VALUE ADDED STATEMENT (VAS) – A CRITICAL ANALYSIS

A case study of Bharat Heavy Electricals Limited

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Abstract: In this paper we have tried to show how and to what extent, the VAS can supplement additional financial information to satisfy all the stakeholders of the enterprise. A case study of BHEL has also been provided in which performance, productivity, targets of profit and the relationship between the concerned variables have been discussed through Time Series Analysis, Regression Analysis and Ratio Analysis. Under Regression Analysis the correlation coefficients of the concerned variables have been computed and tested with the help of Fisher's t-test – at both 5% and 1% level of significance. The study provides financial information in a better way and it is very much useful to judge the performance and productivity of an enterprise for managerial decision-making.

Key Words : Value Added, Financial Performance, Cost of Bought-in-Goods and Services, Value Added Ratios, Value Added Reporting.

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 assessed 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.

PURPOSE OF THE STUDY

The present study highlights the theoretical framework of the concept of value added and the Value Added Statement (VAS), and the usefulness of such VAS as a supplementary financial statement, in addition to traditional financial statement, which can satisfy the additional

information needs of all the stakeholders of business, as a part of social responsibility reporting. An attempt has been made in this paper to examine the VAS as a performance indicator for public sector undertaking in India. The public sector undertakings are generally criticized due to their poor performance in terms of return on investment of fund. They have not been established with the objective of profit making. Actually, these undertakings have been set up with the main objective of providing infrastructure towards the economic development of the society as well as fulfilling the expectation, trust and other domain of aspiration of the society at large. A case study of well-known and large public sector undertaking, the Bharat Heavy Electricals Limited (BHEL), has been provided to analyze whether BHEL has been able to satisfy the expectation, trust and other domain of aspiration, which the nation has placed on it.

VALUE ADDED : CONCEPTUAL FRAMEWORK

i) Meaning and Definition

The concept of value addition basically comes from the very manufacturing process wherein the firm's raw materials are converted into finished goods. A manufacturing firm begins with a certain quantum of raw materials, and then engages itself in a conversion process to yield a product with new utility and market value which is different from the original cost of materials. The excess of such market value over the cost of materials is defined as value added. However in practice materials in value added calculations include all items purchased from outside and actually processed. This concept of value added has been defined differently by various experts, which are as follows:

The term Value Added may be simply defined in Economics as the difference between the value of output produced by a firm in a period, and the value of the inputs purchased from other firms in producing output. In equation form it can be stated as follows:

Value Added (VA) = Value of output (VO) – Value of Inputs (VI)

The Annual Survey of Industries (ASI, 1964) defines value added by manufacturer as follows:

Value Added (VA) = (Gross ex-factory value of output) – (Gross value of Input)

Where Output = (aggregate value of products + work done for customers + Sales value of goods sold in the same condition as bought ± stock of semi-finished goods)

Input = Gross value of materials, fuel etc, work done by other concerns for the firm, non-industrial service bought, depreciation and purchase value of goods sold in the same condition as bought.

Value added is the value, which the entity has added in a period that equals its sales less bought-in-goods and services (Morely, 1978). In terms of equation it may be expressed as follows:

Value added = Sales – Bought-in-goods and services. Value added measures the wealth created by a business or industry.

The product or value added of any enterprise may be loosely described as the difference between the revenues received for the sale of its output, and the costs which were incurred in producing the output after making the necessary stock adjustments.

Value added is the wealth the company has been able to create by its own and its employees' efforts during a period (John Sizer, 1994).

Value added is the increase in market value brought about by an alteration in the form, location or availability of a product or service excluding the cost of bought-in-materials and services (ICAI, 1985). This can be expressed in the following equation:

Value added = Value after alteration – Value before alteration.

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

The term value added may be defined as the sales value less the cost of bought-in-goods and services used in producing those sales (Brown and Howard, 1992).

The added value of a firm or for any other organization is the value added to materials by the process of production. It also includes the gross margin on any merchanted or factored goods sold (E.F.L Brech, 1994).

Kohler defines value added as "that part of the cost of a manufactured or semi-manufactured product attributable to work performed on constituent raw material. The value is arrived at by deducting from the total value of the output of a firm and other incomes, the cost of raw materials, power and fuel, water etc, which are bought from other firms." According to this definition, the value added may be understood with the help of the following equation:

Value Added = (Value of Output + Income from other sources) – (Cost of materials and services purchased from outside).

Value added is said to represent the total wealth of the firm that could be distributed to all capital providers, employees and the government (Evraert and Riahi Belkaoui, 1998).

Value added has been defined as the value created by the activities of a firm and its employees i.e. sales less the cost of bought-in-goods and services (Van Staden, 2000)

We may define value added as the excess of net sales revenue adjusted with increase or decrease of semi-finished and finished stock plus income from other services over the cost of bought-in-goods and services purchased from outside agencies. Symbolically,

VA = [(NS±SFFS)+IS] – CBGS,

Where, VA = Value Added, NS = Net Sales which refers to the sales gross of excise duty and sales tax, but net of returns, rebates, discount etc., SFFS = semi-finished and finished stock, IS = income from services and CBGS = cost of bought-in-goods and services.

On the basis of above definitions we may conclude that value added is the wealth created by the business during a particular period of time and the wealth (or value) so created or added is distributed among the different stakeholders who created it. It is also observed that there are various techniques of measuring the value added and thus it is necessary to develop a standard practice for measuring value added, so that the performance of different enterprises may be judged in a meaningful way and inter-firm as well as intra-firm comparison may be possible.

ii) Classification and Computation

Value Added may be classified into two categories:

a) Gross Value Added (GVA) which refers to sales plus income from other services less bought in materials and services purchased from outsiders; and

b) Net Value Added (NVA), which refers to the difference between GVA and Depreciation. In other words, NVA is the sum of the value added to employees, to providers of loan capital, to Government and to owners.

