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Measurement of Value Creation Vis-À-Vis EVA: Analysis of Select BSE Companies

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Internal and external forces that drive organisations to change the way they conduct their business, the information derived from traditional management control systems is no longer providing relevant information for decision making of the stakeholders. Most of the time information is too aggregated, too late and too distorted. Thus, it is no longer an effective mechanism to govern an organisation (Johnson & Kaplan, 1987). A new performance management system, which is able to produce information that is specific, relevant and timely, is therefore needed. Economic Value Added (EVA), the invention of a global consulting firm Stern Stewart & Company launched in 1989. EVA is a measure of true performance measurement and economic profit. It is separate from other performance metrics such as EPS, EBITDA, and ROIC by the mean of measuring both operating and financing costs of a running business, which makes EVA the soundest performance metric, and the one most closely aligned with the creation of shareholder value.

This paper empirically examined whether Economic Value Added of the companies listed in BSE securities market creating value for shareholders. For this purpose a sample from BSE-30 companies is taken. The statistical test will be done with multiple correlation and multivariable linear regression model. The company's profitability, size (net worth), growth ability's (sales growth) influence on EVA is checked. The paper concludes with the possible reasons and advice at the end in order to increase the company's economic value.

Keywords: Economic Value Added, BSE, Value Creation

Introduction

Value Creation Measure-Market Value Added (MVA) Market Value Added is defined as the difference between the market value of the firm (including equity and debt) and the total capital invested in the firm (Young and O'Byrne, 2001). It is a measure of external performance, which is considered to be the best indicator of shareholder value creation. MVA has introduced a new measure of shareholder value by Stewart (1991) which reports the value market adds over the book value of invested capital.

Market value added is difference between the Company's market value and book value of shares. According to Stern Stewart, if the total market value of a company is more than the amount of capital invested in it, the company has managed to create shareholder value. If the market value is less than capital invested, the company has destroyed shareholder value.

Market Value Added = Company's total Market Value - Capital Invested

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With the simplifying assumption that market and book value of debt are equal, this is the same as

Market Value Added = Market Value of equity - Book value of equity

Book value of equity refers to all equity equivalent items like reserves, retained earnings and provisions. In other words, in this context, all the items that are not debt (interest bearing or noninterest bearing) are classified as equity. Market value added (MVATM) is identical in meaning with the market-to-book ratio. If MVA is positive, that means that market-to- book ratio is less than one. According to Stewart, Market value added tells us how much value the company has added to, or subtracted from, its shareholders investment. Successful companies add their MVA and thus increase the value of invested capital in the company. Unsuccessful companies decrease the value of the capital originally invested in the company. Whether a company succeeds in creating MVA or not, depends on its rate of return. If a company's rate of return exceeds its cost of capital, the company will sell on the stock market with premium compared to the original capital. On the other hand, companies that have rate of return smaller than their cost of capital sell with discount compared to the original capital invested in company. Whether a company has positive or negative MVA depends on the rate of return compared to the cost of capital.

Concept of Economic Value Added (EVA)

EVA® (Economic Value Added) was developed by a New York Consulting firm, Stern Steward & Co in 1982 to promote value-maximizing behaviour in corporate managers (O'Hanlon. J & Peasnell.K, 1998). It is a single, value-based measure that was intended to evaluate business strategies, capital projects and to maximize long-term shareholders wealth. Value that has been created or destroyed by the firm during the period can be measured by comparing profits with the cost of capital used to produce them. Therefore, managers can decide to withdraw value-destructive activities and invest in projects that are critical to shareholder's wealth. This will lead to an increase in the market value of the company. However, activities that do not increase shareholders value might be critical to customer's satisfaction or social responsibility.

It is the single barometer to evaluate the true profit of the organisation. With the aim to ascertain the financial health of the organisation and its capacity to generate shareholders value, it is very important for long range success and to plan financial policies of the company. EVA in this context provides help to the managers in setting up organizational goals on the basis of financial assessment and wealth maximization.

EVA is a vital measure that reflects all the dimensions by which management can increase value. EVA is the financial measure that comes closer than any other measure in capturing true economic profit of an enterprise (Management Guru Peter Drucker).

