Chapter-V

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Mergers and Acquisition
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5.1 INTRODUCTION

The concept of value added as a tool of measuring performance has developed recently in big business houses. It is considered as an appropriate approach to measure the operating efficiency and profitability of a concern. The figure of value added differs from the conventional profit figure in the sense that, the amount of value added is calculated by deducting the cost of bought in materials and services from the figure of sales revenue whereas, the figure of conventional profit is calculated by deducting all expenses from the figure of total revenue.

A business enterprise specifically a company is a conscious, deliberate and purposeful creation for satisfying the domain of aspiration of the society at large. It is an independent and a separate legal entity. The survival stability and growth of such entity within the society largely depend on the wealth created by it through the collective efforts of all the stakeholders–shareholders, providers of loan capital, employees and the government. All these stakeholders are the parties to whom the result of operations of business is communicated. To satisfy the information needs of these users, the conventional financial accounting system generates data
relating to financial performance through Profit and Loss Statement or Income Statement giving emphasis on the interest of shareholders (i.e. owners) only. The Profit and Loss Statement does not provide any information showing the extent of the value or the wealth created by the company for a particular period. Contribution to the company by other stakeholders cannot be accessed through the Profit and Loss Statement. Hence, there is a need to modify the existing accounting and financial reporting system so that a business unit is able to give importance to judge its performance by indicating the value or wealth created by it. To this direction inclusion of the value added statement (VAS) in financial reporting system is a newly developed technique, which is regarded as a part of social responsibility accounting and reporting.

Value added is a measure of economic performance of an economic entity which has a fairly long history of application in economics. It has been regarded as the increase in wealth of an economic entity. Thus, it is a particular concept of income measurement. It has its traditional roots in macro-economics, especially regarding the calculation of national income which is measured by the productive performance of a national economy and which is called National Product or Domestic Product. These notions represent the value added of a national economy during a specific period. Other than this common use of the value added concept, it has also been discussed and practiced as a useful economic and performance indicator in
different areas of economics and business administration. The fact that it represents the result of a calculation means that the value added concept is related very much to accounting. But in contrast to the traditional income calculation, one of its major characteristics is that it can be and has been used not only in one or two accounting areas but in all three types of systems: national accounting, financial accounting and managerial accounting.

5.2 MEANING AND DEFINITIONS OF VALUE ADDED

The enhancement a company gives its product or service before offering the product to customers. Value added is used to describe instances where a firm takes a product that may be considered a homogeneous product, with few differences (if any) from that of a competitor, and provides potential customers with a feature or add-on that gives it a greater sense of value.

Investopedia explains A value add can either increase the product's price or value. For example, offering one year of free support on a new computer would be a value-added feature. Additionally, individuals can bring value add to services that they perform, such as bringing advanced financial modeling skills to a position in which the hiring manager may not have foreseen the need for such skills.
Brown and Howard stated that, “Value added is sales value less the cost of bought in goods and services used for producing those sales.”

Lewis and Pendrill mentioned that, “Value added may be calculated as the difference between the value goods or services produced by the team, i.e., sales revenue, less the value of goods and services purchased from outsiders, i.e., the cost of bought in materials and services.”

John Sizer is of the view that, “Value added is the wealth the company has been able to create by its own and its employees efforts during period.” He further explained and stated that, “It is out of the value added cake that a company rewards its various stakeholders, i.e., shareholders, directors, managers, employees, Inland Revenue etc.”

ICMA terminology defines the term value added as, “The increase in the market value resulting from an alteration in the form, location or availability of a product or service, excluding the cost of bought out materials or services.”

5.3 SIGNIFICANCE OF VALUE ADDED

The value added income concept is a significant tool for appraising the performance of enterprises whose operation affects the social and economic well-being of entire community. It recognizes other contributors and claimants who have contributed in the process of generating value such as employees, government and providers of loan capital. Every one of them
contributes to the value added and gets a proportionate share therein. An enterprise can survive without making profit, but not generating value is an evil to the society and may cause its death. The absence of profit does not mean that the enterprise is contributing nothing to the society because profit constitutes only a small fraction of the total value or wealth the organization generates in a particular period. A sick unit may be considered useful so long as it generates sufficient value to pay salaries and wages to its employees because its closures will create unemployment, which may result in a social crisis. At the time of preparing plans and targets of the company, financial managers usually set a profit target, but the value added could be a more appropriate criterion in this matter. Optimizing added value is more meaningful than optimizing profit, because ‘added value’ determines the reward for employees as well as for providers of capital. Therefore, incentive schemes can be designed in the light of value added. Value added amount can also be used for profit planning of an enterprise. Productivity of different means of production can be measured in terms of value added. Moreover, it may be most appropriate criterion for resource allocation.