Bernard Cox suggested the following two methods for computing Gross Value Added (GVA):

i) Additive method: under this method gross value added is computed by using the following equation –

GVA = PBT + EC + D + I …….(1)

Where, PBT = Profit Before Taxes, D = Depreciation

EC = Employee Cost and I = Interest

ii) Subtracting method: under this method Gross Value Added (GVA) is calculated by using the following equation:

GVA = S + IS – CBGS …… (2)

Where, S = Sales

IS = Income from Services

CBGS = Cost of Bought–in-goods and services

Studneski Paul suggested following two methods for calculating Net Value Added:

a) Income Distribution Method: In this method Net Value Added (NVA) is determined by the following equation:

NVA = VAW + VAG + VAF + VAE …….. (3)

Where, VAW = Value added to workers/employees, VAG = Value added to Government,

VAF = Value Added to Financer, VAE = Value Added to Entity.

b) Net output method: under this Net Value Added is determined by the following equation

NVA = GVA – D

= (S+IS) – CBGS – D …… (4)

where, S = Sales, IS = Income from other services, CBGS = Cost of bought-in-goods ad services and D = Depreciation.

Accounting Standard Steering Committee (ASSC) suggests a formula for computing Value Added (VA), which is as follows:

$VA = a - b = c + d + e + f$ .....(5)

Where, VA = Value Added, a = Turnover, b = Bought-in-materials and services, c = employees wages and other benefits, d = Dividend and Interest payable, e = Tax payable and f = Retained profit.

iii) 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.

VALUE ADDED STATEMENT (VAS): A VOLUNTARY SUPPLEMENT

a) Meaning, Definition and Significance

For the purpose of calculating the amount of value added and its distribution, the Value Added Statement (VAS) is prepared. The main concern of this statement lies in deriving a measure of wealth (i.e. value), the entity has contributed to the society through the collective efforts of the various stakeholders. This statement is prepared and published voluntarily with the annual financial reports. Various authors define this statement differently, which are stated below:

The simplest and most immediate way of putting profit into proper perspective vis-à-vis the whole enterprise, as a collective effort by capital, management and employees, is presentation of a statement of value added.

Value Added Statement may be defined as the statement, which shows the income of the company as an entity and how that is divided between the people who have contributed to its creation.

While the income statement reports on the income of shareholders, the value added statement reports on the income earned by a large group of stakeholders – providers of capital plus employees and the government.

Value Added Statement (VAS) reveals the value added by an enterprise which it has been able to generate and its distribution among those contributing to its generation known as stakeholders (ICAI, 1985).

The value added statement reports on the calculation of value added and its application among the stakeholders in the company (Van Staden, 2000)

Value Added Statement (VAS) is actually aimed at supplementing a new dimension to the existing system of corporate financial accounting and reporting through the disclosure of additional information regarding the amount of wealth created by an organization in an accounting period and the way the wealth has been distributed by the enterprise amongst all the stakeholders (i.e. employees, providers of loan capital, government and owners) who have contributed to the 'wealth created'. Since VAS represents how the value or wealth created or generated by an entity is shared among different stakeholders, it is significant from the national point of view. Therefore, VAS represents a move in a new and different direction for financial reporting. Earlier, accountants have been giving much attention to answer the question – "How should we measure income?" But the VAS asks a different question – "Whose income should we measure?" So this approach can raise question of distributive justice and is directly linked with the concept of social responsibility of an enterprise.

b) Origin and Development of VAS

The concept of value added income is not a new one. This concept was first introduced in the computation of national income, which is usually considered as the production of goods and services during a time span within a national boundary (B.Cox, 1979). The concept has been introduced in the corporate reporting during seventies and has been gaining popularity since the publication of "The Corporate Report" by the Accounting Standard Steering Committee (ASSC), London in 1975 and "The Future of Company Reports" a comprehensive document of British Government, published by HMSO, in London in July 1977. ASSC has recommended various expansions to financial reporting in order to improve and enhance both the understandability and reliability of traditional financial statements and techniques. As a result, supplementary financial statements have been developed and the companies are advised to prepare statements like Value Added Statement (VAS), statement of Proprietary Fund, etc in addition to Profit and Loss Statement and Balance Sheet. In a long and consistent history of its use, value-added income has been used in the area of public finance with a view to imposition of taxes. A review of the publication of the VAS around the world has indicated that a significant number of companies in the Netherlands, France and Germany have provided value added data. There have also been growing instances of VAS being disclosed in countries such as Denmark, Switzerland and Italy. In U.K., after the publication of "The Corporate Report" in 1975, many large companies are incorporating value added statement in their Annual Reports. In May 1976 the Department of Trade issued a preliminary draft paper "Aims and Scope of Company Reports" recommending, amongst other things, the company reports should include a statement of value added. Then in July 1977 Green Paper has been published on "The Future of Company Reports" which supported many of the ideas put forward in the documents, including added value statement. Value Added Reporting (VAR) even though not always mandated, is becoming increasingly popular in Europe, Australia and Singapore. In Australia there is no statutory obligation on the part of companies to present VAS in their Annual Reports. However, Australian corporate disclosures have indicated that a majority (63%) of the companies have adopted a disclosure practice of VAS. In U.S.A, although US companies have not included value added information in their annual reports, many authors strongly feel that it

must be made available to the users (Cruns, 1982, Riahi Belkaoui, 1992, 1996). In South Africa (SA) the interest in value added statement started with the publication of 'The Corporate Report', in 1975. This led to six companies in top 100 publishing VAS in 1977. Unlike other countries where the publication of VAS has reduced, in South Africa, companies publishing the value added statement has increased, with a total of 74 companies in the top 100 producing VAS in 1990. In 1997, more than 200 companies listed in the industrial sector of Johannesburg Stock Exchange (JSE) have published VAS voluntarily as part of their annual financial statements (Van Staden, 2000). This is the highest incidence of publication of VAS reported in the world to date, which makes South Africa the best place to investigate the publication of the VAS. In India VAS is a voluntary corporate financial supplementary statement, which provides the information regarding the financial performance of a corporate entity in such a fashion as would be easily be understood by layman to expert. (Rao, 2000) A very few progressive companies in India like SAIL, MNTC, CRL, BPCL, BHEL, CCI etc. in public sector and Indian Rayon, Infosys Technologies Ltd., Britannia Industries Ltd, Escorts Ltd, Global Telesystem Ltd. etc. in private sector, are producing value added statements along with their traditional financial statements in their annual financial reports. However, at the macro level, the first recorded use of value added was in 1970 when TRENCHCOX used it in the first US Census of Production.

c) Assumptions in VAS

Following assumptions are made to derive the value added income through the preparation of Value Added Statement (VAS):

i) VAS is not a substitute but a supplement to the Profit and Loss Account.

ii) It is prepared on the basis of data recorded and processed by the conventional accounting system.

iii) In the preparation of VAS the accounting concept and principles of accounting are remaining the same.

