no adjustments at all, relying instead on unadjusted residual income measures.

Epstein and Young (1999) said that a shareholder value measure such as economic value added (EVA) can significantly prove corporate decision making in the realm of environmental management and can improve both environmental and general capital investment decisions. Cooper and Slagmulder, (1999) studied the major advantages of integrating the ideas of economic value added (EVA) and activity based costing (ABC) Al Ehrbar(1998) examined nearly every company adopting EVA, an acronym for economic value added, quickly finds that years of ineffectual capital management have left it rich in opportunities for immediate performance improvements.

Pedro and Reginaldo(2000) reported that EVA is a more dynamic measure of business value creation. Aggarwal (1999) examined the Economic Profit (EP), Economic Value Added (EVA), economic or Shareholder value Increase and other measures used in maximizing shareholder wealth. Shrieves and Wachowicz (2001) assisted the user of DCF methods by clearly setting forth the relationship of free-cash flow (FCF) and economic value added EVA(TM) concepts to

each other and to the more traditional applications of DCF thinking. Trecha (2000), discussed the importance of economic-value-added results in the industrial procurement strategy of businesses. Finegan (1991) focused on the middle 450 companies (actually 467 companies out of the original 613).The results of the regression of MVA against EVA and other common performance measures showed that EVA outperformed the other measures quite considerably. Uyemura *et al*. (1996:98) used a sample of the 100 largest US banks for the ten-year period from 1986 to 1995 to calculate MVA and to test the correlation with EVA, as well as four other accounting measure, namely net income (amount), EPS, ROE and ROA. The analysis clearly shows that EVA is the measure that correlates the best by far with shareholder wealth creation.

Salmi and Virtanen (2001) evaluated and compared with traditional profitability measures within a controlled simulation framework. It was observed that EVA is very sensitive to its cost of equity component, but it is unexpectedly insensitive to its cost of debt component under regular conditions. Bhattacharya and Phani (1999) examined whether EVA is a superior performance measure both for corporate reporting and for internal governance. Anand, Garg and Arora (1999) revealed that EVA and MVA are better measures of business performance that NOPAT and EPS in terms of shareholders value creation and competitive advantage of a firm. Bardia (2002) reveled that in a dynamic environment a common investor finds it increasingly difficult to monitor his investments. EVA guides the investors in evaluating the performance of the company and monitoring their investments. Stern, Joel (2003) asserted that EVA concept is very essential to improve the wealth creation performance and allocation of capital in the Indian company. He explained how the effective implementation of the EVA frame work could be a solution to address this problem.

From the above research literature available, there is an indication of relationship between EVA and Stock returns; also traditional measures and stock returns. But there is no clear cut indication that there is a causal relationship between these. To check the same, following objective was formed.

OBJECTIVES OF THE STUDY:

Main Objective

To establish the cause and effect relationship between EVA and other traditional measures which are EPS, ROE, ROI, DPS, NI and OP.

The Study: The study was descriptive in nature done by re-studying the existing literature available in field of finance. In the study EVA and traditional performance measures like EPS, ROE, ROI, DPS, NI, and OP of I.T. Companies is compared for their relationship with stock returns. Samples of 9 IT companies listed in NSE were chosen for the study by judgemental probability technique. Data collected from different secondary sources for last 5 years was studied.

Tools Used for Data Analysis

- EVA was applied with the help of this formula:-

  EVA = (NOPAT – WACC) X INVESTED CAPITAL

  Where:

  NOPAT = Net Operating Profit after Tax

  WACC = Weighted Average Cost of Capital
- Linear regression was applied to establish cause and effect relationship between individual traditional measures as independent variable and EVA as dependent variable.
- Multiple regressions were applied to know the accurate measure.

FINDINGS AND ANALYSIS:

To fulfil the objective set above, different tests were applied on the data. The results/ Findings of the same are discussed below.

1.Linear Regression Analysis: The first linear regression was applied taking EVA as dependent variable and EPS as independent variable. The results of the same are discussed below in Table 1. The null hypothesis set in this case was:

Ho1: There is no cause and effect relationship between EVA and EPS for the IT companies under study.

TABLE No. 1: EPS

Company	f-value	T-value	R-square	Beta	Significance level	Regression Equation	Accepted/Rejected
CMC	3.868	1.967	.563	.750	.144	EVA=87.16+16.62*EPS	Accepted
HCLINFO	.000	.003	.000	.001	.998	EVA=3917.76+0.41*EPS	Accepted
HCLTECH	2.043	1.429	.405	.636	.248	EVA=-33375.51+4688.12*EPS	Accepted
INFOSYS	2.828	-1.68	.485	-.697	.191	EVA=767749.68+-	Accepted

						4438.76*EPS	
MOSERBAER	.148	-.384	.047	-.217	.726	EVA=35177.06+-171.97*EPS	Accepted
POLARIS	6.919	2.630	.698	.835	.078	EVA=-1360.69+489.28*EPS	Accepted
ROLTA	12.517	3.538	.807	.898	.038	EVA=-9260.92+1119.91*EPS	Rejected
SATYAM	.066	.257	.022	.147	.814	EVA=41582.28+742.56*EPS	Accepted
WIPRO	5.379	-2.31	.642	-.801	.103	EVA=812702.64+-20917.91*EPS	Accepted

ANOVA table summary indicates the value of F respectively for he companies mentioned in the sequence as in above table (3.868, .000, 2.043, 2.828, .148, 6.919, 12.517, .066, 5.379) is significant at 14.4%, 99.8%, 24.8%, 19.1%, 72.6%, 7.8%, 3.8%, 81.4%, 10.3% level of significance respectively and only ROLTA have value of f (12.517) is significant at 3.8% level of significance and all others are insignificant at 5% level of significance, which indicates there are some other factors also which affect the EVA other than EPS.

