VALUE ADDED STATEMENT (VAS): A CRITICAL ANALYSIS: A CASE STUDY OF STEEL AUTHORITY OF INDIA LIMITED

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Abstract: *A value added statement (VAS) is a statement showing the net added value of a business firm during a certain period on its total transaction. The main purpose of value added statement (VAS) is to ascertain how much of the total net value was added and how it was distributed to the contributors of the value. Therefore, a value added statement (VAS) is regarded as a part of social responsibility accounting. The term "value added" means the difference between the value of output produced by a firm in a period, and the value of inputs purchased in producing outputs. Value added is the wealth created by the business during a particular period of time and wealth so created or added is distributed among the difference stakeholders who created it. The aim of this paper is to analyze value added ratios of Steel Authority of India Ltd. Value added ratios were calculated on the basis of value added statements and analysed. This paper focuses on how the value added ratios were helps to the company to measure the productivity and efficiency of an organisation.*

Key Words: *VAS, GVA, NVA, Financial Performance, Value Added Ratios.*

1. INTRODUCTION:

Value Added Statement (VAS) is a modified version of the profit and loss account. Like profit and loss account, the value added statement reveals the operating performance of a company at a given point in time, using both accrual and matching procedures. The VAS does not aim to provide a profit (or loss) figure as in the case of profit and loss account but a figure or return to a large group of capital and labour providers (i.e., owners, employees) or other interested parties.

The term 'value-added' means the market price of the output of an enterprise less cost of bought-in goods and services. The resulting balance money is known as the value-added by an enterprise and this money can be divided among the various parties who have contributed in the production of goods and services of the enterprise in the form of factor inputs.

Thus, the owners (or shareholders), creditors and governments (through taxation) are recipients of the enterprise income. Thus, the value-added income would include wages, rent, interest, taxes; dividends paid to shareholders and retained income of the company.

"Value added is the wealth of reporting entity created through the effective effort of capital, management and employees". This statement is additional statement difference from profit & Loss statement. This statement explains wealth generated by businessman and how he has distributed this fund.

2. OBJECTIVES OF THE STUDY:

- To understand the usefulness of value added statement as a supplementary financial statement.
- To compute gross value added and net value added.
- To compute value added ratios and analyze them.

3. METHODOLOGY:

The study is exclusively a descriptive research and thus it is purely based on the information from secondary data sources. The data collected for the purpose of the study involve the examination of annual reports of the company, documents, magazines, books, journals, various newspapers, and subject related websites and research documents. The study concentrated on the critical analysis of data available from the financial statement. Data are compiled after considering necessary re-arrangement for the purpose of the study.

4. REVIEW OF LITERATURE:

This paper has reviewed the following research studies.

Michael F. Morley (1979) this study relates the structure of the value added statement to the underlying theory of company team membership and the statement in contrasted with the earnings statement which it resembles. The advantages and disadvantages of including a value added statement in annual reports are discussed. The alleged advantages are difficult to verify but on balance the value added statement is concluded to be a useful newcomer to the annual report provided it can be standardized. Recommendations on an accounting standard are given, including the conclusion that value added should be calculated after deducting depreciation.

The study conducted by American Accounting Association Committee on Accounting and Auditing Measurement (1991) examines empirically the relative merits of derived performance indicator numbers from value added reporting, accrual accounting and cash flow accounting. The results show that the derived performance indicator numbers based on net value added had lower variability and higher persistency than corresponding numbers based on the either earnings or cash flows of 673 US firms for the 1981-1990 periods. The findings of the study made a strong case for both mandatory disclosure and increased research on the usefulness of value added reporting in US context

Riahi-Belkaoui and Pavlik (1994) argued that the effects of ownership structure and performance are best examined when performance expresses total return rather than being restricted to accounting returns. Using a sample of US firms, they found a significant non-monotonic relationship between values added based performances and ownership structure. Value added based performances declines up to a turning point before increasing proportionally to the increases in ownership structure measures. The phenomenon held regardless of whether ownership structures are measured by management stock holding, stock concentration, or a sum of the two measures. This result is compatible with (a) A dispersion of ownership and the non- value maximizing behaviour where holdings are less than 10% ownership, and (b) A convergence of interest for the maximization of value added based performance between managers and share holders where there is more than 10% ownership. The third context concerns the firm performance resulting from the adoption of performance plans. This context follows from theoretical arguments indicating that long term accounting-based performance plans motivates executives to improve firm performance in the long run.