5.4 APPLICATIONS OF VALUE ADDED

The added value is applied or distributed amongst those who have contributed to generate it. These are the employees, the government, the
providers of the capital while a part of it is reinvested in the business. Thus, value is distributed amongst the following parties:

1. **To the Employees**: Employees are main productive agent as such they are paid in the form of wages, salaries, bonus, welfare expenses, gratuity and contribution to the provident fund. It represents total amount of remuneration and amenities given to the employees.

2. **To the Government**: The government is the provider of infrastructure facilities. Therefore a share of value added has to be given to the government. It is paid in the form various taxes viz. income-tax, excise-duty, customs-duty, sales tax, octroi, rates and taxes and other direct taxes. Export incentives, any tax credits, subsidies, refund of taxes and duties excess provision of tax are deducted from the share of government in the value added.

3. **To the Providers of Capital**: Capital is obtained from various sources viz. shareholders (i.e., owned capital), financial institutions and lenders (i.e., borrowed capital). Value related to financial institutions and lenders is paid in the form of interest on secured and unsecured borrowings and value belonging to the share holders is paid in the form of dividend.

4. **Re-investment in the Business**: The value added remains after all the outside parties have been paid off belongs to the business entity itself and it is re-invested in the form of depreciation and retained earnings.
Retained earnings means additions to reserves and surplus and profit and loss account.

5.5 ECONOMIC VALUE ADDED

Historical background

EVA is not a new discovery. An accounting performance measure called residual income is defined to be operating profit subtracted with capital charge. EVA is thus one variation of residual income with adjustments to how one calculates income and capital. According to Wallace (1997, p.1) one of the earliest to mention the residual income concept was Alfred Marshall in 1890. Marshall defined economic profit as total net gains less the interest on invested capital at the current rate. According to Dodd & Chen (1996, p. 27) the idea of residual income appeared first in accounting theory literature early in this century by e.g. Church in 1917 and by Scovell in 1924 and appeared in management accounting literature in the 1960s. Also Finnish academics and financial press discussed the concept as early as in the 1970s. It was defined as a good way to complement ROI-control (Virtanen, 1975, p.111). In the 1970s or earlier residual income did not got 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. Furthermore the spreading of EVA and other residual income measures does not look to be on a weakening trend. On the
contrary the number of companies adopting EVA is increasing rapidly (Nuelle, 1996, p. 39; Wallace, 1997, p. 24 and Economist 1997/2). We can only guess why residual income did never gain a popularity of this scale. One of the possible reasons is that Economic value added (EVA) was marketed with a concept of Market value added (MVA) and it did offer a theoretically sound link to market valuations. The origins of the value added concepts date all the way back to the early 1900's (Bromwich & Walker, 1998, p. 392).

Stern Stewart & Co trademarks EVA in 1990’s when the tool is introduced and subsequently adopted by several major corporations that lead EVA to have successful stories at the very beginning. Mainly professional literature mostly aimed at presenting, promoting or discussing the EVA concepts in relation to consulting work. While most of this, partly anecdotal, literature looks at the advantages of the concept with a few critical views also. Subsequent sources are too numerous for an extensive listing, but for instance there is material such as Milunovich & Tsuei (1996), Anctil, Jordan & Mukherji (1998), Damodaran (1999), Mouritsen (1998), Bowen & Wallace (1999), and Dodd & Johns (1999). There also is much WWW based material such as Mäkelä (1998), Weissenrieder (1999), and Stern Stewart & Co. (2000). Empirical research literature measuring the strength of the relation between market returns (or market value) and EVA compared to the relation between market returns and the traditional
income measures. O'Byrne (1996, p.125) concludes, "EVA, unlike NOPAT [net operating profit after taxes] or other earnings measures like net income or earnings per share, is systematically linked to market value. It should provide a better predictor of market value than other measures of operating performance." Also Uyemura, Kantor & Pettit (1996) arrive at similar conclusions. Stark & Thomas (1998, p. 445) provide "some support for the advocates of the use of RI for planning and control" from the market relation.

