



ANALYSIS OF EVA ACCOUNTING VS TRADITIONAL PERFORMANCE MEASURES IN INDIAN PHARMACEUTICAL INDUSTRY

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ABSTRACT

The begging of EVA as competing performance matrix may unquestionably be considered as one of the most earth-shattering financial management innovations of the past decade. The evidence of the majority of the empirical studies regarding EVA suggests that there is a positive relationship between EVA and shareholder value creation, measured by MVA. An attempt has been made in this part to find out the explaining power of EVA versus traditional performance measures. The researcher tries to understand whether EVA is the best interpreter of MVA in comparison with other long-established but traditional financial measures. Here an attempt has been made to bring out the basic analysis of selected financial measures of selected companies for a period of ten years from 2008 to 2017. These measures include MVA, EPS, NOPAT, ROA and ROCE. They are often used to appraise the financial performance of a corporate. Moreover, these measures have been placed under assessment to evaluate the financial status, ranking, statistical trends. Descriptive statistical values such as mean, maximum, minimum, standard deviation and variance for each of the performance variables have been also elaborated in this part. SPSS package has been utilized for this purpose.

KEYWORDS : Economic Value Added, Capital Structure, Market value Added, Conventional Performance Measures, Shareholders.

Introduction:

Many of the traditional corporate performance measures have been found poorly correlated, or even conflicting, with management's primary objective which is maximizing the market value of a firm's stock. Now, there are several new measures in the financial world that attempt to align the behaviors of an organization with its stockholders' interests. One measure that has received a great deal of notice and acceptance is Economic Value Added Accounting (EVA ACCOUNTING) which was developed by Joel M. Stern and G. Bennett Stewart & Co. The EVA Accounting frame work, which is becoming more and more desirable tool for measuring the financial performance of corporates, offers a consistent approach to set goals and measure performance, communicate with investors, EVA Accountinguate strategies, allocate capital valuing acquisitions and determine incentive bonuses.

Implementation of one of these measures, such as EVA Accounting, can fundamentally change the behavior of an entire organization. The new measure focuses the behavior of individuals throughout all parts of the organization in a way that is better aligned with creating stockholder wealth. Because performance compensation incentives are based upon the new measures as a result of which employees and stockholders will get mutually benefit. However, the EVA Accounting implementation and improvement process is one of the several ongoing initiatives for a new corporate. It is believed that EVA is a better performance measure than traditional measures like Earning Per Share (EPS), Return On Investment (ROI), or Return On Net Worth (RONW). EPS depends largely on the vagaries of accounting policies followed by a firm. Thus, EPS is as much reliable as the accounting profit. Accounting profit depends on the firm's capital structure. In computing accounting profit, only one part of cost of capital (i.e., borrowing cost) is deducted. And it does not reflect the true economic profit. On the other hand EVA is the residual profit after deducting full cost of capital from operating profits.

EVA and Traditional Performance Measures

Investors and financial managers have been burnt by inflation. Creative accounting has learnt not to take accounting profitability at face value to judge the financial performance of a business. After constant adoption of the technique for decades, the theoreticians as well as the practitioners realized that there were limitations in accounting using business income measurement. Some of these limitations are:

1. Pitfalls of Traditional Performance Measurement : The maxim "what gets measured gets managed" does not only refer to shareholders value. A review of businesses' favorite financial performance measures – and their pitfalls – shows that managers and executives should be very careful. While business schools have been preaching valuation concepts for decades, earnings per share and other traditional financial measures continue to rule supreme. However, these metrics have many risks.

2. Cost of Equity : The measurement of profitability based on traditional financial accounting data alone can be misleading, as they do not reflect the cost of capital incurred for making investments. Typically, they are precise at measuring the cost of debt financing, but largely ignore the cost of equity financing. The existing method of accounting, although standardized, cannot eliminate some inherent flexibility in accounting practice. Some cases include the subjectivities in estimating the life of depreciable fixed assets.

3. Opportunity Cost and Risk Adjusted Rate of Return : The accounting based financial measures fail to recognize the concept of opportunity cost and risk adjusted rate of return. According to the traditional concept, information about the risk of investments is never incorporated in the financial statements and thus they provide a distorted picture of profit of the firm and the overall movement of the stock market.

4. Misleading Focus for Improvement of Performance : Another problem associated with the traditional financial reporting by, Du Pont Model and similar accounting based approaches is a misleading focus for improvement of performance. With ROI as the measurement, index managers opt for investment cuts. This slowly kills off their business for the sake of improving performance.

