

DEVELOPMENTS IN FINANCIAL REPORTING

BASIC CONCEPTS

VALUE ADDED STATEMENT

Value Added (VA) is the wealth; a reporting entity has been able to create through the collective effort of capital, management and employees. In economic terms, value added is the market price of the output of an enterprise less the price of the goods and services acquired by transfer from other firms. VA can provide a useful measure in gauging performance and activity of the reporting entity.

The conventional VA statement is divided into two parts – the first part shows how VA is arrived at and the second part shows the application of such VA.

Gross Value Added (GVA): GVA is arrived at by deducting from sales revenue the cost of all materials and services which were brought in from outside suppliers. Besides sales revenue, any direct income, investment income and extraordinary incomes or expenses are also included in calculation of GVA. Including these items the equation, we get

$(\text{Sales revenue} + \text{Direct incomes}) - \text{Bought in cost of materials and services} + \text{Investment incomes} + \text{Extraordinary items} = \text{Retained profit} + \text{Depreciation} + \text{Wages} + \text{Interest} + \text{Tax} + \text{Dividend}$

Net Value Added (NVA): NVA can be defined as GVA less depreciation.

The various advantages of the VA statement are:

- (a) Reporting on VA improves the attitude of employees towards their employing companies.
- (b) VA statement makes it easier for the company to introduce a productivity linked bonus scheme for employees based on VA.
- (c) VA based ratios (e.g. VA/Payroll, Taxation/VA, VA/Sales etc.) are useful diagnostic and predictive tools. Trends in VA ratios, comparisons with other companies and international comparisons may be useful. However, it may be noted that the VA ratios can be made more useful if the ratios are based on inflation adjusted VA data.
- (d) VA provides a very good measure of the size and importance of a company.
- (e) VA statement links a company's financial accounts to national income. A company's VA indicates the company's contribution to national income.

It is generally found that value addition is highest for service companies and lowest for a trading business.

ECONOMIC VALUE ADDED

EVA as a residual income measure of financial performance is simply the operating profit after tax less a charge for the capital, equity as well as debt, used in the business.

EVA helps to :

- Measure the financial performance.
- Take important managerial decisions.
- Equate managerial incentives with shareholder's interest.
- Improve financial & business literacy throughout the firm.

Cost of Capital

The term 'Cost of Capital' means the cost of long term funds of a company. It is the multiple of 'Capital Employed' and Weighted Average Rate of Cost of Debt Capital, Cost of Equity Capital and Cost of Preference Share Capital. This is why cost of capital is known as Weighted Average Cost of Capital (WACC). WACC is post tax. Capital Employed represents the total of Debt Capital, Equity Capital and Preference Share Capital.

Cost of Debt Capital

Cost of Debt Capital is the discount rate that equates the present value of after tax interest payment cash outflows to the current market value of the Debt Capital. Due to the tax-benefit on interest payment on debt capital, Cost of Debt is, generally, lower than the cost of Equity Capital,

Cost of Equity Capital

Cost of Equity Capital is the market expected rate of return. Equity capital and accumulated reserves and surpluses which are free to equity shareholders carry the same cost. Cost of Preference Capital is the discount rate that equates the present value of after tax interest payment cash outflows to the current market value of the Preference Share Capital.

Factors involved in calculating EVA:

$$\text{Cost of Debt } (K_d) = \frac{\text{Interest on Long Term Borrowings (1-Tax rate)}}{\text{Long Term Borrowings}} \times 100$$

$$\text{Cost of Preference Capital } (K_p) = \frac{\text{Preference Dividend}}{\text{Preference Share Capital}}$$

$$\text{Cost of Equity } (K_e) = \text{Risk free rate}(R_f) + \text{Beta} [\text{Market rate}(R_m) - \text{Risk free rate } (R_f)]$$

$$\text{Cost of Retained Earnings } (K_r)$$

Beta

Ungeared Beta = Industry Beta / [1 + (1–Tax Rate) (Industry Debt Equity Ratio)]

Gearred Beta = Ungeared Beta/[1 + (1 – tax rate) (Debt Equity Ratio)]

Equity Risk Premium = Market rate(R_m) – Risk free rate (R_f)

Market Rate of Return (R_m) =

Stock exchange index {at the end of the year – at the beginning of the year}

Stock exchange index at the beginning of the year.

Overall cost of capital =

$$K_d \times \frac{\text{Debt}}{\text{Total funds}} + K_p \times \frac{\text{PSC}}{\text{Total funds}} + K_e \times \frac{\text{Equity}}{\text{Total funds}}$$

Total Funds = Debt + Preference Capital + Equity Funds.

Capital Asset Pricing Model

Capital Asset Pricing Model (CAPM) is the most widely used method of calculating the Cost of Equity Capital. Under CAPM cost of Equity Capital is expressed as

Risk Free Rate + Specific Risk Premium = Risk Free Rate + Beta X Equity Risk Premium
= Risk Free Rate + Beta X (Market Rate - Risk Free Rate)

Specific Risk Premium is a multiple of Beta and Equity Risk Premium.

Beta

Beta is a relative measure of volatility that is determined by comparing the return on a share to the return on the stock market. In simple terms, the greater the volatility, the more risky the share and the higher the Beta. For the companies, which are not listed in stock exchanges, beta of the similar industry may be considered after transforming it to ungeared beta and then re-gearing it according to the debt equity ratio of the company. The formula for un-gearing and gearing beta is shown below.

Ungeared Beta = Industry Beta / [1 + (1–Tax Rate) (Industry Debt Equity Ratio)]

Gearred Beta = Ungeared Beta/[1 + (1 – tax rate) (Debt Equity Ratio)]

Equity Risk Premium

Equity Risk Premium is the excess return above the risk free rate that investors demand for holding risky securities. It is calculated as "Market rate of Return (MRR) minus Risk Free Rate". Market rate may be calculated from the movement of share market indices over a period of an economic cycle basing on moving average to smooth out abnormalities. Many of them do not calculate the MRR but on an ad-hoc basis they assume 8% to 12% as the equity risk premium.

MARKET VALUE ADDED

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.

To find out whether management has created or destroyed value since its inception, the firm's MVA can be used:

$$\text{MVA} = \text{Market Value of Capital} - \text{Capital employed}$$

SHAREHOLDERS' VALUE ADDED

Shareholders' Value Added is a value-based performance measure of a company's worth to shareholders. The basic calculation is net operating profit after tax (NOPAT) minus the cost of capital from the issuance of debt and equity, based on the company's weighted average cost of capital (WACC).

HUMAN RESOURCE REPORTING

Human resource reporting is an attempt to identify, quantify and report investments made in human resources of an organisation that are not presently accounted for under conventional accounting practice. However "human resources" are not yet recognised as 'assets' in the balance sheet.

INFLATION ACCOUNTING

Inflation accounting is an accounting system that adjusts values for changes in purchasing power. It is an attempt to account for the price-level changes and adjust the financial statements accordingly. There are two ways in which the financial statements may be so adjusted:

- I. Historical cost based accounts may be restated in terms of current purchasing power of rupee. This method may be called "Accounting For Current Purchasing Power of Rupee" (ACPP).
- II. Historical cost based accounts may be restated in terms of current costs adjusting changes in the prices of specific assets. This method may be called "Current Cost Accounting" (CCA).

Current Purchasing Power Method

Under this method any established and approved general price index is used to convert the values of various items in the balance-sheet and the profit and loss account. In India, we may take a general price index like the Wholesale Price Index of the Reserve Bank of India which would show the changes in the value of the rupee in the past years.

In converting the figures in the basic historical cost accounts into those in the supplementary current purchasing power statement a distinction is drawn between:

- (a) monetary items; and
- (b) non-monetary items.

In converting from basic historical cost accounts to supplementary current purchasing power statements for any particular period:

- (a) monetary items in the balance sheet at the end of the period remain the same;
- (b) non-monetary items are increased in proportion to the inflation that has occurred since their acquisition or revaluation (and conversely, reduced in times of deflation)

In the conversion process, after increasing non-monetary items by the amount of inflation, it is necessary to apply the test of lower of cost (expressed in rupees of current purchasing power) and net realizable value to relevant current assets, e.g., stocks, and further to adjust the figures if necessary. Similarly, after restating fixed assets in terms of pounds of current purchasing power, the question of the value of the business needs to be reviewed in that context and provision made if necessary.

