

An Empirical Study on Economic Value-Added and Market Value-Added of Selected Indian FMCG Companies

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This study examines if the selected seven Indian companies from FMCG sector listed on National Stock Exchange (NSE) have created shareholder value in terms of Economic Value-Added (EVA) and Market Value-Added (MVA) during the five years from 2010 to 2014. EVA is a trademark of Stern Stewart & Co, who conceptualized the term. Their contention is that EVA has got better predictive power in analyzing the financial performance of a company than other traditional methods like ROIC, EPS, ROA, ROS and ROE. In the present study, data of seven companies—Britannia, Marico, Dabur, ITC, HUL, Emami and Godrej—is analyzed to test the same. MVA is taken as a proxy for determining the market value of the firms. Correlation and multiple regression are used to test the claim. The study supports Stern Stewart's claim that EVA is a better predictor of market value of the firms as compared to EPS and is successful in indicating stronger relationship and relevance to capital markets than other traditional measures.

Introduction

With the rapidly growing knowledge of capital markets among the Indian public, the Indian stock markets have seen a surge in their operations, through both National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) in India. The Indian public have moved into alternative investments apart from their primary thrust of investment in land (i.e., realty) and gold, which were very much prevalent earlier.

With the launch of commodities market in various segments, ordinary households have also started making investments in stocks, bonds and futures and options. Lot many small to medium-sized companies have also entered the trading floor to sell their produce through the commodities market. They too have started their transactions in futures and options market. In short, it can be said that there has been an exodus into alternative investments like equities and bonds which has boosted the Indian economy.

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There has been growing concern about firms' performance and efficiency, and companies have started moving away from wealth maximization concept to shareholder value creation concept to prove their edge over their competitors. Many major Indian traditional companies, in order to compete on the global platform, are reworking their outlook and nature of their businesses to best fit in the global arena and are focusing on diversification of their products and also on creating an impact on the mindset of public regarding the 'look' and 'feel' of their businesses on the whole.

There are many measures available to assess a company's financial performance. With the introduction of the Economic Value-Added (EVA) concept, companies have revolutionized themselves and have become better equipped by maintaining global level standards. In a way, this concept has changed the outlook and perspective of companies all over the world in terms of doing their business and meeting the global standards and requirements.

Many Indian companies in various sectors like IT, FMCG, banking, pharmaceuticals, etc. have done well following this EVA concept as one of their strategies and found it to be more useful than other traditional measures such as Earnings per Share (EPS), Return on Invested Capital (ROIC), Return on Assets (ROA), Return on Sales (ROS), and Return on Equity (ROE) which were being followed till then to assess a company's efficiency and performance.

EVA, a trademark of Stern Stewart Consulting Organization, was introduced as a method to gauge the profitability of a concern. According to EVA concept, a company creates shareholder value only if it generates returns in excess of its cost of capital. In short, the excess of returns over cost of capital is termed EVA. The concept is a reincarnation of the residual income concept that existed earlier.

EVA is seen as the finest performance measure that comes closer to capturing the economic profit of an organization than any other measure and is most directly linked to the creation of shareholder wealth over time (O'Bryne, 1996; Uyemura *et al.*, 1996; Lehn and Makhija, 1997; and Worthington and West, 2004). On the other hand, there are other researchers who have found no support to Stern Stewart's hypothesis that EVA is positively related to stock returns and adds more to the wealth of shareholders (Biddle *et al.*, 1997; and Maditinos *et al.*, 2006).

According to Stewart, "EVA as an estimate of true economic profit, the amount by which earnings exceed or fall short of required minimum rate of return that the investors could get by investing in other securities of comparable risk." It is the net operating profit minus the appropriate charge for the opportunity cost of capital invested in an enterprise (both debt and equity).

Simply put, EVA is the profit generated by an economic entity over its cost of capital employed. If the difference between these two variables is positive, then the entity is said to be creating wealth for its shareholders, and a negative EVA indicates that the company is destroying wealth by not creating any value to its shareholders.

Using EVA, one can do the following to improve value creation (Damodaran, 2008):

- Increasing the operating income from assets by reducing costs or increasing sales;
- Reducing the cost of capital by using financial leverage; and
- Reducing the amount of capital tied up in existing projects, without affecting operating income significantly through reducing working capital investment and selling unutilized assets.