4. Post-mortem Analysis of Financial Data : The accounting based approach is nothing but a post-mortem analysis of financial data, whereas financial decision-making demands data with future projections. So, the accounting income concept does not provides the required support in decision-making.

5. Over Investment : Profit and profit margin measures often drive over-investment and vertical integration because they overlook capital and its cost. Increasingly, different businesses and business models consume varying levels of capital at varying costs. Managers

are often drawn to higher margin businesses that, on the surface, may seem more attractive. For example, profits are often improved with newer production technology – but they must be, to compensate for the higher levels of investment. Traditional financial measures ignore the returns that shareholders expect. Any corporate project with just a positive – but not necessarily an adequate – return above zero can improve a manager's margins, unit cost, profit and productivity measures. However, such a project can also destroy value.

6. Over production :Traditional measures of unit cost, utilization and income frequently promote troublesome over- production, particularly at the end of a year or quarter. Producing to capacity rather than to demand, often appears to reduce costs, yet doing so can also raise the cost of invested capital. The bias toward over-production, despite demand, is exacerbated by absorption accounting practices, which convert operating costs into inventory. This practice gives the illusion of lower costs from the distorted perspective of a cost per unit, while creating operating burdens (e.g., uneven and inflexible production) and vast quantities of unnecessary inventory.

7. Service Economy : Traditional financial measures, being based on traditional business models, have not kept up with the pace of change. New business models are often based on services, outsourcing, partnerships and other innovative ways of doing business. Therefore, traditional financial measures are inherently biased against the new service economy. Their blunt nature is too simplistic, creating impediments to profitable growth in a world where more and more service-oriented businesses are being designed around razor-thin margins, but with low capital investment. Similarly, a bias against viable, long-term investments and economic growth can result from a simplistic, near term income focus.

8. Traditional Financial Metrics are Lagging Indicators : While the traditional financial metrics are value-based, they are nonetheless lagging indicators. They offer little help for forward-looking investments, where future earnings and capital requirements are largely unknown investments such as new product introductions and capital or new market entry. This would lead to narrow short-term decision-making based on bottom-line financial results.

Objectives : The specific objectives of the study is to study the relationship between EVA and traditional financial measures (EVA, EPS, NOPAT, ROA and ROCE) and to come across the simple most significant explanatory measure and to make suggestions & recommendations for the use of EVA as a measure of financial performance to Indian corporate managers.

Hypotheses : Keeping in view the results of the various related research studies on EVA and corresponding to the objectives of the present study, EVA is the most explanatory measure and more closely associated with Market Value Added than other performance measures such as EPS, NOPAT, ROA and ROCE has been tested.

Panel Data Analysis of EVA versus Other Performance Measures:

In order to find out whether any relationship exists between dependent and independent variables, simple linear regression for panel data analysis that takes into account the correlation between those variables was used. A generalized least square model for panel data using correlation was fitted. The estimation of the parameters (a, P) was based on Cross-sectional time-series feasible generalized least squares (FGLS) regression. Statistical analysis was done by using statistical software S-plus. During the simple regression analysis in panel data, it became apparent that EVA was the single largest and most consistent variable, which has a decisive role in predicating the MVA. By correlation test we find the strength of the

relationship between the dependent variable and independent variables. Market Value Added has been considered as dependent variable and EVA, NOPAT, EPS, ROA and ROCE have been considered as independent variables. The following tables show MVA has significant relationship with two independent variables which are EVA and NOPAT. Now by using regression analysis we predict the value of MVA on the basis of its linear relationship with the independent variables. Table 1 presents the result of simple regression model for MVA based on EVA for the period under study. A generalized least square model for panel data has been used for this purpose. The table reports the correlation coefficient equal to 0.7324 which is the linear correlation between the observed and model-predicted values of the dependent variable and indicates a strong relationship between the model and MVA. In this analysis it can be clearly seen that with a unit increase in EVA, there is a corresponding statistically significant (p-value<0.001) increase in MVA by 5.7734 units. This result indicates there is a significant relationship between MVA and EVA with high coefficient of correlation.