CURRENT COST ACCOUNTING

This system takes into account price changes relevant to the particular firm or industry rather than the economy as a whole. It seeks to arrive at a profit which can be safely distributed as dividend without impairing the operational capability of the firm. In addition to adjustments for depreciation and cost of sales, it deals with the working capital and also loans raised. The ambit is operation profit and operating capital employed.

Current cost accounting has the following important features:

- (a) Fixed assets are to be shown in the balance sheet at their value to the business and not at the lower of their original cost and realizable value.
- (b) Stocks are to be shown in the balance sheet at their value to the business and not at the lower of their original cost and realizable value.
- (c) Depreciation for the year is to be calculated on the current value of the relevant fixed assets.

Financial Reporting

- (d) The cost of stock consumed during the year is to be calculated on the value to the business of the stock at the date of consumption and not at the date of purchase.
- (e) The effects of the loss or gain from loans will be computed and set off against interest.

Realised holding Gain. It is the excess of the replacement cost of a non-monetary asset on the closing date over its historical cost. Such a gain is shown separately in the balance sheet as revaluation reserve and is not available for distribution as dividend but is utilised for increased replacement cost of the non-monetary asset.

Current Operating Profit. It is the excess of the sale proceeds of goods and services sold during a particular accounting period over the replacement cost of the goods or services sold on the dates the sales were effected.

For calculating current operating profit, following adjustments are to be made in the current cost accounting method:

- (a) Depreciation adjustment
- (b) Cost of sales adjustment (COSA)
- (c) Monetary working capital adjustment (MWCA)
- (d) Gearing adjustment.

Value Added, Economic Value Added, Market Value Added, Shareholders' Value Added

Question 1

What are the advantages of preparation of Value Added (VA) statements? Explain in brief.

Answer

Various advantages of preparation of Value Added (VA) Statements are as under:

1. Improves the attitude of employees -Reporting on VA improves the attitude of employees towards their employing companies. This is because the VA statement reflects a broader view of the company's objectives and responsibilities.
2. Productivity linked bonus -VA statement makes it easier for the company to introduce a productivity linked bonus scheme for employees based on VA. The employees may be given productivity bonus on the basis of VA / Payroll Ratio.
3. Ratio Analysis-VA based ratios (e.g. VA / Payroll, taxation / VA, VA / Sales etc.) are useful diagnostic and predictive tools. Trends in VA ratios, comparisons with other companies and international comparisons may be useful.

4. Reflect Corporate Significance-VA provides a very good measure of the size and importance of a company. To use sales figure or capital employed figures as a basis for company's rankings can cause distortion. This is because sales may be inflated by large bought-in expenses or a capital-intensive company with a few employees may appear to be more important than a highly skilled labour-intensive company.
5. Contribution to Economy-VA statement links a company's financial accounts to national income. A company's VA indicates the company's contribution to national income.
6. Strong Conceptual-VA statement is built on the basic conceptual foundations which are currently accepted in balance sheets and income statements. Concepts such as going concern, matching, consistency and substance over form are equally applicable to VA statement.

Question 2

Explain the concept of 'Economic value added' (EVA for short) and its uses.

Answer

Economic Value Added (EVA) for short, is primarily a benchmark to measure earnings efficiency. Though the term "Economic Profit" was very much there since the inception of "Economics", Stern Stewart & Co., of USA has got a registered Trade Mark for this by the name "EVA", an acronym for Economic Value Added. Its uses can be explained as:

- a) Measurement of financial performance -EVA as a residual income measure of financial performance, is simply the operating profit after tax less a charge for the capital, equity as well as debt, used in the business. EVA includes both profit and loss as well as balance sheet efficiency as well as the ROCE, or ROE.
- b) Impact on shareholders' wealth. -In addition, EVA is a management tool to focus managers on the impact of their decisions in increasing shareholders' wealth. These include both strategic decisions such as what investments to make, which businesses to exit, what financing structure is optimal; as well as operational decisions involving trade-offs between profit and asset efficiency such as whether to make in house or outsource, repair or replace a piece of equipment, whether to make short or long production runs etc.

Most importantly the real key to increasing shareholder wealth is to integrate the EVA framework in four key areas; to measure business performance; to guide managerial decision making; to align managerial incentives with shareholders' interests; and to improve the financial and business literacy throughout the organisation.

To better align managers interests with Shareholders – the EVA framework needs to be holistically applied in an integrated approach – simply measuring EVAs is not enough it must also become the basis of key management decisions as well as be linked to senior management's variable compensation.

Financial Reporting

Question 3

Write short note on Market value Added.

Answer

Market value added is the market value of capital employed in the firm less the book value of capital employed. Market value added is calculated by summing up the paid up value of equity and preference share capital, Retained earnings, long term and short term debts and subtracting this sum from the market value of equity and debt.

Market value added measures cumulatively the performance of corporate entity.

A High market value added means that the company has created substantial wealth for share holders. On the other hand negative MVA means that the value of management's actions and investments are less than the value of the capital contributed to the company by the capital market or that the wealth and value has been destroyed.

Question 4

From the following Profit and Loss Account of Kalyani Ltd., prepare a Gross Value Added Statement. Show also the reconciliation between Gross Value Added and Profit before Taxation.

Profit and Loss Account for the year ended 31st March, 2010

Income	Notes	Amount	
		(Rs. in lakhs)	(Rs. in lakhs)
Sales			206.42
Other Income			<u>10.20</u>
			216.62
Expenditure			
Production and Operational Expenses	1	166.57	
Administration Expenses	2	6.12	
Interest and Other Charges	3	8.00	
Depreciation		<u>5.69</u>	<u>186.38</u>
Profit before Taxes			30.24
Provision for taxes			<u>3.00</u>
			27.24
Investment Allowance Reserve Written Back			0.46
Balance as per Last Balance Sheet			<u>1.35</u>
			<u>29.05</u>
Transferred to:			
General Reserve		24.30	

Developments in Financial Reporting

<i>Proposed Dividend</i>	<u>3.00</u>	27.30
<i>Surplus Carried to Balance Sheet</i>		<u>1.75</u>
		<u>29.05</u>

Notes:

(1) <i>Production and Operational Expenses</i>	(Rs. in lakhs)
<i>Increase in Stock</i>	30.50
<i>Consumption of Raw Materials</i>	80.57
<i>Consumption of Stores</i>	5.30
<i>Salaries, Wages, Bonus and Other Benefits</i>	12.80
<i>Cess and Local Taxes</i>	3.20
<i>Other Manufacturing Expenses</i>	<u>34.20</u>
	<u>166.57</u>
(2) <i>Administration expenses include inter-alia Audit fees of Rs. 1 lakh, Salaries and commission to directors Rs. 2.20 lakhs and Provision for doubtful debts Rs. 2.50 lakhs.</i>	
(3) <i>Interest and Other Charges:</i>	(Rs. in lakhs)
<i>On Fixed Loans from Financial Institutions</i>	3.90
<i>Debentures</i>	1.80
<i>On Working Capital Loans from Bank</i>	<u>2.30</u>
	<u>8.00</u>

Answer

Kalyani Ltd.

Value Added Statement

for the year ended 31st March, 2010

	Rs. in lakhs	Rs. in lakhs	%
Sales		206.42	
Less: Cost of bought in material and services:			
Production and operational expenses	150.57		
Administration expenses	3.92		
Interest on working capital loans	<u>2.30</u>	<u>156.79</u>	
Value Added by manufacturing and trading activities		49.63	
Add: Other income		<u>10.20</u>	
Total Value Added		<u>59.83</u>	

Financial Reporting

Application of Value Added:

To Pay Employees:			
Salaries, Wages, Bonus and other benefits	12.80	21.39	
To Pay Directors:			
Salaries and Commission	2.20	3.68	
To Pay Government:			
Cess and Local Taxes	3.20		
Income Tax	<u>3.00</u>		
	6.20	10.36	
To Pay Providers of Capital:			
Interest on Debentures	1.80		
Interest on Fixed Loans	3.90		
Dividend	<u>3.00</u>		
	8.70	14.54	
To Provide for maintenance and Expansion of the company:			
Depreciation	5.69		
General Reserve (24.30 – 0.46)	23.84		
Retained profit (1.75 – 1.35)	<u>0.40</u>		
		<u>29.93</u>	<u>50.03</u>
		<u>59.83</u>	<u>100.00</u>

Reconciliation Between Total Value Added and Profit Before Taxation:

	(Rs. in lakhs)	(Rs. in lakhs)
Profit before tax		30.24
Add back:		
Depreciation	5.69	
Salaries, Wages, Bonus and other benefits	12.80	
Directors' Remuneration	2.20	
Cess and Local Taxes	3.20	
Interest on Debentures	1.80	
Interest on Fixed Loans	<u>3.90</u>	<u>29.59</u>
Total Value Added		<u>59.83</u>

Question 5

From the following Profit & Loss Account of Brightex Co. Ltd., prepare a gross value added statement for the year ended 31.12.2008:

Show also the reconciliation between gross value added and profit before taxation.