Though it becomes convenient to prepare the Value Added Income Statement from the conventional income statement, in reality, however, there is a lot of difference between these two statements. The difference arises from the fact that income statement contains certain non-value added debit items like provision, non trading losses, etc and credit items like profit from sale of scrap, interest on securities dividends from investment etc.

d) Objective of VAS

The main objectives of preparing VAS are as follows:

i) To disclose the value added by a firm during a period of time.

ii) To indicate the wealth created by an enterprise for the purpose of evaluating and measuring the performance of the business unit.

iii) To study the pattern of distribution of value added to all the stakeholders – employees, providers of loan capital, governments and owners.

iv) To use it as the basis for making inter-firm and intra-firm analysis, for preparing plans and fixing targets, for developing productivity incentive schemes and for leading to an improvement in team spirit, etc.

v) To collect revenue by way of levying tax on value added instead of on net profit.

e) Format of VAS

The Value Added Statement (VAS) is usually divided into two parts: (A) Generation of Value Added and (B) Application of Value Added. It can be prepared either in "Report or Vertical Form" or "Account or Horizontal Form". These two forms are shown as under:

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X Company Ltd
Value Added Statement (Report or Vertical Form)
for the year ended 31st March …….

	Particulars	Amount (Rs.)
A.	Generation of Value Added:	
	Sales/Turnover (Including excise duties and sales tax excluding	
	Returns, rebates & discounts etc.)	***
	± Stock of semi-finished and finished goods	***
	Production value	***
	Add: Income from services	***
		***
	Less : Bought-in-goods and services purchased from outsiders	***
	Gross Value Added (GVA)	***
	Less : Depreciation and deferred Revenue expenses	***
	Net Value Added (NVA)	***
B.	Application of Value Added:	
	Receipt by Workers/Employees	***
	Receipt by Providers of Loan Capital	***
	Receipt by Government	***
	Receipt by Owners	***
	Net Value Added (NVA)	***

X Company Ltd

Value Added Statement (Account or Horizontal Form)

for the year ended 31st March ……

Generation of Value Added	Amount (Rs.)	*Application of Value Added*	Amount (Rs.)
Sales/Turnover (Including excise duties and sales tax excluding Returns, rebates & discounts etc.)	***	Receipt by Workers/Employees	***
		Receipt by Providers of Loan Capital	***
		Receipt by Government	***
± Stock of semi-finished and finished goods	***	Receipt by Owners	***
Add: Income from services	***		
Less: Bought-in-goods and services purchased from outsiders	***		
Gross Value Added (GVA)	***		
Less: Depreciation and deferred Revenue expenses	***		
	***		
Net Value Added (NVA)		Net Value Added (NVA)	***

f) Treatment of Some Major Terms in VAS

Generation of Value Added

i) Sales / Turnover

It is to be net of sales returns, rebates, trade discount, commission and brokerage etc. but gross of excise duty and sale tax because (a) excise and sales tax are to be recovered from customers; (b) payments to be made to the government are to be shown clearly; (c) it would be unreasonable when stock contains the element of excise duty; (d) it would not unreasonably increase the contribution ratio of wages to value added income.

ii) Stock

Increase or decrease of stocks of semi-finished and finished goods are to be added or subtracted as the case may be from the turnover to ascertain the exact value of gross output. There is no need to change the basis of valuation (cost price or net market realization whichever is less) adopted for the purpose of income statement.

iii) Income from services

It represents the services rendered by a company, which consists of dividend from subsidiary company, rent, compensation, royalty, interest and other income etc.

iv) Bought in goods and services

It refers to the purchase of inputs in the form of goods and services by the enterprise from an external agency, which may be directly or indirectly related to production. Such items again may be classified as under:

(a) Bought-in-materials, which include raw materials, semi finished goods, stores and spares, dyes and chemicals, power, fuel and water, damage and shortage in goods, repairs and maintenance and packaging materials and exclude cost of self-generated power.

(b) Bought-in-services, which include repairs and maintenance, power and fuel, bank commission, insurance charges, advertising and publicity, postage, telephone & telegram, printing & stationery, audit fees, rent & rates, traveling expenses, legal charges, carriage outwards, entertainment expenses etc.

v) Depreciation

In respect of depreciation the following three alternative treatments are possible:

a) To show it in the application of value added under the head either 'retained profit' or 'growth and expansion';

b) To include it under the Bought-in-services and ascertaining directly the net value added;

c) Reducing the gross value added separately.

Application of value added

i) Receipt by workers/employees

It includes the amount of salaries and wages, payment of bonus, contribution to providend fund, ESI and other benefits, staff welfare expenses, payment of gratuity, Director's remuneration etc.

ii) Receipt by Providers of Loan Capital

It includes the amount of interest payable on all types of borrowed capital (e.g. debenture, term loan etc.) including interest on working capital loans.

iii) Receipt by Government

It includes the amount of excise duty, customs duty, local taxes, sales tax, octroi duty, rates and taxes, other direct taxes (e.g. income tax, wealth tax) etc. In some cases amount of export incentives, subsidies received, refund of any duty or taxes like duty draw backs, excess of provision of taxes are granted by the government and are deducted from Government's share.

iv) Receipt by Owners

It includes the dividend received by shareholders and the amount transferred to various types of reserves, statutory or non-statutory including retention, if any.

g) Uses of VAS

Following are the chief uses of Value Added Statement (VAS):

i) Value Added shown in VAS can be used to measure the business performance in a better way. There is evidence that the meaning and significance of profits are widely misunderstood. In such a situation value added may be regarded as a preferable way of describing performance. Profit-based reporting is likely to be more subjective; on the other hand, product-based reports are more objective in nature. Value added statement puts profit in a different perspective and focuses attention on the success of a company in creating wealth and generating national income. For the general public it can lead to a greater awareness of the role of business in producing goods and services and in generating income to the society.