Stern Stewart (Founder of EVA) describes that EVA is considered as the most accurate measure of the economic performance of the company. It attempts to resolve the need for a performance measure that is highly correlated to the Shareholder Wealth and responsive to the actions of the company's managers. Russ (2001) revealed that the missing link in EVA process is productivity, generally found to be the engine of all economic growth. Chen & Dodd (1997) found that, while EVA provides significant information value, other accounting profit measures also provide significant information and should not be discarded in favor of EVA alone. It provides significant information beyond traditional accounting measures of EPS, ROA and ROE (Chen & Dodd, 1997), while Chandra (2001) identifies that EVA is a better measure than EPS, PAT and ROCE. Brewer, at al. (1999) suggests that EVA

provides Better goal congruence than ROI.

Calculation of EVA

EVA is based on the concept that a successful firm should earn at least its cost of capital. Firms that earn higher returns than financing costs benefit shareholders and account for increased shareholder value. In its simplest form, EVA can be expressed as the following equation:

EVA = Net Operating Profit After Tax (NOPAT) - Cost of Capital

NOPAT is calculated as net operating income after depreciation, adjusted for items that move the profit measure closer to an economic measure of profitability. Adjustments include such items as: additions for interest expense after-taxes (including any implied interest expense on operating leases); increases in net capitalized R&D expenses; increases in the LIFO reserve; and goodwill amortization. Adjustments made to operating earnings for these items reflect the investments made by the firm or capital employed to achieve those profits. Stern Stewart has identified as many as 164 items for potential adjustment, but often only a few adjustments are necessary to provide a good measure of EVA.

Adjustments

EVA can be calculated as:

EVA = NOPAT- WACC × CAPITAL EMPLOYED

where

NOPAT refers to net operating profits after taxes. NOPAT is equal to earnings before interest and tax (EBIT) minus adjusted taxes (AT). EBIT refers to the earnings before interest and tax.AT refers to the adjusted taxes. It is calculated as = Cash Taxes Paid + Tax Advantage on Interest.

WACC refers to weighted average cost of capital. It comprises of two components:

1. Cost of debt: Company's post tax marginal rate of borrowing.
   Cost of Debt = Borrowing rate × (1-marginal tax rate)
2. Cost of equity: Required rate of return on company's share.
   Cost of Equity = Risk free rate + Risk premium × Beta (Capital Asset Pricing Model)

WACC = D/V × Cost of Debt + E/V × Cost of Equity

Where

a. D = Average debt
b. E = Average equity (market capitalization)
c. V = D + E (Total value of firm)
d. The risk free rate is equivalent to the government's long-term bond yield
e. Beta measures the volatility of share price relative to the market
f. Market risk premium is the extra return investors expect from equity market over and above risk free rate.

Capital Employed

Capital employed is taken to be total assets subtracted with non-interest bearing liability in the beginning of the period. This definition does not consider the capital infused into the business at different times during the year and, hence, has a favorable impact on the resulting values. However, use of average capital employed shall correct this bias.

Adjustments: Following accounting items are not to be considered for the calculation of EVA:

A. Income

1. Interest income on loans given by the company
2. Dividend income on financial investments.
3. Profit on sale of assets
4. Profit on sale of investments

B. Expenses

1. Loss on sale of fixed assets
2. Loss on sale of investments
3. Expenses by subsidiaries.

Others adjustments

Brand expenses: The expenses incurred in brand development should be amortized over a period of years in case the brand is launched and the same survives over the period. The expenses incurred on a brand not subsequently launched should be written off in the same year rather than amortizing the same over a period of years.

Capitalization of R&D expenses: Similarly, only those R&D expenses which contribute to the revenue in future periods should be deferred. Else, they are written off in these years when they are incurred.

Currency translation: The reversible currency translation effects should be ignored. The irreversible, Periodic and gradual translation effects should be considered to the extent they result in losses. Gains should be ignored to be on conservative side.