In fact, Stewart (1990) recommends that adjustments to EVA be made only in the following cases:

- The amounts are significant;
- The adjustments have a material effect on EVA;
- Operating people can readily grasp the adjustments; and
- The required information is relatively easy to track.

Against this backdrop, the present study examines the predictive power of EVA in analyzing the market value of firms as compared to its traditional counterparts.

Literature Review

Stern (1993) examined 100 companies from a total of 613 US listed companies and concluded that the key operating measure of corporate performance is not popular accounting measures such as earnings, earnings growth, dividends, dividend growth, ROE, or even cash flows, but in fact EVA. He found that the explanatory power of EVA was six times better than that of growth of EPS.

Lehn and Makhija (1997), in their study of 241 US listed companies over two periods (1987-1988 and 1992-1993), observed that both measures of firm's performance, EVA and Market Value-Added (MVA), correlated positively with stock returns and that the correlation was slightly better with EVA than with other traditional measures like ROA and ROE.

Uyemura *et al.* (1996) used a sample of 100 largest US banks for a 10-year period, from 1986 to 1995, to calculate MVA and to test the correlation with EVA, as well as four other accounting measures like Net Income (NI), EPS, ROE and ROA and concluded that EVA correlates best with regard to shareholder wealth creation.

Banerjee (1997) conducted an empirical research to find the superiority of EVA over other traditional financial performance measures. Ten industries were chosen and each industry was represented by four/five companies. ROI and EVA were calculated for sample companies and a comparison of both was undertaken, which showed the superiority of EVA over ROI. He inferred that Indian companies were gradually recognizing the importance of EVA.

Pattanayak and Mukherjee (1998) discussed, in their study, the new measure (EVA) to assess corporate income based on an economic concept and found it to be a superior technique compared to the existing traditional methods used for measuring corporate income.

Banerjee and Jain (1999) carried out a research on selected independent variables like EPS, EVA, Capital Productivity (Kp), Labor Productivity (Lp) and Adjusted Return on Net Worth (ARONW) for a time frame of eight years for selected sample companies and proved that EVA was a better explanatory variable when MVA was taken as the dependent variable and backward elimination method was applied to find the most explanatory independent variable.

Singh and Garg (2004) examined the disclosure of EVA by the Indian corporate. The study revealed that out of 50 companies, only 32 companies generated positive EVA, while 18 destroyed their shareholders' wealth in 1998.

Singh (2005) examined an appropriate way of evaluating a bank's performance and also found which Indian banks were able to create (or destroy) shareholder wealth during the period 1998-99 to 2002-03.

Sakthivel and Arjunan (2009), in their study, revealed that there is a positive relationship between EVA and MVA in the paper industry. They concluded that value creation based on EVA happened on a year-to-year basis with respect to companies of the paper industry.

Sakthivel (2011) concluded in his study that pharmaceutical companies have succeeded in meeting public expectations in terms of shareholder value creation through EVA either by increasing the operating income from assets in place through reducing the cost of production or increasing the sales, or reducing the cost of capital by changing the financing mix in the capital structure.

Reddy *et al.* (2011) compared EVA to traditional measures and concluded that EVA gives exact figures of how much the shareholder is going to get at the end of the accounting year and opined that EVA is the most appropriate measure for measuring the shareholder value.

Bhasin (2013) studied the application of EVA along with other conventional measures in five leading companies for a period of five years using trend and regression analysis and ANOVA and concluded that Stewart's claim that EVA is superior to other conventional measures could not be proved beyond doubt. But he opined that EVA is gaining popularity and is being used by the companies as a management tool for internal governance and control measures and made suggestions to SEBI that EVA statements should be made a part of audited annual reports for more transparency and better disclosure practices.

Objectives

The main objectives of the study are:

- To calculate EVA of the selected companies from FMCG sector—Britannia, Marico, Godrej Consumer Products, Dabur, ITC, HUL and Emami—which are listed on the NSE.
- To compare and extract any relationship, if it exists, between traditional measures like ROS, ROA, ROIC, ROE and EPS along with modern measures like EVA and MVA and see which of the measures best describe value creation of the companies.

Data and Methodology

The present study is mainly based on secondary data available in public domain. The study mainly calculates EVA of the selected companies in the FMCG sector and analyzes the trend and value creation in terms of shareholder wealth with regard to EVA. For the study, the financial data of the seven sample companies was collected from the financial statements of their annual reports downloaded from their respective websites. Information was also collected from CMIE's Prowess database, Moneycontrol.com yearly data and NSE website.

