

**CA Final SPOM Set B – Strategic Cost & Performance Management**  
**ICAI Module Questions Compilation**

**Chapter 9 - STRATEGIC PERFORMANCE MEASURES IN PRIVATE**  
**SECTOR**

**Illustration 1**

Modern Furniture Limited's Statement of P & L for years just concluded shows the following figures–

Revenue – ₹300 lakhs

Cost of Goods Sold – ₹225 lakhs

Administration Cost – ₹48 lakhs

Relevant extracts from Balance Sheets at the end of the year just concluded and previous years are as follows–

Particulars	End of year just concluded	End of Previous Year
Total Assets	₹225 lakhs	₹209 lakhs
Current Liabilities	₹43 lakhs	₹31 lakhs

Calculate Gross Profit Ratio and ROCE for Modern Furniture Limited (MFL). Furniture industry earns GP at an average rate of 23%, while ROCE is 12%. COMMENT on the performance of MFL for the year just concluded.

**Solution**

**Gross Profit Ratio (GP Ratio)**

GP Ratio of MFL is 25%

GP Ratio = (Gross Profit / Sale) × 100 i.e., (75 / 300) × 100 = 25%

**Working Notes**

Gross Profit = Sale (Revenue) – Cost of Goods Sold, i.e., 300 – 225 i.e., ₹75 lakhs

**Return of Capital Employed (ROCE)**

ROCE of MFL is 15%

ROCE = (PBIT / Average Capital Employed) × 100 i.e., (27 / 180) × 100 = 15%

**Working Notes –**

PBIT = Gross Profit – Administration Cost, i.e., 75 – 48, i.e., ₹27 Lakhs  
 Average Capital Employed = [(225-43) + (209-31)] / 2 i.e., ₹180 Lakhs

Since MFL's GP ratio and ROCE are better than the industry average, performance is acceptable.

**Illustration 2**

Extension to the above illustration, ADVISE after evaluating the performance of MFL if the furniture industry's ROCE is 16%.

**Solution –**

In case, if industry average ROCE is 16%, which is more than that of MFL (15%), the MFL needs to investigate the reasons for poor ROCE. Is it low profitability (due to high cost or low revenue) or are there unused assets? Depending upon the findings, the efforts shall be made to either rationalise the cost, revenue streams, or asset base.

By Prof. CA Manan Pujara

CA Final - AIR 37

Keep Smiling, Be Happy, Stay Motivated, All the Best...!!

**Illustration 3**

LNG Limited has three divisions. Its desired rate of return is 14%.  
The operating assets and income for each division are as follows:

Divisions	Operating Assets (₹)	Operating Income (₹)
L	19,20,000	3,45,600
N	10,50,000	1,73,250
G	12,30,000	1,67,280
<b>Total</b>	<b>42,00,000</b>	<b>6,86,130</b>

LNG Limited has ₹ 8,00,000 of additional cash to invest in one of its divisions.  
The divisional managers have identified investment opportunities that are expected to yield the following ROIs –

Divisions	Expected ROIs for additional investment
L	16%
N	12%
G	15%

**Required**

- (i) Calculate the ROIs at present for each division and STATE which division manager is currently providing the highest ROI.
- (ii) Based on ROI, Identify the division manager who would be the most eager to accept the additional investment funds.
- (iii) Based on ROI, Identify the division manager who would be least eager to accept the additional investment funds.
- (iv) State the division that offers the best investment opportunity for LNG Limited.
- (v) Discuss the conflict between requirements (ii) and (iv) above.
- (vi) Advise how the residual income performance measure could be used to motivate the managers to act in the best interest of the company.

**Solution**

- (i) Present ROI of each division

Divisions	Operating Assets (₹)	Operating Income (₹)	ROI
L	19,20,000	3,45,600	18%
N	10,50,000	1,73,250	16.5%
G	12,30,000	1,67,280	13.6%

The division manager of the L division is currently providing the highest ROI of 18% among the three divisions.

- (ii) The manager of division G would be most eager to accept the additional fund of ₹ 8,00,000 because the ROI of the proposed investment is more than the present ROI of 13.6%, and the acceptance of the proposal would increase the division's ROI.
- (iii) The managers of divisions L and N, both would be reluctant to invest the additional fund of ₹ 8,00,000. Because the return on the proposed project is 16% for L and 12% for N against their existing ROI of 18% and 16.5%, respectively.

However, the manager of division N would be least likely to accept the additional investment because the proposed ROI of the project is 4.5% less than the present ROI.

- (iv) Division L offers the best investment opportunity at 16% for LNG Limited.
- (v) Lack of goal congruence between divisions and the organisation as a whole is the reason. The divisional managers are forced to choose between the best interests of their division (because their individual performance is linked to divisional performance) and the best interests of the company as a whole.  
In requirement (ii), the decision of the managers of division G is in the best interest of the division but at the expense of their company, resulting sub optimisation; whereas in requirement (iv), decision is taken from the perspective of LNG Limited as a whole.
- (vi) To avoid sub optimisation, the divisional performance can be measured using Residual Income (RI). Since under RI, divisional managers don't reject the proposed projects with lower returns than the existing rate of return of the division, hence in the interest of the organisation as a whole, the division is ready to accept the investment projects with returns equal to or greater than the predetermined required rate of return (i.e. 14%). RI, being an absolute measure, has the shortcoming that the performance of divisions with different sizes can't be compared.

#### Illustration 4

XYZ Ltd. provides you with the following financial information as at 31<sup>st</sup> March 2024.

Share Capital	981.46
Reserves and Surplus	1,313.62
Long Term Debt	144.44
Trade Payables	20.38

Additional information provided is as follows:

- (i) Profit before interest and tax is ₹ 2,202.84 lakhs  
(ii) Interest paid is ₹ 13.48 lakhs.  
(iii) Tax rate is 30%  
(iv) Cost of equity = 12.42%, and cost of debt = 6.53%

#### Required

Calculate Economic Value Added of XYZ Ltd.

#### Solution

$$\text{EVA} = \text{NOPAT} - \text{WACC} \times \text{Capital Employed}$$

#### Capital Employed

$$\begin{aligned} &= ₹ 981.46 \text{ L} + ₹ 1313.62 \text{ L} + ₹ 144.44 \text{ L} \\ &= ₹ 2,439.52 \text{ L} \end{aligned}$$

$$\begin{aligned} \text{WACC} &= \left( \frac{981.46 + 1313.62}{2,439.52} \right) \times 12.42\% + \left( \frac{144.44}{2,439.52} \right) \times 6.53\% \\ &= 12.07\% \end{aligned}$$

$$\text{NOPAT} = [\text{PBIT} - \text{Interest} - \text{Tax}] + \text{Interest (net of tax)}$$

	₹ in lakhs
<b>PBIT</b>	2,202.84
Less: Interest	(13.48)
<b>PBT</b>	2,189.36
Less: Tax @ 30%	(656.81)
<b>PAT</b>	1,532.55
Add: Interest (net of tax) [13.48 × (1 - 0.30)]	9.44
<b>NOPAT</b>	1,541.99

$$\begin{aligned} \text{EVA} &= \text{NOPAT} - \text{WACC} \times \text{Capital Employed} \\ &= ₹ 1,541.99 \text{ L} - 12.07\% \times ₹ 2,439.52 \text{ L} = ₹ 1,247.54 \text{ L} \end{aligned}$$

### Case Scenario 1

Lite Automobile Limited (LAL) is one of the leading automobile assembly part manufacturers in the country. In order to manage the performance of LAL, the CMD in the latest board meeting showed his willingness to apply non-financial performance indicators (NFPI) in addition to financial performance indicators.