Profit and Loss Account for the year ended 31.12.2008

	Notes	(Rs.'000)	Rs.'000)
<i>Income:</i>			
Sales			6,240
Other Income			<u>55</u>
			6,295
<i>Expenditure:</i>			
Production and operational expenses	1	4,320	
Administration expenses (Factory)	2	180	
Interest & Other charges	3	624	
Depreciation		<u>16</u>	<u>5,140</u>
Profit before tax			1,155
Provision for tax			<u>55</u>
			1,100
Balance as per last Balance Sheet			<u>60</u>
			1,160
Transferred to fixed assets replacement reserve		400	
Dividend paid		<u>160</u>	
			<u>560</u>
Surplus carried to Balance Sheet			<u>600</u>

Notes:

1. Production & Operation expenses:	
Consumption of raw materials	3,210
Consumption of stores	40
Local tax	8
Salaries to administrative staff	620
Other manufacturing expenses	<u>442</u>
	<u>4,320</u>

Financial Reporting

2. *Administration expenses include salaries and commission to directors* 5
3. *Interest on other charges include:*
- (a) *Interest on bank overdraft (Overdraft is of temporary nature)* 109
 - (b) *Fixed loan from I.C.I.C.I.* 51
 - (c) *Working capital loan from I.F.C.I.* 20
 - (d) *Excise duties amount to one-tenth of total value added by manufacturing and trading activities.*

Answer

Brightex Co. Ltd			
Value Added Statement			
For the year ended 31st December, 2008			
	<i>Rs. in</i>	<i>Rs. in</i>	<i>%</i>
	<i>thousands</i>	<i>thousands</i>	
Sales		6,240	
Less: Cost of bought in material and services:			
Production and operational expenses			
(4,320 – 8 – 620)	3,692		
Administration expenses (180 – 5)	175		
Interest on bank overdraft	109		
Interest on working capital loan	20		
Excise duties (Refer to working note)	180		
Other/miscellaneous charges(444 – 180)	<u>264</u>	<u>4,440</u>	
Value added by manufacturing and trading activities		1,800	
Add: Other income		<u>55</u>	
Total Value Added		<u>1,855</u>	
Application of Value Added:			
To pay Employees :			
Salaries to Administrative staff		620	33.42
To pay Directors:			
Salaries and Commission		5	0.27

Developments in Financial Reporting

To Pay Government:

Local Tax	8		
Income Tax	<u>55</u>	63	3.40

To Pay Providers of Capital :

Interest on Fixed Loan	51		
Dividend	<u>160</u>	211	11.37

To provide For Maintenance and Expansion of the Company:

Depreciation	16		
Fixed Assets Replacement Reserve	400		
Retained Profit (600 - 60)	<u>540</u>	<u>956</u>	<u>51.54</u>
		<u>1,855</u>	<u>100.00</u>

Reconciliation between Total Value Added and Profit Before Taxation:

	<i>Rs. in thousands</i>	<i>Rs. in thousands</i>
Profit before Tax		1,155
<i>Add back:</i>		
Depreciation	16	
Salaries to Administrative Staff	620	
Director's Remuneration	5	
Interest on Fixed Loan	51	
Local Tax	<u>8</u>	<u>700</u>
Total Value Added		<u>1,855</u>

Working Note:

Calculation of Excise Duty

		<i>Rs. in thousands</i>
Interest and other charges		624
<i>Less : Interest on bank overdraft</i>	109	
Interest on loan from ICICI	51	
Interest on loan from IFCI	<u>20</u>	<u>180</u>
Excise duties and other/miscellaneous charges		<u>444</u>

Assuming that these miscellaneous charges have to be taken for arriving at Value Added

Financial Reporting

(In the first part of Value Added Statement), the excise duty will be computed as follows.

Let excise duty be x ; thus miscellaneous/ other charges = $444 - x$

Thus $x = 1/10 \times [6,240 - \{3692 + 175 + 109 + 20 + x + (444 - x)\}]$

$$= 1/10 \times [6240 - 4440] = 180$$

Other/ miscellaneous charges = $444 - 180 = 264$

The above solution is given accordingly.

However, if other/miscellaneous charges are taken as any type of application of Value Added.

(i.e, to be taken in the application part), then excise duty (x) will be computed as follows:

$$x = 1/10 \times [6240 - (3692 + 175 + 109 + 20 + x)]$$

$$x = 1/10 \times [2244 - x]$$

$$11x = 2244$$

$$x = 204$$

And thus total value added will be $2040 + 55$ (other income) = 2095

And accordingly, application part will be prepared, taking miscellaneous charges.

Rs('000) 240 [i.e, $444 - 204$] as the application of value added.

Question 6

On the basis of the following income statement pertaining to Brite Ltd., you are required to prepare:

- (a) Gross value added statement; and
- (b) Statement showing reconciliation of gross value added with Profit Before Taxation.

Profit and Loss Account of Brite Ltd. for the year ended 31st March, 2010

	Rs. in thousands	Rs. in thousands
Income		
Sales less returns		15,27,956
Dividends and interest		130
Miscellaneous income		<u>474</u>
(A)		<u>15,28,560</u>

Developments in Financial Reporting

Expenditure

Production and operational expenses:

<i>Decreases in inventory of finished goods</i>	26,054	
<i>Consumption of raw materials</i>	7,40,821	
<i>Power and lighting</i>	1,20,030	
<i>Wages, salaries and bonus</i>	3,81,760	
<i>Staff welfare expenses</i>	26,240	
<i>Excise duty</i>	14,540	
<i>Other manufacturing expenses</i>	<u>32,565</u>	13,42,010

Administrative expenses:

<i>Directors' remuneration</i>	7,810	
<i>Other administrative expenses</i>	<u>32,640</u>	40,450

Interest on:

<i>9% Mortgage debentures</i>	14,400	
<i>Long-term loan from financial institution</i>	10,000	
<i>Bank overdraft</i>	<u>100</u>	24,500
<i>Depreciation on fixed assets</i>		<u>50,600</u>

(B)

14,57,560

Profit before Taxation, (A) — (B) 71,000

Provision for Income-tax @ 35.875% 25,470

Profit after Taxation 45,530

Balance of account as per last Balance Sheet 6,300

51,830

Transferred to:

<i>General reserve 40% of Rs. 45,530</i>	18,212	
<i>Proposed dividend @ 22%</i>	22,000	
<i>Tax on distributed profits @ 12.81%</i>	<u>2,818</u>	43,030
<i>Surplus carried to Balance Sheet</i>		<u>8,800</u>

Financial Reporting

Answer

Brite Ltd.

Value Added Statement for the year ended 31st March, 2010

	<i>Rs. in thousands</i>	<i>Rs. in thousands</i>
Sales less returns		15,27,956
Less: Cost of bought in materials and services, as per working note	9,19,470	
Administrative expenses	32,640	
Interest on bank overdraft	<u>100</u>	<u>9,52,210</u>
Value added by manufacturing and trading activities		5,75,746
Add: Dividends and interest		130
Miscellaneous income		<u>474</u>
Total value added		<u>5,76,350</u>

Application of valued added

	<i>Rs. in thousands</i>	<i>Rs. in thousands</i>	<i>%</i>
To pay Employees:			
Wages, salaries and bonus	3,81,760		
Staff welfare expenses	<u>26,240</u>	4,08,000	70.79
To pay Directors:			
Directors' remuneration		7,810	1.36
To pay Government:			
Excise duty	14,540		
Income tax	25,470		
Tax on distributed profits	<u>2,818</u>	42,828	7.43
To pay providers of capital:			
Interest on 9% debentures	14,400		
Interest on long-term loan from financial institution	10,000		
Dividend to shareholders	<u>22,000</u>	46,400	8.05

Developments in Financial Reporting

To provide for maintenance and expansion of the company:

Depreciation on Fixed assets	50,600		
Transfer to General reserve	18,212		
Retained profit, Rs.(8,800-6,300)(in 000's)	<u>2,500</u>	<u>71,312</u>	<u>12.37</u>
		<u>5,76,350</u>	<u>100.00</u>

Statement showing reconciliation of Total value added with Profit before taxation

Rs. in thousands Rs. in thousands

Profit Before Taxation 71,000

Add back:

Wages, salaries and bonus	3,81,760	
Staff welfare expenses	26,240	
Excise duty	14,540	
Directors' remuneration	7,810	
Interest on 9% mortgage debentures	14,400	
Interest on long-term loan from financial institution	10,000	
Depreciation on fixed assets	<u>50,600</u>	<u>5,05,350</u>
Total Value Added		<u>5,76,350</u>

Working Note:

Calculation of cost of bought in materials and services:

Rs. in thousands

Decrease in inventory of finished goods	26,054
Consumption of raw materials	7,40,821
Power and lighting	1,20,030
Other manufacturing expenses	<u>32,565</u>
	<u>9,19,470</u>

Question 7

On the basis of the following Profit and Loss Account of Zed Limited and the supplementary information provided thereafter, prepare Gross Value Added Statement of the company for

Financial Reporting

the year ended 31st March, 2010. Also prepare another statement showing reconciliation of Gross Value Added with Profit before Taxation.