Value of T (1.967, .003, 1.429, -1.68, -.384, 2.630, .257, -2.31) is significant at 14.4%, 99.8%, 24.8%, 19.1%, 72.6%, 7.8%, 81.4%, 10.3% level of given in coefficient table is insignificant indicating that EPS have less impact on EVA. But only ROLTA have value of T (.257) is significant at 3.8% level of given in coefficient table is significant indicating that EPS have impact on EVA for this organisation.

The beta value of INFOSYS (-.697), MOSERBAER (-.217), WIPRO (-.801) indicates significant negative relationship between EPS and EVA; ROLTA have beta value of (.898) indicates significant positive relationship and rest of the companies have insignificant positive relationship.

2. Linear Regression Analysis: The second linear regression was applied taking EVA as dependent variable and ROE as independent variable. The results of the same are discussed below in Table 2. The null hypothesis set in this case was:

Ho1: There is no cause and effect relationship between EVA and ROE for the IT companies under study.

TABLE No. 2: ROE

Company Name	f-value	T-value	R-square	Beta	Significance level	Regression Equation	Accepted/Rejected
CMC	2.014	1.419	.402	.634	.251	EVA=97.34+906.75*ROE	Accepted
HCLINFO	5.596	2.366	.051	.807	.099	EVA=-4315.07+36224.90*ROE	Accepted
HCLTECH	22.577	4.752	.883	.940	.018	EVA=-32803.61+330840.69*ROE	Rejected
INFOSYS	.713	-.845	.192	-.438	.460	EVA=29970072.2+-7613436.71*ROE	Accepted
MOSERBAER	.004	-.060	.001	-.034	.956	EVA=32516.55+-6114.71*ROE	Accepted
POLARIS	3.615	1.901	.547	.739	.153	EVA=-1476.23+31145.18*ROE	Accepted
ROLTA	.378	-.615	.112	-.335	.582	EVA=16305.78+-34257.43*ROE	Accepted
SATYAM	.514	.717	.146	.383	.525	EVA=-29028.00+386914.69*ROE	Accepted
WIPRO	4.306	2.075	.589	.768	.103	EVA=-1695021.23+6879332.6*ROE	Accepted

ANOVA table summary indicates the value of f for the companies under study (2.014, 5.596, 22.577, .460, .956, .153, .582, .525, .103) is significant at 25.1%, 9.9%, 1.8%, 46%, 95.6%, 15.3%, 58.2%, 52.5%, 10.3% level of significance respectively and only HCLTECH have value of f (22.577) is significant at 1.8% level of significance and all others are insignificant at 5% level of significance, which indicates there are some other factors also which affect the EVA other than ROE.

Value of T (1.419, 2.366, -.845, -.060, 1.901, -.615, .717, 2.075) is significant at 25.1%, 9.9%, 46%, 95.6%, 15.3%, 58.2%, 52.5%, 10.3% level of given in coefficient table is insignificant indicating that ROE have less impact on EVA. But only HCLTECH have value of T (22.577) is significant at 1.8% level of given in coefficient table is significant indicating that ROE have impact on EVA.

The beta value of INFOSYS (-.438), MOSERBAER (-.034), ROLTA (-.335) indicates insignificant negative relationship and HCLTECH have beta value of (.940) indicates significant positive relationship and rest of the companies have insignificant positive relationship.

3. Linear Regression Analysis: The third linear regression was applied taking EVA as dependent variable and ROI as independent variable. The results of the same are discussed below in Table 2. The null hypothesis set in this case was:

Ho1: There is no cause and effect relationship between EVA and ROI for the IT companies under study.

TABLE No. 3: ROI

Company Name	f-value	T-value	R-square	Beta	Significance level	Regression Equation	Accepted/Rejected
CMC	7.577	2.753	.716	.846	.071	EVA=21.33+2907.06*ROI	Accepted
HCLINFO	2.539	1.593	.458	.677	.209	EVA=-4315.07+36224.90*ROI	Accepted
HCLTECH	21.26	4.611	.876	.936	.019	EVA=-31492.14+329158.74*ROI	Rejected
INFOSYS	.713	-.845	.192	-.438	.460	EVA=29970072.2+-7613436.71*ROI	Accepted
MOSERBAER	.015	.124	.005	.071	.909	EVA=30768.33+24427.25*ROI	Accepted
POLARIS	3.480	1.866	.537	.733	.159	EVA=-1450.21+31048.92*ROI	Accepted
ROLTA	.383	-.619	.113	-.337	.580	EVA=17989.06+-59135.70*ROI	Accepted
SATYAM	.518	.720	.147	.384	.524	EVA=-28668.70+386914.69*ROI	Accepted
WIPRO	3.713	1.927	.553	.744	.150	EVA=-1546784.16+6479455.35*ROI	Accepted

ANOVA table summary indicates the value of f (7.577, 2.539, 21.26, .713, .015, 3.480, .383, .518, 3.713) is significant at 7.1%, 20.9%, 1.9%, 46%, 90.9%, 15.9%, 58%, 52.4% 15% level of significance respectively and only HCLTECH have value of f (21.26) is significant at 1.9% level of significance and rest of the companies are insignificant at 5% level of significance, which indicates there are some other factors also which affect the EVA other than ROI.