The information content was examined using statistical tools like regression and correlation. In order to study the relationship, the following were determined:

- Coefficient of correlation (r) between MVA and EVA and other accounting measures;
- Coefficient of variation for EVA and MVA and traditional measures with MVA;
- MVA was regressed over EVA; and
- MVA was regressed with other financial measures.

Variables Used in the Study

Calculation of EVA

While calculating EVA, the capital invested in the beginning of the year is taken as capital employed, indicating that the company would take at least one year to earn a return on its initial investment. EVA requires three inputs for its calculation as given below:

- Net Operating Profit After Taxes (NOPAT)
- Invested Capital (IC)
- Weighted Average Cost of Capital (WACC) = Weighted Cost of Equity
+ Weighted Cost of Debt

Thus, $EVA = NOPAT - (WACC * Invested\ Capital)$.

Net Operating Profit After Tax (NOPAT): Stewart (1990) defined NOPAT as the "profits derived from company's operations after taxes but before financing costs and non-cash bookkeeping entries." Such non-cash bookkeeping entries do not include depreciation since depreciation is considered as a true economic expense. In other words, NOPAT is equal to the income available to shareholders plus interest expenses (after tax).

Invested Capital or Capital Employed: The amount of capital employed by the firm can be derived from the balance sheet and the following notes in the annual report of the company. IC is taken as total of equity, reserves and long-term borrowings. From an operating perspective, IC can be defined as net fixed assets plus investments plus net current assets. From a financing perspective, the IC is net worth plus total borrowings. Total borrowings in this study are limited to long-term borrowings for arriving at the cost of debt without ambiguity across the industry.

IC = Total Equity + Long-Term Borrowings + Reserves

Weighted Average Cost of Capital (WACC): For calculating WACC, cost of each source of capital is calculated separately, then weights are assigned to each source on the basis of proportion of a particular source in the total capital employed. Weights can be assigned on market value basis or book value basis. Stewart suggested the market value basis.

WACC can be calculated as follows:

$$WACC = E/CE \times Ke + LTB/CE \times Kd$$

where

E = Equity Capital

CE = Capital Employed

LTB = Long-Term Borrowings

Ke = Cost of Equity Capital

Kd = Cost of Debt Capital

Therefore, WACC includes two specific costs, viz., (i) Cost of Equity (Ke), and (ii) Cost of Debt (Kd).

Calculation of Cost of Debt (Kd): Cost of debt is calculated by multiplying the pre-tax debt cost by $(1 - t)$, where t refers to the effective tax rate. This accounts for post-tax cost of debt. The post-tax cost of debt is calculated because debt cost enjoys tax shield. In other words, tax reduces the effective cost of debt. Cost of debt can be calculated by applying the following formula:

$$\text{Cost of Debt} = (\text{Total Interest Expense/Beginning Total Borrowings}) \times (1 - t) \times 100$$

Calculation of Cost of Equity (Ke): Cost of equity can be calculated from various other methods like dividend yield method, Gordon growth method or DCF method, bond yield method and CAPM. Stewart uses CAPM consistently as a measure for cost of equity in his methodology for computing EVA. Hence, in this study also CAPM is used to calculate the cost of equity. The CAPM is normally used to determine minimum required rates of return from investment.

The expected ROE can be calculated under CAPM by applying the following formula:

$$R_j = R_f + b(R_m - R_f)$$

where

R_j = Expected return on scrip j ;

R_f = Risk-free rate of return;

b = Beta representing the volatility of scrip j against market volatility; and

R_m = Expected stock market return.

Calculation of MVA

MVA shows the difference between the market value of a company and the capital contributed by its investors (both equity and debt). EVA is closely related to MVA which is the difference between the market value of corporate and the economic value of the capital the corporate procures and utilizes. MVA effectively measures the stock market's estimate of the net present value of a firm's past and expected capital investment projects.

Theoretically, a firm's MVA at a given point in time is equal to the discounted present value of the yearly EVA it generates. If MVA is positive, the firm has added value. If it is negative, the firm has destroyed value. The amount of value-added needed by the corporate should be greater than what the firm's investors could have made by investing in the market portfolio. Hence, the basis of EVA and MVA is found in the net present value concept used by many corporate in their capital budgeting decisions.