However, Biddle, Bowen & Wallace (1997) find "little evidence to support the Stern Stewart claim that EVA is superior to earnings in its association with stock return or firm values". Chen & Dodd (1997) conclude that EVA measures provide relatively more information than the traditional measures of accounting in terms of the stock return association, but that EVA should not entirely replace the traditional measures since measures such as E/P, ROA and ROE have incremental value in monitoring firm performance. They also observe that there is no significant difference between EVA and the traditional RI in terms of the association with stock returns. 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, Stern Stewart Co intricate adjustments, EVA benchmarks, and EVA-based bonuses. Bromwich & Walker (1998) add to the theoretical
discussion by pondering the EVA debate all the way from Hicksian income concepts. Pfeiffer (2000) considers mathematically EVA vs. discounted cash flow methods for resolving internal agency problems in decentralized decision-making.

Besides the theoretical discussion, understanding is needed about the numerical behavior of the EVA under different conditions and about EVA's numerical relationship to the accounting measures like Return on Investments (ROI), Return on Equity (ROE) and to economic profitability measures like the Internal Rate of Return (IRR).

In corporate finance, Economic Value Added (EVA), is an estimate of a firm's economic profit – being the value created in excess of the required of the company's investors (being shareholders and debt holders). Quite simply, EVA is the profit earned by the firm less the cost. The idea is that value is created when the return on the firm's economic capital employed is greater than the cost of that capital. This amount can be determined by making adjustments to GAAP accounting. There are potentially over 160 adjustments that could be made but in practice only five or seven key ones are made, depending on the company and the industry it competes in.

**DEFINITION of 'Economic Value Added - EVA'** A measure of a company's financial performance based on the residual wealth calculated
by deducting cost of capital from its operating profit (adjusted for taxes on a cash basis). (Also referred to as "economic profit").

**Economic value added** (EVA) is an internal management performance measure that compares net operating to total cost of capital. Stern Stewart & Co. is credited with devising this trademarked concept.

*Economic value added* is the incremental difference in the rate of return over a company's cost of capital. In essence, it is the value generated from funds invested in a business. If the economic value added measurement turns out to be negative, this means a business is destroying value on the funds invested in it. It is essential to review all of the components of this measurement to see which areas of a business can be adjusted to create a higher level of economic value added. If the total economic value added remains negative, the business should be shut down.

The measurement has benefited from the marketing efforts of consulting firms that want to install an economic value added measurement system; whether the metric will have standing over the long term is difficult to say.

To calculate economic value added, determine the difference between the actual rate of return on assets and the cost of capital, and
multiply this difference by the net investment in the business. Additional details regarding the calculation are:

- Eliminate any unusual income items from net income that do not relate to ongoing operational results.
- The net investment in the business should be the net book value of all fixed assets, assuming that straight-line depreciation is used.
- The expenses for training and R&D should be considered part of the investment in the business.
- The fair value of leased assets should be included in the investment figure.
- If the calculation is being derived for individual business units, the allocation of costs to each business unit is likely to involve extensive arguing, since the outcome will affect the calculation for each business unit.

The most common objective in decision making scenarios is to maximise shareholder value. This is because most decisions are made by companies where the directors have a duty to act in the interests of their shareholders.

Research has found that to develop decision making metrics that maximise shareholder value, the following factors need to be incorporated:
1. **Cash is preferable to profit**

   Cash flows have a higher correlation with shareholder wealth than profits.

2. **Exceeding the cost of capital**

   The return, however measured, must be sufficient to cover not just the cost of debt (for example by exceeding interest payments), but also the cost of equity.

   Peter Drucker commented, in a Harvard Business Review article: ‘Until a business returns a profit that is greater than its cost of capital, it operates at a loss. Never mind that it pays taxes as if it had a genuine profit. The enterprise still returns less to the economy than it devours in resources… until then it does not create wealth; it destroys it.’

3. **Managing both long and short-term perspectives**

   Investors are increasingly looking at long-term value. When valuing a company’s shares, the stock market places a value on the company’s future potential, not just its current profit levels.

   EVA is an attempt to address the above three issues.