Value of T (2.753, 1.539, -.845, .124, 1.866, -.619, .720, 1.927) is significant at 7.1%, 20.9%, 46%, 90.9%, 15.9%, 58%, 52.4% 15% level of given in coefficient table is insignificant indicating that ROI have less impact on EVA. But only HCLTECH have value of T (4.611) is significant at 1.9% level of given in coefficient table is significant indicating that ROI have impact on EVA.

The beta value of INFOSYS (-.438), ROLTA (-.337) indicates insignificant negative relationship and HCLTECH have beta value of (.936) indicates significant positive relationship and rest of the companies have insignificant positive relationship.

4. Linear Regression Analysis: The third linear regression was applied taking EVA as dependent variable and DPS as independent variable. The results of the same are discussed below in Table 2. The null hypothesis set in this case was:

Ho1: There is no cause and effect relationship between EVA and DPS for the IT companies under study.

TABLE No. 4: DPS

Company Name	f-value	T-value	R-square	Beta	Significance level	Regression Equation	Accepted/Rejected
CMC	3.973	1.993	.570	.755	.140	EVA=-13.44+106.53*DPS	Accepted
HCLINFO	2.016	1.420	.402	.677	.209	EVA=-640.76+160.77*DPS	Accepted
HCLTECH	.031	-.175	.010	-.100	.872	EVA=37250.81+-603.79*DPS	Accepted
INFOSYS	.981	-.990	.246	-.438	.460	EVA=425825.41+-3371.82*DPS	Accepted
MOSERBAER	.473	-.688	.136	-.369	.541	EVA=46326.11+-9578.46*DPS	Accepted
POLARIS	9.061	3.010	.751	.867	.057	EVA=-6767.29+4897.38*DPS	Accepted
ROLTA	11.886	3.448	.798	.894	.041	EVA=-6186.24+4669.218DPS	Rejected
SATYAM	.091	-.301	.029	-.171	.783	EVA=83660.98+-5707.98*DPS	Accepted
WIPRO	.409	-.639	.120	-.346	.568	EVA=351867.35+-8652.15*DPS	Accepted

ANOVA table summary indicates the value of f (3.973, 2.016, .031, .981, .473, 9.061, 11.886, .091, .409) is significant at 14%, 20.9%, 87.2%, 46%, 54.1%, 5.7%, 4.1% , 78.3%, 56.8% level of significance respectively and only ROLTA have value of f (11.886) is significant at 4.1% level of significance and all others are insignificant at 5% level of significance, which indicates there are some other factors also which affect the EVA other than EPS.

Value of T (1.993, 1.420, -.175, -.990, -.688, 3.010, -.301,-.639) is significant at 14%, 20.9%, 87.2%, 46%, 54.1%, 5.7%, 78.3%, 56.8% level of given in coefficient table is insignificant indicating that EPS have less impact on EVA. But only ROLTA have value of T (.257) is significant at 3.8% level of given incoefficient table is significant indicating that EPS have impact on EVA.

The beta value of HCLTECH (-.100), INFOSYS (-.438), MOSERBAER (-.369), SATYAM (-.171), WIPRO (.568) indicates insignificant negative relationship and ROLTA have beta value of (.894) indicates significant positive relationship and rest of the companies have insignificant positive relationship.

5. Linear Regression Analysis: The third linear regression was applied taking EVA as dependent variable and NI as independent variable. The results of the same are discussed below in Table 2. The null hypothesis set in this case was:

Ho1: There is no cause and effect relationship between EVA and NI for the IT companies under study.

TABLE No. 5: NI

Company Name	f-value	T-value	R-square	Beta	Significance level	Regression Equation	Accepted/ Rejected
CMC	3.868	1.967	.563	.750	.144	EVA=87.18+10.97*NI	Accepted
HCLINFO	111.536	10.561	.974	.987	.002	EVA=-1003.27+33.01*NI	Rejected
HCLTECH	211.578	14.546	.986	.993	.001	EVA=-18616.39+91.12*NI	Rejected
INFOSYS	52.567	7.250	.946	.973	.005	EVA=-325992.77+291.46*NI	Rejected
MOSERBAER	.457	.676	.132	.363	.548	EVA=25459.92+44.13*NI	Accepted
POLARIS	3.815	1.953	.560	.748	.146	EVA=-1405.3+59.8*NI	Accepted
ROLTA	56.401	7.510	.949	.974	.005	EVA=-3812.59+113.05*NI	Rejected
SATYAM	5.487	2.342	.647	.804	.101	EVA=-19714.55+90.83*NI	Accepted
WIPRO	116.303	10.784	.975	.987	.002	EVA=-261783.7+330.25*NI	Rejected

ANOVA table summary indicates the value of f (3.868, 111.536, 211.578, 52.567, .457, 3.815, 56.401, 5.487, 116.303) is significant at 14.4%, .2%, .1%, .5%, 54.8%, .5%, 14.6% 10.1%, .2% level of significance respectively and HCLINFO, HCLTECH, INFOSYS, ROLTA, WIPRO have value of f (111.536, 211.578, 52.567, 56.401, 116.303) is significant at .2%, .1%, .5%, .5%, .2% level of significance respectively and CMC, MOSERBAER, POLARIS, SATYAM are insignificant, which indicates there are some other factors also which affect the EVA other than Net Income.