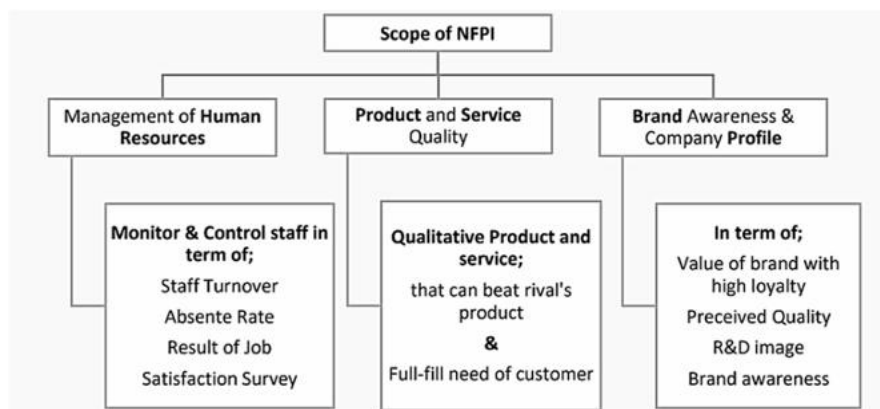
CEO conducts meeting thereafter with functional heads. Some of the functional heads are concerned with the scope of the NFPI as part of the performance management system. During the meeting, the Chief HR Lead of the company raised his concern over the utility of NFPI to monitor and control human resources. The Chief Operating Officer also raised his concern about the manner in which NFPI can ensure quality in its products and services. Chief Public Relation Officer is also concerned with how NFPI will improve brand equity.

### Required

Office of the CEO hired you as a management consultant for the design and effective implementation of a performance management system that also considers NFPI. CEO asked you to briefly EXPLAIN the scope of non-financial performance indicators with regard to only three functions whose functional heads raised concern.

### Solution

The performance management system, which also considers non-financial performance indicators in addition to financial performance indicators; is capable of ensuring sustainable performance in all functional areas; hence, its scope is organisation wide. In regard to the three functional areas specifically mentioned in the case scope, shall be –



### Human resources

It is the people who actually create the organisation through processes; hence, human resources are a significant element of any organisation. If they perform well, the entire organisation automatically performs well; hence, measures such as staff turnover, absenteeism, job satisfaction, and offer letter acceptance should be part of.

### Quality of product and service

What makes any business distinct from others is largely the value that its products or services are capable of creating for consumers; quality is an important determinant of value. Hence, the following performance measures (owing to quality) can be part of performance metrics-

- How much value is the product creating currently?
- Where does the product offer in comparison to that of the competitor?
- Is the product capable of generating further superior performance and scope of innovation?

### Brand equity

Non-financial performance measures consider brand equity (the value of the brand) as one of the significant performance measures. Brand value is largely based upon factors like customer's awareness and loyalty, which include consumer behaviour, also perceived quality, stakeholders' expectations and the organisation's ability to meet them, as well as factors like patents and trademarks, etc.

### Illustration 5

Standard Telecom Ltd. is a leading cellular service provider with a global presence. It aims to be the most innovative and trusted telecom company in the world. To achieve this aim, it is constantly working on its overall functioning. It is trying to adopt the best management practices in the world. Following is some information related to the company's performance for a particular period:

Particulars	Current Year	Base Year	Target
Operating Ratio	60%	54%	Reduce it to 50%
Average Revenue per user	₹ 225	₹ 210	Increase it to ₹ 250
Unresolved Consumer Complaints	27,500	25,000	Reduce it by 20%
Customer Relationship Centres	280	200	Take the total to 250
Employee Coverage under Training Programme	10%	8%	At least 15%

### Required

Analyse the performance of the company using the Balanced Scorecard approach.

### Solution

The balanced scorecard is a method which displays an organisation's performance in four dimensions namely: financial, customer, internal, and innovation. The four dimensions acknowledge the interest of shareholders, customers, and employees; taking into account both long-term and short-term goals. The detailed analysis of the performance of company using Balanced Scorecard approach is as follows:

**(i) Financial Perspective:** Operating ratio and average revenue will be covered in this prospective.

The company is unable to achieve its target of reducing the operating ratio to 50%; instead, it has increased to 60%. The company is required to take appropriate steps to control and manage its operating expenses.

The average revenue per user has increased from ₹210 to ₹225 but remains short of the targeted ₹250. This is also one of the reasons for the swelled operating ratio. The company can boost its average revenue per user by providing more paid value-added services because the increasing price is not a fine choice considering the cutthroat competition in the telecom sector.

**(ii) Customer Perspective:** Service complaints will be covered under this perspective.

The company had set a target of reducing unresolved complaints by 20%, but unresolved complaints have risen by 10%  $[(27,500-25,000)/(25,000) \times 100]$ . It shows dissatisfaction is increasing among consumers, which would adversely impact the consumer's general perception of the company, and the company may lose its consumers in the long run.

**(iii) Internal Business Perspective:** Establishing customer relationship centres will be covered under this perspective.

The company has established 80 relationship centres in the current period, exceeding its target of 50 (250-200) to cater to the needs of existing consumers as well as solicit new ones. This shows the seriousness of the company towards consumer satisfaction and would help them in long run.

**(iv) Learning and Growth Perspective:** Employee training program is covered under this perspective.

The company had set a target to cover at least 15% of its employee under its training program, but it covered only 10%. This could hurt the capabilities of the employees, which are needed for the long-term growth of the organisation necessary to achieve the objectives set in the previous three perspectives. People or the human resources of the company, is one of the three principal sources from which organisational learning and growth come.

### Illustration 6

You are a paid assistant working at SBC LLP, an accounting consulting firm. You have received the following email from one of SBC's senior partners:

To: DG  
From: SB  
Date: 26/04/20XX

**Subject: PEL meeting this afternoon**

As you are probably aware, we are meeting with the managers of PEL later this afternoon to discuss several key issues, and I need you to do some research for me. I need a report that covers the following:

Analysis of the new proposal for the period 2022 to 2024 based on –

- external effectiveness and
- internal efficiency

To help you with this, I've attached a copy of our forecast of PEL's financial and non-financial data for the period 2022 to 2024. Please read it carefully and email me back as soon as possible so I have time to prepare before the meeting.

Thanks SB

-----Attachment-----

Background to PEL

Precision Engineering Ltd. (PEL) specialises in engineering design and manufacture in the automotive and motorsport industry. PEL's design team has many years' experience in the design and development of engine components for the market and high-performance engines. PEL has identified a number of key competitors and intends to place emphasis on close cooperation with its customers in providing products to meet their specific engineering design and quality requirements. Efforts will be made to improve the effectiveness of all aspects of the cycle, from product design to after-sales service to customers. This will require data from a number of departments to achieve the specific goals of the new proposal. Efforts will be made to improve productivity in conjunction with increased flexibility in methods.