   EVA is a measure of performance similar to residual income, except the profit figure used is ECONOMIC profit and the capital employed figure used is ECONOMIC capital employed. It is argued that the profit and capital employed figures quoted in the financial statements do not give
the true picture and that the accounting figures need to be adjusted to show the true underlying performance.

The basic concept of EVA is that performance should be measured in terms of the value added during the period. It is a measure of performance that is directly linked to shareholder wealth.

**Scope and Advantages of EVA**

EVA as a management tool can be used in all managerial functions provided that it has been made tailored with the context. It has a strong relationship with share prices. As per eq. 3, the market value of a company is its book value plus the current value of future EVA. Stewart (1990, pp.215 - 218) has first studied this relationship with market data of 618 U.S. companies and presents the results in his book "The quest for value". Lehn and Makhija (1996) study EVA and MVA as performance measures and signals for strategic change. Their data consists of 241 U.S. companies and cover years 1987, 1988, 1992 and 1993. However, Tero Telaranta (1997) has conducted a study about the correlation of EVA and share prices and concluded that EVA is not any better than traditional performance measures.

EVA based bonus plan produces positive results within an organization. Wallace (1997) studies the effects of adopting management bonus plans based on residual income measures. The study also suggests
superior performance with the companies using EVA. Motivating bonus system normally encourages managers to exceed the normal performance level and even after the payment of the management’s bonuses, the return to shareholders is more than it would have been without the bonus system. EVA bonus systems are also good in decreasing agency problems. EVA might also be suitable to uniting the interests of the management/owners and ordinary employees. According to professors Michael J. Jensen from Harvard Business School and Kevin J. Murphy from University of Chicago the biggest problem with top management salaries is that managers are currently paid like bureaucrats rather than like value maximizing entrepreneurs (Jensen & Murphy 1990, p.1). They also state that traditional bonus systems produce far too small incentives for good performers and guarantee too big compensation for mediocre performers (1990, p.3). EVA can also be used in Group-level controlling of operations. EVA may also ensure optimum capital structure by making the firm properly levered. But, adopting EVA simply as a performance measurement metric, in the absence of some ideas as to how you’re going to create value, isn’t going to get you anywhere (Kroll 1997, p.109). Thus, proper understanding is important to define its scope and to retrieve the maximum benefits out of it.

**Limitations of EVA**

EVA has a lot of advantages though it is not free of limitations. Some of the limitations are pointed out below:
EVA is criticized to be a short-term performance measure. Some companies have concluded that EVA does not suit them because of their focus on long-term investments. An example is offered by American company GATX (Glasser, 1996), which leases transportation equipment and makes fairly long-term investments.

The true return or true EVA of long-term investments cannot be measured objectively because future returns cannot be measured; they can only be subjectively estimated.

EVA is probably not a suitable primary performance measure for companies that have invested heavily today and expect positive cash flow only in a distant future.

The periodic EVA fails to estimate the value added to shareholders, because of the inflation and other factors.

EVA suffers from wrong periodizing. A company may have a lot of undepreciated new assets in its balance sheet and it might show negative EVA even if the business would be quite profitable in the long run.

Traditional financial ratios are commonly used for distress prediction. It was observed that EVA does not have incremental value in the predicting.
5.6 MARKET VALUE ADDED

Introduction

One of the external indicators that gives the utmost satisfaction to the investors is share price and, truly speaking, the Market Value Added. From the investors’ view point, the investor is always interested in increase in the share prices. The most reliable measure of management’s long – run success in adding value is known as “Market Value Added” (MVA). MVA is the difference between company’s current market value as determined by its stock price and economic book value. Economic value of the company can be determined as the amount of capital that shareholders have committed to the firm throughout its existence, including earnings that have been retained in the business. MVA is the best external performance measure as it indicates the market assessment of the effectiveness with which a company’s managers have used the scarce resources under their control. Hence, it is very significant and important to analyze and identify the internal indicators that are related to with Market Value Added.

The market value added concept derives the difference between the market value of a business and the cost of the capital invested in it. When market value is less than the cost of invested capital, this implies that management has not done a good job of creating value with the equity made available to it by investors.
Market value added represents the wealth generated by a company for its shareholders since inception. It equals the amount by which the market value of the company's stock exceeds the total capital invested in a company (including capital retained in the form of undistributed earnings). Since the main goal of a for-profit organization is to maximize shareholders' wealth, market value added is an important measure to analyze how much value a company has added to the wealth of its shareholders. Higher market value added is better.