Askren et al.(1994) presents the results based on a sample of US firms indicating that firms adopting accounting based performance do not experience any greater gains in accounting return or value added based productivity measures than do a set of control firms. Further he argued that the nature of the relation varies with the ownership structures of the firm. Using the sample of firms, his results supported this connection with respect to owner-controlled but not manager – controlled firms.

Heller and Stoloney (1995) in their study reveal a very low comparability of the published value added statements in Germany which weakens the information contents of these statements. Additionally they are all nothing else than restructured income statements and therefore provide very little additional information. Further the research paper conclude that although the academic accounting interest in value added as an economic performance measure is relatively limited this paper show that in France and Germany there has been a varied discussion and practical application of the value added concept. But even in France, where it is incorporated in general accounting plan and used as an important analytical tool by the “Banque de France” it has so far not widely used in corporate accounting, not even in these two countries, in which this figure is generally regarded as attaining the great popularity. The publication practice of the surveyed companies reveals the perception of value added by the management of those companies.

Staden (1998) in the research paper he opined “The value added statement was published by 210 of the 400 companies listed in the industrial sector on the JSE. It appears from a literature review that the usefulness of the statement has never been tested in depth from the perspective of the users. The importance of this study stems from the increased incidence of publication of the statement in south Africa and lack of evidence substantiating its usefulness”. The results indicate that the respondents do not make significant use of the value added statement.

Serge Evraet (1998) opines that the role of earnings in external financial reporting is being seriously challenged by the emerging trends and new ways of accounting systems and mainly the role of value added data. He further states “inclusion of such data in the financial reports of US corporations has been suggested by American Association committee on accounting and auditing (1991 and in the international accounting and re-search literature (e.g. Zabaidur 1990; Meek and Gray 1998; Deegan and Hallman 1991). It is well accepted in UK, Germany and France.” He further states “Value added represents the total wealth of the firm that could be distributed to all capital providers, employees and the government. Earnings represents the return to shareholders while other value added components reflects returns to the other stakeholders- i.e. the government, bond-holders and employees”. Though value added statement and accounting has emerged as new trend in redefining the way we look at the any companies contributions to all stake holders not much research has undergone around the world about it’s utility and how that could be used by not only the finance personnel and top-level management and how it could be utilized to reposition the company value before the society.

Arangies.G, et.al.(2008) opines that owing to the absence of accounting standards for the preparation of a value added statement, a large variety of methods are used in financial statements and the study reveals the published value added statements of companies listed on the JSE securities exchange during the period 1976-2005 have been standardized by the graduate school of business of the university of Stellenbosch in order to quantify the differences between the standardized value added statement and the published value added statement.

5. CONCEPT OF VALUE ADDED STATEMENT:

The statement which shows how much value has been created by a concern through utilization of its resources and how it is allocated among the different stakeholders in an accounting period is known as Value Added Statement. The resource includes capital, man power, capacity and other resources. In the same way, the employees, lenders, shareholders or owners, government etc; comes under stakeholder. Thus a Value Added Statement is such a statement, which shows the net value added of a business firm during a certain period of its total transactions. It ascertains, how much of the total net value was added and how it was distributed to the contributors of the value. A value added statement is much more important than income statement. The income statement reports on its income of shareholders, but value added statement reports on the income earned by a large group of stakeholder, all the providers of capital plus employees and the government. Thus it can say that the value statement shows the wealth or value created and attributed to all stakeholders rather than just the shareholders.

Value Added Statement (VAS) is a modified version of the profit and loss account. Like profit and loss account, the VAS reveals the operating performance of a company at a given point in time, using both accrual and matching procedures.

The term 'Value added' means the difference between the value of output produced by a firm in a period, and the value of inputs purchased in producing outputs.

This statement is additional statement difference from profit & loss statement. This statement explains wealth generated by businessman and how he has distributed this fund.

5.1 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 and 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.

5.2 BENEFITS OF VALUE ADDED STATEMENT:

- Value Added Statement reflects a broader view of the company's objectives and responsibilities, so it improves the attitude of the employees towards the employing company.
- Value Added Statement makes it easier for the company to introduce the productivity linked bonus scheme for employees based on value added for this value added payroll ratio is used as a basis.
- Value added provides a very good measure of the size and importance of a company.
- Value added statement link a company's financial accounts to the national income. A company's value added statement indicates the company's contribution to national income. As value added statement is based on the system of National Accounts given by UNO to calculate GDP and India signatory to it.