Value of T (1.967, .676, 1.953, .647) is significant at 14.4%, 54.8%, 14.6% 10.1% level of given in coefficient table is insignificant indicating that NI have less impact on EVA. But only ROLTA have value of T (.257) is significant at 3.8% level of given incoefficient table is significant indicating that NI have impact on EVA.

The beta value of HCLINFO (.987), HCLTECH (.993), INFOSYS (.973), ROLTA (.974), WIPRO (.987) indicates significant positive relationship and rest of the companies have insignificant positive relationship.

6. Linear Regression Analysis: The third linear regression was applied taking EVA as dependent variable and OP as independent variable. The results of the same are discussed below in Table 2. The null hypothesis set in this case was:

Ho1: There is no cause and effect relationship between EVA and OP for the IT companies under study.

OP TABLE No. 6

Company Name	f-value	T-value	R-square	Beta	Significance level	Regression Equation	Accepted/Rejected
CMC	81.853	9.047	.965	.982	.003	EVA=-68.94+10.38*OP	Rejected
HCLINFO	2640.694	51.388	.999	.999	.000	EVA=-470.41+24.46*OP	Rejected
HCLTECH	2.043	-.175	.405	.636	.248	EVA=-16953.64+89.21*OP	Accepted
INFOSYS	140.066	11.835	.979	.989	.001	EVA=-396570.47+270.56*OP	Rejected
MOSERBAER	8.748	2.958	.745	.863	.060	EVA=-14138.47+103.30*OP	Accepted
POLARIS	1.838	1.356	.380	.616	.268	EVA=-2561.26+44.36*OP	Accepted
ROLTA	41.018	6.404	.932	.965	.008	EVA=-5169.97+71.90*OP	Rejected
SATYAM	13.654	3.695	.820	.905	.034	EVA=-66775.66+126.60*OP	Rejected
WIPRO	111.081	10.539	.974	.987	.002	EVA=-298350.78+293.32*OP	Rejected

ANOVA table summary indicates the value of f (2.034, 8.748, 1.838) is significant at 24.8%, 6%, 26.8% level of significance respectively and CMC, HCLINFO, INFOSYS, ROLTA, SATYAM, WIPRO have value of f (81.853, 2640.694, 140.066, 41.018, 13.654, 111.081) is significant at .3%, 0%, .1%, .8%, 3.4%, .2% level of significance and HCLTECH, MOSERBAER, POLARIS, are insignificant at 5% level of significance, which indicates there are some other factors also which affect the EVA other than OP.

Value of T (-.175, 2.958, 1.356) is significant at 24.8%, 6%, 26.8% level of given in coefficient table is insignificant indicating that OP have less impact on EVA. But CMC, HCLINFO, INFOSYS, ROLTA, SATYAM, WIPRO have value of T (9.047, 51.388, 11.835, 6.404, 3.695, 10.539) is significant at .3%, 0%, .1%, .8%, 3.4%, .2% level of given in coefficient table is significant indicating that OP have impact on EVA.

The beta value of CMC (.982), HCLINFO (.999), INFOSYS (.989), ROLTA (.965), SATYAM (.905), WIPRO (.987) indicates significant positive relationship and rest of the companies have insignificant positive relationship.

Multiple Regression Results

1.The linear multiple regression was applied taking EVA as dependent variable and EPS, Dividend Per Share, NI, OP, ROI, ROE as independent variable for CMC India. The results of the same are discussed below in Table 7. The null hypothesis set in this case was:

Ho1: There is no cause and effect relationship between EVA and traditional performance measure for the CMC Company under study.

TABLE No. 7: CMC

Dependent Variable	Beta Value EPS	Beta Value ROE	Beta Value ROI	Beta Value DPS	Beta Value NI	Beta Value OP
EVA	.032	-.230	--	-.513	--	1.537
Dependent Variable	**Beta Value EVA**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
EPS	--	-.002	--	-.003	1.003	.002
Dependent Variable	**Beta Value EPS**	**Beta Value EVA**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROE	.139	-4.339	--	-2.228	--	6.670
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value EVA**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROI	.706	.200	--	-.614	--	.665
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value EVA**	**Beta Value NI**	**Beta Value OP**
DPS	1.149	-.326	-1.628	--	--	1.083
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value EVA**	**Beta Value OP**
NI	.997	.002	--	.003	--	-.002
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value EVA**
OP	--	.150	--	.334	-.021	.651

After applying the multiple regressions it was revealed that Operating Profit and Earning per Share are the accurate method for calculating shareholder's return. By above table we can see that in table where OP and EPS is the independent variable Beta is higher comparison of other table so we can conclude that OP and EPS are tha accurate method of calculating shareholder wealth. It was also revealed that ROI is highly related with EVA, EPS, ROE, ROI, NI and OP, NI is highly related with EVA, ROE, ROI and DPS, EVA is highly related with EPS, ROI,DPS and NI because co linearity tolerance is .000

2. The linear multiple regression was applied taking EVA as dependent variable and EPS, Dividend Per Share, NI, OP, ROI, ROE as independent variable for HCL INFO India. The results of the same are discussed below in Table 8. The null hypothesis set in this case was:

Ho2: There is no cause and effect relationship between EVA and traditional performance measure for the HCL Company under study.