Profit and Loss Account of Zed Limited for the year ended 31st March, 2010.

	Amount (Rs. in lakhs)	Amount (Rs. in lakhs)
Income		
Sales		5,010
Other Income		<u>130</u>
		5,140
Expenditure		
Production and Operational Expenses	3,550	
Administrative Expenses	185	
Interest	235	
Depreciation	<u>370</u>	<u>4,340</u>
Profit before Taxation		800
Provision for Taxation		<u>280</u>
Profit after Taxation		520
Credit Balance as per last Balance Sheet		<u>40</u>
		<u>560</u>
Appropriations		
Transfer to General Reserve		100
Preference Dividend (Interim) paid		50
Proposed Preference Dividend (Final)		50
Proposed Equity Dividend		300
Balance carried to Balance Sheet		<u>60</u>
		<u>560</u>
Supplementary Information		
Production and Operational Expenses consist of:		
Raw Materials and Stores consumed		1,900

Developments in Financial Reporting

<i>Wages, Salaries and Bonus</i>	610
<i>Local Taxes including Cess</i>	220
<i>Other Manufacturing Expenses</i>	<u>820</u>
	<u>3,550</u>
Administrative Expenses consist of:	
<i>Salaries and Commission to Directors</i>	60
<i>Audit Fee</i>	24
<i>Provision for Bad and Doubtful Debts</i>	20
<i>Other Administrative Expenses</i>	<u>81</u>
	<u>185</u>
Interest is on:	
<i>Loan from Bank for Working Capital</i>	35
<i>Debentures</i>	<u>200</u>
	<u>235</u>

Answer

Gross Value Added Statement of Zed Ltd. for the year ended 31st March, 2010

	<i>Rs. in lakhs</i>	<i>Rs. in lakhs</i>
Sales		5,010
Less: Cost of raw materials, stores and other services consumed	2,720	
Administrative expenses	125	
Interest on loan from bank for working capital	<u>35</u>	<u>2,880</u>
Value added by manufacturing and trading activities		2,130
Add: Other income		<u>130</u>
Total value added		<u>2,260</u>

Application of Value Added

	<i>Rs.in lakhs</i>	<i>Rs. in lakhs</i>	%
To pay employees			
Wages, salaries and bonus		610	26.99
To pay directors			
Salaries and commission to Directors		60	2.66

Financial Reporting

To	pay Government			
	Local taxes including cess	220		
	Income tax	<u>280</u>	500	22.12
To	pay providers of capital			
	Interest on debentures	200		
	Preference dividend	100		
	Equity dividend	<u>300</u>	600	26.55
To	provide for the maintenance and expansion of the company:			
	Depreciation	370		
	Transfer to general reserve	100		
	Retained profit Rs.(60 – 40) lakhs	<u>20</u>	<u>490</u>	<u>21.68</u>
			<u>2,260</u>	<u>100</u>

Statement showing Reconciliation between Gross Value Added with Profit before Taxation

	<i>Rs. in lakhs</i>	<i>Rs. in lakhs</i>
Profit before taxation		800
<i>Add back:</i>		
Wages, salaries and bonus	610	
Salaries and commission to Directors	60	
Local taxes including cess	220	
Interest on debentures	200	
Depreciation	<u>370</u>	<u>1,460</u>
Gross Value Added		<u>2,260</u>

Question 8

Value Added Ltd. furnishes the following Profit and Loss A/c:

Profit and Loss A/c for the year ended 31st March, 2010

	<i>Notes</i>	<i>Rs.('000)</i>
Income		
Turnover	1	29,872
Other Income		<u>1,042</u>
		<u>30,914</u>

Developments in Financial Reporting

<i>Expenditure</i>		
<i>Operating expenses</i>	2	26,741
<i>Interest on 8% Debenture</i>		987
<i>Interest on Cash Credit</i>	3	151
<i>Excise duty</i>		<u>1,952</u>
		<u>29,831</u>
<i>Profit before depreciation</i>		1,083
<i>Less: Depreciation</i>		<u>342</u>
<i>Profit before tax</i>		741
<i>Provision for tax</i>	4	<u>376</u>
<i>Profit after tax</i>		365
<i>Less: Transfer to Fixed Assets Replacement Reserve</i>		<u>65</u>
		300
<i>Less: Dividend paid</i>		<u>125</u>
<i>Retained Profit</i>		<u>175</u>

Notes:

- (1) Turnover is based on invoice value and net of sales tax.
- (2) Salaries, wages and other employee benefits amounting to Rs.14,761 ('000) are included in operating expenses.
- (3) Cash Credit represents a temporary source of finance. It has not been considered as a part of capital.
- (4) Transfer of Rs.54 ('000) to the credit of deferred tax account is included in provision for tax.

Prepare value added statement for the year ended 31st March, 2010 and reconcile total value added with profit before taxation.

Answer

Value Added Ltd.

Value Added Statement for the year ended 31st March, 2010

	Rs.('000)	Rs.('000)	%
Turnover		29,872	
Less: Cost of bought in materials and services:			
Operating expenses (26,741 –14,761)	11,980		
Excise duty	1,952		

Financial Reporting

Interest on Cash Credit	<u>151</u>	<u>14,083</u>	
Value added by manufacturing and trading activities		15,789	
Add: Other income		<u>1,042</u>	
Total value added		<u>16,831</u>	
Application of value added:			
To Pay to employees:			
Salaries, wages and other employee benefits		14,761	87.70
To Pay to Government:			
Corporation tax (376 – 54)		322	1.91
To Pay to providers of capital:			
Interest on 8% Debentures	987		
Dividends	<u>125</u>	1,112	6.61
To Provide for maintenance and expansion of the company:			
Depreciation	342		
Fixed Assets Replacement Reserve	65		
Deferred Tax Account	54		
Retained Profit	<u>175</u>	<u>636</u>	<u>3.78</u>
		<u>16,831</u>	<u>100</u>

Note: Deferred tax account could alternatively be shown as an item 'To pay to government'.

Reconciliation between total value added and profit before taxation

	Rs.('000)	Rs.('000)
Profit before tax		741
Add back: Depreciation	342	
Wages, salaries and other benefits	14,761	
Debenture interest	<u>987</u>	<u>16,090</u>
Total Value Added		<u>16,831</u>

Question 9

From the following Profit and Loss account of New Mode Reporting Ltd., prepare a gross value added statement for the year ended 31st December, 2009. Show also the reconciliation between GVA and Profit before taxation:

Profit and Loss Account

	Rs.'000s	Rs.'000s
<i>Income</i>		
Sales	12,480	
Other income	<u>110</u>	12,590
<i>Expenditure</i>		
Production and Operational expenditure	8,640	
Administrative expenses	360	
Interest and other charges	1,248	
Depreciation	<u>32</u>	<u>10,280</u>
Profit before tax		2,310
Less: Provision for tax		<u>110</u>
Profit after tax		2,200
Add: balance as per last Balance Sheet		<u>120</u>
		2,320
Less: Transfer to Fixed assets replacement Reserve	800	
Dividend paid	<u>320</u>	<u>1,120</u>
Surplus carried to Balance Sheet		<u>1,200</u>

Additional information:

(i) Production and Operational expenses consists of

	Rs.
Consumption of Raw materials	64,20,000
Consumption of Stores	80,000
Local tax	16,000
Salaries to Administrative staff	12,40,000
Other Manufacturing expenses	8,84,000

Financial Reporting

- (ii) Administrative expenses include salaries and commission to directors – Rs.10,000
- (iii) Interest and other charges include-
- Rs.
- (a) Interest on bank overdraft
(overdraft is of temporary nature) 2,18,000
- (b) Fixed loan from SIDBI 1,02,000
- (c) Working capital loan from IFCI 40,000
- (d) Excise duties ?
- (iv) Excise duties amount to one-tenth of total value added by manufacturing and trading activities.

