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A Study of Economic Value Added Disclosures in the Annual Reports: Is EVA a Superior Measure of Corporate Performance?

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Abstract

This paper explains the concept of Economic Value Added (EVA) that is gaining popularity in India. We also examine whether EVA is a superior performance measure, both for corporate disclosure and for internal governance. Of late, companies in India have started focusing on shareholders wealth creation by adopting value-based models for measuring shareholder value that helps to align managerial decision-making with the firm preferences. In recent years, the EVA framework is gradually replacing the 'traditional' measures of financial performance on account of its robustness and its immunity from 'creative' accounting. Even though some leading Indian companies have already joined the band wagon of their American counterparts in adapting the EVA-based corporate performance systems, many other are hesitating as there is no strong evidence that the EVA system works in India. Till now, EVA disclosures are "not mandatory for the Indian companies." Also, we examine the value-creation strategies of selected Indian companies by analyzing whether EVA better represents the market-value of these companies in comparison to conventional performance measures. The study indicates that "there is no strong evidence to support Stern Stewart's claim that EVA is superior to the traditional performance measures in its association with MVA." As part of this study, we have also extensively surveyed the EVA disclosures in the Annual Reports made by the same sample group of 500 corporations from India.

Keywords: Economic Value Added, Annual Reports, Corporate Performance Measure, Shareholders Wealth, Value Based Management, Empirical Analysis.

1. Introduction

Investors, creditors, analysts and other stakeholders are now requiring much more insight into companies' performance, strategic direction, governance and exposure to risk, information that is often captured and synthesized through disclosures and financial reports. Historically, private and publicly-listed companies in India have disclosed only as much information as is mandatorily required. According to FTI Consulting (2015) report, "Today, increasing regulatory activism and international institutional investors are demanding additional disclosures from India's 9,000 plus listed companies, in the interest of improving corporate governance and removing information asymmetries in the capital markets. The low scores for 'mandatory' and 'voluntary' disclosure demonstrate the need for a shift in strategic thinking at the board-level and in the senior management teams of publicly-listed Indian companies. Bridging the gaps in 'mandatory' disclosure requires a stricter adherence to 'Fair Disclosure' principles when engaging with the investment community. On voluntary disclosure, Indian companies have a lot of work ahead of them to improve the manner in which Management Quality is perceived externally." In the 21st century, investors, creditors, analysts and other stakeholders are now requiring much more insight about company's performance, strategic direction and exposure to risk. "When disclosure gets to be 'too much' or strays from its core purpose, it could lead to what some have called 'information overload' — a phenomenon in which ever-increasing amounts of

disclosure make it difficult for an investor to wade through the volume of information she receives to ferret out the information that is most relevant,” says SEC Chair Mary Jo White (2013). In addition, several other regulators, standard setters and organizations around the world are undertaking similar disclosure effectiveness projects. At the same time, the disclosure process has never been more unsettled. Both the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) had already issued disclosure-related proposals in 2014. Meanwhile, Securities and Exchange Commission (SEC) has made her agency’s disclosure effectiveness initiative a priority. These regulatory changes, coupled with the proliferation of web-based and social-media channels, creating a new environment for disclosures and investor communication. With regulators and standard setters now looking at how to make corporate disclosures more effective, companies can take steps now to make their own disclosures more meaningful. As Bhasin (2016) pointed out, “The problems with disclosures are well known. As the volume of disclosures has grown, regulators and financial statement users have repeatedly said that disclosure documents contain too much boilerplate and are so repetitive that it is difficult for investors to find the most important information. Meanwhile, some investors and other users have called for new disclosures or improvements in existing ones.”

Successful companies work on getting their story out in a useful, understandable, and reliable way, especially in today’s challenging operating environment. They want to cut through all the noise and be heard. Clearly explaining and demonstrating how the company is generating value leads to stronger relationships with its varied stakeholders. Management has the greatest ability to act immediately and help deliver information that is relevant, clear, and easily understood. Companies that have successfully streamlined their disclosures by focusing on relevant and material information cite many benefits, as per E&Y (2014) report, including: (a) Increased investor confidence due to communication of more meaningful information, (b) Greater efficiency in preparing investor communications and auditing disclosures, (c) Improved coordination throughout the organization, including the board of directors, and with regulators and external advisers, and (d) Strengthened market reputation and leadership

Companies that want to make their disclosures more effective will need to consider time, cost and resource constraints, as well as regulatory disclosure requirements. Developing appropriate processes to enhance disclosures often requires planning and support from executive management and the Audit Committee; outreach to investors; and coordination with lawyers, auditors and other advisers. Recently, Bhasin (2016a) stated, “Financial statements and related disclosures have long served as the main source of information for investment and financing decisions. Today’s challenge is to make the traditional tools of communicating financial information more efficient, accessible and relevant.” Increasingly, stakeholders are demanding additional types of information—about governance, environmental impact and social policy, for starters. They are clamoring for “simplification.” And they are turning, more and more, to websites, social media channels and other forms of digital dissemination to obtain “real time” data and share insights. Tomorrow’s challenge will be to get to the next level — to move from a defined system of discrete reports to an ongoing process of dynamic reporting. Better presentation, structure and writing will help the entire spectrum of your financial communications, from annual reports and 10-K/10-Q forms to proxy statements, investor and analyst presentations and even earning calls. Here, Bhasin (2006) added: “New tools need to be added as well: integrated and interactive reports; enhanced charts, graphics and links; XBRL and other means of data tagging; and a rich menu of recorded presentations.” A study by Baygi and Javadi (2015) shows that “timeliness of information has positive effect on the creation of economic value added. However, disclosure quality, reliability, and firm size do not effect on economic value added. Companies with greater return on assets produce greater economic value added.”

According to Thilakerathne (2015), “Transparency, disclosures and information sharing with stakeholders, command a considerable degree of value to the accompanying financial statements of any corporate or business enterprise. Investors and stakeholders are increasingly looking at the performance of companies which they have invested their hard earned funds. Further, the study recommends the importance of implementing EVA disclosures as a mandatory requirement for Sri Lankan listed companies.” To meet such expectations, good governed companies do adopt practices which add to enhance the value of financial statements and value to its readers. Thus, the EVA is one of main evaluation criteria of companies’ commitment with shareholder value maximization. EVA in its simplest form provides a more accurate measure of profitability than “plain net income” because it measures how well a company has performed in relation to the amount of capital employed. Here, Bhasin (2013) concludes, “EVA is the performance that most directly links financial performance with the creation of shareholder wealth over time. Another way to look at EVA is if a business returns more value than it has consumed, it has created value. If it returns less value it has destroyed wealth. EVA has been able to gain attention of the corporate giants like Coca-Cola, Sprint Corporation and Quaker Oats, as it is able to depict the true profitability of the company.” Even though some leading Indian companies have already joined the band wagon of their American counterparts in adapting the EVA-based corporate performance systems, many other are hesitating as there is no strong evidence that the EVA

system works in India (Sarkar, 2011). However, there has been very little research conducted on EVA in Asian countries

2. Concept of EVA

The term 'EVA' is the acronym for "Economic Value Added" and is a registered trade-mark of Stern Stewart & Co. of USA. Really speaking, EVA is a financial performance measure that most accurately reflects company's true profit (Stewart, 1991). EVA is calculated "after subtracting the cost of equity capital and debt from the operating profits." EVA is nothing but a new version of the age-old "residual income (RI)" concept recognized by economists (Alfred Marshall) since the 1770's. EVA is based on RI concept which states that wealth is created when revenues are sufficient to cover a firm's operating costs and cost of capital (Kumar and Sharma, 2011; Kaur and Narang, 2009). Unless it covers its cost of capital, it does not create wealth.