6. ANALYSIS OF VALUE ADDED STATEMENT OF SAIL:

The value added statement of **SAIL** has been analysed in two parts viz. Generation of Value Added and application of Value Added.

TABLE-1: Financial Highlights of SAIL for 6 years (₹ Crore)

For The Year	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Capital Employed	39,431	32,921	31,381	38,450	48,314	47,644
Gross Sales	47,041	50,348	49,350	51,866	50,627	43,337
Net Sales	42,729	45,654	43,961	46,189	45,208	38,514
Net Worth	37,069	39,811	41,025	42,666	43,505	39,281
Current Assets	36,544	28,431	27,616	26,891	28,482	22,174
Net Fixed Assets	15,059	17,127	16,777	26,771	36,169	44,262
Total Revenue	44,793	47,965	46,032	45,580	46,732	40,106
Long Term Borrowings	9,053	11,587	13,486	13,632	14,026	15,981
Profit	4,905	3,543	2,170	2,616	2,093	(4,137)
Contribution to Govt.	2,289	1,608	1,070	608	266	3,061
Dividend	991	826	826	834	826	-
Employee Benefit	7,765	8,034	8,637	9,579	9,736	9,894
Interest	475	678	748	968	1,454	2,047
Retained In Business	3,752	2,583	1,209	1,641	837	(4,224)
GVA	16,778	15,328	14,028	15,489	15,287	6,842
Depreciation	1,486	1,567	1,403	1,717	2,003	2,186
NVA	15,292	13,761	12,625	13,772	13,284	4,656

(Source: Annual Report 2010-2016)

6.1 THE GENERATION OF VALUE ADDED:

The table shows that the Generation of Values Added reveals the indicates of sales turnover marked a continuous increased or decreased throughout the period of study from 2010-11 to 2015-16.It was the lowest level at 43,337 Crore in 2015-16, 47,041 Crore in 2010-11, 50,348 Crore in 2011-12, It further increased to 51,866 Crore in the year 202013-14, 49,350 Crore in 2012-13 and in 2014-15 it was 50,627 Crore. The percentage of Net Value Added to Gross Sales Ratio showed it ranged between 10.74 percent in 2015-16 to 32.51 percent in 2010-11.The Net Value Added to Net Sales showed it ranged between 12.09 percent in 2015-16 to 35.79 in 2010-11. The percentage of Net Value Added to Capital employed Ratio showed it ranged between 9.77 in 2015-16 to 41.80 in 2011-12. The percentage of Gross Value Added to Total Revenue Ratio showed it ranged between 17.06 % to 37.46 % in 2010-11. The percentage of Net Value Added to Total Revenue ratio showed it ranged between 11.61 % in 2015-16 to 34.14 %in 2010-11. The percentage of Depreciation to Gross Value Added ratio showed it ranged between 8.86% in 2010-11 to 31.95% in 2015-16. The percentage of NVA to Total Assets ratio showed it ranged between 7.01% in 2015-16 to 30.21% in 2011-12. The percentage of NVA to Net Worth ratio showed it ranged between 11.85% in 2015-16 to 41.25% in 2010-11. It was tasted fluctuating trend throughout the period of study. The above analysis shows that Company increases their production Capacity and lunch a new product in Global Market.

TABLE- 2: NVA to Gross Sales Ratio

2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
32.51	27.33	25.58	26.55	26.24	10.74

TABLE- 3: NVA to Net Sales Ratio

2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
35.79	30.14	28.72	29.82	29.38	12.09

TABLE- 4: NVA to Capital Employed Ratio

2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
38.78	41.80	40.23	35.82	27.50	9.77

TABLE- 5: GVA to Total Revenue Ratio

2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
37.46	31.96	30.47	33.98	32.71	17.06

TABLE- 6: NVA to Total Revenue Ratio

2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
34.14	28.69	27.43	30.22	28.43	11.61

TABLE- 7: Depreciation to GVA Ratio

2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
8.86	10.22	10.00	11.09	13.10	31.95