Answer

(a) **New Mode Reporting Ltd.**
Value Added Statement
for the year ended 31st December, 2009

(Figures in Rs.'000)

Sales		12,480
Less: Cost of Materials and Services:		
Production and Operational Expenses (8,640–16-1,240)	7,384	
Administrative Expenses (360 – 10)	350	
Interest on Bank Overdraft	218	
Interest on Working Capital Loan	40	
Excise Duties (Refer to working note)	360	
Other/miscellaneous charges (888 – 360)	<u>528</u>	<u>8,880</u>
Value added by manufacturing and trading activities		3,600
Add: Other Income		<u>110</u>
Gross value added from operations		<u>3,710</u>

Application of Gross Value Added

	Rs. in '000	Rs.in'000	%
To Pay Employees:			
Salaries to Administrative Staff		1240	33.42

Developments in Financial Reporting

To	Pay Directors:			
	Salaries and Commission		10	0.27
To	Pay Government:			
	Local Taxes	16		
	Income Tax	<u>110</u>	126	3.40
To	Pay Providers of Capital:			
	Interest on Fixed Loan	102		
	Dividend	<u>320</u>	422	11.37
To	Provide for maintenance and expansion of the company:			
	depreciation	32		
	Fixed Assets Replacement Reserve	800		
	Retained Profit (1200 – 120)	<u>1080</u>	<u>1912</u>	<u>51.54</u>
			<u>3,710</u>	<u>100.00</u>

Reconciliation between Gross Value added and Profit Before Taxation

			<i>Rs.in'000</i>
Profit before Tax			2,310
Add Back:	Depreciation	32	
	Salaries to Administrative Staff	1,240	
	Directors' Salaries and Commission	10	
	Interest on Fixed Loan	102	
	Local Tax	<u>16</u>	<u>1,400</u>
Total value added			<u>3,710</u>

Working Note:

Calculation of excise duty	<i>Rs.'000</i>	<i>Rs.'000</i>
Interest and other charges		1,248
Less: Interest on bank overdraft	218	
Interest on SIDBI loan	102	
Interest on IFCI loan	<u>40</u>	<u>360</u>
Excise duty and other charges		<u>888</u>

Financial Reporting

Assuming that these other /miscellaneous charges will be deducted for arriving at the value added, the excise duty will be calculated as follows:-

Let Excise Duties be denoted by - E

Then, other charges = 888 - E

Excise duty are $\frac{1}{10}$ th of value added

Hence $E = \frac{1}{10} [12,480 - \{7,384 + 350 + 218 + 40 + E + (888 - E)\}]$

$= \frac{1}{10} [12,480 - 8,880]$

$= \frac{1}{10} \times 3,600 = 360$

Other/miscellaneous charge $888 - 360 = \text{Rs.}528$

The above solution has been given accordingly.

Alternatively, if other/miscellaneous charges are considered as application of value added (i.e., not deducted for deriving the value added), calculation of Excise Duties (E) will be as follows:

$E = \frac{1}{10} [12,480 - (7,384 + 350 + 218 + 40 + E)]$

$E = \frac{1}{10} \times (4,488 - E)$

$11E = 4,488$

$E = \text{Rs.}408$

And thus other/miscellaneous charges will be $\text{Rs.}888 - 408 = \text{Rs.}480$

Gross Value added in this case will be $\text{Rs. } 4,080 + 110 \text{ (Other income)} = \text{Rs.}4,190$

And accordingly, application part will be prepared after taking other/miscellaneous charges.

Question 10

Prepare a value added statement for the year ended on 31.3.2010 and reconciliation of total value added with profit before taxation, from the Profit and Loss Account of Futures Ltd. for the year ended on 31.3.2010:

	(Rs. in '000)
Income:	
Sales	24,400
Other Income	<u>508</u>
	<u>24,908</u>
Expenditure:	
Operating cost	21,250
Excise duty	1,110
Interest on Bank Overdraft	75
Interest on 9% Debenture	<u>1,200</u>
	<u>23,635</u>

Developments in Financial Reporting

	(Rs. in '000)
<i>Profit before Depreciation</i>	1,273
<i>Depreciation</i>	<u>405</u>
<i>Profit before tax</i>	868
<i>Provision for tax</i>	<u>320</u>
<i>Profit after tax</i>	548
<i>Proposed Dividend</i>	<u>48</u>
<i>Retained Profit</i>	<u>500</u>

The following additional Information are given :

- (i) Sales represents Net sales after adjusting Discounts, Returns and Sales tax.
- (ii) Operating cost includes Rs. 82,50,000 as wages, salaries and other benefits to Employees.
- (iii) Bank overdraft is temporary.

Answer

Value Added Statement of M/s Futures Ltd.

		Rs. in 000	
Sales		24,400	
Less: Operating cost - Cost of bought in material & services (Rs. 21,250 – Rs. 8,250)	13,000		
Excise duty	1,110		
Interest on bank overdraft	<u>75</u>	<u>14,185</u>	
Value added by trading and manufacturing activities		10,215	
Add: Other income		<u>508</u>	
Total value added		<u>10,723</u>	
Application of value added			%
<i>To pay Employees:</i>			
Wages, salaries and other benefits		8,250	76.94
To Pay Government : Corporate tax		320	2.98
<i>To pay providers of capital:</i>			
Interest on 9% debentures	1,200		
Dividends	<u>48</u>	1,248	11.64

Financial Reporting

To Provide for maintenance and expansion of the company:

Depreciation	405		
Retained profit	<u>500</u>	<u>905</u>	<u>8.44</u>
		<u>10,723</u>	<u>100.00</u>
Reconciliation			
Profit before tax		868	
Depreciation		405	
Wages, salaries and other benefits		8,250	
Debenture interest		<u>1,200</u>	
		<u>10,723</u>	

Question 11

The following information is available of a concern; calculate E.V.A.:

Debt capital 12%	Rs. 2,000 crores
Equity capital	Rs. 500 crores
Reserve and surplus	Rs. 7,500 crores
Capital employed	Rs. 10,000 crores
Risk-free rate	9%
Beta factor	1.05
Market rate of return	19%
Equity (market) risk premium	10%
Operating profit after tax	Rs.2,100 crores
Tax rate	30%

Answer

E.V.A. = NOPAT – COCE

NOPAT = Net Operating Profit after Tax

COCE = Cost of Capital Employed

COCE = Weighted Average Cost Of Capital × Average Capital Employed

= WACC × Capital Employed

Debt Capital Rs.2,000 crores

Equity capital (500 + 7,500) = Rs.8,000 crores

Capital employed = 2,000+8,000 = Rs.10,000 crores

$$\text{Debt to capital employed} = \frac{2,000}{10,000} = 0.20$$

$$\text{Equity to Capital employed} = \frac{8,000}{10,000} = 0.80$$

Debt cost before Tax 12%

Less: Tax (30% of 12%) 3.6%

Debt cost after Tax 8.4%

According to Capital Asset Pricing Model (CAPM)

Cost of Equity Capital = Risk Free Rate + Beta × Equity Risk Premium

Or

$$= \text{Risk Free Rate} + \text{Beta} (\text{Market Rate} - \text{Risk Free Rate})$$

$$= 9 + 1.05 \times (19 - 9)$$

$$= 9 + 1.05 \times 10 = 19.5\%$$

$$\text{WACC} = \text{Equity to CE} \times \text{Cost of Equity capital} + \text{Debt to CE} \times \text{Cost of debt}$$

$$= 0.8 \times 19.5\% + 0.20 \times 8.40\%$$

$$= 15.60\% + 1.68\% = 17.28\%$$

$$\text{COCE} = \text{WACC} \times \text{Capital employed}$$

$$= 17.28\% \times 10,000 \text{ crores} = 1728 \text{ crores}$$

$$\text{E.V.A.} = \text{NOPAT} - \text{COCE}$$

$$= \text{Rs. } 2,100 - \text{Rs. } 1,728 = \text{Rs. } 372 \text{ crores}$$

Question 12

Pilot Ltd. supplies the following information using which you are required to calculate the economic value added.