TABLE No. 8: HCL INFO BETA

Dependent Variable	Beta Value EPS	Beta Value ROE	Beta Value ROI	Beta Value DPS	Beta Value NI	Beta Value OP
EVA	.014	--	-.053	.010	--	1.030
Dependent Variable	**Beta Value EVA**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
EPS	--	9.044	-5.574	-3.421	--	-1.354
Dependent Variable	**Beta Value EPS**	**Beta Value EVA**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROE	.111	--	.616	.378	--	.150
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value EVA**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROI	-.179	1.623	--	-.614	--	-.243
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value EVA**	**Beta Value NI**	**Beta Value OP**
DPS	-.292	2.643	-1.629	--	--	-.396
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value EVA**	**Beta Value OP**
NI	-.070	--	.211	-.060	--	.883
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value EVA**
OP	.079	--	-.239	.068	1.132	--

After applying the multiple regressions it was revealed that Operating Profit and Return on Equity are the accurate method for calculating shareholder's return. By above table we can see that in table where OP and ROE is the independent variable Beta is higher comparison of other table so we can conclude that OP and ROE are tha accurate method of calculating shareholder wealth. It was also revealed that EVA is highly related with EPS, ROE, ROI, NI, DPS and OP, NI is highly related with EVA, EPS, ROE, ROI and DPS because co linearity tolerance is .000.

3. The linear multiple regression was applied taking EVA as dependent variable and EPS, Dividend Per Share, NI, OP, ROI, ROE as independent variable for HCL TECH India. The results of the same are discussed below in Table 8. The null hypothesis set in this case was:

Ho3: There is no cause and effect relationship between EVA and traditional performance measure for the HCL TECH Company under study.

TABLE No. 9: HCL TECH BETA

Dependent Variable	Beta Value EPS	Beta Value ROE	Beta Value ROI	Beta Value DPS	Beta Value NI	Beta Value OP
EVA	-.840	.713	--	-.010	--	.967
Dependent Variable	**Beta Value EVA**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
EPS	-1.190	.849	--	-.012	--	1.151
Dependent Variable	**Beta Value EPS**	**Beta Value EVA**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROE	-.033	--	1.183	.051	--	-.158
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value EVA**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROI	.028	.845	--	-.043	--	.134
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value EVA**	**Beta Value NI**	**Beta Value OP**

Dependent Variable	Beta Value EPS	Beta Value ROE	Beta Value ROI	Beta Value EVA	Beta Value NI	Beta Value OP
DPS	--	20.182	-23.214	-.781	--	3.864
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value EVA**	**Beta Value OP**
NI	-.571	.785	--	-.001	--	.693
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value EVA**
OP	.824	-1.133	--	.002	1.443	--

After applying the multiple regressions it was revealed that Operating Profit and Return on Equity are the accurate method for calculating shareholder's return. By above table we can see that in table where OP and ROE is the independent variable Beta is higher comparison of other table so we can conclude that OP and ROE are tha accurate method of calculating shareholder wealth. It was also revealed that ROI is highly related with EVA, EPSand NI, NI is highly related with EVA, EPS, ROE, ROI and DPS,ROI is highly related with EVA, EPS, NI and OP because co linearity tolerance is .000

4. The linear multiple regression was applied taking EVA as dependent variable and EPS, Dividend Per Share, NI, OP, ROI, ROE as independent variable for INFOSYS India. The results of the same are discussed below in Table 8. The null hypothesis set in this case was:

Ho4: There is no cause and effect relationship between EVA and traditional performance measure for the INFOSYS Company under study.

TABLE No. 10: INFOSYS BETA

Dependent Variable	Beta Value EPS	Beta Value ROE	Beta Value ROI	Beta Value DPS	Beta Value NI	Beta Value OP
EVA	.129	--	-.160	.071	--	1.036
Dependent Variable	**Beta Value EVA**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
EPS	--	--	-.542	1.068	-1.642	1.206
Dependent Variable	**Beta Value EPS**	**Beta Value EVA**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROE	.000	--	1.000	.000	--	.000
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value EVA**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROI	.000	1.000	--	.000	--	.000
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value EVA**	**Beta Value NI**	**Beta Value OP**
DPS	.936	--	.507	--	1.537	-1.129
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value EVA**	**Beta Value OP**
NI	-.609	--	-.330	.650	--	.735
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value EVA**
OP	.829	--	.449	-.886	1.361	--

After applying the multiple regressions it was revealed that Operating Profit and Net Income are the accurate method for calculating shareholder's return. By above table we can see that in table where OP and NI is the independent variable Beta is higher comparison of other table so we can conclude that OP and NI are tha accurate method of calculating shareholder wealth. It was also revealed that EVA is highly related with EPS, ROE, ROI, DPS, NI and OP, ROE is highly related with EVA, EPS, NI, OP and DPS, NI is highly related with EVA, ROE and ROI because co linearity tolerance is .000.

5. The linear multiple regression was applied taking EVA as dependent variable and EPS, Dividend Per Share, NI, OP, ROI, ROE as independent variable for MOSER BAER India. The results of the same are discussed below in Table 8. The null hypothesis set in this case was:

Ho5: There is no cause and effect relationship between EVA and traditional performance measure for the MOSER BAER Company under study.