ii) VAS is more useful to the employees of a company rather than Profit and Loss Statement. Morley (1978) argues that employees have an interest in the wealth created by their company during the year, the share they receive in the form of pay as well as the proportion reinvested to strengthen overall financial health of the company and enhance future job security. The income statement, apart from being more complex than a value added statement, is not of particular relevance to the employees (Morley, 1978).

iii) The optimize added value is more meaningful than optimize profit because added value determines reward for employees as well as providers of loan capital. Therefore, VAS is very much useful for the company to introduce "productivity incentive schemes based on added value". Morley notes that many U.K. companies have introduced bonus plans based on the increases in the ratio of value added to wages, salary, and other contributions to employees. Value added per employee may also be the basis for computing bonus and other incentive schemes.

iv) VAS is used to construct VA-based ratios that are considered as the important diagnostic and predictive tools for making comparison of company's performance with other national and multinational companies. It may be possible to compute ratios of value allocated to the different participating groups of the total value created by the company for assessing the relative position of each group in the matter of application of the total product of the company. The value added concept provides relevance in determining market strategy by highlighting the products and markets offering the best value added ratios.

v) VAS, a supplementary report, is useful to provide the means for a company to reach out to an expanded audience of users. Besides shareholders, financial analysts academicians, professional managers, lenders, employees, auditors and the general public would feel interested in the outcome of the stakeholders' contribution to the creation of wealth in the company.

vi) VAS improves the attitudes of employees towards their employing organization, which leads to an improvement in the team spirit within the organization. But the pattern of human behavior is very much complex and is determined by many factors. Mere presentation of VAS as a supplementary statement of information does not guide human attitude and behavior.

vii) Value Added income data shown in VAS will aid government agencies in planning for the future by providing them with current information on the output in terms of goods and services being provided by the enterprise and on input-output relations of the organization as a system.

viii) VAS can also be used to assist in capital investment appraisal by comparing the value added available from different investment proposals.

ix) VAS also provides important accounting and other information that facilitates better communication from concern to a variety of users who are related or unrelated. Thus, it is more transparent in nature.

x) At present, the both Central and various State Governments use VAS to determine and collect tax on value addition by an enterprise in its process of production.

xi) It helps to estimate resources needed for a particular level of activity and therefore, it helps in preparing budgets.

From the above-mentioned uses of VAS, it is worthwhile to note that an organization may survive without earning profit but cannot survive without adding value. An organization even if it is sick, especially non-profit making in nature, would remain useful so long as it generates value.

h) Limitation of VAS

The following are the limitations of VAS:

i) VAS may lead to confusion especially in cases where wealth (as measured by value added) is increasing while earnings or other value added components are decreasing (Riahi Belkaoui, 1992).

ii) The inclusion of the value added may wrongly lead management to pursue maximization of firm's value.

iii) The naive approach to the interpretation of a firm's value added statement can create five fallacies such as – (i) Increasing value added must increase profit; (ii) Increasing value added per unit of labor must benefit shareholders; (iii) It is possible to identify in advance an equitable distribution of changes in the value added; (iv) A relatively high value added per unit of labor represents superior economic performances; and (v) A labor force taking a high proportion of value added does not deserve even high wages (Rutherford, 1980).

iv) The most severe limitation of value added data emerges from the lack of any uniformity/consistency among different companies in the matter of preparation and presentation of value added measures. When the computation of value added are made by different companies using varying principles and rules, the comparability between companies is greatly impaired. Inconsistencies are found in – (a) The treatment of depreciation resulting in gross and net value added; (b) The treatment of taxes, fringe benefits and other benefits in the employees' share of value added; (c) The timing of recognition of value added-production or sales; (d) The treatment of non-operating debit and credit items.

v) VAS is nothing more than a mere rearrangement of the data obtained from Profit and Loss Account for shifting focus of attention from the profit and loss figures to the figures of mainly employees' remuneration.

vi) The inclusion of VAS in the Annual Report of a company involves extra cost and work. So it may create delay in annual reporting.

In spite of these limitations it may be said that the Value Added Statement (VAS) brings about certain changes in emphasis rather than change in the content in the traditional financial statement and hence such change leads to the change in the attitude and behavior of company's workforce. It is also considered as a valuable means of social disclosure and is regarded as a strong basis favoring social sanctions to carry on business activities in an unprecedented manner.

In the next portion of our study we try to analyze whether BHEL has been able to satisfy the expectation, trust and other domain of aspiration of the society at large. For this purpose we have divided our analysis and findings into four important sections such as (i) VAS Analysis (ii) Time Series Analysis of GVA and NVA (iii) Regression Analysis of GVA and NVA and (iv) Ratio Analysis. For the sake of simplicity straight trend line equations are fitted on the basis of time series data compiled from the published financial statements of the company, by using the least squares method. Under regression analysis, we have established the relationship between GVA/NVA and value of production on the basis of data shown in the VAS (Table-2) where the correlation coefficients between the concerned variables are tested at both 1% and 5% level of significance (using Fisher's t-test). Under ratio analysis we have considered some important value added ratios over a period of eight years to identify the fluctuations of such ratios.

HYPOTHESIS TESTED/RESEARCH QUESTIONS EXPLORED

The following hypotheses or questions are studied:

(i) Whether there is any justification for incorporating value added figure in addition to net profit figure for the measurement of financial performance of a firm.

(ii) Whether there is any significant relationship between GVA and Value of Production and also between NVA and Value of Production.

(iii) Whether the Value Added Ratios throw a new light for measuring managerial performance of a firm.