- Financial Leverage 1.4 times
- Capital (equity and debt)
 - Equity shares of 34,000 (number)
 - Rs.1,000 each
 - Accumulated profit Rs. 260 lakhs
 - 10 percent Debentures 80 lakhs (number)
 - of Rs.10 each
- Dividend expectations of equity shareholders 17.50%
- Prevailing Corporate Tax rate 30%

Financial Reporting

Answer

Computation of EVA	Rs. in lakhs
Net profit after tax (Refer Working Note 1)	140
Add: Interest adjusted for tax effect ($800 \times 10\% \times .70$)	<u>56</u>
Return to Providers of Funds	196
Less: Cost of Capital (Refer Working Note 2)	<u>161</u>
Economic Value Added (EVA)	<u>35</u>

Working Notes:

1. Interest and Net Profit

$$\text{Financial Leverage} = \frac{\text{Profit before Interest \& Taxes (PBIT)}}{\text{Profit before Tax (PBT)}}$$

Interest on Borrowings = Rs. 800,00,000 $\times$ 10% = Rs.80 lakhs

$$\text{Therefore, } 1.40 = \frac{\text{PBIT}}{\text{PBIT} - \text{Interest}}$$

$$1.40 = \frac{\text{PBIT}}{\text{PBIT} - 80}$$

$$1.40 (\text{PBIT} - 80) = \text{PBIT}$$

$$1.40 \text{ PBIT} - 112 = \text{PBIT}$$

$$1.40 (\text{PBIT} - \text{PBIT}) = 112$$

$$0.40 \text{ PBIT} = 112$$

$$\text{PBIT} = 112 / 0.40$$

$$\text{PBIT} = \text{Rs. 280 Lakhs}$$

$$\text{PBIT} = \text{Rs. 280 lakhs}$$

$$\text{PBT} = \text{PBIT} - \text{I} = 280 - 80 = \text{Rs. 200 lakhs}$$

$$\text{Tax (30\%)} = \text{Rs. 60 lakhs}$$

$$\text{Net profit after tax} = \text{Rs. 140 lakhs}$$

2. Cost of Capital	Rs.(in lakhs)
Equity Shareholders' funds	600
10% Debenture holders' funds	<u>800</u>
Total	<u>1400</u>

Developments in Financial Reporting

$$\text{Weights assigned to Equity shareholders fund} = \frac{600}{1400} = 0.4286$$

$$\text{Weights assigned to Debenture holders} = \frac{800}{1400} = 0.5714$$

Source of Funds	Amount Rs.(in lakhs)	Weight	Cost %	WACC %
(1)	(2)	(3)	(4)	(5)=(3 × 4)%
Equity share holders' funds	600	0.4286	17.50	7.50
Debenture holders' funds	<u>800</u>	<u>0.5714</u>	<u>7.00*</u>	<u>4.00</u>
Total	<u>1400</u>	<u>1.0000</u>	<u>----</u>	<u>11.50</u>

$$\begin{aligned}\text{Cost of Capital} &= \text{Average Capital Employed} \times \text{Weighted Average cost of Capital (WACC)} \\ &= \text{Rs.1400 lakhs} \times 11.50\% = \text{Rs.161 lakhs}\end{aligned}$$

Human Resource Reporting

Question 13

Write short notes on:

- (a) Jaggi and Lau model on valuation on group basis of Human Resources.
- (b) Opportunity cost (HRA).
- (c) Human Resource Accounting.

Answer

- (a) According to Jaggi and Lau Model, proper valuation of human resources is not possible unless the contributions of individuals as a group are taken into consideration. A group refers to homogeneous employees whether working in the same department or division of the organisation or not. An individual's expected service tenure in the organisation is difficult to predict but on a group basis it is relatively easy to estimate the percentage of people in a group likely to leave the organisation in future. This model attempted to calculate the present value of all existing employees in each rank. Such present value is measured with the help of the following steps:
- (i) Ascertain the number of employees in each rank.
 - (ii) Estimate the probability that an employee will be in his rank within the organisation or terminated/promoted in the next period. This probability will be estimated for a specified time period.

* Rate of interest net of corporate tax of 30%.

- (iii) Ascertain the economic value of an employee in a specified rank during each time period.
- (iv) The present value of existing employees in each rank is obtained by multiplying the above three factors and applying an appropriate discount rate.

Jaggi and Lau simplified the process of measuring the value of human resources by considering a group of employees as valuation base. But in the process, they ignored the exceptional qualities of certain skilled employees. The performance of a group may be seriously affected in the event of exit of a single individual.

- (b) **Opportunity Cost:** It is one of the Economic value models used for measurement and valuation of Human assets. As per this model, opportunity cost is the value of an employee in his alternative use. This opportunity cost is used as a basis for estimating the value of Human resources. Opportunity cost value may be established by competitive bidding within the firm so that in effect, Managers must bid for any scarce employee. A Human asset will have a value only if it is a scarce resource, that is, when its employment in one division denies it to another division. This method excludes employees of the type of which can be readily hired from outside the firm. Also, it is in very rare cases that managers would like to bid for an employee.
- (c) Human Resource Accounting (HRA) is an attempt to identify, quantify and report investments made in human resources of an organization. Leading public sector units like OIL, BHEL, NTPC and SAIL etc. have started reporting human resources in their annual reports as additional information. Although human beings are considered as the prime mover for achieving productivity, and are placed above technology, equipment and money, the conventional accounting practice does not assign significance to the human resource. Human resources are not thus recognized as 'assets' in the Balance Sheet. While investments in human resources are not considered as assets and not amortised over the economic service life, the result is that the income and expenditure statement comprising current revenue and expenditure gives a distorted picture of the real affairs of the organization.

Accountants have been severely criticized by the Behavioural Scientists for their failure to value human resources, as this has come out as a handicap for effective management.

Human resource accounting provides scope for planning and decision making in relation to proper manpower planning. Also, such accounting can bring out the effect of various new rules, procedures and incentives relating to work force, and in turn, can act as an eye opener for modifications of existing statutes and laws.

Question 14

Briefly describe the method of valuation of human resources as suggested by Jaggi and Lau. Also point out the special merit and demerit of this method.

Answer

Jaggi and Lau suggested a model for valuation of human resources. According to them, proper valuation of human resources is not possible unless the contributions of individuals as a group are taken into consideration. A group refers to homogeneous employees whether working in the same department or division of the organization or not. An individual's expected service tenure in an organization is difficult to predict, but on a group basis, it is relatively easy to estimate the percentage of people in a group likely to leave the organization in future. This model attempts to calculate the present value of all existing employees in each rank. Such present value is measured with the help of the following steps:

- (i) Ascertain the number of employees in each rank.
- (ii) Estimate the probability that an employee will be in his rank within the organization on terminated/promoted in the next period. This probability will be estimated for a specified time-period.
- (iii) Ascertain the economic value of an employee in a specified rank during each time period.
- (iv) The present value of existing employees in each rank is obtained by multiplying the above three factors and applying an appropriate discount rate.

Jaggi and Lau tried to simplify the process of measuring the value of human resources by considering a group of employees as basis of valuation. But in the process they ignored the exceptional qualities of certain skilled employees. The performance of a group may be seriously affected in the event of exit of a single individual.

Merit

Jaggi and Lau model approached the valuation of human resources on the basis of grouping of employees. Under this method, calculations get simplified and the chances of errors get reduced.

Demerit

This model ignores individual skills of the employees. The varied skills of the employees is not recognized in the valuation process under Jaggi and Lau model.

Question 15

Briefly describe the progress made by India so far in the field of human resource accounting.

Financial Reporting

Answer

Human resource accounting can be defined as the process of identifying, measuring and communicating information about human resources in financial statements in order to facilitate effective management. Human resource accounting is a recent phenomenon in India. Leading public sector units like OIL, BHEL, NTPC, MMTC and SAIL etc. have started reporting Human Resources in their annual reports as additional information. The Indian Companies basically adopted the model of human resource valuation as advocated by Lev and Schwartz (1971). Indian Companies focused their attention on the present value of employee earning as a measure of their human capital. However the Indian Companies have suitably modified the Lev and Schwartz model to suit their individual circumstances.

Question 16

Give an account of the growing scope of human capital reporting.

Answer

Of late there is a growing trend of shift from the traditional focus on financial reporting of quantifiable resources (which can be measured in monetary terms) to a more comprehensive approach of reporting under which human resources are also considered as measurable assets. Having followed the methods of accounting of fixed assets, one can take into account the employee-related costs like cost of recruitment, training and orientation of employees, for the purpose of capitalization and then the appropriate portion thereof can be amortized each year over the estimated years of effect of such costs.