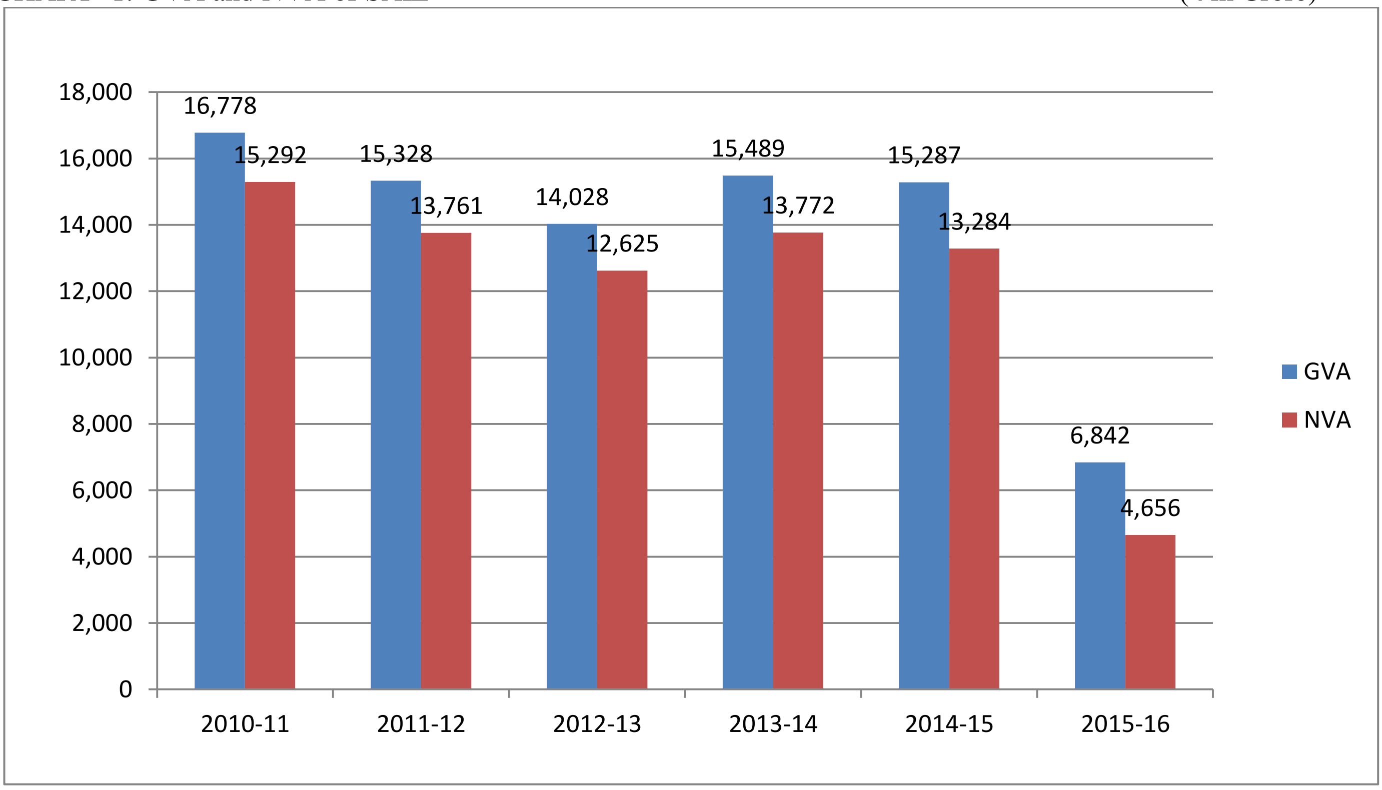
TABLE- 8: NVA to Total Assets Ratio

2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
29.63	30.21	28.44	25.66	20.55	7.01

TABLE- 9: NVA to Net Worth

2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
41.25	34.57	30.77	32.28	30.53	11.85

CHART- 1: GVA and NVA of SAIL (₹ in Crore)