METHODOLOGY

The study concentrated on the critical analysis of data available from the financial statement of Bharat Heavy Electricals Limited for a period of 8 years (i.e from 1999-2000 to 2006-2007). On the basis of the data the Profit & Loss Statement and the Value Added Statement have been prepared simultaneously over the period under study. Data are compiled after considering necessary re-arrangement for the purpose of the study. The analysis has been made in four parts: (i) VAS analysis, (ii) Time Series analysis, (iii) Regression analysis, and (iv) Ratio analysis. In VAS analysis Gross Value Added (GVA) and Net Value Added (NVA) have been computed by using the format of VAS used by the company just after making some

modifications necessary for the purpose of the study. In Time Series analysis the straight trend line equations of GVA and NVA are fitted on the basis of available data by using the method of least squares and trend values have also been computed for the years under study. Under Regression analysis the estimating equations of GVA (y) on the value of production (x) as well as NVA (z) on the value of production (x) have been drawn on the basis of available bi-variate data with the help of least squares method. The correlation co-efficient of the concerned variables have also been computed (i.e. r_{xy} and r_{zy}) and tested with the help of statistical tools (Fisher's t-test) to establish the relationship between x & y and z & x respectively. Again in the last part of the analysis value-added ratios for the measurement of performance as well as productivity of BHEL have been computed on the available data.

A CASE STUDY OF BHARAT HEAVY ELECTRICAL LIMITED (BHEL)

Company Profile

Bharat Heavy Electricals Ltd. (BHEL) is the largest engineering and manufacturing enterprise in India in the energy-related / infrastructure sector. The company has been earning profits continuously since 1971-72 and paying dividends since 1976-77. BHEL manufactures over 180 products under 30 major product groups and caters to core sectors of the Indian Economy viz–Power Generation Transmission, Industry, Transportation, Telecommunication, Renewable energy etc. BHEL consists of 14 manufacturing divisions, 4 power sector regional centers, over 100 project sites, 8 service centers and 18 regional offices. This infrastructure enables the company to promptly serve its customers and provide them with suitable products, systems and services efficiently and at competitive prices. The company produces world-class products. The company adopts some of the best technologies from leading companies in the world together with technologies developed in its own R & D centers. BHEL has acquired certifications to Quality Management systems (ISO 9001), Environmental Management systems (ISO 14001) and occupational health, safety Management systems (OHSAS 18001) and is also well on its journey towards Total Quality Management.

ANALYSIS AND FINDINGS

i) VAS analysis

The statement showing GVA and NVA figures of BHEL are shown in Table-2. In Table-2 it is found that both GVA and NVA figures have increased over time (i.e. from 1999-2000 to 2006-2007) except in the year 2001-2002. The distribution of Net Value Added is also clearly shown in the table over the period of eight years. The GVA and NVA indices (taking 100 in the year 1999-2000 as base) reveal a continuous increasing trend (except in 2001-2002) in Value Added of Bharat Heavy Electrical Limited throughout the period under study from 1999-2000 to 2006-2007. In absolute term, GVA and NVA of BHEL in the year 1999-2000 were Rs. 21,736 million and Rs. 20,201 million respectively whereas these two figures in 2006-2007 are Rs. 65,035 million and Rs. 62,305 million respectively. The increase in the value added (both GVA and NVA) is mainly due to the increase in the value of production over the years. Value added indices also show that in 2006-2007 the GVA and NVA have increased to about 300% from the base year 1999-2000 (taken as 100). The value of production in 2006-2007 has also reached to 263.51% from the base year 1999-2000.

Table-1
Profit and Loss Statement of Bharat Heavy Electricals Limited (BHEL)
for the period of 8 years (1999-2000 to 2006-2007)

(in million rupees)

Particulars	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
Sales of products and services	66,340	63,478	72,866	74,822	86,625	94,911	1,32,892	1,72,375
Other income	4,707	5,054	4,940	5,087	5,127	4,862	5,308	7,615
Change in stock	-237	+2,507	-373	-453	-306	+5,398	+3,860	+1812
Gross Income	**70,807**	**71,039**	**77,433**	**79,456**	**91,446**	**1,05,171**	**1,42,060**	**1,81,802**
Material used	28120	30496	33068	31604	36347	55,519	77,570	98,740
Personnel Payments	11330	21702	14446	15046	16395	16,505	18,786	24,511
Other expenditure	20951	13884	20629	22380	25975	14,148	17,014	18,027
Def. Rev. Exp. W/O	-- 60,401	-- 66,082	-- 68,143	-- 69,030	-- 78,717	180 86,352	-- 113370	-- 141278
PBDIT	**10,406**	**4,957**	**9,290**	**10,426**	**12,729**	**18,819**	**28,690**	**40,524**
Depreciation charged	1,535	1,578	1,692	1,854	1,980	2189	2459	2,730
PBIT	**8,871**	**3,379**	**7,598**	**8,572**	**10,749**	**16,630**	**26,231**	**37,794**
Interest paid	217	438	970	548	601	814	587	433
PBT	**8,654**	**2,941**	**6,628**	**8,024**	**10,148**	**15,816**	**25.644**	**37,361**
Provision for Tax	2660	(-) 185	1949	3579	3566	6282	8,852	13,214
PAT (Net Profit)	**5,994**	**3,126**	**4,679**	**4,445**	**6,582**	**9,534**	**16,792**	**24,147**
Dividend (incl. of div. Tax)	855	809	979	1104	1659	2224	NA	NA
Retained Profit	**5,139**	**2,317**	**3,700**	**3,341**	**4,923**	**7,310**	**NA**	**NA**
PAT indices (Base year 1999-2000)	100	52.15	78.06	74.16	109.81	159.06	280.15	402.85
Net Profit to Capital Employed	0.19	0.07	0.12	0.12	0.18	0.20	0.30	0.43

Source: Annual Reports of BHEL from 1999-2000 to 2006-2007.