EVA has been defined in various ways. As Bhasin (2013a) stated "EVA measures the difference between the return on company's capital and the cost of that capital. EVA is a measurement of the true economic profit generated by a firm and is calculated by comparing a firm's net operating profit after tax (NOPAT) to the total cost all its forms of capital which includes debt as well. Accordingly, EVA represents company's profit which is net of the cost of both debt and equity capital invested in the business." EVA computation includes number of adjustments based on the GAAP based figures. In fact, Stewart (1991) argued that about 164 adjustments needed in calculation EVA. Therefore, it is likely that EVA users are to abandon any measurement of value creation from accounting principles. According to Stewart, EVA is a residual return measure that subtracts the cost of invested capital from NOPAT. At it's the simplest form and can be calculated by the following equation:

$$\text{EVA} = \text{NOPAT} - (\text{WACC} * \text{IC})$$

Where:

NOPAT=Net Operating Profit After Tax,
WACC=Weighted Average Cost of Capital,
IC = Invested Capital (total assets).

Rationale: The returns earned have to be related to the Cost of Capital Employed while taking investment decisions by the firm.

Utility:

- The ratio indicates whether over a given period there has been an excess of earnings over the Cost of Capital Employed.
- Higher ratio increases the possibility for higher dividends and increase in the market price of the share due to increase in the intrinsic value of the share.
- The ratio calculated for 5 to 6 years showing the trend line for a given company indicates that whether the future of the company is bright or not.

Applicability: It is used to calculate excess of the annual Net Operating Profit after Taxes over the annual Cost of Capital Employed by the firm in absolute terms (rupees). The concept of Economic Value Added (EVA) has revolutionized the ways in which companies are evaluated. To make the data comparable absolute EVA figures are converted into relative figures by applying the following formula:

$$\text{EVACE} = \frac{\text{EVA}}{\text{CE}} \times 100$$

Where,

EVACE = Economic Value Added as a % of Capital Employed.

EVA = Economic Value Added.

CE = Capital Employed (Debt + Equity).

There exists a significant relationship between:

- i) Economic Value Added and Earning Per Share, and
- ii) Economic Value Added and Market Price of share in stock exchange/markets.

There exists a relationship between two traditional parameters of shareholders wealth creation, viz. Earnings Per Share and Share Price in stock exchange/ market and the modern parameter 'Economic Value Added'.

EVA is positive if NOPAT exceed the cost of financing. The authors of EVA state that, in this case, the company has created shareholder value. On the other hand, when EVA is negative, the company is destroying the value of the shareholder. Some criticize EVA as being a very 'complex' framework that relies on 'complicated' calculations. The "Cost of Capital" calculation is particularly difficult to calculate and prone to errors that lead to grossly misleading results. Also, EVA is not easily understood by the majority of employees because of its complex framework and calculations.

3. Is EVA a Superior Performance Measure?

Corporate performance measurement is one of the emerging areas of research in finance among the researchers all over the world. Several studies are carried out to find out what influences the share price (market price) of a company. Here, Bhasin (2008) asserted, "Corporate performance is affected by various factors, ranging from company specific, industry specific and economic variables. EVA is the performance measure most directly linked to the creation of shareholder wealth overtime. EVA is the single measure of performance, enabling investors to identify investment opportunities and motivate managers to make value added business decisions." However, Stewart (1994) argues that "EVA is a superior measure as compared to other performance measures on four counts: (a) it is nearer to the real cash flows of the business entity; (b) it is easy to calculate and understand; (c) it has a higher correlation to the market value of the firm, and (d) its application to employee compensation leads to the alignment of managerial interests with those of the shareholders, thus minimizing the supposedly dysfunctional behavior of the management. The last two merits can be considered as a reflection of the first two. If EVA truly represents the real cash flows of a business entity and it is easy to calculate and understand, then it automatically follows that it should be closely related to the market valuation and it should minimize the 'dysfunctional' behavior of the management when used as an incentive measure. In other words, close relation to market valuation and convergence of managerial interests with shareholders' interests is a vindication of EVA as a 'superior' metric. In this context, Bhasin (2007) observes, "When EVA becomes the singular focus of all decisions, it establishes clear and accountable links between strategic thinking, capital investments (economic returns), operating decisions (accounting returns), and shareholder value (shareholder returns)." However, the results of a study conducted by Alipour and Pejman (2015) indicated that "EVA has no superiority over other performance measures, and that return on sales and return on assets are more powerful than EVA in explaining firm market value. Due to EVA's lack of correlation with market value, investors cannot use it as an internal value creation measure along with the traditional performance measures."

In fact, EVA is a performance metric that captures the true economic profit of a company. Stewart (1991) claims, "Earnings, earnings per share, and earnings growth are misleading measures of corporate performance and that the best practical periodic performance measure is EVA. EVA is the financial performance measure that comes closer than any other measure in capturing the true economic profits of an enterprise. EVA also is the performance measure most directly linked to the creation of shareholder wealth overtime." Using the results from in-house research by the company, Stewart (1994) further adds that "EVA stands out well from the crowd as the single-best measure of wealth creation on a contemporaneous basis and is almost 50% better than its closest accounting-based competitor (including EPS, ROE and ROI) in explaining changes in shareholder wealth." Truly speaking, EVA is based on the concept that "a successful firm should earn at least its cost of capital. Firms that generate higher returns than the cost of financing would benefit the shareholders and result in increased shareholders wealth." As Bhasin (2013b) observed, "EVA was developed to help managers to incorporate two basic principles of finance in their decision-making, namely, maximizing shareholders' wealth and investors' expectations that differ from cost of capital. Unlike conventional measures of profitability, EVA helps the management and other stakeholders' to understand the capital charges. It is an 'integrated' approach to all decisive areas of financial management system." As Keys et al., (2001) describes, "Indeed, many highly regarded corporations (including Coca-Cola, AT&T, Quaker Oats, Briggs & Stratton, CSX, and Toys R Us) have switched to EVA for investment decisions, capital reallocation, business combinations, and performance evaluation of managers and divisions." "The main 'strength' of the EVA is that it offers an indicator of wealth creation that aligns the goals of plant or division managers to the general corporate goals. However, it also has certain 'limitations,' particularly when it comes to size differences, financial orientation,

short-term orientation and results orientation. In the light of these shortcomings, managers would do well to complement EVA with other financial measures to create a balanced pool of measures that cover all performance areas relevant to the success of the organization,” said Bhasin (2010).

The selling point of EVA is that it considers economic profits and economic capital in order to know the “value created and destroyed” by an organization during a particular period. Economic profit and economic capital is calculated “by making certain adjustments into the accounting profits.” However, there exist anomalies in the academic literature about the number of adjustments required to reach economic profit and economic capital. Anderson et al., (2004) assert that “EVA provides a valuable framework for converting wrong accounting numbers into correct estimates of value...Accounting adjustments are much ado about nothing.” Stern-Stewart and Company had suggested 164 such accounting adjustments to convert Generally Accepted Accounting Principles (GAAP) profits to economic profits (Weaver, 2001). As Bhasin (2010a), stated, “From the study of literature, it can be concluded that accounting adjustments to EVA range between 5 and 16. The nature and number of adjustments differ from one firm to another based on facts, such as, sector, accounting policy followed by the company and the country GAAP. There is no universal set of adjustments or method followed in practice for the calculation of EVA.” “Another important point in calculation of EVA is “calculation of the weighted average cost of capital.” As suggested by various researchers, cost of equity capital under EVA may be calculated using capital assets pricing model (CAPM). Various researchers have used CAPM to calculate the cost of equity thereby establishing the empirical validity of EVA calculation,” said Bhasin (2011).

The EVA based performance measurement system is the basis on which the company should take appropriate decisions related to the choice of strategy, capital allocation, merger & acquisitions, divesting business and goal setting. While deciding resource allocation it becomes necessary to appreciate the EVA impact of such decision (Rakshit, 2006). A firm can motivate its managers to direct their effort towards maximizing the value of the firm only by, first measuring the firm value correctly and secondly, by providing incentives to managers to create value. Both are interdependent and they complement each other (Shil, 2009). This paper examines the effectiveness of Economic Value Added (EVA) in improving the performance of the firm as a whole and also as a measure of performance. Finally, it can be concluded that irrespective of whether EVA is linked to share prices or not, EVA style of managing companies with the goal of value enhancement is here to stay.”