TABLE No. 11: MOSER BAER BETA

Dependent Variable	Beta Value EPS	Beta Value ROE	Beta Value ROI	Beta Value DPS	Beta Value NI	Beta Value OP
EVA	-2.026	--	--	.497	1.569	.202
Dependent Variable	**Beta Value EVA**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
EPS	-.494	--	--	.246	.775	.100
Dependent Variable	**Beta Value EPS**	**Beta Value EVA**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROE	--	-.446	--	.103	.917	.134
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value EVA**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROI	--	--	-.455	.009	.991	.189
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value EVA**	**Beta Value NI**	**Beta Value OP**
DPS	4.073	--	--	2.010	-3.155	-.406
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value EVA**	**Beta Value OP**
NI	--	--	1.009	.009	.459	-.190
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value EVA**
OP	--	--	5.298	.049	-5.253	2.411

After applying the multiple regressions it was revealed that Net Income and Return on Investment are the accurate method for calculating shareholder's return. By above table we can see that in table where NI and ROI is the independent variable Beta is higher comparison of other table so we can conclude that NI and ROI are tha accurate method of calculating shareholder wealth. It was also revealed that ROE is highly related with EVA, EPS, ROI, DPS, NI and OP, ROI is highly related with EVA, EPS and ROE, EPS is highly related with ROE, ROI, NI and OP because co linearity tolerance is .000.

6. The linear multiple regression was applied taking EVA as dependent variable and EPS, Dividend Per Share, NI, OP, ROI, ROE as independent variable POLARIS India. The results of the same are discussed below in Table 8. The null hypothesis set in this case was:

Ho6: There is no cause and effect relationship between EVA and traditional performance measure for the POLARIS Company under study

TABLE No. 12: POLARIS BETA

Dependent Variable	Beta Value EPS	Beta Value ROE	Beta Value ROI	Beta Value DPS	Beta Value NI	Beta Value OP
EVA	.743	--	-.547	1.235	--	-.470
Dependent Variable	**Beta Value EVA**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
EPS	1.310	.739	--	-1.616	--	.614
Dependent Variable	**Beta Value EPS**	**Beta Value EVA**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROE	.468	-.281	--	--	.959	-.144
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value EVA**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROI	.443	--	-.286	--	.991	-.149
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value EVA**	**Beta Value NI**	**Beta Value OP**
DPS	-.405	--	--	.683	.439	.314
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value EVA**	**Beta Value OP**
NI	-.447	--	1.010	--	.289	.151
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value EVA**
OP	1.287	--	--	3.180	-1.396	-2.171

After applying the multiple regressions it was revealed that Net Income, Dividend per Share and Economic Value Added are the accurate method for calculating shareholder's return. By above table we can see that in table where NI, DPS and EVA is the independent variable Beta is higher comparison of other table so we can conclude that NI, DPS and EVA are tha accurate method of calculating shareholder wealth. It was also revealed that ROE is highly related with EVA, ROI, DPS, NI and OP, ROI is highly related with EPS, ROE, DPS and OP, NI is highly related with EVA, EPS and ROE, DPS is highly related with ROI and NI because co linearity tolerance is .000.

7. The linear multiple regression was applied taking EVA as dependent variable and EPS, Dividend Per Share, NI, OP, ROI, ROE as independent variable ROLTA India. The results of the same are discussed below in Table 8. The null hypothesis set in this case was:

Ho7: There is no cause and effect relationship between EVA and traditional performance measure for the ROLTA Company under study

TABLE No. 13: ROLTA BETA

Dependent Variable	Beta Value EPS	Beta Value ROE	Beta Value ROI	Beta Value DPS	Beta Value NI	Beta Value OP
EVA	.154	-.310	.063	--	--	.807
Dependent Variable	**Beta Value EVA**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
EPS	--	.412	-.075	--	1.332	-.297
Dependent Variable	**Beta Value EPS**	**Beta Value EVA**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROE	.497	-3.227	.203	--	--	2.604
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value EVA**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROI	1.498	-.057	--	-2.074	--	.158
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value EVA**	**Beta Value NI**	**Beta Value OP**
DPS	.722	-.027	-.482	--	--	.076
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value EVA**	**Beta Value OP**
NI	.751	-.309	.056	--	--	.223
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value EVA**
OP	--	.324	-.067	--	-.270	1.314

After applying the multiple regressions it was revealed that Earning per Share and Operating Profit are the accurate method for calculating shareholder's return. By above table we can see that in table where EPS and OP is the independent variable Beta is higher comparison of other table so we can conclude that EPS and OP are tha accurate method of calculating shareholder wealth. It was also revealed that DPS is highly related with EVA, EPS, ROE, NI and OP, NI is highly related with EVA, ROE, ROI and DPS, EVA is highly related with EPS, ROI, DPS and NI because co linearity tolerance is .000.

8. The linear multiple regression was applied taking EVA as dependent variable and EPS, Dividend Per Share, NI, OP, ROI, ROE as independent variable SATYAM India. The results of the same are discussed below in Table 8. The null hypothesis set in this case was:

Ho8: There is no cause and effect relationship between EVA and traditional performance measure for the SATYAM Company under study

TABLE No. 14: SATYAM BETA

Dependent Variable	Beta Value EPS	Beta Value ROE	Beta Value ROI	Beta Value DPS	Beta Value NI	Beta Value OP
EVA	--	--	.035	-.492	.148	.866
Dependent Variable	**Beta Value EVA**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
EPS	--	--	-.064	.728	.875	-.450
Dependent Variable	**Beta Value EPS**	**Beta Value EVA**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROE	--	--	.987	.008	.011	-.004
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value EVA**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROI	--	1.013	--	-.008	-.011	.004
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value EVA**	**Beta Value NI**	**Beta Value OP**
DPS	1.373	--	.088	--	-1.201	.618
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value EVA**	**Beta Value OP**
NI	1.143	--	.073	-.833	--	.514
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value EVA**
OP	--	--	-.040	.568	-.171	1.155

After applying the multiple regressions it was revealed that Earning per Share are the accurate method for calculating shareholder's return. By above table we can see that in table where EPS is the independent variable Beta is higher comparison of other table so we can conclude that EPS are tha accurate method of calculating shareholder wealth. It was also revealed that EPS is highly related with EVA, ROI, ROE and OP, ROE is highly related with EVA, EPS, DPS, NI and OP, EVA is highly related with EPS, ROE, ROI DPS and NI because co linearity tolerance is .000.