Sinking fund depreciation: The depreciation should be charged in line with the utilized life of assets. However, cases with steady capital investment policy would not require this adjustment. The objective behind all these adjustments is to reflect the operational efficiency of the company.

Relationships of MVA and EVA

Market value added can also be defined in relation to Economic Value Added (EVATM). EVA measures whether the operating profit is enough compared to the total cost of capital employed. Stewart defines EVA as the surplus of Net Operating Profit After Taxes (NOPAT) after adjusting for capital cost, where NOPAT = Profit after depreciation and taxes but before interest costs and Capital Cost = Weighted average cost of capital X capital employed or EVA = (ROI - WACC) x Capital employed. He further defines the connection between EVA and MVA as:

Market Value Added = Present Value of All future EVA

By increasing EVA, a company increases its market value added or in other words increases the difference between Company's value and the amount of capital invested in it. The relationship of MVA with EVA has its implication on valuation. By rearranging the formula, market value of equity can be defined as:

Market value of equity = Book value of equity + Present value of all future EVA.

MVA is essentially the difference between the company's current market value, as determined by its stock price, and its economic book value, it is a far more revealing figure than a simple rise in market capitalisation, because the latter fails to consider the money investors put up.

Stewart (1991) examined the relationship between EVA and MVA of US companies and found a stronger correlation between EVA and MVA. Kramer and Pushner (1997) studied the strength of relationship between EVA and MVA. They found that MVA and NOPAT were positive on average but the average EVA over the period was negative. EVA unlike other earnings measures is systematically linked to the market value and it is powerful tool for understanding the investor expectations (O' Byrne, 1996; Finegan, 1991). Ghanbari and More (2007) analyzed the relationship between EVA and MVA of automobile industry in India and results indicate that there are strong evidences to support Stern-Stewart's claim.

There are some studies which claim as traditional measures have better correlation with MVA. Fernandez (2001) examined the correlation between EVA and MVA of 582 American companies for the period 1983-

97. It was shown that for 296 firms in the sample the changes in the NOPAT had higher correlation with changes in MVA than the EVA, while for 210 sample firms the correlation between EVA and MVA as negative. Wet (2005) revealed EVA-MVA relationship of 89 Industrial firms of South Africa and found that EVA did not show the strongest correlation with MVA.

Objectives of Study

The primary objective of this paper is to empirically test the assertion that EVA is highly associated with Market Value Added (or MVA). The major objectives of the paper are as under:

I. To establish the relationship between the EVA and MVA
II. To correlate EVA with Sales, Net Worth andProfitability.

PART-II

Review Of Literature

EVA-MVA relationship - This concept includes literature on linkages between EVA and MVA of companies, EVA as proxy for MVA, correlation between EVA & MVA, value drivers, firm performance and MVA, inter-industry analysis and survey, effectiveness of EVA and efficacy score approach etc.

As such, MVA is greatly influenced by a firm's EVA performance (Elali 2007). Uyemura at al. (1996) and other Authors (Chen and Dodd, 1997; Biddle, Brown & Wallace, 1997; Biddle, 1998; Clinton at al., 1998; Herzberg, 1998) demonstrated that EVA has a high correlation with market value added (the difference between the firm's value and cumulative investor capital) and thereby stock price. Riahi-Belkaoui (1996) also compared the use of linear and non-linear models in specifying the relationship between value-added and market returns and found that models relating accounting and market returns have more explanatory power when, firstly, the accounting returns are expressed by the relative changes in net value-added, and secondly, the relation is a nonlinear convex-concave function. Bao and Bao (1998) investigated the usefulness of value added and abnormal economic earnings of 166 US firms. The results indicated that value added is a significant explanatory factor in market returns, and its explanatory power is higher than that of earnings.

The empirical research of academics to date on this subject is limited. The results of these studies are mixed. Stewart (1991) has first studied the relationship with market data of 618 US companies. Stewart observed that the relationship between EVA and MVA is highly correlated among US companies.