$MVA = EBIT * (1 - T)/IC$ which is equal to $NOPAT$ or IC

Calculation of Traditional Measures

Six measures are used in this study:

1. Return on Net Worth (RONW) = $NOPAT/Net\ Worth$
2. ROIC = $NOPAT/IC$
3. ROA = $Earnings\ Before\ Interest\ and\ Tax\ (EBIT)/Total\ Assets$
4. ROS = $EBIT/Sales$
5. ROE = $Profit\ After\ Tax\ (PAT)/Net\ Worth$, and
6. EPS (taken directly from the annual reports of the companies).

Data

The data sample for the present study consists of seven companies in FMCG sector which are listed on NSE. The study is based on the data taken from financial statements in their respective annual reports for the last five years, i.e., from 2009-10 to 2013-14. Five years data is considered so as to complete one business cycle for each company.

To compare and extract the relationship between traditional measures like ROS, ROA, ROIC, RONW and EPS along with modern measures like EVA and MVA, multiple regression analysis is done on EVA and MVA and each of the other traditional measures on MVA.

Results and Discussion

The theory of EVA rests on the assertion that a company is not truly profitable unless it earns a return on invested capital that exceeds the opportunity cost of capital.

Table 1: Economic Value-Added (EVA)							
EVA	ITC	HUL	Dabur	Emami	Godrej	Marico	Britannia
2010	0.2897	0.7646	0.5326	0.1896	0.3869	0.2402	0.1389
2011	0.3119	0.7058	0.2585	0.2494	0.3635	0.1649	0.1629
2012	0.3272	0.6191	0.2665	0.2902	0.2304	0.1874	0.1940
2013	0.3329	0.9017	0.2786	0.3516	0.2502	0.1498	0.2716
2014	0.3311	0.8564	0.3462	0.3823	0.3012	0.2613	0.4149
Mean	0.3186	0.7695	0.3365	0.2926	0.3064	0.2007	0.2365
SD	0.0181	0.1137	0.1150	0.0775	0.0684	0.0482	0.1116
CV (%)	5.6870	14.7785	34.1719	26.4790	22.3145	23.9964	47.1867

Table 1 depicts the EVA performance of the sample companies for the five-year period 2010-2014. It is observed that the five companies ITC, HUL, Dabur, Godrej and Marico show fluctuating EVA, whereas the other two companies, Emami and Britannia show increase in EVA gradually year-on-year. It is also observed that ITC with a coefficient of variation of 5.7% added value to its shareholders, while Britannia and Dabur with a high coefficient of variation of 47% and 34% respectively created less value to its shareholders. Thus the firms ITC, Emami and Britannia created EVA consistently reflecting their ability in earning economic profits in excess of their overall cost of capital. Though Britannia showed a positive EVA value and added value to its shareholders, the high variation factor indicates that it could not create much value to its shareholders by efficiently managing its capital.

According to Stewart (1994), shareholder wealth can be increased by adopting all or any of the following strategies by the companies:

- The firms should use their existing resources efficiently and effectively to improve their daily operating performance which results in receiving higher interest rates on their existing investments: Indian companies keep large or surplus funds without utilizing them effectively to earn greater returns. This fact is mainly due to the tradition and culture being followed by many Indian companies who hesitate to venture into new investments or new alternative investments for fear of losing their initial investments. Hence, they follow a conservative approach and the returns from it are far below expectation.
- Companies should invest additional capital in only those projects where return is more than the cost of capital: Indian companies in order to please their customers go to the extent of holding on to those projects which do not yield higher returns to the firm only to maintain the existing goodwill and brand loyalty. Hence, they do not shrink nor understand that the investments made in these unprofitable projects affect the firm and its customer base in the long run. But in recent times, it is observed that Indian companies are slowly moving out of their shell and

venturing to compete on the global platform either through disinvestments, diversification or shoring up on to new territories.

- Finally, to employ an optimal capital structure to bring down the cost of capital: Usually in the Indian scenario, management is run by old-generation people who hesitate to invest in new projects. They go about doing their business in a time-tested way which is mostly by the rule of the book. Though it creates goodwill and loyalty of the customers, the company fails to live up to the global standards in terms of innovative and competitive strategies, and they risk shareholder value creation in the long run.

Table 2 depicts the correlation relation of modern and traditional measures of all seven companies. Here the coefficient of correlation r (%) is calculated between MVA and each of the variables, and MVA is used as a proxy to market value of the firm. Maximum correlation is observed between MVA and EVA (95.70%) and ROIC (95.67%), followed by ROE (82.36%). The measure least correlated with MVA is ROS at 6.86%. This result supports Stewart's claim, as EVA shows better correlation with market value than EPS (27%).

