



Economic Value Added as Technique of Performance Evaluation

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ABSTRACT

An alternative measure of financial performance in an investment centre is segment Residual Income or Economic Value Added. Economic Value Added was developed to promote value-maximizing behaviour in corporate managers. It is a single, value-based measure that was intended to evaluate business strategies, capital projects and to maximize long-term shareholders wealth. EVA is a better system, than ROI, to encourage growth in new products, new manufacturing facilities. EVA measurement also requires a company to be more careful about resource mobilisation, resource allocation and investment decision. It effectively measures the productivity of all factors of all production

KEYWORDS

NOPAT, WACOC, EVA, EBIT

Introduction

Management Information System can be developed as an act of interrelated components that collect, process, store and distribute information to support decision making, co-ordinate and control in an organisation. Information means data have been shaped into a form that is meaningful and useful to human being. Data are stream of raw facts reporting events occurring in organisation or physical environment before they have been organized and rearranged into a form that people can understand and use. Performance measures are a central component of management information and reporting system. It deals with performance measures for different levels of an organisation and for managers at these levels- both financial and non-financial performance measures.

Literature Review

Eva is not a new discovery. In 1890, **Alfred Marshall** defined economic profit as total net gain less the interest on invested capital at the current rate. Finnish academics and financial press discussed the concept as early as in the 1970s. The concept of residual income did not get wide publicity and it did not end up to be the prime performance measure in great deal of companies. However, Eva practically the same concept with a different name, has done it in the recent years. **Stern Stewart & Co., a New York based consulting firm** trademarks EVA in 1990s when the tool is introduced and subsequently adopted by several major corporations. **Stern (1990)** observed that EVA as a performance measure captures the true economic profit of an organization. EVA based financial management and incentive compensation scheme gives manager better quality information and superior motivation to make decisions that will create the maximum shareholder's wealth in an organization. **Stewart (1994)** has expended that EVA is a powerful new management tool that has gained worldwide recognition as the standard tool of corporate performance. Some literature evaluates EVA as a management tool from the point of view of the accounting measurement. **O'Hanlon & Peasnell (1998)** thoroughly discuss EVA as a value based performance indicator. **Anderson, Weaver and Bey (2004)** believe that major consideration in the application of EVA is the adjustment of a large number of accounting variables.

STATEMENT OF THE PROBLEM

"ECONOMIC VALUE ADDED AS TECHNIQUE OF PERFORMANCE EVALUATION"

OBJECTIVES:

1. A measure of the economic value addition by Indian companies, and
2. To move the benchmark of performance of companies from accounting profits to economics profits and shareholder wealth creation.

MEANING OF EVA

It is an estimate of economic profit by after making adjustments to GAAP accounting, including deducting the opportunity cost of equity capital.

EVA = NOPAT – (TCE * WACC)

Where,

NOPAT = Net operating profit after tax

TCE = Total capital employed

WACC = Weighted average cost of capital

EXAMPLE:

TABLE NO: 1

Particulars	Company –A With Positive EVA	Company- B With Negative EVA
EBIT	Rs. 10 crore	Rs. 5 crore
Equity	Rs. 25 crore	Rs.25 crore
Debt	Rs.20 crore	Rs. 20 crore
R wacoc	11%	11%
Tax rate	30%	30%
EVA =	EBIT (1-T)- (Total capital * R wacoc) = 10 (1-0.30)- (25+20)*11% = 7 - 4 EVA = 3	EBIT (1-T)- (Total capital * R wacoc) = 5(1-0.30)- (25+20)*11% = 3.5- 4 EVA = -0.5
Result	The Company A maximizes shareholder's wealth.	The Company B destroys shareholder's wealth.

Source: Own Sources

TABLE No: 2

Indian Corporates and EVA Reporting

Company	Usage of EVA
INFOSYS	EVA is used as a tool to tell its clients that the value delivered by Infosys is greater than what the client pays for.
MARICO	As a signalling device to tell its employees that capital is important.
DR. RED-DY'S LAB	As a qualifying criterion to grant rewards such a variable pay, stock options and performance bonuses.
TCS	Here EVA is linked to compensation and has been implemented in great detail.

BHEL	EVA linked with the companies Business strategy and values along with discharge of economic and social responsibility.
HERO HONDA	EVA linked with the performance appraisal and reward to the employees and analyse value creation process.
HUL	Used EVA as a basis to measure the performance of each of its division. EVA locates performance on the basis of operating profit after charging the cost of capital
GODREJ	EVA is used not only as financial, but also as a way of structuring performance linked variable remuneration. EVA has been a tool to measure, motivate, manage and finally, overhaul the mind-sets of people.

Source: Compiled from annual reports of the sample companies.

ADJUSTMENTS FOR APPLYING EVA

Adjustment to "Net Operating Profit After Tax" The adjustment suggested for Net Operating Profit after tax (NOPAT) are as follows.