9.The linear multiple regression was applied taking EVA as dependent variable and EPS, Dividend Per Share, NI, OP, ROI, ROE as independent variable WIPRO India. The results of the same are discussed below in Table 8. The null hypothesis set in this case was:

Ho9: There is no cause and effect relationship between EVA and traditional performance measure for the WIPRO Company under study

TABLE No. 15: WIPRO BETA

Dependent Variable	Beta Value EPS	Beta Value ROE	Beta Value ROI	Beta Value DPS	Beta Value NI	Beta Value OP
EVA	-1.074	--	-.957	.288	--	.964
Dependent Variable	**Beta Value EVA**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
EPS	.931	--	-.891	.268	--	.898
Dependent Variable	**Beta Value EPS**	**Beta Value EVA**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROE	--	-.205	.909	.031	--	.311
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value EVA**	**Beta Value DPS**	**Beta Value NI**	**Beta Value OP**
ROI	-.199	.905	--	.025	--	-.103
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value EVA**	**Beta Value NI**	**Beta Value OP**
DPS	3.730	--	3.325	3.473	--	-3.348
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value EVA**	**Beta Value OP**
NI	--	--	-.137	-.008	-.170	1.274
Dependent Variable	**Beta Value EPS**	**Beta Value ROE**	**Beta Value ROI**	**Beta Value DPS**	**Beta Value NI**	**Beta Value EVA**
OP	--	--	.108	.006	.785	.134

After applying the multiple regressions it was revealed that Operating Profit is the accurate method for calculating shareholder's return. By above table we can see that in table where OP is the independent variable Beta is higher comparison of other table so we can conclude that OP are the accurate method of calculating shareholder wealth. It was also revealed that ROE is highly related with EVA, EPS, DPS, NI and OP, NI is highly related with EVA, EPS, ROE, DPS, ROI and DPS, EPS is highly related with ROE, NI and OP because co linearity tolerance is .000.

CONCLUSION:

The concept of EVA is based on the sound economic principle that firm value increases only if it is able to generate surplus over its cost of capital and therefore it is based on strong theoretical foundation. However its calculation involves significant subjectivity and this reduces its informative value. In India, companies are using EVA internally as a performance measure for improving productivity that would lead to enhancement of shareholder value. Traditionally, the most popular methods of evaluating company performance have been through profitability

measures such as earnings per share (EPS) and return on equity (ROE). These measures, however, can be misleading in that they are often poor indicators of shareholder value creation EVA as a performance evaluation tool is preferred to others relatively inexpensive measure such as earning per share and return on investment by aligning shareholders and manager's goal. In the last few years EVA has gained considerable popularity because the creation of share value is the ultima economic purpose of the most companies but this research shows that there is no evidence of EVA dominating NI or OP in explaining equity market value.

The above results have indicated that for INFOSYS, traditional performance measures and EVA have no positive relationship but POLARIS Company has EVA positively related with all the traditional performance measure. In other cases results are mixed like MOSERBAER, EVA has negative relationship with EPS, ROE, DPS, NI but positive relationship with ROI, NI and OP.

For WIPRO, EVA has negative relationship EPS and DPS but positive significant relationship with all other performance measures. ROLTA companies result shows that EVA has negative relationship with ROE and ROI but positive relationship with all others. For HCLTECH, DPS is having negative insignificant relationship with EVA. HCLINFO has positive relationship for EVA and other traditional measures. SATYAM results show positive relationship between EVA and NI; EVA and OP.

Looking at the combined effect of all the traditional performance measures with EVA, results shows that for all the companies NI is highly related with EVA. Fernández, Pablo (IESE Business School) calculated 582 American companies using EVA, MVA, NOPAT and WACC data provided by Stern Stewart. For each of the 582 companies, there are 210 companies for which the correlation with the EVA has been negative. Present study shows that only in case of POLARIS, EVA came out as a significant financial performance measure. Other companies should follow the POLARIS company in this manner and should maintain their accounts in similar manner. A firm can increase its economic profit in four basic ways. First, the business can attempt to earn more profit without using more capital through increasing the operating profit margin. Second, the firm can use less capital by abandoning operations with operating profits less than the cost of capital. Third, the business can invest capital in projects yielding returns higher than the market cost of capital. Finally, companies reduce the cost of capital through the judicious use of financial leverage. Generally, the cost of debt is less than the cost of equity.