**Market value added (MVA)** is the difference between the current market value of a firm and the capital contributed by investors. If MVA is positive, the firm has added value. If it is negative, the firm has destroyed value.

**What Are the Benefits of Added Market Value?**

Market Value Added (also known as MVA in the business world) constitutes the difference between the market value of a company or concern and the capital that is contributed to that company or concern by its investors. The greater the MVA, the greater the value of the company---this proves that the company has worth, aside from the capital contributed by its investors. There are many benefits for a company to have a healthy added market value, including increased attractiveness to possible investors; the likelihood of high returns for investors; the probability that
the company will survive for years (and perhaps even decades) to come, even if some investors cash out and move on to new projects; and that the company has solid, perhaps even great, management in place, leading it toward a profitable future.

**Increased Attractiveness to Prospective Investors**

With a higher market value added, a company is more likely to catch the eye of investors looking for attractive options in which to invest their capital it is clear that the company is healthy and thriving, signaling the likelihood of good returns for investors later down the line. For investors who aren’t looking for a long-shot, big-pay-off gamble, investing in a company with a high market value added appears to be a safe and more secure investment route.

**High Returns for Investors**

Obviously, if a high MVA is attractive to prospective investors, there are benefits for those who have already invested their capital. A company with a high MVA has created significant returns and has proven to be profitable for current investors. With such a reputation among investors in the business world, a company can expect good press and great interest from investors in the future, guaranteeing a certain amount of life and prosperity. High returns for investors also can lead to even more capital from these investors, as they seek to continue reaping the rewards
from their beneficial investment and it will mean that their original investments and shares will increase in value.

**Survival of the Company**

In the business world, nothing is guaranteed. However, for a company that is healthy enough to have decent—or even high—added market value, the future is bright. This is an indication that the company is earning for its investors, will continue to attract investors and will continue to survive and thrive. Weathered investors have experienced their fair share of failed businesses, and having one that makes it and returns to them a healthy profit is one that will continue to grow.

**Good Management in Place**

In order for a company to experience the kind of success that brings positive market value added, there needs to be good leadership within the firm. This kind of leadership encourages confidence among investors and adds to the positive reputation that such a successful firm is likely already building. With good management that has already found formulas to produce success and profitable returns to investors, prospective investors will take notice, enabling the company to continue and to grow.

**Limitations of Market value added**

1. MVA does not take into account the opportunity costs of the invested capital.
2. MVA does not take into account the interim cash returns into to shareholders.

3. Market value added (MVA) cannot be calculated at divisional (Strategic business unit) level and cannot be used for private held companies.

**Difference between economic value added and market value added**

Economic value added (EVA) is a performance measure developed by Stern Stewart &Co that attempts to measure the true economic profit produced by a company. It is frequently also referred to as "economic profit", and provides a measurement of a company's economic success (or failure) over a period of time. Such a metric is useful for investors who wish to determine how well a company has produced value for its investors, and it can be compared against the company's peers for a quick analysis of how well the company is operating in its industry. Economic profit can be calculated by taking a company's net after-tax operating profit and subtracting from it the product of the company's invested capital multiplied by its percentage cost of capital. For example, if a fictional firm, Cory's Tequila Company (CTC), has 2005 net after-tax operating profits of $200,000 and invested capital of $2 million at an average cost of 8.5%, then CTC's economic profit would be computed as $200,000 - ($2 million x 8.5%) = $30,000. This $30,000 represents an amount equal to 1.5% of CTC's invested capital, providing a standardized measure for the wealth the company generated over and above its cost of capital during the year.
Market value added (MVA), on the other hand, is simply the difference between the current total market value of a company and the capital contributed by investors (including both shareholders and bondholders). MVA is not a performance metric like EVA, but instead is a wealth metric, measuring the level of value a company has accumulated over time. As a company performs well over time, it will retain earnings. This will improve the book value of the company's shares, and investors will likely bid up the prices of those shares in expectation of future earnings, causing the company's market value to rise. As this occurs, the difference between the company's market value and the capital contributed by investors (its MVA) represents the excess price tag the market assigns to the company as a result of its past operating successes.

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