#### Forecast of PEL's Financial and Non-Financial Data

Particulars	2022	2023	2024
Total Market Size (₹ lacs)	110	115	120
PEL Sales (₹ lacs)	18	21	23
PEL Total Costs (₹ lacs)	14.10	12.72	12.55
Production Achieving Design Quality Standards	95.5%	98.0%	98.5%
Returns from Customers (% of Deliveries)	2.0%	1.0%	0.5%
Cost of After-Sales Service (₹ lacs)	1.3	1.1	1.0
Sales Meeting Planned Delivery Dates	85%	90%	95%
Average Cycle Time (Customer Enquiry to Delivery) (weeks)	5.0	4.5	4.0
Components Scrapped in Production (%)	6.5%	4.0%	1.5%
Idle Machine Capacity (%)	9%	5%	1%

#### Required

Draft the email as requested by the partner.

#### Solution

To: SB

From: DG

Date: 26/04/20XX

Subject: Re: PEL Meeting this afternoon

Please find below my analysis of the points you wished me to examine for PEL. Please let me know if you wish to discuss any of these points in more detail.

Kind regards DG

#### -----Analysis-----

**External Effectiveness** - The marketing success of the proposal is associated with the achievement of customer satisfaction. Success will require an efficient business operating system for all aspects of the cycle, from product design to after-sales service to customers. Customer satisfaction is linked with improved quality and delivery.

#### Quantitative measures of these factors are as follows:

- Quality is expected to improve. The percentage of production achieving design quality standards is expected to increase from 95.5% to 98.5% between 2022 and 2024. In the same period, returns

from customers for replacement or rectification should drop from 2% to 0.5%, and the cost of after-sales service should drop from ₹1.3 lacs to ₹1.0 lacs.

- Delivery efficiency improvement that is expected may be measured in terms of the rise in the percentage of goods achieving the planned delivery date. This percentage rises from 85% in 2022 to 95% in 2024.

**Internal Efficiency-** The financial success of the proposal is linked to the achievement of high productivity. This should be helped through reduced cycle time and decreased levels of waste. Quantitative measures of these factors are as follows:

- The average total cycle time from customer inquiry to delivery should drop from 5 weeks in 2022 to 4 weeks in 2024.
- Waste in the form of idle machine capacity is expected to drop from 9% to 1% between 2022 and 2024. Also, component production scrap is expected to drop from 6.5% in 2022 to 1.5% in 2024

### TEST YOUR KNOWLEDGE

#### Question 1 (Return on Investment)

“Y” Limited has three autonomous divisions. The divisions are evaluated on the basis of ROI, with yearend bonuses given to divisional managers who have the highest ROI. Operating results of Division II for the last year are given below:

	₹
Sales	2,10,00,000
Less: Variable Expenses	1,26,00,000
Contribution margin	84,00,000
Less: Fixed Expenses	67,20,000
Net Operating Income	16,80,000
Divisional Operating Assets	52,50,000

The company's overall ROI for the last year was 18% (considering all divisions). Division II has an opportunity to add a new product line that would require an investment of ₹30,00,000. Other details of the new product line are as follows:

	₹
Sales	90,00,000 per annum
Variable Expenses	65% of sales
Fixed Expenses	25,20,000 per annum
Life cycle of the product line	5 years

#### Required

- Calculate last year's ROI of Division II.
- Discuss whether the manager of Division II would accept or reject the new product line, if he takes his decision based solely on divisional ROI.
- Advise how residual income approach can be used as an alternative financial measure for evaluation of managerial performance in the best interest of the company.

**Solution**

- (i) **Calculation of last year ROI of Division II**  
 = Controllable Profit/ Controllable Net Asset  
 = ₹16,80,000/ ₹52,50,000  
 = 32%

(ii) **Calculation of ROI of New Product Line**

Particulars	Amount (₹)
Sales	90,00,000
Less: Variable Cost	58,50,000
Controllable Contribution	31,50,000
Less: Fixed Cost	25,20,000
Controllable Profit	6,30,000
Investment Available	30,00,000
<b>Return on the Proposed Line (ROI)</b>	<b>21%</b>

The manager of Division II will reject the investment proposal (Invest additional ₹30 lacs in new product line) because this would decrease Division II's ROI of 32% to 28%\*.

(\* ) 28% = (₹16,80,000 + ₹6,30,000) / (₹52,50,000 + ₹30,00,000)

**Note** – Divisional performance measures have certain issues, one among them is lack of goal congruence between divisions and organisation as a whole. The divisional managers are forced to choose between the best interests of their division (because their individual performance is linked to division performance) and the best interests of the company as a whole. It is obvious, a manager who is evaluated based on ROI will reject any project whose rate of return is below the division's current ROI even if the rate of return of the project is above the company's minimum required rate of return. In present case too investment proposal with ROI of 21% which above organisation wide ROI i.e. 18%. This will give birth to situation of **sub-optimisation**.

- (iii) RI is capable of overcoming the inherent shortcoming of ROI. If divisional managers are evaluated using residual income, then every such investment proposal will be acceptable whose rate of return is above the minimum required rate of return, because it will increase their residual income. Hence if decision is based upon RI rather ROI, division II will accept the proposal to invest additional capital of 30 lacs, because it will fetch them 21% which more than 18% the required rate of return; in the best interest of the company as a whole because capable to add ₹ 90,000 each year for next 5 year to profit of company.

**Working Note** – Calculation of RI for division II (from proposed investment).

Particulars	Amount in ₹
Controllable Profit	6,30,000
Cost of Capital (18%)	5,40,000
Residual Income (RI)	90,000

**Note** – Where RI is capable of overcoming the sub optimisation but has its own shortcomings. Being an absolute measures RI is not capable of comparing the performance of divisions which are different in size.

**Alternatively,**

To overcome the dysfunctional consequences of ROI, the residual income approach can be used. For the investment decision for Divisions II, the residual income calculations are as follows:

**Advise**

This calculation indicates that the residual income of Division II will increase if the manager accepts the project. However, it is important to note that Residual Income does not always point to the right decision, because notional interest on accounting capital employed is not the same as IRR on cash investment. This Project has 1.65% IRR.

Proposed Investment	₹ 30,00,000
Controllable Profit	₹ 6,30,000
Cost of Capital (18%)	₹ 5,40,000
<b>Residual Income (RI)</b>	<b>₹ 90,000</b>

Overall, Residual Income is more likely than ROI to improve when managers make correct investment decisions, and so is probably a 'safer' basis than ROI on which to measure performance

**Question 2**

BYD Alloy Ltd. first opened its door in 1991 for business and now it is a major supplier of metals supporting over a dozen different industries and employs experts to support each industry. These include Wood & Panel Products Manufacturing, Hearth Products, Site Furnishings, Commercial and Residential Construction etc. It has grown through devotion to its customers, dedication to customer service and commitment to quality products. The company has two divisions: Division 'Y' and Division 'D'. Each division works as an investment centre separately. The salary of each divisional manager is ₹7,20,000 per annum with the addition of an annual performance-related bonus based on divisional return on investment (ROI). A minimum ROI of 12% p.a. is expected to be achieved by each divisional manager. If a manager only achieves the 12% target, he will not be rewarded with a bonus. However, for every whole 1% point above 12% which the division achieves for the year, a bonus equal to 3% of annual salary will be paid subject to a maximum bonus of 20% of annual salary. The figures belonging to the year ended 31 March 2024 are given below:

	Division 'Y' ('000)	Division 'D' ('000)
Revenue	29,000	17,400
Profit	5,290	3,940
Less: Head Office Cost	(2,530)	(1,368)
Net Profit	2,760	2,572
Non- Current Assets	19,520	29,960
Cash, Inventory, and Trade Receivable	4,960	6,520
Trade Payable	5,920	2,800
Manager Responsible	HAI	FAI

During the financial year 2023-24, FAI manager of Division 'D' invested ₹13.6 million in new equipment including an advanced cutting machine, which will increase productivity by 10% per annum. HAI, manager of Division 'Y', has made no investment during the year, even though its computer system needs updation. Division 'Y's manager has already delayed payments of its suppliers due to limited cash & bank balance although the cash balance at Division 'Y' is still better than that of Division 'D'.