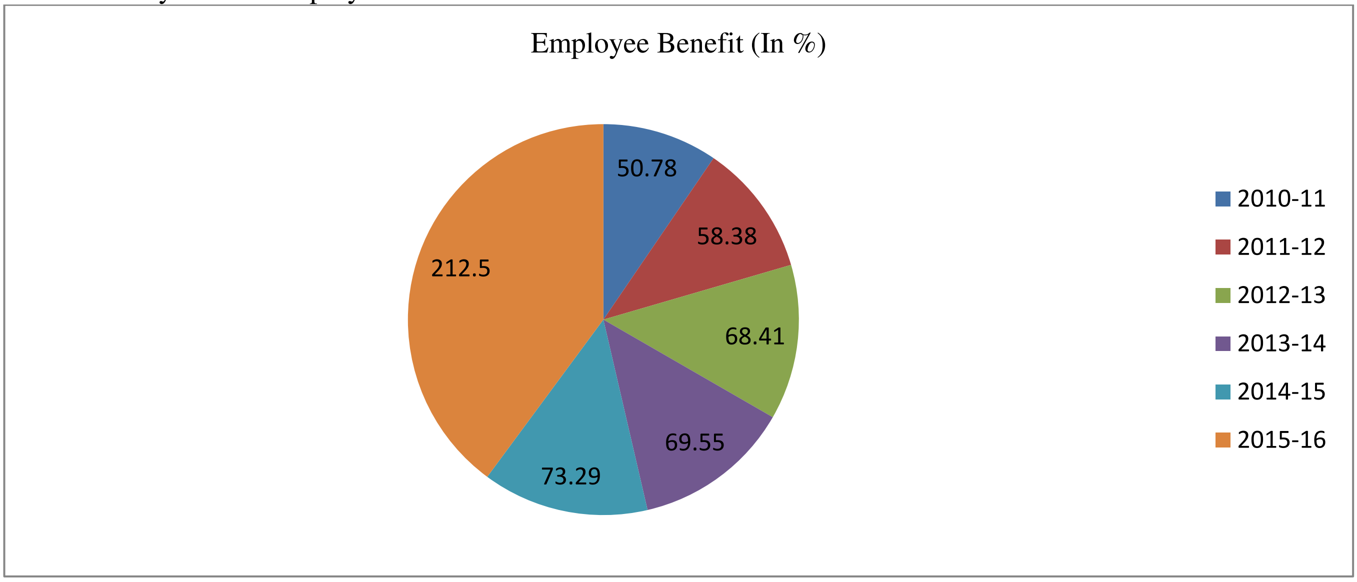
(Source: Annual Report 2010-2016)

The index number of Net Value Added was 100.00 in 2010-11 being the basic year, which was decreased to 89.99 in 2011-12, which was again decreased to 82.56 in 2012-13, decreased by 9.06 in 2013-14, decreased by 86.87 in 2014-15. Finally it reached the decreased level at 30.45 in the year 2015-16, the absolute figure of Net Value Added shows decreasing trend throughout during year 2010-11 to 2015-16. The highest figure of Net Value Added was 15,292 Crore in 2010-11, which was decreased to 13,761 Crore in 2011-12, it slightly decreased to 12,625 Crore in 2012-13, it slightly increased to 13,772 Crore in 2014-15. It reached the lowest level at 4,656 Crore in 2015-16.

6.2 APPLICATION OF VALUE ADDED:

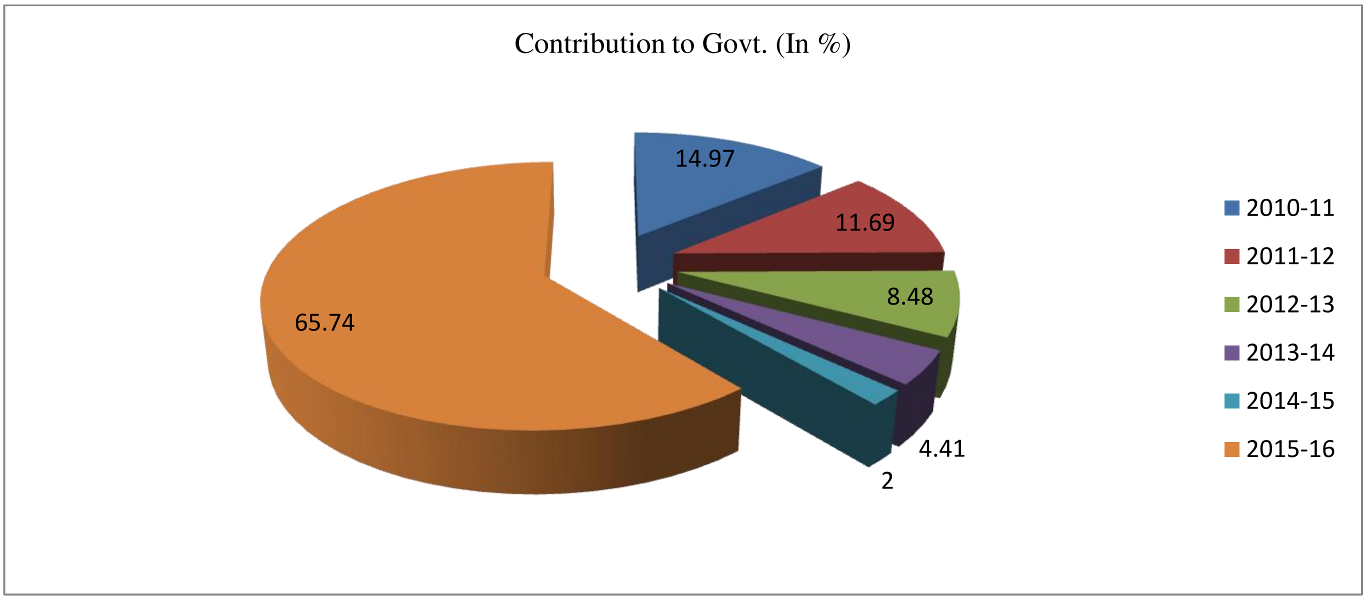
The Analysis of application of value added reveals that the more significant part of value Added applied for payment of Employees.