Lehn and Makhija (1996) in their study of 241 US companies over two periods (1987-1988 and 1992-1993) observed that both measures (EVA and MVA)correlate positively with stock returns and that the correlation is slightly better with EVA than that with traditional performance measures like return on assets (ROA), return on equity (ROE), etc. On the predictive power of EVA in explaining MVA or shareholder wealth, several researchers (for example Uyemura, Kantor and Petit, 1996; McCormack and Vytheeswaran, 1998; O'Byrne, 1996; MilunovichandTsuei, 1996; Grant, 1996) observed that EVA is better correlated with MVA or shareholder wealth than other traditional parameters like ROCE, RONW, EPS, etc. However, there are adverse findings too. Dodd and Chen (1996) found that return on assets (ROA) explained stock returns better than EVA. Hamel (1997) was critical about the superiority of EVA. He opined that EVA reveals little about a company's share of new wealth creation.

Other researchers have noted that EVA does not correlate as strongly with stock returns as its proponents claim. (Chen at al., 1997; Brewer et al., 1999; Robertson at al., 1999). Lehn at al. (1997) suggested that labour markets evaluate CEOs on the basis of EVA and MVA performances, rather than on the basis of

more conventional accounting measures. Biddle, Brown & Wallace (1997) also found only marginal information content beyond earnings and suggest a greater association of earnings with returns and firm values than EVA, residual income, or cash flow from operations.table-1 represents the further review of literature.

Table 1 : Scholarly Contributions

S. No	Researcher and Year	Content	Methodology	Contribution to Research
1.	Keef & Roush 2003	EVA & MVA	Descriptive	Theoretical relation between the series of abnormal returns and series of economic profit is idiosyncratic to the choice of adjustments.
2.	Lehn & Makhija 1996	EVA and MVA	Empirical	EVA & MVA serve as signals for strategic change
3.	O'Byrne 1996	EVA and MVA	Empirical	Focus on Link between theory and practice on EVA
4.	Kramer & Pushner 1997	EVA and MVA	Empirical	Empirically tests the relationship between EVA and market value added
5.	Hall & Brummer 1999	EVA and MVA	Empirical	Comparison of various performance measures with MVA
6.	Banerjee 2000	EVA and MVA	Empirical	Find the relevance of Stewart's claim
7.	Kramer & Pushner 2001	EVA and MVA	Empirical	The marginal cost of using EVA as a proxy for MVA are not justified by any marginal benefits
8.	Velez-Pareja 2001	EVA and MVA	Empirical	Different approaches to calculate EVA and MVA are compared with NPV results.

9	Peixoto 2002	EVA and MVA	Empirical	EVA does not have more information content than traditional performance measures in explaining equity market value
10	Sparling & Turvey 2003	EVA and MVA	Empirical	Empirical EVA as a tool for valuing investments
11	Griffith 2004	EVA and MVA	Empirical	EVA adopters outperform their peers and EVA is useful for forecasting
12	Lin & Zhilin 2004	EVA and MVA	Empirical	Presented the integrated EVA performance measurement (IEPM) model
13	Ramana 2005	EVA and MVA	Empirical	Evidences about EVA- MVA relationship of Indian companies
14	Wet De 2005	EVA and MVA	Empirical	Stronger relationship between MVA and cash flow from operations
15	Zaima et al. 2005	EVA and MVA	Empirical	Provides implications for corporate executives utilizing EVA to evaluate performance linked to MVA
16	Kim 2006	EVA and MVA	Empirical	Empirical analysis of EVA and MVA relationship in Hospitality Industry
17	Ghanbari & More 2007	EVA and MVA	Empirical	Empirical evidences on Indian Automobile Industry
18	Irala 2007	EVA and MVA	Empirical	Examines whether EVA has got a better predictive power relative to the traditional accounting measures
19	Nagar 2007	EVA and MVA	Empirical	EVA values do have an impact on MVA of the companies