**Required**

- (i) For each division, Compute, ROI for the year ending 31 March 2024. JUSTIFY the figures used in your calculation.
- (ii) Compute bonus of each manager for the year ended 31 March 2024.
- (iii) Discuss whether ROI provides a justifiable basis for computing the bonuses of managers and the problems arising from its use at BYD for the year ended 31 March 2024.

**Solution****i. ROI****Division 'Y'**

Controllable Profit = ₹5,290K

Net Assets = ₹19,520k + ₹4,960K – ₹5,920K = ₹18,560K

ROI = 28.50%

**Division 'D'**

Controllable profit = ₹3,940K

Net Assets = ₹29,960K + ₹6,520K – ₹2,800K = ₹33,680K

ROI = 11.70%

Responsibility accounting advocates that manager's performance shall be judged based upon how well he or she manages the items under his or her control, hence in computation of ROI of both division, controllable profit has been taken into consideration, because head office costs are not controllable by divisional managers. Figures of Non-current and current assets apart from the current liabilities have been taken into consideration as they are such items over which divisional managers have complete control.

**(ii) Bonus**

Bonus to be paid for each whole percentage point is ₹21,600 (₹7,20,000×3%), But there is ceiling limit as well, i.e. 20% of salary hence the maximum Bonus will be ₹1,44,000 (₹7,20,000 × 20%).

**Division 'Y'**

Divisional ROI is 28.5%, which results in 16 whole percentage points above the minimum required ROI of 12%. Hence the bonus according to each whole percent of excess ROI will be ₹3,45,600 (16 × ₹21,600). But there is upper cap of ₹1,44,000 Therefore HAI will be paid the bonus of ₹1,44,000.

**Division 'D'**

Divisional ROI is 11.7%, since same is less than the minimum required ROI of 12%, hence FAI will not be rewarded with a bonus.

**(iii) Discussion**

FAI will not receive any bonus since he has not earned any point above minimum percentage. This is due to the larger investment base on which the ROI figure has been computed. Total investment of Division 'D' is almost 1.81 times to that of Division 'Y'. The major reason behind this is that Division 'D' invested ₹13.6 million (₹13,600K) in new equipment during the year. Ignoring this investment of division D is just 1.1. times to that of division Y and net Investments would have been only ₹20,080K and the ROI for Division 'D' would have been 19.62% resulting in payment of a bonus ₹1,44,000 (7 × ₹21,600 i.e. ₹1,51,200 but subject to upper cap of ₹1,44,000) rather than the nothing.

So, FAI is being penalized for making investment decisions which are in the best interests of his division and company, because new investment enhance productivity which will support customer loyalty, dedication to customer services and quality, the CSFs for BYD. It is very surprising that he decided to invest where he knew that he would receive a lesser bonus subsequently. On the other hand, HAI has benefited from the fact that he has not invested in anything even though it was needed for computer system updation. This is an example of sub-optimal decision making.

Further, Division 'Y's trade payables are more than double those of Division 'D'. In part, one would expect this due to higher sales (almost 66% more than Division 'D') and low cash levels at Division 'Y'.

Higher trade payable leads to a reduction in net assets figures. The fact that BYD is rewarding HAI with a bonus, even though relationships with suppliers may be badly affected, is again a case of sub-optimal decision making.

If the profit margin (excluding head office cost) as percentage of sales is calculated, it comes to 18.24% (₹5,290 / ₹29,000) for division 'Y' and 22.64% (₹3,940 / ₹17,400) for division 'D'. Therefore, it can be seen that division 'D' is performing better if capital employed is ignored. ROI is simply distorting the division 'D's performance.

FAI might feel extremely disappointed by getting nothing and in the future, he may opt to postpone the investment to increase the bonus. Non-investing in new technology and equipment will mean that the BYD will not be kept updated with industry changes and its overall future competitiveness will be affected.

Briefly, the use of ROI results in sub-optimal decision making and a lack of goal congruence i.e. what is good for the managers is not necessarily good for the company too and vice versa. Hence ROI is not a justifiable basis to for computing the bonuses of divisional managers and also cause problem for BYD.

### Question 3 - Economic Value Added (EVA)

X Greetings is a Korean company based in Seoul committed to supplying the highest quality stationery, greeting cards, gifts, and children's products, which are sourced from all over the world. The company also distributes Sunday Paper – Korean made eco-friendly stationery designed and manufactured in Seoul. X's home currency is the KRW. It is also listed on the KRX for last 20 years and its current share price is KRW 23.25.

You are the Management Accountant of X Greetings and the directors have asked you to study X on value-based management, which is a different approach to the performance management. The directors have heard about this method, considering it a way of focusing on shareholder's interests and in the present economic scenario, they think it to be useful for the growth of X.

Conventionally earnings per share (EPS) and share price were used to assess performance. The proposed changes are important, and the directors require you to have the implications of the new analysis and also want to convince the major investors about the future benefits.

#### Financial data for X Greetings

Particular	2023-24	2022-23
	KRW in million	KRW in million
Profit after interest and tax	55.55	65.38
Interest	15.60	8.00
Opening capital employed	273.58	198.40
Closing capital employed	329.13	273.58
	Debt to Equity	Debt to Equity
Capital structure	40:60	40:60
	%	%
Costs of capital		
Equity	14.20	11.50
Debt (pre-tax rate)	8.00	6.00

Tax rate	30	30
Stock market information:		
Average number of shares in issue	3.2 million	3.2 million
Stock market all-share index	1,985	2,561
Retailing sector index	1,155	1,408
X Greetings (share price)	KRW 22.50	KRW 24.40

### Required

Assess the performance of X Greetings using Economic Value Added and ANALYSE the result relative to those of earnings per share (EPS) and share price. Assumptions, if any, should be clearly stated.

### Solution

Conventionally X Greetings considered EPS and Share Price as performance measure, but management has shown interest in using EVA as performance measure now.

**EPS** - The performance of X Greetings has gone down since earnings per share is down by 15.03% (WN2) from last year. This indicates the company is not performing well and it is not in the favour of investors to continue with their investment in X Greetings or invest further.

**Share Price and Index** - However, the share price seems relatively better than that of the sector and stock market as whole. The share price of X Greeting declined by 7.79% in comparison to 17.97% decline in retailing sector index and 22.49% decline in Stock Market all - share index (WN3). The sector comparison is relevant for determining the performance of X Greetings rather stock market all-share index. According to this measure, the performance of X Greetings is acceptable, because it registered comparatively less destruction of market cap.