Table 2: EVA, MVA and Other Traditional Measures							
Company Name	Modern Measure		Traditional Measure				
	MVA	EVA	ROE	ROIC	EPS	ROA	ROS
ITC	0.291	0.290	0.293	0.289	10.64	0.264	0.227
ITC	0.315	0.312	0.317	0.368	6.45	0.288	0.234
ITC	0.331	0.327	0.332	0.359	7.88	0.310	0.249
ITC	0.336	0.333	0.337	0.353	9.39	0.317	0.250
ITC	0.334	0.331	0.335	0.337	11.05	0.323	0.263
HUL	0.770	0.765	0.770	0.770	10.1	0.954	0.141
HUL	0.712	0.706	0.712	0.712	10.58	0.244	0.122
HUL	0.624	0.619	0.624	0.624	12.46	0.280	0.135
HUL	0.907	0.902	0.910	0.907	17.56	0.327	0.141
HUL	0.861	0.856	0.863	0.861	17.88	0.324	0.146
Godrej	0.129	0.387	0.129	0.388	8.28	0.165	0.125
Godrej	0.284	0.363	0.284	0.366	13.62	0.234	0.225
Godrej	0.239	0.230	0.239	0.232	18.58	0.212	0.259
Godrej	0.185	0.250	0.185	0.251	15.01	0.155	0.180
Godrej	0.187	0.301	0.187	0.301	16.6	0.159	0.177
Dabur	0.540	0.533	0.668	0.540	5.80	0.690	0.177
Dabur	0.264	0.258	0.517	0.264	3.30	0.294	0.174
Dabur	0.272	0.266	0.495	0.272	3.70	0.278	0.150
Dabur	0.283	0.279	0.492	0.283	4.40	0.341	0.155

Table 2 (Cont.)

Company Name	Modern Measure		Traditional Measure				
	MVA	EVA	ROE	ROIC	EPS	ROA	ROS
Dabur	0.351	0.346	0.482	0.351	5.20	0.364	0.161
Marico	0.245	0.240	0.471	0.245	3.90	0.300	0.125
Marico	0.168	0.165	0.358	0.168	4.70	0.216	0.118
Marico	0.190	0.187	0.352	0.190	5.20	0.170	0.112
Marico	0.152	0.150	0.262	0.152	6.10	0.156	0.125
Marico	0.264	0.261	0.511	0.264	7.50	0.246	0.156
Britannia	0.141	0.139	0.294	0.141	9.75	0.136	0.035
Britannia	0.165	0.163	0.322	0.165	12.16	0.134	0.047
Britannia	0.196	0.194	0.359	0.196	15.63	0.151	0.050
Britannia	0.275	0.272	0.367	0.275	19.57	0.197	0.059
Britannia	0.433	0.415	0.433	0.433	30.87	0.294	0.085
Emami	0.273	0.190	0.273	0.191	11.63	0.195	0.201
Emami	0.339	0.249	0.631	0.251	15.12	0.244	0.215
Emami	0.364	0.290	0.855	0.292	17.11	0.252	0.204
Emami	0.414	0.352	0.657	0.353	20.8	0.310	0.222
Emami	0.405	0.382	0.606	0.384	17.73	0.351	0.251
Correlation with MVA (%)		95.70	82.36	95.67	27.02	58.70	6.86

Table 3 provides a snapshot of the ROIC of the sample companies. ROIC is a traditional measure that gives a sense of how well a company is using its money to generate returns. Comparing a company's ROIC with its cost of capital (WACC) reveals whether the invested capital was used effectively. It is evident from Table 3 that all seven companies earned higher returns in a fluctuating manner year-on-year in spite of the economic fluctuations in

Table 3: Return on Invested Capital (ROIC)							
ROIC	ITC	HUL	Dabur	Emami	Godrej	Marico	Britannia
2010	0.289	0.770	0.540	0.191	0.388	0.245	0.141
2011	0.368	0.712	0.264	0.251	0.366	0.168	0.165
2012	0.359	0.624	0.272	0.292	0.232	0.190	0.196
2013	0.353	0.907	0.283	0.353	0.251	0.152	0.275
2014	0.337	0.861	0.351	0.384	0.301	0.264	0.433
Mean	0.341	0.775	0.342	0.294	0.308	0.204	0.242
SD	0.031	0.114	0.116	0.078	0.069	0.049	0.118
CV (%)	9.1638	14.703	33.798	26.352	22.310	23.9351	48.894

the market scenario due to global economic turmoil, inflation and currency fluctuations. HUL shows the highest ROIC of 77.5% and Marico the lowest at 20.4%.