In a conversation with Ferracone (2016), Stewart pointed out that “In my world, ‘CPI’ stands for ‘corporate performance index.’ It is a percentile score of financial excellence relative to a company’s business peers and is the result of applying four key ‘health tests’ that come from the EVA model. Together, the four tests cover the totality of corporate performance from a shareholder point of view.” The four tests are:

- EVA Momentum—measures the trend growth in EVA profits over the past three years.
- EVA Margin—measures the current EVA profit as a percent of revenue. As a thumb rule, the higher this number, the more profitable and productive the business.
- Market-to-Book Premium – represents wealth creation, expressed as a percentage of revenue.
- Buy-side Consensus –measures the forward-looking EVA growth rate that is implied by the company’s stock price. I find this fourth test most interesting. Unlike the so-called consensus EPS, which is an opinion survey, the buy-side consensus measures just how well a company is strategically positioned for profitable growth based on what shareholders are actually paying for the stock.

Two of the measures—economic profit margin (EVA margin) and wealth creation (Market-to-book premium)—are current snapshots of how the company is creating value. The other two factors (EVA momentum and Buy-side consensus) are more dynamic, and reflect the actual recent historical and expected trend growth in EVA. The companies that rise to the top of the CPI tables are best positioned for sustained growth in value compared to peers.

- Moreover, a study conducted by Khan et al., (2016) concluded that “EVA does not prove to be a superior measure of performance as compared to other accounting based measures. Rather in the test of relative information content, it was found that EVA does not have any explanatory power in predicting the stock price of Pakistani firms.” However, another recent study by Gupta and Sikarwar (2016) found that “EVA has more relevant and incremental information content than accounting measures for analyzing shareholder value creation. These results confirm that EVA is better performance measure than traditional accounting measures.” Furthermore, the result of Almomani (2016) study indicates that “there is a significant as well inverse relationship between (ROA) and earnings management. Also, the study found that modern performance indicators are able to interpret earnings management, where the results indicate that there is a significant as well as inverse relationship between (EVA), and (Tobin's-q) and earnings management.”

4. Review of Literature

Literature on the corporate EVA reporting practices in India is not well developed till date. All the Indian studies dealing with EVA disclosures are company specific. Thenmozhi (1999) made a 'comparative' study of how the traditional performance measures are comparable to EVA. Working on a sample of 28 companies for a period of three financial years, he found that "only 6 out of the 28 companies have positive EVA, while the others have negative. 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." However, Bhattacharyya and Phani (2000) revealed certain important shortcomings in the EVA statement of Infosys Technologies Limited regarding the absence of any GAAP-based accounting adjustment and uniformity of Beta variant over a period of four years. The article concluded that "EVA should at least be adapted as a corporate philosophy for motivating and educating us to differentiate between value creating and value destructing activities." Moreover, Ray (2001), based on his study, observed as "the missing link between EVA and improved financials is actually productivity." EVA can be a powerful tool when properly applied. Similarly, Sangameswaran (2002) provided the steps that Tata Consultancy Services (TCS), India's leading software company, has followed to implement EVA. It also stated that how the shareholders' goal of value creation is linked to their employees' performance incentives.

Dhamija (2008) discussed the disclosure practices being followed by Indian companies in reporting EVA and incorporated the case analysis of EVA reporting by 'Hindustan Unilever Limited.' However, Vishwanath (2009) discussed the implementation of EVA financial management system at 'Godrej Consumer Products Limited' (GCPL), a leading FMCG company in India. The study explained three elements of EVA program followed by GCPL: (i) EVA centres, (ii) operational practices of EVA drivers which improve EVA results, and (iii) EVA-based incentive program for bonus-eligible managers. In another study, Kaur and Narang (2008) attempted to analyze and compare the EVA statement as disclosed by Satyam Computer Services Ltd, with the actual EVA created by the company after providing for GAAP-based accounting adjustments given by the founders of EVA concept. The study suggested companies and accounting professionals to prepare EVA statement scientifically and then publish it in the annual reports.

Irala (2005) examined whether EVA has got a better predictive power relative to the traditional accounting measures, such as, EPS, ROCE, RONW, capital productivity and labor productivity. "Using the Indian dataset for six years across 1,000 companies, the results supported the claim that EVA is the better predictor of market value compared to the other accounting measures." Similarly, Rakshit (2006) analyzed the financial performance of 'Dabur India Limited' by using EVA. He concluded that "the EVA based performance measurement system is the basis on which the company should take appropriate decisions related to the choice of strategy, capital allocation, merger & acquisitions, divesting business and goal setting." While deciding resource allocation it becomes necessary to appreciate the EVA impact of such decision. In another study about Indian companies, Misra and Kanwal (2007), argued that accounting-based metrics are misleading measures of corporate financial performance as they are vulnerable to 'accounting distortions'. Results of their study reveal that "EVA (per cent) is the most significant determinant of MVA as it explains the variations in share value better than the other conventional accounting-based measures of firms' financial performance." Moreover, Vijaykumar (2010), in his study supported the hypothesis of Stern & Stewart's that "MVA of firms was largely positively associated with EVA in all selected sector of Indian Automobile industry." In addition, Kumar and Sharma (2011) examined a sample of 873 firms-year observations from the Indian market and applied 'pooled' ordinary least-square regression to test the relative and incremental information content of EVA and other accounting-based measures in explaining the market value added.

However, the objective of the study, done by Patel and Patel (2012), was "to determine shareholders value (in terms of EVA) of selected private-sector banks during the last five years, i.e. since 2004-05 to 2009-2010. For none of the bank EVA has impact on share price, except EVA by Kotak Mahindra bank did have significant impact on stock price of Kotak Mahindra bank." Similarly, as per a study undertaken by Singh and Mehta (2012), "the sample selected for the study comprised of 9 IT companies for the period 2003-04 to 2007-08. The study provides empirical evidence on the relative and incremental information content of EVA and traditional performance measures, earnings and cash flow. The inference of this study is that IT companies should always try to maximize shareholders value, else their stocks will not be able to stand in the market." In his research study, Bhasin (2013) examined 5 Indian companies. This study is primarily based on the 'secondary' sources of data and covers a period of five years from 2006-07 to 2010-11. Various statistical tools like ANOVA, regression analysis and trend analysis were used for analyzing the data. The study indicated that EVA is superior to the traditional performance measures in its association with MVA.

Sharma and Grover (2015) in their study examined shareholder value creation in Indian companies by adopting EVA model. The sample size consists of 30 Sensex companies from 2009-2013. The study reveals that both dividend and capital structure have influence on the Shareholder Value Creation. Recently, Ellanti (2016) examined three pharmaceutical companies and EVA was calculated for 2012-2015. However, Pandya (2016) analyzed the impact of financial leverage on market value added in the context of companies listed on Bombay Stock Exchange. The study covers 197 companies from 2010 to 2014. Univariate linear regression and multiple regression analysis are used to test the relationship between measures of financial leverage and market value added. The results show that “interest cover is the most significant predictor of market value added by companies.”

From this brief review of literature, it is evident that the scholars have given much importance to EVA while measuring performance, or value creation of any company. Therefore, one cannot deny the present necessity of an exclusive study in this field. Moreover, we believe that it is important to make a further contribution to the literature by conducting a new study using the Indian market and find out the empirical validity of Stern & Stewart’s EVA hypothesis.

5. Objectives and Methodology

This study covered five leading and globally well-known Indian companies, namely, Bharat Heavy Electricals (www.bhel.com) Limited, Hero MotoCorp (www.heromotocorp.com) Limited (formerly known as Hero Honda Motors Corporation), Infosys Limited (www.infosys.com), L&T Limited (www.larsentoubro.com), and TCS Limited (www.tcs.com). The present study aims to achieve the following objectives:

- (a) To examine whether the sample companies has been able to generate value for its shareholders;
- (b) To analyze the effectiveness of Economic Value Added over the conventional measures of corporate performance;
- (c) To figure out the relationship between EVA, RONW, ROCE and EPS;
- (d) To indicate whether the significant differences, if any, exists between the actual values of EVACE and time factor of the sampled companies; and
- (e) To survey the EVA disclosure practices of the sampled Indian companies.