20	Wet & Toit 2007	EVA and MVA	Empirical	Impact of popular financial performance measures on shareholders' wealth.
21	Forker & Powell 2008	EVA and MVA	Empirical	Predictability and variability measures to investigate empirically therelative quality of Stern Stewart's measure of economic value added (EVA) compared to other measures
22	Fountaine et al. 2008	EVA and MVA	Empirical	EVA does provide economically useful information that can be used to forecast portfolio separation
23	Gandhi & Rajib 2008	EVA and MVA	Empirical	EVA can be used as strategy to achieve organizational objectives
24	Ismail 2008	EVA and MVA	Empirical	Value creators have better earnings multiplier than value destroyers
25	Lefkowitz 1999	EVA and MVA	Empirical	Empirical analysis of firms and industry related to EVA cross-sectional
26	Martin et al. 2003	EVA & Stock Returns	Empirical	Conceptual Theoretical foundations of residual income as a tool for evaluating firm performance
27	Dodd & Chen 1996	EVA & Stock Returns	Descriptive	Management and stock holder interests would be aligned by adopting EVA
28	Paulo 2002	EVA & Stock Returns	Descriptive	Relevance of EVA and Accounting Information
29	Bacidore et al. 1997	EVA & Stock Returns	Empirical	EVA performs quite well in terms of its correlation with shareholders value creation, but REVA is theoretically superior

30	Biddle et al. 1997	EVA & Stock Returns	Empirical	Earnings outperform EVA in explaining stock returns
31	Chen & Dodd 1997	EVA & Stock Returns	Empirical	Operating Income regressions show higher regressions than Residual Income& EVA regressions
32	Chen & Dodd 1997	EVA & Stock Returns	Empirical	Empirical evidences regarding superiority of EVA are provided
33	Biddle et al. 1998	EVA & Stock Returns	Empirical	Managers do respond to EVA incentives
34	Brown & Pierce 2000	EVA & Stock Returns	Empirical	UK dataset exhibits similar characteristics to empirical evidence in the US
35	Erdogan et al. 2000	EVA & Stock Returns	Empirical	Economic profit model and comparison with EVA
36	Farsio et al. 2000	EVA & Stock Returns	Empirical	EVA is not a good indicator of stock performance. It explains only a fraction of the variability inn stock returns fluctuations
37	Garvey & Milbourn 2000	EVA & Stock Returns	Empirical	Empirically estimate the value-added" of EVA by firm and industry
38	Ho et al. 2000	EVA & Stock Returns	Empirical	Internet companies and superiority of EVA
39	Cordeiro & Kent 2001	EVA & Stock Returns	Empirical	No significant relationship between EVA adoption and stock market performance
40	Jambulingam 2002	EVA & Stock Returns	Empirical	Relative performance of Pharmaceutical companies from various countries analyzed using EVA
41	Ferguson et al. 2005	EVA & Stock Returns	Empirical	Event study methodology to empirically investigate EVA adopting andnon- adopting companies

42	Medeiros 2005	EVA & Stock Returns	Empirical	The hypothesis that EVA affects stock returns is tested through linear regression, using alternative models in Brazilian stock exchange
43	Misra & Kanwal 2005	EVA & Stock Returns	Empirical	Empirical analysis of EVA and Stock returns in Indian Companies
44	Pandey 2005	EVA & Stock Returns	Empirical	Empirically explores profitability and growth as drivers of shareholder Value
45	Dimitrios et al. 2006	EVA & Stock Returns	Empirical	Stock returns are more closely associated with earnings per share than with EVA
46	Ferguson 2006	EVA & Stock Returns	Empirical	Event study on MVA – EVA relationship
47	Griffith 2006	EVA & Stock Returns	Empirical	Investment decision and value based measurement
48	Ismail 2006	EVA & Stock Returns	Empirical	UK empirical evidences regarding association of stock return between EVA and other accounting measures
49	Issham et al. 2006	EVA & Stock Returns	Empirical	Negative relationship between the size of the companies and the EVA
50	Maditinos et al. 2006	EVA & Stock Returns	Empirical	Relative information content tests revealed that stock returns are more closely associated with EPS than EVA
51	Palliam 2006	EVA & Stock Returns	Empirical	Empirical EVA as a tool for valuing investments
52	Wet & Hall 2006	EVA & Stock Returns	Empirical	Highlights the importance of economic profits (EVA) and their long-term effects on MVA.