The coefficient of variation is highest for Britannia (48.89%), followed by Dabur (33.79%). The least coefficient of variation is observed for ITC at 9.16%, followed by HUL at 14.7%. Table 2 shows the correlation of ROIC with MVA is 95.67% which tells us that this measure is positively correlated to MVA or one of the best traditional measures influencing the market value of the firm similar to the modern measure EVA.

Table 4 presents the ROE of the sample companies that measures a corporation's profitability by revealing how much profit a company generates with the money invested by shareholders. It is also known as the return on net worth of a firm. Shareholder's equity does not include preferred shares. The higher the ROE ratio, the more efficient is the management in utilization of its funds. It reflects that these companies were able to provide the equity investors with better returns per rupee of their investments.

ROE	ITC	HUL	Dabur	Emami	Godrej	Marico	Britannia
2010	0.293	0.770	0.668	0.273	0.129	0.471	0.294
2011	0.317	0.712	0.517	0.631	0.284	0.358	0.322
2012	0.332	0.624	0.495	0.855	0.239	0.352	0.359
2013	0.337	0.910	0.492	0.657	0.185	0.262	0.367
2014	0.335	0.863	0.482	0.606	0.187	0.511	0.433
Mean	0.323	0.776	0.531	0.604	0.205	0.391	0.355
SD	0.018	0.115	0.078	0.210	0.059	0.100	0.053
CV (%)	5.626	14.836	14.686	34.759	28.834	25.613	14.846

The ROE values show a fluctuating trend during the five-year period from 2010 to 2014. ROE is highest for HUL (77.6%), followed by Emami (60.4%) and Dabur (53.10%). On the other hand, ROE is least for Godrej (20.5%), followed by Britannia (35.5%) and Marico (39.1%).

Table 2 shows that the correlation between ROE and MVA is 82.36%, which tells us that this measure is positively correlated to MVA, or after ROIC and the modern measure EVA, it is one of the traditional measures that influence the market value of the firm. The coefficient of variation is lowest for ITC (5.6%), followed by Dabur and HUL at 14.69% and 14.84% respectively. The highest variation is seen for Emami at 34.76%, followed by Godrej Consumer Products Limited (GCPL) at 28.83%.

Table 5 shows the EPS of the sample companies, which is a measure reflecting the profitability of the firm on per equity share basis. In general, the higher the EPS, the better it is and vice versa. It is evident from the table that the EPS values varied across the sample firms. The maximum and minimum values of EPS, on an average, were for Emami Limited (₹16.48) and Dabur Limited (₹4.5), respectively.

EPS	ITC	HUL	Dabur	Emami	Godrej	Marico	Britannia
2010	10.640	10.100	5.800	11.630	8.280	3.900	9.750
2011	6.450	10.580	3.300	15.120	13.620	4.700	12.160
2012	7.880	12.460	3.700	17.110	18.580	5.200	15.630
2013	9.390	17.560	4.400	20.800	15.010	6.100	19.570
2014	11.050	17.880	5.200	17.730	16.600	7.500	30.870
Mean	9.082	13.716	4.5	16.478	14.418	5.480	17.596
SD	1.921	3.762	1.033	3.391	3.897	1.383	8.293
CV (%)	21.156	27.426	23.057	20.579	27.029	25.233	47.128

Moreover, it is seen that consistent increase in EPS over the five years is observed for HUL, Marico and Britannia. Britannia shows the highest coefficient of variation (47.13%) during the five-year period, followed by HUL (27.43%) and Godrej (27.03%).

It is observed from Table 2 that the correlation between EPS and MVA is lowest (27.02%), which implies that it almost has no influence on the market value of the firm. This finding confirms Stern Stewart's claim that EVA is a better predictor of market value of the firm than EPS.

Table 6 shows the ROA of the sample companies. ROA tells us how efficiently the firm's management is using its assets in generating earnings for the company. It shows us the amount of revenue being generated using the total assets of the company. Companies with large initial investments generally have lower ROA.