This implies that the within retailing sector X Greetings is seen as company with better prospects and this will encourage the shareholders to continue to hold their shares in the company.

**EVA** - X Greetings has generated positive EVA KRW 37.03 million during 2023-24 and same is less than what it earns during year ago (KRW 53.96 million) (WN1). No doubt EVA falls by around 31% over a year, but it is still positive; means value is generated. Hence performance is acceptable.

**To Conclude**, even in the bearish market X Greetings is capable to generate value for fund providers including shareholders hence performance of X Greetings is acceptable can be consider as good investment option.

### Working Note-1 (EVA)

EVA calculations for the periods given are:

Particulars	2023-24	2022-23
	KRW in million	KRW in million
Profit after interest and tax	55.55	65.38
Add Back: Interest (net of tax at 30%)	10.92	5.60
Net operating profit after tax (NOPAT)	66.47	70.98
Opening Capital employed	273.58	198.40

**Assumptions**

- There are no non-cash expenses to adjust the profit.
- Economic depreciation and accounting depreciation are equal.
- No lease exists for capitalisation.

**Cost of Capital**

$$\text{WACC}_{2023-24} = 0.60 \times 14.20\% + 0.40 \times 5.60\% = 10.76\%$$

$$\text{WACC}_{2022-23} = 0.60 \times 11.50\% + 0.40 \times 4.20\% = 8.58\%$$

$$\text{EVA} = \text{NOPAT} - \text{Capital Employed} \times \text{WACC}$$

$$\text{EVA}_{2023-24} = 66.47 \text{ m} - 273.58 \text{ m} \times 10.76\% = \text{KRW } 37.03 \text{ m}$$

$$\text{EVA}_{2022-23} = 70.98 \text{ m} - 198.40 \text{ m} \times 8.58\% = \text{KRW } 53.96 \text{ m}$$

**Working Note-2 (EPS)**

Particulars	2023-24	2022-23	Change
EPS	KRW 17.36	KRW 20.43	-15.03%

**Working Note-3 (Index and Share Price Movement)**

Particulars	2023-24	2022-23	Change
KOSPI (capitalization-weighted index of all common shares)	1,985	2,561	-22.49%
Retailing sector index	1,155	1,408	-17.97%
X share price	KRW 22.50	KRW 24.40	-7.79%

**Question 4**

Water Utilities Services (WUS) is established with an aim for supply and distribution of water in Mumbai as well as supply of water to the various local authorities for distribution to villages and other small cities adjacent to Mumbai. This involved planning, operating, treating, maintaining, and distributing water resources in the country's urban centres and other areas mandated by Maharashtra Government. Its mission is "To provide sustainable water in a cost effective and environmentally friendly manner to the economy".

The government ensures that WUS does not take advantage of its monopoly position in the regional area by increasing prices. The government controls majority of services through its water regulatory body which determines an acceptable margin level (ROCE) and ensures that the pricing of WUS within these areas does not break this level. The remaining work, i.e. a water bottle operation (WBO) is not regulated by the government and WUS charges a market rate for water supply in bottles. The regulator computes the return on capital employed (ROCE) of WUS based on its own valuation of the capital assets which are used in operation and the profit from those services.

The acceptable level of ROCE set by the regulator is 7.00%. If WUS breaches this level, then the company would be penalized. The WUS board is trying to improve the performance for the benefit of the shareholders. In order to communicate the objective of maximizing shareholders' wealth, the directors have decided to consider economic value added (EVA) as the key performance indicator.

Compute EVA of WUS based on the following information for the year ending 31 March 2024

Particulars	Water Distribution Operation (WDO)	Water Bottle Operation (WBO)	Total
	₹ in Crore	₹ in Crore	₹ in Crore
Revenue	555.00	186.00	741.00
Less: Operating Cost	460.00	119.00	579.00
Operating Profit	95.00	67.00	162.00
Less: Finance Charges			46.00
Profit Before Tax			116.00
Less: Tax at 30%			34.80
Profit After Tax			81.20
<b>Capital Employed</b>	<b>2023-24</b>	<b>2022-23</b>	
	<b>₹ in Crore</b>	<b>₹ in Crore</b>	
Audited Accounts	1,616.20	1,495.00	
Determined by the Regulator (for WDO Only)	1,558.00	1,422.00	

**Notes**

1. Operating Costs includes

Particular	2023-24	2022-23
	₹ in Crore	₹ in Crore
Depreciation	118	114
Provision for doubtful debts	4	1
Research and Development	24	–
Other non-cash items	14	12

2. Economic depreciation is ₹166 Crore in 2023-24. In FY 2022-23, economic and accounting depreciation were assumed to be the same.
3. Current year tax paid is ₹18 Crore and deferred tax provisions of ₹16.80 Crore has been adjusted. There was no deferred tax balance before 2023-24. The provision for doubtful debts was ₹9 Crore in the 2023-24 balance sheet.
4. Research and development has been non-capitalized. It belongs to a new project that will be developed over five years and is expected to be of long-term benefit to the company. 2023-24 is the first year of this project.
5. Cost of Capital

Equity	14%
Debt (Pre-Tax)	6%

6. Gearing of WUS

Equity	45%
Debt	55%

**Required**

- (i) Evaluate the financial performance of WUS using EVA.
- (ii) Assess whether WUS complies with its acceptable ROCE level.
- (iii) Advise on how to improve profitability.

**Solution****(i) Computation of NOPAT**

Particulars	₹ in Crore
Operating Profit	162.00
Add:	
Non-Cash Items	14.00
Accounting Depreciation	118.00
Doubtful Debts	4.00
Research and Development	24.00
Less:	
Economic Depreciation	166.00
Tax Paid	18.00
Tax Saving on Interest (₹46 × 30%)	13.80
<b>NOPAT</b>	<b>124.20</b>

**Computation of Capital Employed**

Particulars	₹ in Crore
Capital Employed as on 31.03.2023	1,495.00
Add:	
Provision for Doubtful Debt as on 31.03.2023 (i.e. ₹9 - ₹4 crore)	5.00
Other Non-Cash Items (incurred in 2022-23)	12.00
Adjusted Opening Capital Employed	1,512.00

$$\begin{aligned} \text{WACC} &= 0.45 \times 14\% + 0.55 \times 6\% \times (1 - 30\%) \\ &= 8.61\% \end{aligned}$$

$$\begin{aligned} \text{EVA} &= \text{NOPAT} - (\text{WACC} \times \text{Capital Employed}) \\ &= ₹124.20 - (8.61\% \times ₹1,512) \\ &= ₹124.20 - ₹130.18 \\ &= - ₹5.98 \text{ Crores} \end{aligned}$$

**Evaluation**

Presently, WUS is distorting value as it is not able to meet the economic cost of its own capital. This put the company into the question of perpetual succession and lead the company against shareholder's interest. The reason could be the higher cost of equity for WUS. The investment risk should be low since 75% of the services that company renders are important for the economy and demand is guaranteed in future. Optionally, WUS needs to either increase its NOPAT enough to break even on economic value added or slash its capital employed by selling unutilized or under-utilized assets.

(ii) Regulatory ROCE: Target 7.00%

$$\begin{aligned} \text{ROCE} &= \left( \frac{\text{Operating Profit}}{\text{Capital Employed}} \right) \times 100.00\% \\ &= \left( \frac{95}{1,422} \right) \times 100\% = 6.68\% \end{aligned}$$

The ROCE is within the acceptable ROCE of 7.00%.