Table 1: Result of Simple Liner Regression with FGLS Model for MVA based on EVA

Cross-sectional time-series FGLS regression

Coefficients: generalized least squares
 Panels: heteroskedastic
 Correlation: common AR(1) coefficient for all panels (0.7324)

Estimated covariances = 17 Number of obs = 170
 Estimated autocorrelations = 1 Number of groups = 17
 Estimated coefficients = 2 Time periods = 10
 Wald chi2(1) = 21.14
 Prob > chi2 = 0.0000

MVA	Coeff.	Std. Err.	z	P> z	[95% Conf. Interval]
EVA	5.773379	1.255822	4.60	0.000	3.312012 8.230745
_cons	1800815	1594957	1.18	0.238	-1245243 5006879

Findings and conclusion:

According to the results of the analyses and observations, some of the major conclusions are coming as follows:

- When MVA is taken dependent variable and, EVA is taken independent variable it can be clearly seen that there is a significant relationship between MVA and EVA with high coefficient of correlation.
- Economic Value Added simply balances a company's profitability against the capital it employs to generate this profitability. It is a proper performance measure to evaluate the managerial activities, because of taking to account the minimum rate of return which is expected by shareholders. Hence the implementation of this measure can fundamentally change the behaviour of an entire organization.
- On the evidence of the majority of the empirical studies regarding EVA, there is a positive relationship between EVA and shareholder value creation measured by Market Value Added (MVA). An attempt has been made also in this study to find out whether EVA is the best interpreter of MVA in comparison with other traditional financial measures.
- According to the results of this research, which has prepared based on simple linear regression for panel data analysis; it was proved that EVA has the highest significant correlation with MVA than NOPAT, EPS, ROA and ROCE. So the hypothesis of this study has been confirmed and it can be claimed that EVA is more associated with MVA and presents a more transparent and clear picture of firms value in comparison with the other performance measures.
- Despite EVA has been identified as an appropriate performance measure to evaluate managerial activities, Majority of Indian Pharmaceutical companies are still not prepared to put in the

EVA technique for evaluating their financial performance. Because of that the researcher could find the required data regarding EVA with difficulty. But it is expected that in the coming years, more and more Indian companies will start relying upon this new measure of financial performance.

References :

1. Alam, Perways and Nizamuddin, Shaikh Mohammed (2012), "Performance Measures of Shareholders Wealth: An Application of Economic Value Added (EVA)". International Journal of Applied Financial Management Perspectives, Vol: 1, No: 2, Oct-Dec., Available at SSRN: <http://ssrn.com/abstract=2217307>.
2. Alexei, Sirbu (2012). "Economic Value Added (EVA) – Main Indicator In Measuring The Value Creation Of The Target Corporation Inc." IJRRAS 12 (1), July, pp. 34-37. http://www.arpapress.com/Volumes/Vol12Issue1 IJRRAS_12_1_06.pdf
3. Banerjee, Ashok (2000), "Linkage between economic value added and market value: an analysis", Vikalpa, 25(3), Jul-sep 2000, pp. 23-36.
4. Bardia, S.C. (2002), "EVA as Performance Indicator- A Case Study of Infosys", Indian Journal of Accounting, Vol. XXXII, June, pp. 57-61.
5. Bhasin, Madan Lal (2017) "A Study of Economic Value Added Disclosures in the Annual Reports: Is EVA a Superior Measure of Corporate Performance?", East Asian Journal of Business Economics, Vol. 5(1), pp. 10-26.
6. Farsio, Farzad; Degel, Joe and Degner, Julia (2000), "Economic Value Added (EVA) and Stock Returns", Financier, Philadelphia, Vol. 7, Vol.1-4.
7. Gupta, V.K., and Sikarwar, E. (2016), "Value Creation of EVA and Traditional Accounting Measures: Indian Evidence". International Journal of Productivity and Performance Management, Vol. 65(4), pp. 436-459.
8. Riceman, Stephen S.; Cahan, Steven F. and Lal, Mohan, (2002) "Do Managers Perform Better Under EVA Bonus Schemes?", The European Accounting Review, Vol. 11, Issue 3, pp. 537-572.
9. Rompho, Nopadol (2009) "Application of the Economic Value Added (EVA) Protocol in a University Setting as a Capital Budgeting Tool", Journal of Financial Reporting and Accounting, Vol. 7, Issue 2, pp. 1-17.
10. Roztock, Narcyz (2000), "The Integrated Activity-Based Costing and Economic Value Added Information System", Proceedings from the Society for Advancement of Management (SAM), International Management Conference, Florida, March 30-April 1.

Websites

11. www.bseindia.com
12. www.economicstimes.indiatimes.com
13. www.investopedia.com
14. www.jstor.org
15. www.moneycontrol.com
16. www.nseindia.com
17. www.sebi.gov.in
18. www.ssrn.com