CHART-2: Payment to Employees in SAIL:



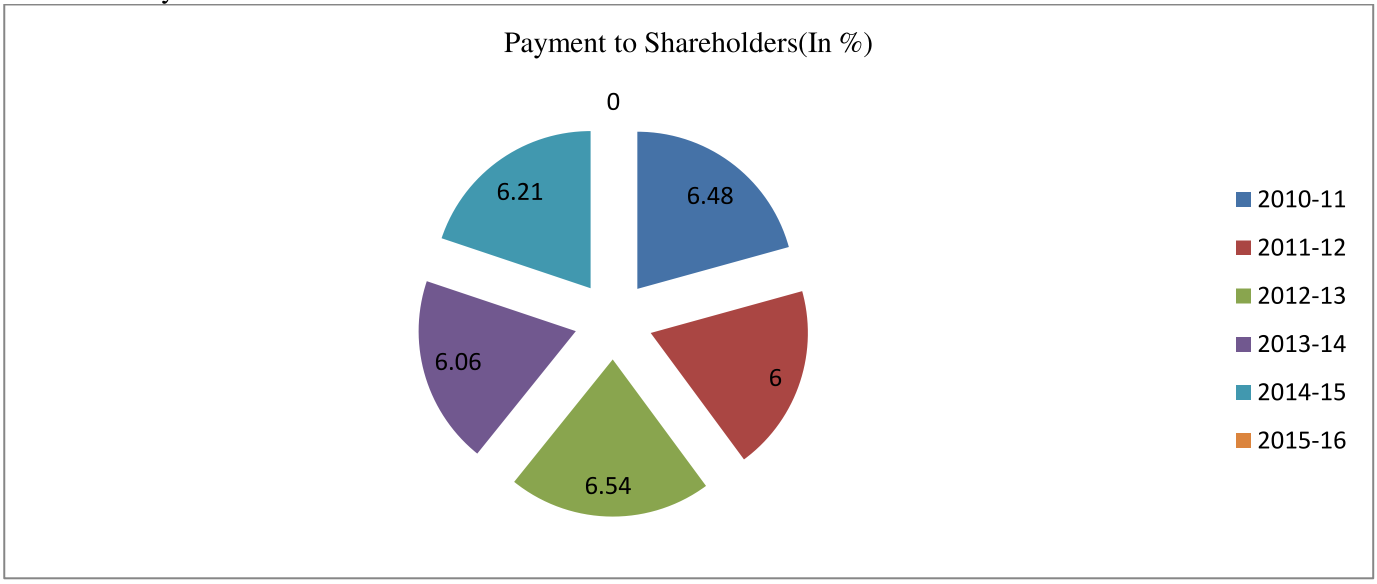
As the percentage of the payment to Employees towards Net value Added was 50.78 percent in 2010-11, it increased to 58.38 percent in 2011-12, 68.41 percent in 2012-13. It further increased to 69.55 percent in 2013-14 and 73.29 percent in 2014-15 and finally it reached and increased to 42.43 percent in 2009-10. The absolute figure of payment to Employees was 7,765 Crore in 2010-11. It increased to 8,034 Crore in 2011-12, 8,637 Crore in 2012-13. It further increased to 9,579 Crore in 2013-14, 9,736 Crore in 2014-15 and finally it reached the highest level at 9,894Crore in 2015-16.