**(iii) Operating Margins.**

Water Distribution Operation = 17.12%

Water Bottle Operation = 36.02%

**Advise**

Operating margin from WBO is 36.02% compared to 17.12% (WDO). WUS may use the WDO activities as a trusted source of cash profit to reinvest in expansion of the WBO. Expansion through acquisition of appropriate non-regulated businesses using the cash generated by the regulated activities might be a good decision.

Further, WUS may improve profitability by controlling costs within WDO activities through performance measurement. The regulatory body cannot argue that the company is overcharging its customers to increase the profit margin. This is possible through strict observance of expenses and using cost savings techniques through efficiency improvements. In order to control costs within WDO, targets should be based on minimal variances and adopting cost cutting methods.

Overall, In WDO, there is only a limited scope for increase in the operating profit since the maximum operating profit allowed is ₹ 99.54 crore i.e. 7.00% of ₹ 1,422 crore of capital employed. Thus, WUS should go to expand its WBO as this is producing higher operating profit margins.

**Question 5**

Beta Control (BC) is a global leader in the manufacturing of commercial building control systems with over 250 distributors and many thousands of installations in more than 50 countries. Control systems involve air conditioning systems, facility management, energy and water management, access control and security controls etc. At BC, manufacturing is done at a number of factory sites where some products are easy and largely produced and have a long life while other products are intricately and have a short life due to changing technologies. BC's mission statement is 'to keep you ahead through control systems that improve productivity and save energy'.

A Newly appointed chief executive officer (CEO) is anxious about declining share price of BC in the last two years. She identified that the business has grown through acquisition and senior management have focused on making corporate deals but not on making control systems. She announced that the BC's focus must be on optimization and upgradation of its value generation rather than just getting bigger through acquisitions.

Assuming yourself as a performance management expert of BC, the CEO has asked you to aid her in her improvement programme. Firstly, she wants your views on the use of EVA as the key performance metric at BC. You are given the current EVA computation (Annexure1) but there is some suspicion about whether the assistant who has done this work is sufficiently well trained in this method. So, she requires you to examine his accuracy and the assumptions forming part of the calculation.

**Required**

Write a report to the chief executive officer to EVALUATE the usefulness of EVA as performance measure and accuracy of the calculation done by assistant apart the assumptions taken if any.

**Annexure 1****NOPAT**

Particulars	Year ended 31st March 2024	
	₹ in Lacs (L)	Notes

Operating Profit	1,102.80	
<b>Add:</b>		
Non-Cash Expenses	30.20	
Marketing Expenditure Capitalised	46.20	7
<b>Less:</b>		
Tax	269.60	9
Lost Tax Relief on Interest	48.96	
Net Operating Profit After Tax (NOPAT)	860.64	

### Capital Employed

Particulars	Year ended 31st March 2024	
	₹ in Lacs (L)	Notes
From the Statement of Financial Position	4,802.00	10
<b>Add:</b>		
Marketing Expenditure Capitalized	46.20	7
Adjusted Capital Employed	4,848.20	

$$\begin{aligned} \text{WACC} &= (1/2 \times 15\%) + (1/2 \times 7.8\%) \\ &= 11.40\% \end{aligned}$$

$$\begin{aligned} \text{EVA} &= \text{NOPAT} - (\text{WACC} \times \text{Capital Employed}) \\ &= ₹860.64 \text{ L} - ₹4,848.20 \text{ L} \times 11.40\% \\ &= ₹860.64 \text{ L} - ₹552.69 \text{ L} \\ &= ₹307.95 \text{ L} \end{aligned}$$

### Assumptions and Notes

- Debt/Equity 1:1
- Cost of Equity is 15.00%
- Cost of Debt (pre-tax) is 7.80%
- Tax Rate is 30.00%
- Interest charged in the period was ₹163.20 L.
- In the current fiscal year, BC spent ₹80.00 L in Training and Development by leveraging the latest digital technologies including virtual classrooms to deliver highly relevant training to staff at the point of need.
- Marketing Expenditure has been ₹46.20 L each year for the last two years to build the long-term brand.
- The total R & D spending was ₹20 L during this year for in- depth study of the TCP/IP protocols. The TCP/IP based products have not been launched yet.
- BC has paid Tax of ₹260 L while the tax charged per the accounts was ₹269.60 L.
- Capital employed during the Period (from the statement of financial position):

Opening	₹4,564.00 L
Closing	₹4,802.00 L

### Solution

#### Report

To: CEO, Beta Control

**From: Performance Management Expert**  
**Date: 31<sup>st</sup> May 2024**  
**Subject: Evaluation of EVA at Beta Control**

EVA provides a link between decisions, performance measures and rewards, which focuses managers on performing better. Incentive schemes based on EVA provide better quality information and motivation in making decisions which in turn maximise shareholders' wealth. In other words, EVA links the operating returns to the assets that were used to generate those returns. The learning which flows from EVA analyses can be perceptive and can allow the manager not only to identify areas of weakness in performance but also to easily find solutions. BC is a multiproduct company having a number of factory sites. EVA can help to appraise divisional contributors to, or detractors from, overall profitability. Thus, managers may be educated through EVA and pursue such objectives that improve operating profits investing more capital.

In addition, this report deals with evaluation of the accuracy and assumptions used in the calculation of BC's EVA. There are many errors in the present calculation of EVA. These have been discussed below and revised calculations are enclosed.

- Non-Cash Expenses have been correctly added back to the profit as these are expenses which do not affect the cash flow of a given period.
- Addition back of Marketing Expenditure is also correct as spending contributes to future value-creation. For the same reason, the prior year's spending is also added into the capital employed.
- Training and Development Expenses should be capitalised. Training and Development Expenses have been treated as an expense in the income statement, they should be added back to profit, and added to capital employed (at the end of the year).
- Research and Development (R & D) Expenses should be treated as marketing expenditure for a long period.
- The tax expenses in the EVA calculation should be the tax paid with adjustment for lost tax relief on interest and not the adjusted amount of tax charged in the accounts.
- The WACC is incorrect because it should be based on post-tax cost of debt.
- Generally, a company takes at least a year's time to earn a return on its investment. Thus, the capital employed figure should be based on the beginning numbers.

#### **NOPAT**

Particulars	Year ended 31st March 2024
	₹ in Lacs
Operating Profit	1,102.80
<b>Add:</b>	
Non-Cash Expenses	30.20
Marketing Expenditure Capitalised	46.20
Training & Development Expenses	80.00
R & D Expenses	20.00
<b>Less:</b>	
Tax	260.00
Lost Tax Relief on Interest	48.96
<b>Net Operating Profit After Tax (NOPAT)</b>	<b>970.24</b>

**Capital Employed**

Particulars	₹ in Lacs
From the Statement of Financial Position (Starting)	4,564.00
Marketing Expenditure Capitalized	46.20
Adjusted Capital Employed	4,610.20

$$\begin{aligned} \text{WACC} &= (1/2 \times 15\%) + (1/2 \times 7.8\% \times 70\%) \\ &= 10.23\% \\ \text{EVA} &= \text{NOPAT} - (\text{WACC} \times \text{Capital Employed}) \\ &= ₹970.24 \text{ L} - ₹4,610.20 \text{ L} \times 10.23\% \\ &= ₹498.62 \text{ L} \end{aligned}$$

The recomputed EVA has increased from ₹307.95 Lacs to ₹498.62 Lacs, which shows a positive position for BC as it adds up the shareholder's wealth.