ROA	ITC	HUL	Dabur	Emami	Godrej	Marico	Britannia
2010	0.264	0.954	0.690	0.195	0.165	0.300	0.136
2011	0.288	0.244	0.294	0.244	0.234	0.216	0.134
2012	0.310	0.280	0.278	0.252	0.212	0.170	0.151
2013	0.310	0.327	0.341	0.310	0.155	0.156	0.197
2014	0.317	0.324	0.364	0.351	0.159	0.246	0.294
Mean	0.298	0.426	0.393	0.270	0.185	0.217	0.182
SD	0.021	0.297	0.169	0.061	0.036	0.058	0.068
CV (%)	7.2105	69.7540	43.0303	22.5332	19.3971	26.9091	37.0653

It is evident from Table 6 that HUL has the highest ROA value (42.6%), followed by Dabur (39.3%), while Britannia has the lowest ROA value (18.2%), followed by Godrej (18.5%). Likewise, HUL also shows the highest coefficient of variation (69.75%) during the five-year period, followed by Dabur (43.03%) and Britannia (37.07%). ITC has ROA of

around 30% and coefficient of variation of 7.2% showing that it is balancing its assets in a more structured way towards greater earnings and profitability of the firm, followed by Emami on similar lines.

It is observed from Table 2 that the correlation between ROA and MVA is 58%, which implies that this traditional measure causes more than 50% influence on the market value of the firm. Generally speaking, when the shareholders or investors feel that the company is investing its assets they expect higher returns from that asset or from its operations, which acts as a feel-good factor for them to invest in that firm, and it surely impacts the firm's performance on the market bourses. Likewise, non-operational assets of the firm make investors feel low about the firm.

Table 7 presents the ROS of the sample companies. ROS, which is also known as operating margin, is also used to evaluate a firm's operational efficiency. ROS indicates how much profit an entity makes after paying for variable costs of production such as wages and raw materials, but before paying interest and tax. An increasing ROS indicates the company's higher efficiency, while a decreasing ratio indicates a firm's financial trouble, though in some instances, a low ROS can be offset by increased sales.

ROS	ITC	HUL	Dabur	Emami	Godrej	Marico	Britannia
2010	0.227	0.141	0.177	0.201	0.125	0.125	0.035
2011	0.234	0.122	0.174	0.215	0.225	0.118	0.047
2012	0.249	0.135	0.150	0.204	0.259	0.112	0.050
2013	0.250	0.141	0.155	0.222	0.180	0.125	0.059
2014	0.263	0.146	0.161	0.251	0.177	0.156	0.085
Mean	0.244	0.137	0.163	0.218	0.193	0.127	0.055
SD	0.014	0.009	0.012	0.020	0.051	0.017	0.019
CV (%)	5.8610	6.6434	7.2528	9.2525	26.3985	13.3089	34.0567

Table 7 shows that ITC and Britannia show increasing ROS levels, while all other firms show a fluctuating trend over the five-year period. Coefficient of variation determines how much volatility (risk) can be assumed in comparison to the amount of return from investment. Britannia shows the highest coefficient of variation of 34.06% with the lowest mean ROS value of 5%. This means that Britannia is not operating at its best efficiency. ITC, on the other hand, has the lowest coefficient of variation (5.8%) and the highest ROS value of 24.4%, indicating that it has better operational efficiency as compared to other sample firms.

It is observed from Table 2 that the correlation between ROS and MVA is lowest at 6%, which implies that this traditional measure has almost no influence on the market value of the firm.

Multiple Regression Analysis

First, multiple regression is done on EVA and MVA, followed by multiple regressions of each of the traditional measure and MVA separately to find which of the measures have more effect on the market value of the firm. As observed from Table 8, EVA explains 92% of variations in MVA ($R^2 = 91.592\%$). The coefficient reveals that for every one unit of increase in EVA, there would be a 0.987 unit increase in market value of the firm.

Table 8: Multiple Regression Results – EVA and MVA						
Regression Statistics						
Multiple R	0.957038129					
R Square	0.91592198					
Adjusted R Square	0.913374161					
Standard Error	0.05923211					
Observations	35					
ANOVA Results	df	SS	MS	F	Significance F	
Regression	1	1.261259	1.261259	359.49259	2.59772E-19	
Residual	33	0.115779	0.003508			
Total	34	1.377037831				
	Coefficients	Standard Error	t-Stat	p-Value	Lower 95%	Upper 95%
Intercept	0.002724	0.020856	0.130613	0.896875	-0.039707	0.045155
EVA	0.986733	0.052042	18.960290	0.000000	0.880853	1.092614

The line of best fit is positive and intercepts the y-axis at 0.0027. This model is significant as the F -statistic has a p -value way below 0.05, which means that this model holds good at 99% confidence level and hence can be considered.