CHART-3: Contribution to Government of SAIL



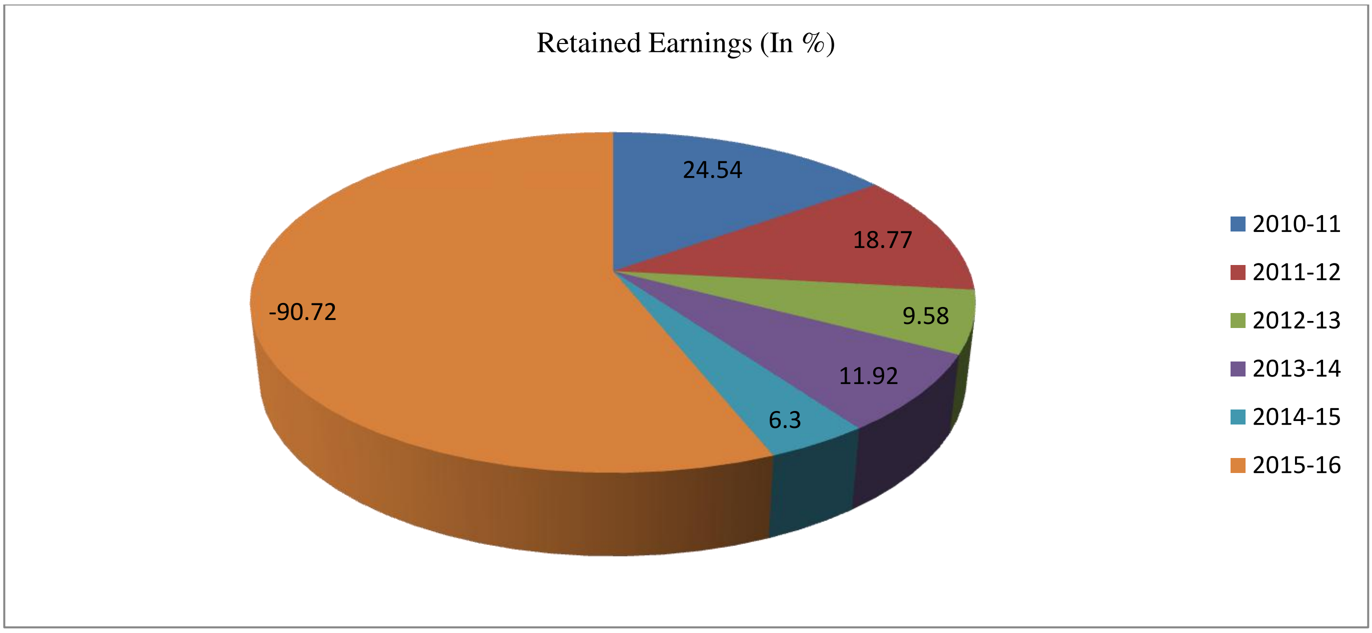
The second part of Net value Added in SAIL was utilized for contribution to Government in form of excise duty and taxes the percentage of Contribution to Government towards Net value Added was 14.97 percent in 2010-11. It decreased to 11.69 percent 2011-12, 8.48 percent in 2012-13. It was the lowest level at 2.00 percent 2014-15 and finally it reached to 65.74 percent in 2015-16. The absolute figure of contribution to Government continuously decreasing trend during the period 2010-11 to 2014-15. It was 2,289 Crore in 2010-11. 1,608 Crore in 2011-12. It decreased to 1070 Crore in 2012-13 and again decreased to 608 Crore in 2013-14. It was further decreased 266 Crore in 2014-15 and finally it reached the highest level at 3061 Crore in 2015-16.