Table-2
Value-Added Statement (VAS) of Bharat Heavy Electricals Limited (BHEL) for the period of 8 years (1999-2000 to 2006-2007)

(in million rupees)

Particulars	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
Generation of Value Added:								
Sales of products and services Change in stock	66,340 -237	63,478 +2,507	72,866 -373	74,822 -453	86,625 -306	94,911 +5,398	1,32,892 +3,860	1,72,375 +1812
Value of Production (VP) VP indices	66,103 100	65,985 99.82	72,493 109.67	74,369 112.50	86,319 130.58	1,00,309 151.75	1,36,752 206.88	1, 74,187 263.51
Other income	4,704	5,054	4,940	5,087	5,127	4,862	5,308	7,615
Gross Output	70,807	71,039	77,433	79,456	91,446	1,05,171	1,42,060	1,81,802
Less Brought-in-goods and services purchased								
Materials used	28120	30496	33068	31604	36347	55,519	77,570	98,740
Other expenditure	20951 49,071	13884 44,380	20629 53,697	22380 53,984	25975 62,322	14,148 69,667	17,014 94,584	18,0271,16,767
Gross Value Added (GVA) GVA indices	21,736 100	26,659 122.65	23,736 109.20	25,472 117.19	29,124 115.59	35,504 163.59	47,476 218.42	65,035 299.20
Depreciation charged	1,535	1,578	1,692	1,854	1,980	2369*	2459	2,730
Net Value Added (NVA) NVA indices	20,201 100	25,081 124.16	22,044 109.12	23,618 116.92	27,144 134.37	33,135 164.92	45,017 222.85	62,305 308.43
Distribution of NVA:								
To workers / Employees (Staff cost)	11,330 (56%)	21,702 (87%)	14,446 (66%)	15,046 (64%)	16,395 (61%)	16,505 (50%)	18,786 (42%)	24,511 (39%)
To Providers of capital (loan interest)	217 (1%)	438 (2%)	970 (4%)	548 (2%)	601 (2%)	814 (2%)	587 (1%)	433 (1%)
To Government (Tax)	2660 (13%)	(-) 185 (-1%)	1949 (9%)	3579 (15%)	3566 (13%)	6282 (19%)	8852 (20%)	13214 (21%)
To owners (Div.+Retained Earnings)	5994 (30%)	3126 (12%)	4679 (21%)	4445 (19%)	6582 (24%)	9534 (29%)	16792 (37%)	24147 (39%)
Net Value Added (NVA)	20,201 (100%)	25,081 (100%)	22,044 (100%)	23,618 (100%)	27,144 (100%)	33,135 (100%)	45,017 (100%)	62,305 (100%)

*Source: Data are compiled on the basis of information available in Annual Reports of BHEL for various years, (from 1999-2000 to 2006-2007) * it includes deferred revenue expenditures written off of Rs. 180 for this year only.*
(Note: Figures in brackets indicate the percentage distribution of net value added).

The above analysis indicates that the value addition has increased with the increase in the value of production over time either by using underutilized capacity of production or by enhancing the capacity of production of the company. Though Net Profit (after tax) figure of BHEL shows the same trend of performance it is worthwhile to mention that the use of GVA and NVA figures, for the analysis of managerial performance, is preferable to Net Profit because of the fact that the GVA/NVA is the amount available to all participants: the employees, the government, the providers of capital and the owners cooperating in a group for the creation of the company, whereas Net Profit figure is the amount available to the owners only. ***Thus if we analyze the performance of the company on the basis of value added figure then the analysis reveals the distributive judgment in respect of all participants but if we analyze the said performance on the basis of Net Profit then it is beneficial to the owners only. In this perspective it may be concluded that for the analysis of performance of BHEL the value added figure can throw a new light into the performance of an enterprise in addition to Net Profit***.

Employees' share of NVA was 56% in 1999-2000 and it increased to 87% in 2000-2001 and after that it has continuously decreased over time and ultimately it has come down to 39% in 2006-2007. The retained earnings, a portion of owners' share, is very much important for growth and expansion of business. From the table it is found that retained earnings have more or less an increasing trend over the periods under study (except in the year 2000-2001). From the VAS it is also found that the depreciation has marked a constant rising trend over the period under study. Depreciation charge in the year 1999-2000 was Rs. 1535 million while it has reached to Rs. 2730 million in the year 2006-2007.***It suggests that company should try to maintain a stable increasing trend of retention of funds in future after careful consideration of dividend policy in the one hand and market value of the firm on the other, so that it can grow and expand without any difficulties. It is worthwhile to mention that a major portion (i.e. more than 80%) of NVA has been concentrated in two heads i.e. contribution to employees and the owners.***

ii) Time Series Analysis

We can fit straight trend line equations by using the time series data from VAS of BHEL relating to GVA and NVA with the help of least square method, and then from the straight trend line equations of GVA and NVA we can obtain the estimated figures of GVA and NVA (i.e. Trend Values) for the given time points (i.e. past period) and also for future time points simply by putting the x-values correspond to the different time points (either past or future periods). The trend values relating to GVA and NVA on different given time points are shown respectively in Table-3 and Table-4 below.

Table-3
Trend values of GVA of BHEL for the period of 8 years (1999-2000 to 2006-2007)

Year	x-values	GVA (y)	x^2	xy	Trend values
1999-2000	-7	21736	49	(-) 152152	15754
2000-2001	-5	26659	25	(-) 133295	21065
2001-2002	-3	23736	9	(-) 71208	26376
2002-2003	-1	25472	1	(-) 25472	31687
2003-2004	(+) 1	29124	1	29124	36998
2004-2005	(+) 3	35504	9	106512	42309
2005-2006	(+) 5	47476	25	237380	47620
2006-2007	(+) 7	65035	49	455245	52931
	$\sum x = 0$	$\sum y = 274742$	$\sum x^2 = 168$	$\sum xy = 446134$	--

Straight trend line equation: y = 34342.75 + 2655.56x (year of origin 2004-05 – 2005-06, 1 unit of x = 6 months). Using the least squares method fits trend line equation.

Table-4
Trend values of NVA of BHEL for the period of 8 years (1999-2000 to 2006-2007)

Year	x	NVA (z)	x2	xz	Trend values
1999-2000	-7	20201	49	(-) 141407	14151
2000-2001	-5	25081	25	(-) 125405	19286
2001-2002	-3	22044	9	(-) 66132	24418
2002-2003	-1	23618	1	(-) 23618	29551
2003-2004	(+) 1	27144	1	27144	34685
2004-2005	(+) 3	33135	9	99405	39818
2005-2006	(+) 5	45017	25	225085	44952
2006-2007	(+) 7	62305	49	436135	50085
	$\sum x = 0$	$\sum z = 258545$	$\sum x2 = 168$	$\sum xz = 431207$	--

Straight trend line equation: z = 32118.13 + 2566.71x (year of origin 2004-05 – 2005-06, 1 unit of x = 6 months). Using the least squares method fits trend line equation.