**Note -** For calculating NOPAT, following most common adjustments to accounting profit as remarked by the Stern Stewart has been considered.

- For Advertising, Research and Development Items expensed, Staff Training
  - Impact on Profit: Increase CY's profit, deduct economic depreciation on PY's EVA adjustment.
  - Impact on Capital Employed: Increase capital employed at the end of the year, increase capital employed in respect of similar add backs of PY's investments not treated as such in financial statements (net of economic depreciation).
- For Depreciation
  - Impact on Profit: Add accounting depreciation and subtract economic depreciation.
  - Impact on Capital Employed: Alter value of non-current assets (and capital employed) to reflect economic depreciation not accounting depreciation.
- For Non- Cash Expenses
  - Impact on Profit: Add back to profit.
  - Impact on Capital Employed: Add to retained profits at the end of the year.
- For tax charge, this will be based on 'cash taxes' rather than the accruals-based methods used in financial reporting.

Further, the revised calculation of EVA is largely based on the following assumptions:

- There is an implicit assumption that accounting depreciation (included in operating profit) is equivalent to economic depreciation (which should be used for EVA calculations). This assumption is doubtful, although there is no information for more accurate calculation.
- For Additional Marketing Expenditure, no estimation of economic life (expected period during which an asset remains useful) in building the brand and corresponding economic depreciation has been considered in the above calculation.
- No amortisation of the R & D Costs is required to be recognised as the product has not been introduced yet. This is in line with the accounting treatment of such items. There was no Research & Development expenditure in the previous year.

**Question 6**

Your Bank Ltd. was established on the 30th September, 1940 under the provisions of Co- operative Societies Act by the eminent professionals to encourage self-help, thrift, cooperation among members. Bank was issued Banking License under Banking Regulation Act, 1949 on October 25, 1986 to carry out

the Banking Business within the national capital and since then the Bank has been growing continuously. At present, the Bank has a large number of membership of individuals from different sections. The Bank has 12 branches in the NCT of Delhi. Bank offers 'traditional counter service'. Opening hours are designed to coincide with local market days.

The Board of Directors were worried about the growing popularity of new style banks. These banks offer a diverse range of services such as direct access to executive management, a single point of contact to coordinate all banking needs, appointment banking to save time, free online banking services 24/7, free unlimited ATM access etc.

It has now been decided that the bank will focus on "What Customers Want" and will use a balanced scorecard to achieve this goal.

### **Required**

Produce, for each of the three non-financial perspectives of a 'Balanced Scorecard', an objective and a performance measure that the bank could use with appropriate reason.

### **Solution**

#### **Internal Business Process Perspective**

**Objective:** Cross-sell Products

**Measure:** Products Purchased per customer

**Reason:** Cross-selling, or encouraging customers to purchase additional products e.g. insurance, forex etc. is a measure of customer satisfaction. Only if a service is perceived as highly satisfactory the service would be repeated/ additional products or services would be accepted.

#### **Learning and Growth Perspective**

**Objective:** Increase the Number of New Products or Services Sold

**Measure:** Number of Customers Buying the New Products/ New Services

**Reason:** Long-term financial success requires banks to create new products / services (e.g. internet banking, ATM access) that will meet emerging needs of current / future customers such as 24/7 banking.

#### **Customer Perspective**

**Objective:** Increase Customer Loyalty

**Measure:** Number of Accounts Closed or Closure Request Received

**Reason:** Customer loyalty describes the extent to which a bank maintains durable relations to its customers. The share of existing customers should have a high importance as it indicates about image and reputation. Closure request is not a good sign for the bank. Bank should investigate reasons for the same and take appropriate actions to improve services offered to retain customers.

*Note - Other **Objectives** and **Measures** are also possible, but they must relate to the bank's **Goal***

### **Question 7**

B. Steels is a leading manufacturer of flat and long products and have state-of the-art plants. These plants manufacture value added products covering the entire steel value chain right from coal mining to manufacturing Pig Iron, Billets, HR Coils, Black Pipe/GI Pipe, Cable Tapes etc. conforming to international standards. The rock-solid foundation combined with nonstop upgradation and innovation has enabled B. Steels to surpass its goals constantly. Its vision and values for sustainable growth are balancing economic prosperity and social equality while caring for the planet. It is preparing its

balanced scorecard for the year 2023-24. It has identified the following specific objectives for the four perspectives.

▪ Improve post-sales service	▪ Improve employee morale	▪ Improve employee job satisfaction
▪ Increase gross margin	▪ Increase number of customers	▪ Increase profitability of core product line
▪ Increase plant safety	▪ Increase customer retention	

B. Steels has collected Key Performance Indicators (KPIs) to measure progress towards achieving its specific objectives. The KPIs and corresponding data collected for the year 2023- 24 are as follows:

Key Performance Indicator	Goal	Actual
Average replacement time (number of days)	2	1.5
Gross margin growth percentage	15%	16%
Number of customers	15,000	15,600
Number of plant accidents	0	2
Percentage of repeat customers	83%	81%
Core product line profit as a percentage of core-product line sales	5%	4.4%
Employee turnover rate (number of employees leaving/ Average number of total employees)	2%	3%
Employees satisfaction rating (1-5, with 1 being the most satisfied)	1	1.2

For preparation of Balanced Scorecard report, the following format has been developed:

B. Steels Balanced Scorecard Report For the year ended March 31, 2024					
Perspective	Objective	KPI	Goal	Actual	Goal Achieved (Yes or No)
Financial	×	×	×	×	×
Customer	×	×	×	×	×
Internal Business Process	×	×	×	×	×
Learning and Growth	×	×	×	×	×

### Required

- (i) Prepare a balanced scorecard report using the above-mentioned format. Place objective under the appropriate perspective heading in the report. Select a KPI from the list of KPIs that would be appropriate to measure progress towards each objective.
- (ii) B. Steels desires to integrate sustainability and corporate social responsibility related KPIs in their balance scorecard to adhere vision and values. ADVISE B. Steels, using TBL framework.

### Solution

- (i) **B. Steels Balanced Scorecard Report For the year ended March 31, 2024**

Perspective	Objective	KPI	Goal	Actual	Goal Achieved (Yes or No)
Financial	Increase Gross Margin	Gross margin growth percentage	15%	16%	Yes
	Increase Profitability of Core Product Line	Core product line profit as a percentage of core product line sales	5%	4.4%	No
Customer	Increase number of customers	Number of Customers	15,000	15,600	Yes
	Increase customer retention	Percentage of repeat customers	83%	81%	No
Internal Business Process	Improve post sales service	Average replacement time (number of days)	2.0	1.5	Yes
	Increase plant safety	Number of plant accidents	0	2	No
Learning and Growth	Improve employee job satisfaction	Employees satisfaction rating (1-5, with 1 being the most satisfied)	1	1.2	No
	Improve employee morale	Employee turnover rate (Number of employees leaving/ Average number of total employees)	2%	3%	No

- (ii) **“Triple Bottom Line”** concept encourages companies to measure not only their financial profits, but also the impact that its operations have on the society and environment. Therefore, this framework measures the full cost of doing business by measuring the following bottom lines :-  
 (i) Profit (ii) People and (iii) Planet.