Present study is primarily based on the ‘secondary’ sources of data and covers a period of five years from 2006-07 to 2010-11. However, all the relevant data for the purpose of this study have been extracted from the company’s Annual Reports and other information given on their Websites. In addition to the various ‘conventional’ performance measures, such as, Return on Capital Employed (ROCE), Return on Equity (ROE), and Earnings Per Share (EPS), a ‘value-based’ metric, “Economic Value Added (EVA)” has also been used. For the purpose of current study, “both time series and regression approaches are used for analyzing the data.” Moreover, the trend values of EVACE for different years have been calculated using trend analysis. In order to test the significance of the trend and actual EVACE, Chi-square test has also been used. Besides, ANOVA is used for comparing means of the sample companies. In this study, all the required data analysis has been carried out by using the SPSS 17.0 and E-views 5.1 software.

6. Empirical Results and Analysis

“Basically, the theory of EVA rests on two principal assertions: first, a company is not truly profitable unless it earns a return on invested capital that exceeds the opportunity cost of capital; and second, that wealth is created when a firm’s managers make positive Net Present Value (NPV) investment decisions for the shareholders,” said Bhasin (2013c).

Table 1 depicts the Economic Value Added (EVA) performance of the sample companies for the five years period during 2006 to 2011. The analysis of the table very clearly reveals that “the EVA in absolute figures of BHEL, L&T and TCS has increased over the study period.” However, the EVA of Infosys Limited registered a slight decline (from Rs. 3379 to 2936 crores and Rs. 2732 crores) during the last two fiscals ended March 2010 and 2011. It can be inferred that, on an average basis of five years, the maximum (Rs. 4,662.2 crores) and minimum (Rs. 692.8 crores) EVA were posted by the TCS Limited and L&T Limited, respectively. A careful study of the results of Coefficient

of Variation shows that Infosys (with 18.8% variations) has been able to add value for its shareholders on a consistent basis, followed by L&T (26.5% variations) as evident from their “least” estimates. Thus, the ability to create EVA “consistently” shows the ability of the two firms, especially BHEL and TCS, in earning economic profits in excess of their overall cost of capital.

Table 1: Economic Value Added (EVA) (Rs. in Crores)

Year	Hero MotoCorp	BHEL	Infosys	L&T	TCS
2006-07	485	1657	2122	591	3283
2007-08	575	1810	2286	890	3724
2008-09	835	2008	3379	890	3737
2009-10	1723	2670	2936	590	5759
2010-11	1376	3793	2732	503	6808
Mean	998.8	2387.6	2691.0	692.8	4662.2
Std. Deviation	533.2	875.6	505.7	183.5	1536.7
Coefficient of Variation	53.4%	36.7%	18.8%	26.5%	34%

Source: Extracted from the Annual Reports of respective Companies

As summed up by Bhasin (2011), “To increase EVA corporations should focus their business strategies in the following four ways. First, companies must utilize their existing resources more efficiently to improve their operating performance, resulting in higher rates of interest on existing capitals. Second, companies should invest additional capital in only those projects where return is more than the cost of capital. Third, to withdraw (or shrink) capital from the unprofitable projects yielding negative Net Present Value. Last, but not the least, to employ an optimal capital structure to drive down the cost of capital.”

Basically, EVA capital employed (EVACE) attempts to establish the relationship between ‘EVA’ and ‘average’ capital employed by the company. **Table 2** describes the EVA Capital Employed (EVACE) performance of the sample companies during the five year period, from 2006-07 to 2010-11, of study. A careful analysis of the table reveals that three companies, namely, TCS Limited, Hero MotoCorp and BHEL have amply “rewarded their investors with an EVA Capital Employed” of 39.31, 29.00 and 26.55 % (on an average basis), while the ‘lowest’ value for the same was posted by L&T Limited (5.41%). In sharp contrast to this, ‘higher’ variability in EVACE is seen in the case of L&T Limited, which is evident from its “highest” (57.7%) coefficient of variation.

Table 2: EVA Capital Employed (EVACE) (Figures in %)

Year	Hero MotoCorp	BHEL	Infosys	L&T	TCS
2006-07	20.10	29.89	23.2	8.48	47.74
2007-08	20.00	27.99	18.2	8.48	38.93
2008-09	23.90	25.91	19.4	5.54	30.49
2009-10	46.50	23.14	13.6	2.67	40.22
2010-11	34.50	25.84	10.6	1.86	39.16
Mean	29.00	26.55	17.00	5.41	39.31
Std. Deviation	11.43	2.54	4.95	3.12	6.12
Coefficient of Variation	39.40%	9.6%	29.1%	57.7%	15.6%

Source: Computed by the author from the Annual Reports of respective Companies

“In fact, return on capital employed (ROCE) seeks to relate the profits with that of the total capital employed by a company. It provides sufficient insight into how efficiently the long-term funds of owners and lenders are being used by the company. As a rule-of-thumb, “the higher the ratio, the more efficient is the use of capital employed,” says Bhasin (2012). **Table 3** shows the ROCE of the selected sample companies. During the five years of study period, the ROCE about all the firms showed considerable ups and downs. However, the “mean” ROCE during the five years period were posted at 51.12% by Hero MotoCorp, followed by 44.58% by TCS Limited, and 41.39% by BHEL. At the same time, higher variability in ROCE was especially noticed in the case of two companies, viz., Hero MotoCorp (27.4%) and L&T (14.9%). However, the extent of variation was found to be least in the case of BHEL (6.6%) and TCS (6.8%), respectively.

Table 3: Return on Capital Employed (ROCE)

(Figures in %)

Year	Hero MotoCorp	BHEL	Infosys	L&T	TCS
2006-07	43.48	42.84	45.99	20.70	49.87
2007-08	41.57	41.56	41.52	21.10	42.92
2008-09	43.33	36.95	42.90	18.50	43.27
2009-10	75.07	41.37	37.30	15.90	42.46
2010-11	52.13	44.25	37.60	15.10	44.38
Mean	51.12	41.39	41.06	18.26	44.58
Std. Deviation	14.01	2.74	3.67	2.72	3.04
Coefficient of Variation	27.4%	6.6%	8.9%	14.9%	6.8%

Source: Computed by the author from the Annual Reports of respective Companies

As pointed out by Bhasin (2015), “The return on equity (ROE) ratio indicates the ability of the firm in generating profit per rupee of equity shareholders’ funds. As a rule-of-thumb, “higher the ROE ratio, the more efficient is the management and the utilization of funds.” **Table 4** attempts to provide a snapshot of the return earned by the selected companies on their equity capital employed during the period of study. A careful analysis of the table reveals that ROE values showed fluctuating trend during the five years period of study from 2006-07 to 2010-11. The “highest” average ROE was reported by Infosys Limited (75.05%), which was followed by Hero MotoCorp (46.10%), and TCS Limited (39.84%). It reflects that these companies were “able to provide the equity investors with better returns per rupee of their investments” when compared to other firms selected for the purpose of this study. Unfortunately, BHEL and L&T were two companies with the lowest mean ROE of 27.03% and 23.74%, respectively. It is also divulged from the analysis that BHEL showed “consistent” performance in ROE as evident from its least (7.4%) coefficient of variation. Similarly, the coefficient of variation was also found to be second lowest in the case of TCS (11.1%) and Infosys Limited (11.8%). Unfortunately, the “highest” variation (37.1%) was noticed in the case of Hero MotoCorp.