Second, multiple regression is done on all traditional measures with MVA to find which of these measures have more effect on the market value of the firm. As observed from Table 9, the traditional measures together explain 97% of variations in MVA ($R^2 = 96.709\%$). The line of best fit is negative and intercepts the y-axis at -0.09456 .

This model is significant as the F -statistic has a p -value way below 0.05, which means that this model holds good at 99% confidence level for ROE and ROIC, whereas for EPS it holds good at 90% confidence level and for ROA and ROS it does not hold significant.

Hence, it can finally be concluded through multiple regression analysis that all measures like EVA, ROIC, ROS, ROA, EPS and ROE are positively related to MVA, i.e., the market value of the firm. Correlation and regression tests prove that EVA ($R^2 = 92\%$) is a superior measure than EPS (7%) for assessing the performance of the company in terms of its market value supporting Stern Stewart's claim that EVA is a better market predictor than EPS in measuring the profitability and market receptivity of the firm.

Table 9: Multiple Regression Results – Traditional Measures with MVA						
Regression Statistics						
Multiple R	0.983412053					
R Square	0.967099265					
Adjusted R Square	0.961426725					
Standard Error	0.039525442					
Observations	35					
ANOVA Results	df	SS	MS	F	Significance F	
Regression	5	1.331732	0.266346	170.48786	1.41666E-20	
Residual	29	0.045306	0.001562			
Total	34	1.377038				
	Coefficients	Standard Error	t-Stat	p-Value	Lower 95%	Upper 95%
Intercept	-0.094567	0.026474	-3.572134	0.001260	-0.148711	-0.040423
ROE	0.291147	0.047437	6.137519	0.000001	0.194127	0.388167
ROIC	0.735512	0.052708	13.954525	0.000000	0.627712	0.843311
EPS	0.001842	0.001191	1.546344	0.132866	-0.000594	0.004279
ROA	0.040367	0.058849	0.685944	0.498196	-0.079993	0.160728
ROS	0.096820	0.109622	0.883209	0.384386	-0.127383	0.321022

As can be observed from the annual reports of these seven sample companies, many firms like HUL, Marico, Godrej and Dabur use EVA in their internal management and governance to compete globally and to place themselves strategically well on the global platform. If the concept of EVA is followed meticulously by the firms, it helps in the long run in ensuring the financial performance and operational efficiency of the company on a par with those companies that get the global attention by following the highest standards.

Conclusion

In the present era of globalization, the corporate sector in India is gradually recognizing the importance of EVA, as a result of which some Indian companies like HUL, Marico, Godrej, Dabur, etc. have started calculating EVA, making disclosures in their annual reports, and are also using EVA for different managerial purposes.

Although EVA and MVA have received considerable attention in recent years and are used by many prominent US firms, there has been limited application of these modern performance measures in the Indian scenario. The present study, done using the data of seven selected companies from the FMCG sector listed on NSE for a period of five years, 2010-2014, supports the claim that EVA is a better performance indicator than the traditional accounting measures in explaining market value of a firm, which implies that EVA is the

best measure that drives market value and should be taken into account for shareholder value creation or for performance measurement of the companies.

It is evident from the study that EVA and MVA are significantly positively correlated than other traditional measures, proving their effectiveness as performance measures. The results suggest that EVA and MVA are effective performance measures that can be adopted by the firms to be on a par with global standards as basis for standardization in improving the overall performance and efficiency of the firms. In order to lure global companies to invest in India, it would be beneficial if all the companies listed on NSE and BSE start divulging EVA calculations along with EVA values and respective EVA statements in their annual reports. HUL is the only company in the FMCG sector which gives EVA calculation in detail. It is strongly recommended that other companies should follow suit as it would help researchers, analysts, investment bankers, fund managers and individuals along with shareholders and fledging investors to assess the company on its fundamentals.

Limitations and Scope for Future Studies: This study uses only seven companies of the FMCG sector for a period of five years, hence limitation is observed in these two areas. Future studies can be conducted with more companies for more years. The present study is a very short one-period study. A comparative study with samples drawn from different time periods and longer time periods will enable a comparison of firm performance and might be an improvement in this area of research. ■

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