The relevance of human resource information lies in the fact that it concerns organizational changes in the firm's human resources. The ratio of human to non-human capital indicates the degree of labour intensity of an organization. Comparison of the specific values of human capital based on the organization's scales of wages and salaries with the general industry standards can be a good source of information to the management. There is no standard human capital reporting format as employment reporting is relatively a new form of reporting. Usually, the report inter alia contains data pertaining to employee numbers, employment and training policies, collective bargaining arrangements, industrial disputes, pension and pay arrangement and disabled employee numbers.

Human capital reporting provides scope for planning and decision-making in relation to proper manpower planning. Also, such reporting can bring out the effect of various rules, procedures and incentives relating to work force, and in turn, can act as an eye opener for modifications of existing statutes, laws and the like.

Question 17

A company has a capital base of Rs.1 crore and has earned profits to the tune of Rs.11 lakhs. The Return on Investment (ROI) of the particular industry to which the company

belongs is 12.5%. If the services of a particular executive are acquired by the company, it is expected that the profits will increase by Rs.2.5 lakhs over and above the target profit.

Determine the amount of maximum bid price for that particular executive and the maximum salary that could be offered to him.

Answer

Capital Base	=	Rs.1,00,00,000
Actual Profit	=	Rs. 11,00,000
Target Profit @ 12.5%	=	Rs. 12,50,000

Expected Profit on employing the particular executive

$$= \text{Rs.}12,50,000 + 2,50,000 = \text{Rs.}15,00,000$$

Additional Profit = Expected Profit – Actual Profit

$$= 15,00,000 - 11,00,000 = \text{Rs.}4,00,000$$

$$\text{Maximum bid price} = \frac{\text{Additional Profit}}{\text{Rate of Return on Investment}}$$

$$= \frac{4,00,000}{12.5} \times 100 = \text{Rs.}32,00,000$$

Maximum salary that can be offered = 12.5% of Rs.32,00,000 i.e., 4,00,000

Maximum salary can be offered to that particular executive upto the amount of additional profit i.e., Rs.4,00,000.

Question 18

From the following details, compute according to Lev and Schwartz (1971) model, the total value of human resources of the employee groups skilled and unskilled.

	Skilled	Unskilled
(i) Annual average earning of an employee till the retirement age	Rs.50,000	Rs.30,000
(ii) Age of retirement	65 years	62 years
(iii) Discount rate	15%	15%
(iv) No. of employees in the group	20	25
(v) Average age	62 years	60 years

Financial Reporting

Answer

According to Lev and Schwartz, the value of human capital embodied in a person of age t is the present value of his remaining future earnings from employment. Their valuation model for a discrete income stream is given by the following formula:

$$V = \sum_{t=\tau}^t \frac{I(t)}{(1+r)^{t-\tau}}$$

Where,

V = the human capital value of a person t years old.

$I(t)$ = the person's annual earnings up to retirement.

r = a discount rate specific to the person.

t = retirement age.

Value of skilled employees:

$$= \frac{50,000}{(1+0.15)^{(65-62)}} + \frac{50,000}{(1+0.15)^{(65-63)}} + \frac{50,000}{(1+0.15)^{(65-64)}}$$

Rs. 32,875.81 + Rs. 37,807.18 + Rs.43,478.26 = Rs.1, 14,161.25

Total value of skilled employees is Rs.1, 14,161.25 × 20 = Rs.22,83,225.

Value of unskilled employees

$$= \frac{30,000}{(1+0.15)^{(62-60)}} + \frac{30,000}{(1+0.15)^{(62-61)}}$$

$$= \frac{30,000}{(1+0.15)^2} + \frac{30,000}{(1+0.15)}$$

= 22,684.31 + 26,086.96 = 48,771.27

Total value of the unskilled employees = Rs. 48,771.27 × 25 = Rs.12,19,282

∴ Total value of human resources (skilled and unskilled) = Rs.22,83,225 + Rs.12,19,282
= Rs.35,02,507.

Inflation Accounting

Question 19

P Ltd. started its business on 01.04.2007, It issued one lac Equity Shares of Rs. 10 each at par and 30,000, 9% Debentures of Rs. 50 each, both were fully subscribed. It purchased Plant and Machinery for worth Rs. 15 Lac and goods for trading worth Rs. 12 lac @ Rs. 100 per unit. Estimated life of plant and machinery was 10 years with no scrap value. Goods

Developments in Financial Reporting

were sold at Profit of 40% on selling price. Collection from Debtors outstanding as on 31.3.2008 amounted to Rs. 5 lac. Goods sold were replaced at a cost of Rs. 120 per unit, the number of units being the same. Trade Creditors outstanding as on 31.3.2008 were Rs. 3 lac. The replaced goods were entirely in stock on 31.3.2008, replacement cost of goods was considered to be Rs. 140 per unit. Replacement cost of machine was Rs. 20 lac as on 31.3.2008. Draft Profit and Loss Account and Replacement reserve on replacement cost basis.

Answer

M/s P Ltd.

Profit & Loss Account as on 31.03.2008

	Rs.
Sales	20,00,000
Less: Cost of sales (Refer W.N. 1)	<u>14,40,000</u>
Gross Profit	5,60,000
Less: Depreciation (Refer W.N. 2)	<u>1,75,000</u>
Profit before Interest	3,85,000
Less: Debenture Interest (Refer W.N. 3)	<u>1,35,000</u>
Profit after charging depreciation and interest	<u>2,50,000</u>

Replacement Reserve

	Realised Gain Rs.	Unrealised Gain Rs.
Stock:		
Sold (Rs. 14,40,000 – Rs. 12,00,000)	2,40,000	
Unsold goods 12,000 x (Rs. 140 – Rs. 120)		2,40,000
Plant & Machinery Depreciation (Rs. 1,75,000 – Rs.1,50,000)	25,000	
Book value of asset		
[(Rs.20,00,000- Rs.2,00,000) less (Rs.15,00,000-Rs.1,50,000)]	<u>2,65,000</u>	<u>4,50,000</u>
		<u>6,90,000</u>

Replacement Reserve = Rs. 2,65,000 +Rs. 6,90,000 = Rs. 9,55,000

Working Notes:

1. Sales and Cost of sales

Sale Price @ 40% profit on Selling Price = Rs. 12,00,000 x (100/60) = Rs. 20,00,000

Cost of Sales = 12,000 x Rs. 120 = Rs. 14,40,000

Financial Reporting

2. Depreciation under replacement cost basis

Under replacement cost basis, depreciation is calculated (on average basis) which can be shown as follows:

$$\frac{15,00,000 + 20,00,000}{2} = 10\% \text{ of Rs. } 17,50,000 = \text{Rs. } 1,75,000$$

3. Debenture Interest

$$30,000 \times \text{Rs. } 50 \times 9\% = \text{Rs. } 1,35,000$$

Question 20

Rajkumar Ltd. is adopting historical cost system. From the following details furnished, prepare current cost Profit and Loss account for the year ended on 31.3.2009:

Statement of Profit and Loss:	(Rs.)
Sales	24,00,000
Cost of sales:	
Opening stock	1,80,000
Purchases	15,60,000
Less: closing stock	<u>2,40,000</u> <u>15,00,000</u>
Gross Profit	9,00,000
Operating expenses	3,60,000
Depreciation	1,20,000
Interest on loan	1,80,000
Provision for tax	<u>90,000</u>
Net profit	1,50,000
Dividend (proposed)	<u>30,000</u>
Retained profit	<u>1,20,000</u>

The chief finance officer of Rajkumar Ltd. furnished the additional information as below:

(a) Gearing adjustment for the year	Rs.20,232
(b) Cost of sales adjustment for the year	Rs.37,998
(c) Depreciation adjustment for the year	Rs.18,000
(d) Monetary working capital adjustment for the year	Rs.13,500

Answer

(a) Current Cost Profit and Loss Account of Raj Kumar Ltd. For the year ended 31.3.2009

	Rs.	Rs.
Trading profit before interest and tax under historical cost system		
Gross profit less (Operating expenditure + Depreciation)		
Rs. 9,00,000 less (Rs. 3,60,000 + Rs.1,20,000)		4,20,000
Less: Current cost adjustments		
Depreciation adjustment	18,000	
Cost of sales adjustment	37,998	
Monetary working capital adjustment	<u>13,500</u>	<u>69,498</u>
Current cost operating profit		3,50,502
Less: Interest on loan	1,80,000	
Gearing adjustment	<u>20,232</u>	<u>1,59,768</u>
Current cost profit before tax		1,90,734
Less: Provision for tax		<u>90,000</u>
Current cost profit after tax		1,00,734
Less: Dividend		<u>30,000</u>
Retained current cost profit for the year		<u>70,734</u>

Question 21

When general price index was 100, Standard Ltd. purchased fixed assets of Rs. 2 crore and it had also permanent working capital of Rs.80 lakhs. The entire amount required for purchase of fixed assets and permanent working capital was financed by way of 12 % redeemable share capital. Standard Ltd. wants to maintain its physical capital.