Table 4: Return on Equity (ROE)

(Figures in %)

Year	Hero MotoCorp	BHEL	Infosys	L&T	TCS
2006-07	34.73	27.48	88.81	26.8	46.62
2007-08	32.41	26.53	71.12	28.2	41.34
2008-09	33.72	24.25	78.84	24.7	35.13
2009-10	64.41	27.08	68.75	20.7	37.30
2010-11	65.21	29.82	67.73	18.3	38.80
Mean	46.10	27.03	75.05	23.74	39.84
Std. Deviation	17.11	2.0	8.84	4.15	4.41
Coefficient of Variation	37.1%	7.4%	11.8%	17.5%	11.1%

Source: Computed by the author from the Annual Reports of respective Companies

“Really speaking, the earnings per share (EPS) measure the profitability of the firm on per equity share basis. In general, higher the EPS, better it is and vice-versa,” concludes Bhasin (2016b). The summary of EPS in respect of five companies during the five years is reported in **Table 5**. It is evident from the table, “the EPS values showed a decline across the sample firms for the last fiscal ended March 2011.” The maximum and minimum values of EPS, on an average basis, were recorded by the Infosys Limited (a high of Rs. 92.07 crores) and TCS Limited (a low of Rs. 39.92 crores), respectively. Moreover, it is seen that “consistency” in EPS was marked by TCS (19.14%), followed by Infosys (19.93%) and L&T (20.93%). Unfortunately, Hero MotoCorp has recorded EPS (41.41%) and BHEL (30.39%) that showed variability on a “higher” magnitude during the 5 years study period.

Table 5: Earnings Per Share (EPS)

(Figures in Rs.)

Year	Hero MotoCorp	BHEL	Infosys	L&T	TCS
2006-07	43.0	98.66	67.83	50.22	38.39
2007-08	48.5	58.41	78.24	75.59	46.07
2008-09	64.2	64.11	101.65	46.30	47.92
2009-10	111.8	88.06	100.37	71.49	28.62
2010-11	96.5	122.80	112.26	64.16	38.62

Mean	72.80	86.41	92.07	61.55	39.92
Std. Deviation	30.15	26.26	18.35	12.88	7.64
Coefficient of Variation	41.41%	30.39%	19.93%	20.93%	19.14%

Source: Computed by the author from the Annual Reports of respective Companies

The empirical results of ANOVA are summarized in **Table 6**. It is evident from the table that the calculated values of ‘F’ are 19.72, 16.51, 25.38 and 5.03 for EVACE, ROCE, ROE and EPS, respectively. The F-critical value is 2.89 at 5% level of significance. Since the calculated value being higher than the critical value at 5% significance level, the null hypothesis is rejected as against the alternative hypothesis. Thus, it can be concluded that EVACE, ROCE, ROE and EPS of sample companies differ significantly.

Table 6: Results of ANOVA—EVACE, ROCE, ROE and EPS

Source of Variation	SS	DF	MS	F	P-value	F-critical value
EVA Capital Employed (EVACE)						
Between Groups	3295.51	4	823.88	19.72	1.03E-06*	2.87
Within Groups	835.48	20	41.77			
Total	4130.99	24				
Return On Capital Employed (ROCE)						
Between Groups	3088.33	4	772.08	16.51	4E-06*	2.87
Within Groups	935.54	20	46.78			
Total	4023.87	24				
Return On Equity (ROE)						
Between Groups	8353.03	4	2088.26	25.38	1.37E-07*	2.87
Within Groups	1645.74	20	82.29			
Total	9998.77	24				
Earnings Per Share (EPS)						
Between Groups	8692.83	4	2173.21	5.03	0.005691*	2.87
Within Groups	8637.89	20	431.89			
Total	17330.67	24				

(Note: SS=Sum of Squares, DF=Degree of Freedom, MS=Mean Square, *Significant at 5% significance level)

Trend values of EVA capital employed (EVACE) are computed by using least square trend equation. In order to test the statistical significance of the results, Chi square test is used. The results of trend analysis of EVACE and Chi square are summarized in **Table 7**. The following are the calculated values of chi square test in respect of the sample companies: Hero MotoCorp (6.59), BHEL (0.36), Infosys (0.53), L&T (0.49) and TCS (3.14), respectively. It is apparent from the table that the calculated values of chi square test in all the sample companies are less than the critical value of 9.49. Thereby, the null hypothesis is accepted in all cases. As Bhasin (2013a) stated, “By and large, it is inferred that differences between the original and trend values are not significant in statistical sense, and the same is attributed to sample fluctuations.”

Table 7: Empirical Results of Trend Analysis of EVACE and Chi Square Test

Parameter	Hero MotoCorp	BHEL	Infosys	L&T	TCS
Intercept	29.00	26.55	17.00	5.41	39.31
Coefficient	5.53	-1.30	-2.98	-1.91	-1.59
Chi Square computed value	6.59	0.36	0.53	0.49	3.14
Level of significance	5%				
Degree of freedom (n-1)	4				
Chi Square critical value	9.49				
Results	H0 Accepted	H0Accepted	H0 Accepted	H0Accepted	H0Accepted

One purpose of the present study is “to derive the relationship that exists between EVACE and traditional measures of corporate performance.” Based on the data, **Table 8** describes the results of Karl Pearson’s correlation. It is evident that in the case of Hero MotoCorp Limited, ROCE and EPS are “highly” correlated with EVACE at 5% significance level. The values of ROE and EVACE were “highly” correlated at 1% significance level in case of Hero MotoCorp Limited and TCS Limited. There is no significant relationship between EVACE and traditional performance measures in case of BHEL. The results of Infosys Limited show that there is significant relationship between ROCE and EVACE, and ROE and EVACE at 5% and 1% significance level, respectively. Further, in the case of L&T Limited, ROCE and ROE were correlated with a higher magnitude with EVACE (5% level). Thus, it can be broadly concluded: “ROCE and ROE moves in tandem with EVACE at a higher degree.”

Table 8: Karl Pearson’s Correlation Matrix (EVACE, RONW, ROCE, EPS)

HeroMoto Corp	EVACE	ROCE	ROE	EPS
EVACE	1			
ROCE	.965**	1		
ROE	.912*	.805	1	
EPS	.973	.879*	.943*	1
BHEL	EVACE	ROCE	ROE	EPS
EVACE	1			
ROCE	.215	1		
ROE	.020	.954*	1	
EPS	-.062	.751	.873	1
Infosys	EVACE	ROCE	ROE	EPS
EVACE	1			
ROCE	.968**	1		
ROE	.902*	.939*		
EPS	-.829	-.776	-.683	1
L&T	EVACE	ROCE	ROE	EPS
EVACE	1			
ROCE	.998**	1		
ROE	.981**	.989**	1	
EPS	-.188	-.165	-.145	1
TCS	EVACE	ROCE	ROE	EPS
EVACE	1			
ROCE	.737	1		
ROE	.888*	.841	1	
EPS	-.513	-.049	-.065	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

7. Survey of EVA Disclosures in the Annual Reports of Indian Corporations

Even though some leading Indian companies have already joined the band wagon of their American counterparts in adapting the EVA-based corporate performance systems, many other are hesitating as there is no strong evidence that the EVA system works in India. Till now, EVA disclosures are “not mandatory for the Indian companies.” However, an attempt has been made to compile the list of EVA-disclosing Indian companies, after a thorough examination of each company’s annual reports for the year 2010-2011. Kaur and Narang (2011) in their study had analyzed the Annual Reports of India’s largest 500 companies, from 2004 to 2008 to “examine the extent of Economic Value Added (EVA) disclosing practices prevalent in Indian corporate sector.” They also identified the industry composition, preferred medium of EVA disclosure, areas of EVA applications and extent of EVA-related computations made and disclosed by the EVA disclosing companies. The researchers concluded as: “It reveals that just 37 companies (7.4 per cent of the sample) specifically mentioned the use of EVA metric in their public disclosures. There exist significant inconsistencies and irregularities in the measurement of EVA and its major components by the EVA disclosing companies.”

Following the lead shown by the above stated study, we have also extensively surveyed the EVA disclosures in the Annual Reports made by the same sample group of 500 corporations from India. Some of our major findings are summarized below.