REFERENCES:

- Al Ehrbar; (1998). EVA – The real key to creating wealth, John Wiley & Sons, Inc.
- Anand, manoj, garg, ajay and arora, asha (1999), Economic Value Added, Business Performance Measure of Shareholder Value, *The Management Accountant*, 351-56.
- Andrew C. Worthington & Tracey West (1992–1998). The Australian Graduate School of Management (2004), *Australian Journal of Management*, 29 (2).
- Bardia, S.C. (2002), Economic Value Added: Overall Consideration, *Economic Challenger*, 1-7.
- Biddle, G., Bwen, R.M., Wallace, J.S. (1996), Evidence On The Relative and Incremental Information.
- Bottger, R (1999), Economic value added (EVA): The essence to creating real wealth? *Unpublished Mimeo, Department of Economics, University of Stellenbosch*.
- Cooper, Robin And Regine Slagmolder, (1998), Strategic Cost Management. *Management Accounting*. Vol. 89, Issue 8. (New York: February 1998), Pp. 16-18.
- De Villiers J. (1989), Inflation, Asset Structure and the Discrepancy between Accounting and True Return, *Journal of Business Finance and Accounting*, Vol.16; p. 493-506.
- Dodd, James L, Chen, Shimin. (1996), EVA: A new panacea, *Business and Economic Review*, 42, 26-28.
- Geoffrey Colvin (2000), an economic value incentive plans, *Fortune; New York*.
- Grant, J. L. (1996), Foundations of EVA for Investment Managers, *The Journal of Portfolio Management*, Vol. 23; p. 41-48.
- Easton, P., Harris, T. & Ohlson, J.(1992), Aggregate Earnings can explain most security returns", Journal of Accounting and Economic, June – September.
- Finegan, P.T. (1991), maximizing shareholder value at the private company, *Journal of Applied Corporate Finance*, 4(1), 30-45.
- Kantor, Uyemura and Pettit (1996). E.V.A.: Fact and Fantasy. *Journal of Applied Corporate Finance*.
- Lehn, K., & Makhija, A.K. (1997), EVA, Accounting Profits, and CEO Turnover: An Empirical Examination, 1985-1994, *Journal of Applied Corporate Finance*, Vol.10, no.2; p. 90-97.
- Lloyd, P (1996), a study of the relationship between changes in share price and contemporaneous changes in economic value added and other corporate performance measures: *Journal of University of Cape Town, Graduate School of Business, South Africa*.
- Marc J Epstein, S David young (1999), management accounting, *New York*, 1-1999.
- Mehdi H. W., Sheikholeslami (2000), the relationship between economic value added and the stock market performance of agribusiness firms, *Agribusiness*, 16, 4, pp399-416.

- Milunovich and Tsuei; (1996), *Financial Analysts Journal*, Vol. 37, no. 41.
- Milunovich, S. & A. Tsuei, (1996), EVAO in the computer industry, *Journal of Applied Corporate Finance*, Vol. 9, no.1; p. 104-115.
- O'Byrne S.F., (1996), EVA and Market Value, *Journal of Applied Corporate Finance*, Vol. 9, no.1; p. 116-25.
- Raj Aggarwal; Andrea L Demaskey *(1997),* Cross- Hedging Currency Risks In Asian Emerging Markets Using Derivatives In Major Currencies, *The Journal Of Portfolio Management* Spring 1997
- Ray, Russ; (2001), Economic Value Added: Theory Evidence, a Missing Link, *Review of Business*, Vol. 22, no.2.
- Reginaldo, Montague, Pedro, Portugues (2000), why economic value add needs to be measured, 08/10/2000, 129, 2, p77, 3p.
- Rice, V.A.; (1996), *The Journal of Portfolio Management*, Vol. 26; p. 27-32.
- Robin Cooper And Regine Slagmulder, (1998), Cost Management Beyond The Boundaries Of The Firm, *Management Accounting*, March 1998, Pp.18-19.
- RonaldE Shrieves; john M Wachowicz Jr. (2001), Economic Value Added-The engineering Economist, *Norcross 2001*.
- Salmi, Timo and Ilkka Virtanen (2001), Economic Value Added: A simulation analysis of the trendy, owner-oriented management tool. *Acta Wasaensia No. xx,* 33.
- Stern, Joel (2003), Workshop on Value- Based Management, *Organished by the ASCI, Hyderabad*, 21-22.
- Stewart, G. Bennet (1990), The Quest for Value: the EVA™ management guide Harper Business, New York; 1990.
- Storrie, Mark; Sinclair, David (1997), Is EVA equivalent to DCF? CPS Alcair Global Review, 3, 5-6.
- Thenmozhi, M. (2000), Chaotic Nature of the Indian Stock Market - An Empirical Study of BSE Sensex Time Series, *South Asian Journal of Management*, Vol.7, no. (3, 4); p. 12-24.
- Trecha, Steve (2000), EVA rules all actions, *Cover story*, 129.
- Tully, S. (1993), The Real Key to Creating Wealth, *Fortune*; (September 20, 1993): 38-50.
- Young, S. David (1999), Some Reflections on Accounting Adjustments and Economic Value Added, *Journal of Financial Statement Analysis*, Vol.4, no.2; p.7-19.
- Uyemura, D.G., Kantor, C.C., and J.M. Pettit (1996), EVA for Banks: Value Creation, Risk Management, and Profitability Measurement, *Journal of Applied Corporate Finance*, Vol9, no. 2, Summer 1996; p. 94-113.

- You Lee D. F. (1995). EVA as a measure of corporate performance.

Books

- Dawn Shand (2000), economic value added, *computer world*, *Framingham*, 18 (1), 55.
- Pittsburg; Spring, Shimin Chen. James L Dodd (2001), operating income, residual income and EVA: which metric is more value relevant.
- Salomon and Laya (1967), Practical Financial Statement Analysis, 6th edition.

Websites:

- AsishK.Bhattacharya, B.V. Phani (1999), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=545444