53	Athanassakos 2007	EVA & Stock Returns	Empirical	Companies with better stock market performance exhibited higher likelihood of using EVA.
54	Nappi-Choulet et al. 2007	EVA & Stock Returns	Empirical	Sales of real estate assets can be driven by value maximizing behavior
55	Kyriazis&Anastassis2007	EVA & Stock Returns	Empirical	Net Income and Net Operating Income appear to be more value relevant than EVA.
56	Misra & Kanwal 2007	EVA & Stock Returns	Empirical	EVA is the single most significant explanatory variable in explaining the variation in the Market Value Added
57	Ramana 2007	EVA & Stock Returns	Empirical	No strong evidences to support Stern Stewart's claim in Indian companies
58	Erasmus 2008	EVA & Stock Returns	Empirical	Earnings have the strongest relationship with share returns
59	Taufik et al. 2008	EVA & Stock Returns	Empirical	Empirical EVA is superior to ROE &ROA in Banks Stock Returns
60	Wong 1999	EVA & Stock Returns	Exploratory &cross-sectional	Majority of the companies do not achieve the objective of creating shareholder value

PART III

Research Methodology And Data Source

Sample Selection

To test our hypothesis that EVA and MVA have positive relation, we need sizeable sample drawn from different industries. We also need necessary data for a period covering one business cycle. The criterion or sample selection has been availability of necessary information from the period of 2006-07 to 2010-11. The sample is selected from BSE-30 companies across industries first and then finally selected 5 on the basis of companies which provides EVA data.

Data Source

The data required for the present study related with EVA and MVA are collected through the original source i.e., Annual Report from official websites of the companies through internet. The data which included EVAs, Market prices of shares, no. of shares issued, net worth, turnover, and Profitability of the respective companies for the period from March 2007 to March 2010 were taken into account for further analysis.

Hypothesis

In order to test this hypothesis, Pearson correlation coefficient test has been applied on the two metric

variables viz. EVA with MVA, Turnover, Net worth and profitability. The correlation coefficient (r) indicates the strength of the association between two metric variables. The value can range from +1 to -1, with +1 indicating a perfect positive relationship, 0 indicating no relationship, and -1 indicating a perfect negative or reverse relationship. Table 2 describes the descriptive statistics related to the above companies select from BSE-30 companies for a period of five years (2006-10).

Table 2 - Descriptive Statistics of Original Data

	N	Minimum	Maximum	Mean	Std. Deviation
ACC_EVA	5	301	913	699.60	262.030
ACC_MVA	5	8824.17	21157.05	17040.38	4949.72
ACC_SA	5	6991	9439	7891.40	951.937
ACC_NOPAT	5	1120	1607	1322.20	197.293
ACC_NW	5	3142.92	6469.49	4941.81	1355.27
BHEL_EVA	5	1657	3793	2387.60	875.556
BHEL_MVA	5	10048	100417	51112.00	38169.90
BHEL_SA	5	18739	43337	29132.80	9949.78
BHEL_NOPAT	5	2454	5867	3662.60	1400.65
BHEL_NW	5	8788.26	20153.84	13714.49	4467.45
HH_EVA	5	485	1723	998.80	533.192
HH_MVA	5	13713.06	38787.06	23875.66	11114.70
HH_SA	5	9900	19245	13510.80	3952.65
HH_NOPAT	5	857.89	2231.83	1453.45	602.27
HH_NW	5	2470.06	3800.75	3135.62	511.96
HUL_EVA	5	1126	2154	1627.00	408.87
HUL_MVA	5	46357.26	61243.05	51715.69	5846.78
HUL_SA	5	12103.38	20239.33	16597.07	3552.15
HUL_NOPAT	5	1540	2501	2008	374.94
HUL_NW	5	1439.24	2723.49	2288.33	540.44
TCS_EVA	5	7115	27143	16001.60	7914.63
TCS_MVA	5	70080.0	265837.5	158178	75563.96
TCS_SA	5	532.02	1104.20	831.86	203.68
TCS_NW	5	8058.99	111004.81	33441.23	43554.86

The first hypothesis for the study is analysed as under:

H1o= EVA exhibits no significant relationship with MVA of an organization.