Out of 500 Indian companies, there were 17 companies, which specifically mentioned about the use of EVA as a measure of corporate financial performance and decision making. **Table 9** provides their names, industry affiliations, medium of EVA disclosures and EVA applications, specific to each company. It reveals that firms which have adopted EVA during 2010-11 are not concentrated in one industry group; they belong to diverse industrial groups. However, out of the 17 EVA disclosing companies during 2010-11, the largest number, 5 companies (29.4%), belong to the computer software and hardware industry. For example, some of the leading companies belonging to this industry are Tata Consultancy Services Ltd, Infosys Technologies Ltd, Oracle Financial Services Software Ltd (OFSS), Rolta India Ltd, and Nucleus Software Exports Ltd., respectively. However, the next largest number (three companies) belongs to Cosmetics, Toiletries and Soaps Industry (viz., Hindustan Unilever Ltd., Godrej Consumer Products Ltd. and Emami Ltd). However, it is followed by two companies from Chemicals industry (Godrej Industries Ltd., Pidilite Industries Ltd.), followed by one EVA reporting company from Drugs and Pharmaceuticals Industry (Unichem Laboratories). The remaining companies (Hero Honda Motors Ltd., Balrampur Chini Mills, Marico Ltd., Larsen & Toubro Ltd., and Vesuvius Ltd.) that belong to different industries have been placed under the 'Others' category.

From the perspective of Indian EVA disclosing companies during 2010-11, it is observed that 8 companies prefer to make a "Separate Section" (EVA statement, ratios, charts etc.) in their Annual Reports for reporting their EVA performance. Such companies include Infosys Technologies, Hindustan Uniliver, Hero Honda Motors, Godrej Consumer Products, Balrampur Chini Mills, Pidilite Industries, Rolta India, and Nucleus Software Exports Ltd. The next preferred medium of disclosure is the "Financial Highlights," where most of the companies present EVA figures through charts and ratios by depicting 5-10 years financials at a glance. In 6 companies, "Management Discussion & Analysis" (MD&A) section of the Annual Report has been used as a medium of such disclosure. Besides this, "other sources" used by Indian companies for EVA disclosures are Director's Report, Corporate Governance Report, Additional Information to Shareholders, and Notes to accounts. Several companies, however, are using more than one medium to disclose EVA-related information in their Annual Reports.

Recently, Bhasin (2016c) reported that "all the EVA disclosing Indian companies use EVA measure in combination with the traditional performance measures like profits, ROI, EPS, Return on Capital Employed (ROCE). This means that no company has dropped the use of the long-established accrual 'accounting-based' measures after adopting EVA. It is because, in contrast with the mandatory disclosure requirement of these long established financial metrics, EVA disclosure is 'voluntary' as far as Indian corporate sector is concerned." Moreover, Indian stock markets seem to be more responsive to the traditional performance measures like Earnings, EPS and ROI than the new 'value-based' performance measure EVA (Ramana 2004). Further, Kramer and Pushner (1997) also explained that as the market being fed almost with the constant news on earnings, it is not surprising that it is not much responsive to EVA in short-run been applied. The study explored that two most common uses of EVA in Indian companies are business/financial performance measurement and measurement of shareholder value enhancement. Seven companies out of 17 mentioned EVA measure being applied in Incentive Payments and Equitable Reward System of the companies, whereas four companies referred the target setting as the motivation behind EVA implementation. To summarize, the results suggest that the motivation behind the EVA calculation and disclosure by Indian companies is its ability to measure the true economic performance of the entity.

Table 9: EVA Disclosing Indian Companies during 2010-11

Company	Industry	Medium of disclosure	EVA Ratio	EVA Statement	EVA Applications
Tata Consultancy Services Ltd.	Computer software	MD&A, CG Report	No	No	Remuneration policy: EVA based variable pay
Infosys Technologies	Computer software	Additional information to shareholders	EVA chart	Yes	Shareholder value enhancement
Hindustan Unilever Ltd.	Cosmetics, toiletries and soaps	Financials-additional information, director's report, performance trends	EVA Trends	Yes	To enhance business performance and target setting
Larsen & Toubro Ltd.	Civil engineering	MD&A	EVA chart	No	To enhance performance, value creation and

					equitable reward system
Hero Honda Motors Ltd.	Two-three wheelers	Financial highlights, MD&A, Key ratios	EVA/CE (%)	Yes	Measure to evaluate financial performance and shareholder value enhancement
Oracle Financial Services	Computer software	10-year financials at a glance	EVA chart	No	Financial performance measurement
Godrej Consumer Products Ltd.	Cosmetics, toiletries and soaps	MD&A, Performance highlights	EVA chart	Yes	Shareholder value enhancement, policy making
Balrampur Chini Mills	Sugar	Separate section	No	Yes	Shareholder value enhancement
Marico Ltd.	Vegetable oils	Performance at a glance and 10-year highlights	EVA added per share	No	To evaluate financial performance
Godrej Industries Ltd.	Other organic chemicals	CG Report, Chairman's Letter and notes to accounts	No	No	Shareholder value measure, target setting, performance linked variable remuneration
Pidilite Industries Ltd.	Misc. chemicals	MD&A	EVA/capital employed (%)	Yes	Performance measurement, evaluation
Rolta India Ltd.	Computer software	Separate section		Yes	Performance measurement, evaluation
Emami Ltd.	Cosmetics, toiletries and soaps	Separate section	Yes; EVA as a % of capital employed	No	To evaluate business performance and goal setting
Sundaram Fasteners Ltd.	Automobile ancillaries	MD&A			Financial performance measurement
Unichem Laboratories	Drugs & pharmaceuticals	5-Year financial highlights, key ratios	Yes	No	Financial performance measurement
Nucleus Software Exports Ltd.	Computer software	Separate section	EVA chart	Yes	Shareholder value enhancement
Vesuvius India	Refractory	Director's report, year at a glance	EVA chart	No	Not specified

(Source: Compiled by the author from the Annual Reports of the EVA Reporting Indian Companies.)

The maximum number of companies disclosing EVA can be observed in the year 2007, whereas a recent fall in interest in EVA disclosing can be seen in the succeeding year 2008. Unfortunately, 10 companies seem to have dropped the EVA disclosure in the time span of one year from 2007 to 2008 (Kaur and Narang, 2008). Similarly, 20 companies have already stopped EVA disclosures from 2007-2008 till 2010-11. Furthermore, there is an irregularity of EVA disclosures by most of the EVA-disclosing Indian companies. "There are some well-known companies, which are making an exception to the others by making continuous use and disclosing EVA measures in their annual reports. Some notable examples are, Infosys, Hindustan Uniliver, Godrej Consumer Products, Hero Honda Motors, etc. Unfortunately, there exists significant inconsistencies and irregularities in the measurement of EVA and its major components by the EVA disclosing companies," said Bhasin (2016d). Thus, the study reveals that more than 90 per cent of the India's largest companies do not disclose for EVA 'created', or 'lost' by them. Most of the companies do not calculate EVA strictly. Rather, they take 'casual' approach in calculating and disclosing this information to their shareholders and other market participants.

Moreover, Indian companies also avoid EVA disclosures due to its 'complex' methodology that involve higher expenses on EVA consultancy and legal fees. Hence, the findings have implications for SEBI, Company Law Board, Department of Company Affairs, Government of India, ICAI and the related parties that they should "recognize the need to make EVA disclosing mandatory in Indian corporate sector." To enhance the decision usefulness of public disclosing, there is a need to establish separate accounting standard for EVA computation and disclosure. Recently, Bhasin (2016a) stated, "The success of EVA framework is possible, if professional chartered accountants and auditors understand the EVA methodology thoroughly so as to make EVA-related disclosures more accurate and reliable for the 'investors' and 'external' users of annual reports." Further, not using EVA as "a part of compensation and incentive payment" is one of the common mistakes that firms make when converting to EVA. Thus, the introduction of EVA disclosure as a "mandatory" disclosure and its scientific computation will reap benefits in terms of shareholder value enhancement only when it is implemented as a "performance measurement" tool linked with the employees' compensation and incentive payment system of the companies.