The fitted trend line equations relating to GVA and NVA are:
y= 34342.75 + 2655.56x …….. (1) and
z = 32118.13 + 2566.71x ……..….. (2) respectively.

From the above two equations GVA and NVA figures can easily be estimated for the future periods. Suppose we want to know the GVA and NVA for the year 2009-2010. Simply by putting x=13 in equation-1 and equation-2 we get the estimated GVA (y09-10) = Rs. (34342.75 + 2655.56 × 13) million = Rs. 68865 million and NVA (z09-10)= Rs. (32118.13 + 2566.71 × 13) million = Rs. 65485 million, from which we can forecast about employees' share, dividend payable to shareholders, interest payable to lenders, and retained earnings & depreciation reinvested in business unit for further growth and expansion in future. This analysis gives us an idea about the future contribution by the business unit towards different stakeholders of the company and also targeted profit of the company in future.

iii) Regression Analysis

On the basis of data compiled in Table-2, we did regression analysis to find out the relationship between GVA and the Value of Production (VP) and between NVA and the Value of Production (VP) simultaneously. For this purpose we construct Table-5 and Table-6 in which necessary calculations are made.

Table-5
Regression equation of GVA (y) on value of production (x)

Year	GVA (y)	Value of Production (x)	x^2	xy	y^e = -2325+0.378x
1999-2000	21736	66103	4369606609	1436814808	22662
2000-2001	26659	65985	4354020225	1759094115	22617
2001-2002	23736	72493	5255235049	1720693848	25077
2002-2003	25472	74369	5530748161	1894327168	25766
2003-2004	29124	86319	7450969761	2513954556	30304
2004-2005	35504	100309	10061895481	3561370736	35592
2005-2006	47476	136752	18701109504	6492437952	49367
2006-2007	65035	174187	30341110969	11328251545	63518
	$\sum y = 274742$	$\sum x = 776517$	$\sum x2 = 86064695759$	$\sum xy = 3070694428$	--

$y = -2325+0.378x$, $rxy = 0.99$, $r^2 = 0.98$, observed $t = 17.19$, $t_{0.01,\,6} = 3.14$, $t_{0.05,\,6} = 1.94$,
H_0 ($\rho=0$), H_1 ($\rho\neq0$), Note: H_0 is rejected at both 1% and 5% level of significant and hence it may be said that there is a very high degree of association between GVA (y) and the value of production (x).

Table-6
Regression equation of NVA (z) on the value of production (x)

Year	NVA (y)	Value of Production (x)	x^2	xz	z_e = -3312+0.367x
1999-2000	20201	66103	4369606609	1335346703	20948
2000-2001	25081	65985	4354020225	1654969785	20904
2001-2002	22044	72493	5255235049	1598035692	23293
2002-2003	23618	74369	5530748161	1756447042	23981
2003-2004	27144	86319	7450969761	2343042936	28367
2004-2005	33135	100309	10061895481	3323738715	33501
2005-2006	45017	136752	18701109504	6156164784	46876
2006-2007	62305	174187	30341110969	10852721035	60615
	∑y = 258545	∑x = 776517	∑x2 = 86064695759	∑xz = 29020466692	--

z = -3312+0.367x, r_{zy} = 0.99, r_{zy}^2 = 0.98, observed t = 17.19, $t_{0.01, 6}$ = 3.14, $t_{0.05, 6}$ = 1.94,
H_0 (ρ=0), H_1 (ρ≠0), Note: H_0 is rejected at both 1% and 5% level of significance and hence it may be said that there is a very high degree of association between NVA (z) and the value of production (x).

On the basis of calculations provided in Table-5 and Table-6 we have found two regression equations (by the method of least squares):

i) Required equation of GVA (y) on the Value of Production (x) and

ii) Required equation of NVA (z) on the Value of production (x).

These two regression equations (i.e. estimation equations) as obtained by the method of least square are stated below:

y = (-) 2325 + 0.378x ……. (i) [y on x] and

z = (-) 3312 + 0.367x ……..... (ii) [z on x]

Using these two estimating equations, the estimated values of GVA and NVA have also been computed and shown in Table-5 and Table-6 respectively. In addition to this, we have computed the correlation coefficient r_{xy} = 0.99 and r_{zx} = 0.99 to find out the degree of association between x & y and z & x simultaneously. From this analysis ***it is found that there is a high degree of association between GVA and NVA on one hand and the Value of Production (VP) on the other, which is also statistically significant at both 1% and 5% level of significance***. From the estimated GVA and NVA figure as shown in the tables it is observed that there is a clear rising trend of both GVA and NVA with the increase in value of production.

iv) Ratio Analysis

For appraising the performance and judging the productivity of BHEL following ratios are considered for analysis:

i) *Value added to Net Worth Ratio* indicates the amount of wealth (i.e. value added) created per rupee of Net Worth. Greater the Ratio, higher will be the safety of providers of capital.

ii) *Value added to Capital Employed Ratio* reflects the efficiency of capital utilization in generating the quantum of value added. The main purpose of computing this ratio is to find out how much value is added per unit of capital investment. This ratio is

recognized as more significant than traditional ratio of 'Net Profit to Capital Employed' as an index of managerial efficiency.

iii) *Value added to Sales Ratio* reveals the contribution of Company's sales revenue towards the value addition. An effective sales promotion policy would enable a company to enhance the performance of the company in this regard.

iv) *Net Profit to Value added Ratio* expresses the owner share in the pool. Higher the ratio, higher will be the concentration of income in few hands and vice-versa.

v) *Value added Share Capital (issued) Ratio* points out the contribution by the company towards the society at large.

vi) *Value added to Fixed Asset Ratio* indicates the capital productivity of the enterprise. Greater the ratio higher will be the efficiency of the enterprise in terms of capital productivity.

vii) *alue added to Labor cost Ratio* reveals the labor productivity of the enterprise. A high ratio indicates that the enterprise is highly efficient in terms of labor productivity.

viii) *Value added to Material cost Ratio* focuses the material productivity of the enterprise. Higher the ratio greater will be the efficiency of the enterprise in terms of utilization of materials.