CHART-4: Payment to Shareholders in SAIL



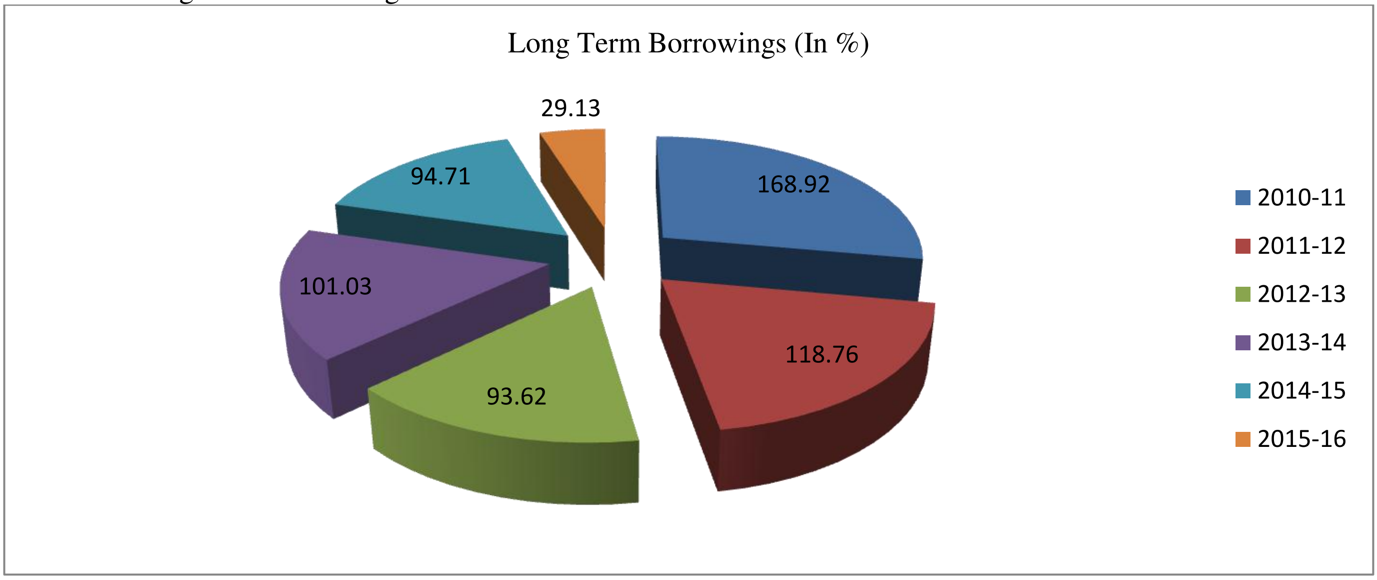
Payment to shareholder towards Net Value Added ranged between 991 Crore in 2010-11, it is the highest level achieved in this year 826 Crore in 2011-12, 2012-13 and 2014-15. It was increased 747 Crore in 2007-08 and it further increased 834 Crore in 2013-14. It ranged between the lowest level at 6.00 percent in 2011-12 to the highest level at 6.54 Crore in 2012-13, 6.48 percent in 2010-11, 6.06 percent in 2013-14, 6.21 Crore in 2014-15 and finally it reached at 0 in 2015-16.

CHART-5: Retained in Business of SAIL



The percentage of Retained in Business to Net value Added Fluctuating trend during 2010-11 to 2015-16. It was 24.54 percent in 2010-11; it was 18.77 percent in 2011-12 and 9.58 percent in 2012-13. In 2013-14 it was 11.92 percent and in 2014-15 it was 6.3 percent. Finally it reached at (90.72) percent in 2015-16. The absolute figure at Retained in Business in 2010-11 was 3,752 Crore and it decreased up to 2012-13 which was 1,209 Crore and it was increased in 2013-14 which was 1,641 Crore and again decreased in 2014-15 which was 837 Crore and in 2015-16 it was (-4,224) Crore.

CHART-6: Long Term Borrowings of SAIL



The percentage of Net Value Added to Long Term Borrowings fluctuating trend during 2010-11 to 2015-16. It was 168.92 percent in 2010-11; it was 118.76 in 2011-12 and 93.62 percent in 2012-13. In 2013-14 it was 101.03 percent and in 2014-15 it was 94.71 percent. Finally it decreased at 29.13 percent in 2015-16. The absolute figure of long term borrowings in Business in 2010-11 was 9,053 Crore and it increased up to 2015-16 which was 15,981 Crore and it was increased in 2011-12 which was 11,587 Crore and again increased in 2012-13 which was 13,486 Crore and in 2013-14 it was 13,632 Crore, in 2014-15 it was 14,026.

7. CONCLUSIONS:

The findings of the study would help to improve the current accounting practice by restating profit and loss account into value added statement. As value added is different from profit figure, it would help users of accounting to use value added information to make decisions. For prepares, gross or net value added information would help to understand how the company has generated value added and how it has distributed to different stakeholders. Investors would know the contribution of the company in terms of value addition. Further research in this area is needed to understand value added by public sector undertakings and private sec-tor undertakings. Longitudinal study would help to know how an entity has generated it value and distributed to different stakeholders. This paper begins with the concept of value added and analysed how it is different from the concept of profit. It collected the financials statements of Steel Authority of India Ltd., for six years and restated them into value added statements. Ratio analyses were conducted to understand the usefulness of different value added ratios. 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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