8. Conclusion and Recommendation

EVA is the most misunderstood term among the practitioners of corporate finance. The proponents of EVA claim that EVA is superior to other metrics, as it is the financial performance measure that comes closer than any other measure, in capturing the true economic profit of an enterprise, helps managers to make better decisions and motivates them to perform better. For instance, Panigrahi et al., (2015) reported, "Due to no mandatory to disclose EVA in the annual report of the companies, this concept is not popular. But if the companies calculate EVA and disclose them in annual report, the confidence level of shareholders will improve which will eventually benefit the organization in the long term survival." Recently, Bhasin (2016), stressed that "EVA has attracted many of the world's best managed and largest corporations to implement EVA as performance measurement system, such as, AT&T, Bausch & Lomb, Briggs and Stratton, Coca-Cola, Du-Pont, Eli Lilly, General Electric, General Motors, Herman Miller, IBM, Pepsi, Quaker Oats, Siemens, US Postal Service, etc." The clarity that EVA has brought to the pursuit of shareholder value has led more than 500 companies to adopt the discipline since Stern & Stewart Company introduced the new system way back in 1982.

In a market-driven 'Indian' economy, there are "a number of firms that create wealth, whereas a large majority of them destroys it." Companies need to improve their financial performance from the point of view of shareholder's value addition. Non-creation of EVA leads to investor dissatisfaction. This in turn affects the equity mobilization activities of corporate sector that significantly impact the economy (Reddy et al., 2011). In fact, EVA is both a measure of 'value' and also a measure of 'performance'. The empirical results of the study do not support the claim that EVA is a better performance indicator than traditional accounting measures in explaining market value. This implies that there are other factors that drive market value and should be taken into account for shareholders' value creation or for performance measurement. At present, "it seems prudent to use both traditional metrics and value added metrics, accompanied by information that explains how the less familiar value-added metrics work. Reliance on a single measure is not warranted." The advent of this concept has provided flexibility to the management in measuring the performance of their business operations. Unfortunately, investors' hard-earned money is still being misused in unprofitable projects, resulting in shareholders' wealth destruction (Sakthivel, 2010).

"The need of the hour is to improve the practices prevalent in the corporate sector of India today. But, despite being touted as today's hottest financial idea and getting hotter, it is by-and-large being ignored by the corporate sector, professionals and government bodies in India. A number of companies have started disclosing EVA statements, as additional information, in their Annual Reports. Unfortunately, annual published reports still lack transparency and adequate disclosures," said Bhasin (2016e). The present study examined the "value creation strategies" of the selected Indian companies by analyzing whether the EVA better represents the market value of companies in comparison to conventional performance measures. However, from this study it can be suggested that "Indian listed companies should improve their EVA to the shareholders by considering the cost of capital invested. Some experts contend that "EVA has got better predictive power in analyzing the financial performance of a company than other traditional methods. For example, study by Eswara and Venkat (2015) "supports Stern Stewart's claim that the EVA is a better predictor of market value of the firms in terms of MVA compared to EPS and is successful in indicating stronger relationship and relevance to capital markets than other traditional measures."

The EVA analysis has attracted much attention in the Western countries, both as a management innovation, as well as, stock market analysis. The acceptance of such a technique in the Indian context, however, shows somewhat

diverse trends. Out of a sample of 500 Indian companies, there were 17 companies, which specifically mentioned about the use of EVA as a measure of corporate financial performance and decision making. Some exemplary corporate houses (like Infosys, TCS, Hindustan Unilever, Hero Honda, Godrej Industries, etc.) have been separately publishing “EVA Statements, on a continuing basis, in their Annual Reports as part of financial statements.” However, a vast majority of the companies are still not willing to install the EVA technique for evaluating their financial performance because of certain ‘inherent’ difficulties associated with the computation. Moreover, Indian companies also avoid EVA disclosures due to its complex methodology that involve higher expenses on EVA consultancy and legal fees. There exist significant inconsistencies and irregularities in the measurement of EVA and its major components by the EVA reporting companies. Again, it is observed by some scholars that in the Indian context, it may be very difficult task to establish the existence of any relationship between stock price and economic value added (EVA). In a developing economy like India, depending on EVA could be an obstacle in making ‘new-investment’ decisions. Moreover, when talking about shareholders’ value creation, the profile of the shareholders also needs to be taken care.

The corporate-sector in India is gradually recognizing the importance of EVA and some of the Indian companies have started calculating EVA, making disclosures in their Annual Reports and also using EVA for different managerial purposes. Moreover, some leading companies have also started using EVA for improving their internal governance. For example, TISCO Limited is using EVA to measure performance of its mines and other business segments. Managers of the company find the measure quite useful and are highly enthused by the use of this measure. Similarly, TCS Limited has implemented “EVA as a performance measurement and evaluation system linked with incentive” (Ray, 2007). The Godrej Soaps group led by Adi and Nadir Godrej says that even in the first year it has begun reaping the benefits of implementing an EVA-based incentive system. Four of the six companies have improved on stretch targets, and employees have been rejuvenated with whopping bonuses. It is expected that EVA will soon gain popularity more as a management planning and control tool. Undoubtedly, EVA is gaining recognition as a fundamental measure of company performance despite the fact that it has been in existence for a relatively short period of time. However, Bhasin (2016b) reported, “Indeed, EVA disclosure in Annual Reports should be taken as a challenge thrown on the Indian corporate sector, and corporate leaders should respond in a ‘positive’ way so as to develop confidence among all the stakeholders.” Last, but not the least, we recommend to the national regulatory agencies, viz., Security and Exchange Board of India (SEBI) and Institute of Chartered Accountants of India (ICAI) as: “EVA statements should form part of the audited annual published accounts of the Indian public companies so as to bring more transparency and better disclosure practices to catch the faith of the world business community on the Indian stock market in the long-run.”

References

- Almomani, M. A. (2016). The Ability of Traditional and Modern Performance Indicators in Interpreting the Phenomenon of Earnings Management: Evidence Manufacturing Firms in Amman Stock Exchange. *Asian Journal of Finance & Accounting*, 8(1), 77-99.
- Alipour, M., & Pejman, E. (2015). The impact of performance measures, leverage and efficiency on market value added: Evidence from Iran, *Global Economics and Management Review*, 20(2), 6-14.
- Anderson, A. M., Bey, R. P., & Weaver, S. C. (2004). Economic value added adjustments: much to do about nothing, Paper presented at the Midwest Finance Association Conference, Sept. 2004, San Antonio, USA.
- Baygi, S., & Javadi, P. (2015). Disclosure Quality and Economic Value Added. *International Journal of Industrial Distribution & Business*, 6(2), 5-11.
- Bhattacharya, A. K., & Phani, B.V. (2000). Economic Value Added: in Search of Relevance. *Decision*, 27(2), 25-54.
- Bhasin, M. L. (2006). XBRL: An Innovative and Global Financial Reporting Standard. *Cyprus Computer Society*, 13(1), 31-35.
- Bhasin, M. L. (2007). Forensic Accounting: A New Paradigm for Niche Consulting. *The Chartered Accountant Journal*, 3(1), 1000-1010.
- Bhasin, M. L. (2008). Corporate Governance and Role of the Forensic Accountant. *Chartered Secretary*, 38(10), 1361-1368.
- Bhasin, M. L. (2010). Corporate Governance Disclosure Practices: The Portrait of a Developing Country. *International Journal of Business and Management*, 5(4), 150-167.
- Bhasin, M. L. (2010a). Corporate Governance Disclosure Practices: The Portrait of a Developing Country. *International Review of Business Research Papers*, 5(4), 150-167.