H11= EVA exhibits a significant relationship with MVA of an organization

Table 3 - Correlation between EVA and MVA

Name of The Company	Pearson Correlation (r)	Sig. (2-tailed)	Result
ACC	-.265	.667	Correlation Insignificant
BHEL	-.803	.102	Correlation Insignificant
Hero Motor Corporation	-.887*	.045	Correlation Significant
Hindustan Unilever	.509	.381	Correlation Insignificant
Tata Consultancy service	0.718	.172	Correlation Significant

* Correlation is significant at 0.05 level of significance.

Interpretation: The table 3 reveals that no correlation exists between EVA and MVA except Hero Motor Corporation (r= -.887, p=.045<.05).

The second hypothesis for the study is analysed as under:

H_{2o}= There is no correlation between EVA growth and turnover growth

H_{21}= There is significant correlation between EVA growth and turnover growth

Table 4 - Correlation between EVA and Turnover

Name of The Company	Pearson Correlation (r)	Sig. (2-tailed)	Result
ACC	-.898	.038	Correlation Insignificant
BHEL	.972	.006	Correlation Significant
Hero Motor Corporation	.853	.066	Correlation Insignificant
Hindustan Unilever	.959	.010	Correlation Significant
Tata Consultancy service	.853	.066	Correlation Insignificant

* Correlation is significant at 0.01 level of significance. (2-Tailed)

Interpretation: The table 4 reveals that no correlation exists between EVA and Turnover

In selected 3 companies while it is significant in case of BHEL (r= -.9727, p=.006<.01). and HUL (r=.959, p=.010<.01).

The third hypothesis for the study is analysed as under:

H_{30}= There is no correlation between EVA and Net Worth

H_{31}= There is significant correlation between EVA and Net Worth

Table 5 - Correlation between EVA and Net Worth

Name of The Company	Pearson Correlation (r)	Sig. (2-tailed)	Result
ACC	-.521	.367	Correlation Insignificant
BHEL	.976	.005	Correlation Significant
Hero Motor Corporation	-.472	.422	Correlation Insignificant
Hindustan Unilever	.022	.972	Correlation Insignificant
Tata Consultancy service	-.276	.653	Correlation Insignificant

* Correlation is significant at 0.01 level of significance. (2-Tailed)

Interpretation: The table 5 reveals that no correlation exists between EVA and Net Worth except BHEL (r= -.976, p=.005<.01).

The forth hypothesis for the study is analysed as under:

H_{4o}= There is no correlation between EVA and profitability (NOPAT)

H_{41}= There is significant correlation between EVA and profitability (NOPAT)

Table 6 - Correlation between EVA and Profitability

Name of The Company	Pearson Correlation (r)	Sig. (2-tailed)	Result
ACC	.816	.092	Correlation Insignificant
BHEL	.999	.000	Correlation Significant
Hero Motor Corporation	-.873	.053	Correlation Insignificant
Hindustan Unilever	.996	.000	Correlation Significant
Tata Consultancy service	.976	,005	Correlation Significant

* Correlation is significant at 0.01 level of significance. (2-Tailed)

Interpretation: The table 6 reveals no significant correlation exists between EVA and Profitability for ACC(r= .816, p=.092>.01) and Hero Motor Corporation (r= -.873, p=.053>.01). In the rest cases, a significant correlation has been noticed as p value is less than .01.

SECTION IV

Conclusion

MVA (Measure of value creation) and EVA (Economic value of wealth) both are proactive approach which provides the indication of the value shareholders earned and a return that compensated their risk. Studydoes not explain the determinants of MVA, but it only shows how well EVA acts as a genuine explanatory variable for creating value to the organization in order to justify its usefulness for performance measurement, shareholder value creation, executive compensation, and financial reporting. The study uncovers the fact that in the sample units, data correspond to MVA, EVA, Turnover, Net worth and Profitability for each company demonstrate no significance except EVA and Profitability.The positive direction of relationship in all the significant cases suggests that the profitability is an important factor for creating value in BSE-30 companies.

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