All these ratios are computed on the basis of data compiled in Table-1 and Table-2 according to the purpose of our analysis. These computed ratios are shown in Table-7:

Table-7 depicts the information about the computed ratios of BHEL for the period under study (i.e. from 1999-2000 to 2006-2007). Value added to Net Worth ratio of the company has more or less an increasing trend over the period under study except in the year 2000-2001. It indicates a good sign for the contributors as regard the safety of their funds. Value added to Capital Employed Ratio of the company has almost an increasing trend over the periods of eight years ignoring some fluctuations of this ratio in the year 2000-2001 and 2003-2004. It indicates the efficient utilization of capital for the generation of value added. Value added to Sales Ratio also reveals almost an increasing trend over the years, which reflects that the company has an effective sales promotion policy to enhance the performance of the company. Again Net Profit to value added ratio of the company also reflects the increasing trend, which indicates that the owner share in the pool has increased over time. Value added to Share Capital Ratio of the company has a clear increasing trend (except in the year 2000-2001) over the period under study. Again it is observed that the value added to fixed asset ratio and value added to labor cost ratio have a clear increasing trend over the period except in the year 2000-2001. These ratios of BHEL indicate that the efficiency of the company has increased considerably over time in terms of both capital and labor productivity. It is observed from the table that Value added to material cost ratio shows fluctuations over time. It ranges from 0.61 to 0.87 (for GVA to material cost) / from 0.58 to 0.82 (in case of NVA to material cost). The fluctuations of the ratio are also observed over the period under study. This ratio indicates that the company is highly efficient in terms of utilization of materials. ***Thus it is clear that the financial ratios using Value Added figure can be regarded as the index of managerial performance and they would be more sensitive to display the vivid picture about the efficiency of management of a firm in a highly complex and competitive business environment.***

Table-7
Value Added Ratios for measuring performance and judging productivity of BHEL

Particulars	Set of Ratios	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
Value added to net worth Ratio	GVA to Net Worth	0.65	0.74	0.56	0.54	0.55	0.59	0.65	0.74
	NVA to Net Worth	0.60	0.70	0.52	0.50	0.51	0.55	0.62	0.71
Value added to Capital Employed Ratio	GVA to Capital Employed	0.69	0.63	0.59	0.70	0.79	0.76	0.86	1.17
	NVA to Capital Employed	0.64	0.59	0.54	0.65	0.73	0.71	0.82	1.12
Value added to SalesRatio	GVA to Sales	0.33	0.42	0.33	0.34	0.34	0.37	0.36	0.38
	NVA to Sales	0.31	0.40	0.30	0.32	0.31	0.35	0.34	0.36
Net Profit to Valueadded Ratio	Net Profit to GVA	0.28	0.11	0.20	0.17	0.23	0.27	0.35	0.37
	Net Profit to NVA	0.30	0.12	0.21	0.19	0.24	0.29	0.37	0.39
Value added to Share Capital Ratio	GVA to Share Capital	8.88	10.89	9.70	10.41	11.08	14.50	19.39	26.57
	NVA to Share Capital	8.25	10.25	9.00	9.65	11.09	13.54	18.39	25.45
Value added to Fixed Asset Ratio	GVA to Fixed Asset	2.00	2.33	2.02	2.18	2.66	3.40	4.83	6.60
	NVA to Fixed Asset	1.86	2.19	1.87	2.02	2.48	3.17	4.58	6.30
Value added to Labour cost Ratio	GVA to labour cost	1.92	1.29	1.64	1.69	1.78	2.15	2.52	2.65
	NVA to Labour cost	1.78	1.22	1.52	1.57	1.66	2.01	2.40	2.54
Value added to Material cost Ratio	GVA to Material cost	0.77	0.87	0.72	0.81	0.80	0.64	0.61	0.66
	NVA to Material cost	0.72	0.82	0.67	0.75	0.75	0.60	0.58	0.63

IMPLICATIONS OF THE STUDY FOR MANAGERS AND ORGANIZATIONS

The following are the most important implications of our study:

i) The performance analysis of the company on the basis of Value Added figure reveals the distributive judgment in respect of all the participants of the company. This is not possible through the performance analysis on the basis of Net Profit figure only.

ii) VAS of the company provides the means to satisfy all the stakeholders and as a result, the analysis creates feelings in the minds of all the participants that the company is able to create wealth for the society at large, leading ultimately to a strong basis favoring social approval to carry on its business activities.

iii) For easy growth and expansion of a business enterprise the analysis of VAS suggests some important guidelines for framing the retention and dividend policy of the enterprise.

iv) Our analysis also gives us an impression about the future contribution by the business unit towards different stakeholders of the company and also targeted profit of the company in future.

v) There is a high degree of association between GVA and NVA on the one hand and the value of production on the other, which is also statistically significant at both 5% and 1% level. As a result, we may determine the value of GVA and NVA for any given value of production by using the regression lines drawn for the purpose.

vi) Unlike traditional financial ratios, value added ratios are equally important and useful to judge the efficiency and effectiveness of the enterprise as regards sales promotion, utilization of fund, capital productivity, labor productivity, etc.

CONCLUDING REMARKS

From the analysis so far it may be concluded that though VAS is very much useful to judge the performance and productivity of an enterprise (Public or Private) for managerial decision-making, till now it is at the infancy stage in the arena of financial management. The main reason behind the fact that it is very difficult to unseat any age-old idea deeply entrenched not only in practice but also in allied usages and also in legal set up. That is why, in spite of some obvious limitations of traditional financial statement, VAS have failed to score enough in its favor either to replace or to supplement the traditional one. Thus, it is required to strengthen the concept by promoting common practice and by clearly defining the various technical terms used in VAS for calculating the amount of Value Added. (i.e. GVA and NVA). It is worthwhile to mention further that the Academicians and Professional Bodies of Accountants should come forward to focus the significance of value added statement with a view to popularize the statement amongst the users of financial statements and to produce accounting standard for standardized presentation of data in this statement.

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