- Bhasin, M. L. (2011). Corporate governance reporting practices: An exploratory case study of Asia. *World Review of Entrepreneurship Management and Sustainable Development*, 7(1), 1-29.
- Bhasin, M. L. (2012). Corporate Accounting Fraud: A Case Study of Satyam Computers Limited. *Open Journal of Accounting*, 3(10), 16-42.
- Bhasin, M. L. (2013b). Corporate Governance and Role of the Forensic Accountant: an exploratory study of an Asian country. *Amity Business Review*, 14(1), 48-71.
- Bhasin, M. L. (2013). Economic Value Added and Shareholders' Wealth Creation: The Portrait of a Developing Asian Country. *International Journal of Managerial & Financial Accounting*, 5(2), 107-137.
- Bhasin, M. L. (2013a). Economic Value Added and Shareholders' Wealth Creation: Evidence from a Developing Country. *International Journal of Finance and Accounting*, 2(4), 185-198.
- Bhasin, M. L. (2013c). Voluntary Corporate Governance Disclosures in the Annual Reports: An Empirical Study. *International Journal of Managerial & Financial Accounting*, 5(1), 79-105.
- Bhasin, M. L. (2015). Forensic Accounting: Perspectives and Prospects. *Pakistan Accountant*, 10(4), 44-48.
- Bhasin, M. L. (2016). Voluntary Reporting of Corporate Governance Information in Annual Reports: An Empirical Study of an Asian Country. *International Journal of Management Sciences and Business Research*, 5(7), 71-95.
- Bhasin, M. L. (2016a). Voluntary Reporting of Corporate Governance in the Annual Reports: Empirical Study of an Asian Country. *Wulfenia Journal*, 23(5), 195-233.
- Bhasin, M. L. (2016b). Challenge of Improving Corporate Governance by Creating Effective Audit Committees. *International Journal of Management Sciences and Business Research*, 5(8), 25-46.
- Bhasin, M. L. (2016c). The Untimely Demise of Satyam Computers Limited: A Revisit to the India's Enron. *International Journal of Management and Social Sciences Research*, 5(5), 6-24.
- Bhasin, M. L. (2016d). Creative Accounting Practices: An Empirical Study of India. *European Journal of Accounting, Finance and Business*, 4(9), 10-30.
- Bhasin, M. L. (2016e). Disclosure of EVA in the Financial Statements: Experience of an Asian Economy. *International Journal of Management Sciences and Business Research*, 5(9), 28-46.
- Dhamija, S. (2008). EVA Reporting Practices in the Annual Reports of Indian Companies: A Case Study of Hindustan Unilever Limited. *The Accounting World Magazine*, 10(1), 1-9.
- Ellanti, M. (2016). Selected Indian Pharmaceutical Companies Performance Through EVA, A Study. *International Journal of Science Technology and Management*, 5(5), 284-292.
- E&Y (2014). Disclosure effectiveness: What companies can do now? Retrieved May 22, 2014, from <http://www.ey.com>. 1-24.
- FTI Consulting Report (2015). India Disclosure Index: How India's Leading Listed Companies Fare on Mandatory & Voluntary Disclosure, April, 1-10.
- Ferracone, R. (2016). Pay For Performance Alignment: Total Shareholder Value Vs. Economic Value Added. Forbes, May, Retrieved May 22, 2016, from <http://www.forbes.com>.
- Gupta, V. K., & Sikarwar, E. (2016). Value creation of EVA and Traditional Accounting Measures: Indian Evidence. *International Journal of Productivity and Performance Management*, 65(4), 436 - 459
- Irala, L. R. (2005). Economic Value Added: the Right Measure of Managerial Performance. *Indian Journal of Accounting and Finance*, 119(2), April-Sept., 1-10.
- Kaur, M. and Narang, S. (2008). Economic Value Added Reporting and Financial Performance: A Study of Satyam Computer Services Limited. *ICFAI Journal of accounting research*, 7(2), 40-52.
- Keys, D. E., Azamhuzjaev, M., & Mackey, J. (2001). Economic Value Added: A Critical Analysis. *Journal of Corporate Accounting & Finance*, 12(2), 65-71.
- Khan, U. A., Aleemi, A. R., & Qureshi, M. A. (2016). Is Economic Value Added More Associated with Stock Price than Accounting Earnings? Evidence from Pakistan. *City University Research Journal*, 6(2), 204-216.
- Kramer, J. K., & Pushner, G. (1997). An Empirical Analysis of Economic Value Added as a Proxy for Market Value Added. *Financial Practice and Education*, 7(1), 41-49.
- Kumar, S., & Sharma, A. K. (2011). Association of EVA and Accounting Earnings with Market Value: Evidence from India. *Asia-Pacific Journal of Business Administration*, 3(2), 83-96.
- Misra, A., & Kanwal, A. (2007). Economic Value Added as The Most Significant Measure of Financial Performance: A Study of Select Indian Firms. *Journal of Internal Business and Economics*, 7(1), 76-85.
- Patel, R., & Patel, M. (2012). Impact of EVA on Share Price. *International Journal of Contemporary Business Studies*, 3(1), 24-34.
- Panigrahi, S. K., Zainuddin, Y. B., & Azizan, N. A. (2015). Empirical Analysis on Impact of Economic Value Added on Shareholder's Value: A Perspective from Malaysian Construction Companies. *Australian Journal of Basic and Applied Sciences*, 9(2), 64-72.

- Pandya, B. (2016). Impact of Financial Leverage on Market Value Added: Empirical Evidence from India, *Journal of Entrepreneurship, Business and Economics*, 4(2), 40–58.
- Rakshit, D. (2006). EVA based Performance Measurement: A Case Study of Dabur India Limited. *Vidyasagar University Journal of Commerce*, 11(3), 40-59.
- Ramana, D. V. (2007). Economic Value Added and Other Accounting Performance Indicators: An Empirical analysis from Indian companies. *The ICFAI Journal of Accounting Research*, 6(2), 7–20.
- Ray, K. K. (2007). Value-based Management Strategy: An Alternative Approach to Executive Compensation at TCS. *The ICFAI Journal of Business Strategy*, 4(4), 31-44.
- Reddy, N. R., Rajesh, M., & Reddy, T. N. (2011). Valuation through EVA and Traditional Measures: An Empirical Study. *International Journal of Trade, Economics & Finance*, 2(1), 19-23.
- Sangameshwaran, P. (2002). Courting EVA, the TCS way. In Swain and Misra (eds) *Economic value added- concepts and cases*, 177-84.
- Sakthivel, N. (2010). EVA-MVA: Shareholders Value Measures. *The Management Accountant*, 45(1), 10-14.
- Sarkar, P. (2011). Disclosures in Corporate Annual Reports: A Case Study of Some Selected Public Limited Companies in India. *The Chartered Accountant*, Oct., 64-70.
- Sharma, P., & Grover, A. (2015). Creating and Measuring Shareholders' Value in Indian Companies, *IJABER*, 13(1), 53-66.
- Shil, N. C. (2009). Performance Measures: An Application of EVA. *International Journal of Business & Management*, 4(3), 169-177.
- Singh, T., & Mehta, S. (2012). EVA vs. Traditional Accounting Measures: A Pre-recession Case Study of Selected IT Companies. *International Journal of Marketing and Technology*, 2(6), 95-120.
- Stewart, G. B. (1991). *The Quest for Value: A Guide for Senior Managers* (1st edition). NY: Harper Business.
- Stewart, G. B. (1994). EVA: Fact or Fantasy. *Journal of Applied Corporate Finance*, 16(2), 91-99.
- Thilakerathne, P. M. C. (2015). Economic Value Added (EVA) Disclosure Practices of Sri Lankan Listed Companies. *Journal of Finance and Accounting*, 3(5), 117-127.
- Thenmozhi, M. (1999). Economic Value Added as A Measure of Corporate Performance. *The Indian Journal of Commerce*, 52(4), 72-88.
- Vishwanath, R. (2009). EVA Financial Management at Godrej Consumer Products Ltd. Retrieved May 22, 2014, from <http://ssrn.com/abstract=1354422>.
- Vijaykumar, A. (2010). Economic Value Added and Market Value Added: An Empirical Study of Relationship. *Sadhana*, 2(2), 141-148.
- Weaver, S. C. (2001). Measuring Economic Value Added: A Survey of the Practices of EVA Proponents. *Journal of Applied Finance*, 11(1), 15-28.
- White, M. J. (2013). The Path Forward on Disclosure. National Association of Corporate Directors Board. Retrieved May 22, 2014, from <http://www.sec.gov/rules/concept/34->.