- Accounting principles allows companies to write-off research and development expenses. But these expenses may not be truly revenue in nature. For successful R & D projects, EVA calculations writes back the R & D expenses and amortises them over a period during which benefits of the successful R & D projects will be reaped. The NOPAT figure calculated from profit and loss account is adjusted by adding back the R & D expenses and capitalising them in the balance sheet. Only those R & D expenses that have no future value are charged to the Income statement.
- Deferred taxes arise due to the difference in timing of recognition of revenues and expenses for financial reporting versus reporting for tax purposes. It is basically the accumulation of the difference between accounting provision of taxes and the tax amount actually paid under the head "Reserve for deferred taxes". NOPAT is adjusted for the tax actually paid instead of the accounting provisions. The reserves for deferred taxes are added to the equity.
- Goodwill of an acquired business, if written off, is capitalised and adjusted in NOPAT and equity.
- Provision for gratuity and pension should be recognised and provided for properly.
- Operating leases are to be capitalised. The net present value of the lease payments are capitalised.

Adjustment to "Capital Employed" For calculation of correct EVA, the following adjustments are required to be made for capital employed.

- The capital employed can be calculated through the assets side of the balance sheet or the liability side. From the asset side, capital employed is the current assets less the non-interest bearing current liabilities i.e. the net working capital plus the net fixed assets.
- Use the beginning of the year capital employed for calculating EVA as this was the capital available to the management to earn the returns and it helps in evaluating capital budgeting decisions.

Adjustment to "Cost of Capital" The third elements in EVA calculations is the cost of capital, which is the weighted average of the cost of debt, cost of equity capital and cost of preference capital, if any. While the cost of debt is the average interest rate paid by the company on its debt, the cost of equity can be found out using the Capital Asset Pricing Model (CAPM) and the cost of preference shares can be taken as the fixed rate of dividend.

CAPM MODEL: (Capital Assets Pricing Model)

$$RA = R_f + \beta(R_m - R_f)$$

Where,

RA = Return on Assets

R_f = Risk free rate

R_m = Return on market

Beta = Beta is measurement of Risk.

Superiority of EVA

- EVA is most directly linked to the creation of shareholder's wealth over time. The term "maximising value" in the EVA context, means maximising long term yield on shareholders investment and not just the absolute amount of earnings/profits.
- The mechanism of EVA forces management to expressly recognise its cost of equity in all its decisions from the board room to the shop floor. The inclusion of this element in overall cost of capital results into the goal congruence of the managers and owners.
- EVA compensation system ties management's interest with those of shareholders.
- A regular monitoring of EVA emphasises on problem areas of a company and helps managers to take corrective actions.
- It is used to assess the likely impact of competing strategies on shareholder's wealth and thus helps the management to select the one that will best serve shareholders.
- EVA also helps in brand valuation. The brand equity or value created by a particular business unit for its brand could be equated with the value of wealth that the brand has generated over a period of time.
- EVA framework provides a clear perception of underlying economics of a business and enables managers to make better decisions.
- It also fits well with the concept of corporate governance. EVA bonus system do this by giving employees an ownership stake in improvements in the EVA of their divisions or operations. This causes employees to behave like owners and reduces or eliminates the need for outside interference in decision making.
- An EVA financial management system removes all the inconsistencies resulting from the use of different financial measures for different corporate functions under the typical traditional financial management system as it ties all the functions for instance-
 1. Reviewing a capital budgeting process
 2. Valuing an acquisition
 3. Considering strategic plan alternatives
 4. Assessing performance
 5. Communicating
 6. Rewarding management

LIMITATIONS OF EVA

1. The EVA analysis does not necessarily eliminate the problem of comparing the performance of large and small divisions.
2. Most of the problem in measuring the divisional income and divisional investment base are also present in the measurement of EVA.
3. There is additional risk of selecting a fair and equitable measure of the required cut-off percentage (i.e. cost of capital).
4. EVA can be readily transformed into ROI and many firms tend to convert EVA into ROI.

CONCLUSION

Economic value added (EVA) is another form of value addition. EVA is ascertained as excess of return over cost of capital. EVA measures whether operating profit is sufficient enough to cover cost of capital and how much of EVA is generated to justify risk taken by the shareholders. EVA can be improved by increasing returns, by reducing asset base, by reducing cost of capital etc. In case of EVA, different interest rates may be used for different types of assets. e.g. low rates can be used for inventories while a higher rate can be used for investments in fixed assets. The EVA in contrast to ROI has a stronger positive correlation with changes in company's market share.

ABBREVIATION

NOPAT – Net Operating Profit After Tax

EBIT – Earning Before Interest and Tax

WACOC – Weighted Average Cost of Capital

EVA – Economic Value Added

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