On 31.03.09, the company had reserves of Rs. 3.50 crores. The general price index on that was 200. The written down value of fixed assets was Rs. 20 lakhs and they were sold for 3 crores. The proceeds were utilized for redemption of shares. On the same day (31.03.09), the company purchased new factory for Rs. 20 crores. The ratio of permanent working capital to cost of assets to be maintained at 0.4 : 1.

The company raised the additional funds required for the purpose by issue of equity shares.

(A) Calculate the amount of equity capital raised.

(B) Show the Balance Sheet as on 01.04.09.

Financial Reporting

Answer

Amount of equity capital raised	Rs. in crores
Amount required for purchase of new factory	20.00
Permanent working capital requirement at 40%	<u>8.00</u>
	28.00
Less: Existing working capital (W.N. 3)	<u>6.30</u>
Fresh equity capital raised	<u>21.70</u>

Balance Sheet of Standard Ltd. as on 1st April, 2009

(Rs. in crores)			
Liabilities	Rs.	Assets	Rs.
Share Capital	21.70	Fixed Assets	20.00
Reserves and Surplus (Bal. figure)	<u>6.30</u>	Working Capital	<u>8.00</u>
	<u>28.00</u>		<u>28.00</u>

Working Notes:

(Rs. in crores)

1. Preference share capital on 31st March, 2009

Fixed assets	2.00
Working capital	<u>0.80</u>
Financed by 12% Redeemable preference share capital	<u>2.80</u>

To maintain physical capital, the company needs to evaluate the financial capital on 31st March, 2009 which is required to maintain the existing operating capability of the physical assets. On the basis of price index data available, it can be worked out as follows:

$$\text{Rs. 2.80 crore} \times \frac{200}{100} = \text{Rs. 5.60 crores}$$

2. Working capital on 31st March, 2009

(before sale of fixed assets and redemption of preference shares)

Preference share capital	2.80
Reserves	<u>3.50</u>
	6.30
Less: Written down value of fixed assets	<u>0.20</u>
Working capital	<u>6.10</u>

10.40

As the physical capital on the basis of price index is Rs. 5.6 crores which is less than the actual working capital on 31st March, 09, therefore, physical capital is maintained.

3. Working capital as on 31st March, 2009

(after sale of fixed assets and redemption of preference shares)

Working capital before sale of fixed assets and redemption	6.10
Add: Sale proceeds of fixed assets	<u>3.00</u>
	9.10
Less: Redemption of preference shares	<u>2.80</u>
Working capital available after sale of fixed assets and redemption of pref. shares	<u>6.30</u>

EXERCISES

Question 1

From the following Profit and Loss Account of X Limited, prepare Gross Value Added Statement and show the reconciliation between Gross Value Added and Profit before taxation:

Profit and Loss Account for the year ended 31st March, 2010

Income	(Rs. in lakhs)	(Rs. in lakhs)
Sales		800
Other Income		<u>50</u>
		850
Expenditure		
Production and Operational Expenses	600	
Administrative Expenses	30	
Interest and Other Charges	30	
Depreciation	<u>20</u>	<u>680</u>
Profit before taxes		170
Provision for taxes		<u>30</u>
		140
Balance as per last Balance Sheet		<u>10</u>
		<u>150</u>
Transferred to:		
General Reserve		80
Proposed Dividend		20
Surplus carried to Balance Sheet		<u>50</u>
		<u>150</u>
Break-up of some of the Expenditure is as follows:		
Production and Operational Expenses:		
Consumption of Raw Materials and Stores		320
Salaries, Wages and Bonus		60
Cess and Local Taxes		20
Other Manufacturing Expenses		<u>200</u>
		<u>600</u>

Developments in Financial Reporting

Administrative Expenses:

Audit Fee	6
Salaries and Commission to Directors	8
Provision for Doubtful Debts	6
Other Expenses	<u>10</u>
	<u>30</u>

Interest and other Charges:

On Working Capital Loans from Bank	10
On Fixed Loans from ICICI	15
On Debentures	<u>5</u>
	<u>30</u>

[Answer: Total Value Added Rs. 298 lakhs; Reconciliation between Gross Value Added and Profit before Taxation- (Rs. in lakhs) Profit before tax 170+ Depreciation 20 + Salaries, Wages and Bonus 60+ Directors' Remuneration+ 8 Cess and Local Taxes 20 + Interest on Debentures 5 + Interest on Fixed Loans 15]

Question 2

The following is the Profit and Loss Account of Galaxy Ltd. for the year ended 31.03.2010. Prepare a Gross Value Added Statement of Galaxy Ltd. and show also the reconciliation between Gross Value Added and Profit before taxation.

Profit and Loss Account for the year ended 31.03.2010

	Notes	Amount (Rs. in lakhs)
Income:		
Sales	—	890
Other Income	—	<u>55</u>
		945
Expenditure:		
Production and operational expenses	(a)	641 —
Administration expenses (Factory)	(b)	33 —
Interest	(c)	29 —
Depreciation		<u>17</u> <u>720</u>

Financial Reporting

Profit before taxes	—	225
Provision for taxes (d)	—	<u>30</u>
Profit after tax	—	195
Balance as per last Balance Sheet	—	<u>10</u>
		<u>205</u>
Transferred to General Reserve		45
Dividend paid		<u>95</u>
		140
Surplus carried to Balance Sheet		<u>65</u>
		<u>205</u>

Notes:

(a) Production and Operational expenses	Rs. in lakhs
Consumption of raw materials	293
Consumption of stores	59
Salaries, Wages, Gratuities etc. (Admn.)	82
Cess and Local taxes	98
Other manufacturing expenses	<u>109</u>
	<u>641</u>

- (b) Administration expenses include salaries, commission to Directors Rs.9.00 lakhs
Provision for doubtful debts Rs. 6.30 lakhs.

	Rs. in lakhs
(c) Interest on loan from ICICI Bank for working capital	9
Interest on loan from ICICI Bank for fixed loan	10
Interest on loan from IFCI for fixed loan	8
Interest on Debentures	<u>2</u>
	<u>29</u>

- (d) The charges for taxation include a transfer of Rs. 3.00 lakhs to the credit of Deferred Tax Account.

- (e) Cess and Local taxes include Excise Duty, which is equal to 10% of cost of bought-in material.

[Answer: Total value added 396 lakhs; Excise Duty = 549 – 494 = Rs. 55 lakhs]

Question 3

What is economic value added and how is it calculated? Discuss.

Question 4

From the following information of Vinod Ltd., compute the economic value added:

(i)	Share capital	Rs.2,000 lakhs
(ii)	Reserve and surplus	Rs.4,000 lakhs
(iii)	Long-term debt	Rs.400 lakhs
(iv)	Tax rate	30%
(v)	Risk free rate	9%
(vi)	Market rate of return	16%
(vii)	Interest	Rs.40 lakhs
(viii)	Beta factor	1.05
(ix)	Profit before interest and tax	Rs.2,000 lakhs

[Answer: Economic Value Added Rs. 390. 72 lakhs; Cost of Equity = 16.35%; Cost of Debt = $\frac{28}{400} \times 100 = 7\%$; Weighted Average Cost of Capital $\frac{1,009}{6,400} = 15.77\%$ (approx.);

Capital Employed Rs. 6,400 lakhs; Net Operating Profit after Tax Rs. 1,372 Lakhs]

Question 5

Why Human Resources Asset is not recognized in the Balance sheet?

Question 6

The following figures have been extracted from the accounts of Tame Ltd.

	31.3.09	31.03.10
	Rs.	Rs.
Trade receivables	1,800	3,000
Trade payable	1,000	1,200

The accounting year is 2009– 10. The index number for receivables and payable at the beginning and year were 150 and 180 respectively. The average index for the year was 165.

Compute Monetary Working Capital Adjustment (MWCA) and show current cost adjustments.

[Answer: Closing MWC at average price = Rs.1,800 × (165/180) = Rs.1,650; Opening MWC at average price = Rs.800 × (165/150) = Rs.880; MWCA = Rs.230 (Increase in value of MWC due to price rise)]