Diminishing non-renewable resources have forced businesses to focus on sustainable manufacturing. This term refers to managing manufacturing processes such that they minimize any negative impact on the environment by conserving energy and natural resources. In many instances, improved operational efficiency not only reduces waste (thereby costs) but also improves product safety, it strengthens the brand’s reputation and builds public’s trust about the company. As a long- term strategy, this improves business viability and provides a competitive edge to the company. This concept is the **“Planet Bottom Line”** within the Triple Bottom Line framework. Metrics on the following aspects may be investigated to find out the environment impact of business operations:

- Material consumption.
- Energy consumption.
- Water utilization.
- Emissions, treatment of effluents and waste (emissions affecting air, water, and land).
- Fuel consumption by tracking freight and transportation costs.
- Land utilization.
- Recyclability and disposal of product.

Corporate Social Responsibility” enables the company to become conscious of the impact its operations have on society. CSR programs, through philanthropy and volunteer efforts can forge a stronger bond between itself, its employees, and the wider community. Again, this improves both the brand image as well as builds the public’s trust about the company. This concept is the “**People Bottom Line**” of the Triple Bottom Line framework. Metrics on the following aspects maybe investigated to find out the social impact of business operations:

- Workplace environment and labour relations.
- Occupational health and safety, accident rates.
- Human rights practices – child labour, employee work-place security policies.
- Training and education.
- Equal opportunity employer – diversity of workforce and opportunities available for employees’ growth.
- Suppliers – local sourcing versus sourcing from external markets.
- Philanthropy and volunteer programs organized.
- Product safety in terms of customer health and safety.
- Pricing of essential products to enable wider reach within society.
- Transparent and ethical business practices.

B. Steels can study these aspects, determine the relevant metrics, and prepare periodic KPI reports that can help in measuring responsibilities towards sustainability and social impact.

### Question 8

#### History

In 2012, Luxo had a monopoly in the eyewear market of America, but the problem with the company was that it was selling a variety of eyewear, by putting a big price on it. At present, there is almost nothing that you can’t buy online, but at that time there were limited things that you could order online. In 2012, Arby Signer Inc. launched a website to sell eyeglasses online. Selling eyewear online and competing with Luxo was a challenge for Arby. Within just 4 years Arby broke the monopoly of Luxo and captured the major market of America. People find it really convenient to buy sunglasses and glasses online and get delivery at doorstep. Following the footstep of Luxo, Arby eliminated the middleman from the manufacturing process, launched its own optical lab to have its own manufacturing process. The range of products/services offered by Arby which make different from Luxo include easy buying process, delivery at doorstep, stylish glasses, customize eyewear glasses, products was sold on the site at very affordable, with a starting range of just \$95 etc.



#### Mission, Vision & Objectives

Mission	“Improving people’s lives with our health care products in a socially cognizant way”
Vision	“To be a trusted health care partner”
Objective	“To offer people designer eyewear at a revolutionary price”

As a mission- based brand, Arby needed a way to instill in their team of employees a passion for the mission. Arby let their employee know ‘what they value’ and ‘what the employee should value’ in ‘who they are’. This is important to setting up ‘what they do’ and ‘why they do it’ as a core foundation of their brand story. Arby also contributes to philanthropic work; it inspires the people with its mission.

For every pair of glasses customer pays, Arby donates a pair of glasses to needy person. In December 2023, Arby reported the donation of 9,60,000 pairs of eyeglasses. The company also claims to be 90% carbon neutral.

#### Extracts from the Balanced Scorecard

Performance Measure	2023 Actual	2023 Target
<b>Financial perspective</b>		
Return on capital employed (ROCE)	13%	14%
Net income	\$95 Millions	\$89 Millions
<b>Customer perspective</b>		
Number of first-time buyers	1,20,000	1,00,000
Customer retention ratio	78%	75%
Number of complaints (per 1,000 customers)	1.5	2
Number of glasses donated to needy people	9,60,000	9,00,000
<b>Internal processes</b>		
Number of business processes re-engineered	110	100
Number of new services made available through online application	2	4
Incidences of fraud on customers' accounts (per 1,000 customers)	3	10
Total CO2 emissions (tons)	850	1,100
<b>Learning and growth</b>		
Number of employees trained to instruct retailers	1,000	1,050
Number of hours (paid for) used to support social plans	10,200	10,000
Number of trainee positions from rural areas	189	200

#### Other Information

Arby Signer has recently invested heavily in IT security to prevent fraud.

#### Required

Examine the performance of The Arby Signer in 2023.

#### Solution

The balanced scorecard approach looks at both financial performance and non-financial performance. In order to gain competitive advantage, organizations have to be conscious of the needs and convenience of their customers. The Arby signer has a vision and strategy which goes far beyond just making money. They want to help the community and give something back to customers also. Hence, performance measures which address whether the Arby is being successful in pursuing their vision has been incorporated in Balanced Scorecard. The performance of the Arby will be considered under each of the titles used in the balanced scorecard:

**Financial Perspective:** The Arby has had a year of diverse achievements when looking at the extent to which it has met its financial targets. Its ROCE shows how efficiently it has used its assets to generate profit for the business. The target for ROCE for the year was 14% but it has only achieved 13% return. Arby's Net Income, however, was in fact \$6 million higher than its target, which is good. The most likely reason for the under-target ROCE is possibly the investment which Arby has made in IT security. Whilst this may have reduced ROCE, this investment is essentially a good idea as it helps Arby to pursue its mission and will keep customers happy.

**Customer Perspective:** Regarding its customers, Arby's performance is better in the current year. It has not just exceeded its target sales to first-time buyers by 20,000 but also improved its customer retention ratio, which is good for the company to pursue its vision of being a trusted healthcare partner. Customers' complaints have reduced from 2 complaints to 1.5 complaints for every 1,000 customers, the exact reason is not clear, but it might be because of improved processes and the team efforts of employees. Also, the number of glasses donated exceeded the target. It shows that the company has exceeded its target of helping people, which is good for the company's reputation.

**Internal Processes:** The number of business processes within Arby re-engineered has exceeded the target, which is very good and the impact of which may be reflected in the lowering of the level of customer complaints. Likewise, the investment to improve IT security has been a great success, with only three incidences of fraud per 1,000 customers reported compared to the target of 10. However, only two new services have been made available via online application, instead of the target of four, which is unsatisfactory. But fortunately, its CO2 emission is below the target level.

**Learning and Growth:** Arby has succeeded in training its employees to instruct retailers. However, the number of employees trained to instruct retailers are comparatively lesser than targeted, shortfall in training of employees to give instruction to retailers may have an impact on the Arby's failure to meet its target of market expansion.

The number of hours (paid for) used to support social plans are comparatively higher, it results in additional costs which could have contributed to the fact that the Arby did not quite meet its target for ROCE. Further, company has not met aim for helping the rural area as targeted. This may be because the number of candidates applying from these areas was not as high as planned and this situation is beyond the company's control.

In general, the Arby Signer had a successful year, meeting many of its targets.

### Question 9 - Triple Bottom Line (TBL)

Caregiver Ltd. is a multi-specialty hospital in a mid-sized town. A 300+ bedded facility offers treatment across all medical disciplines of Cardiac, Oncology (Medical, Surgical and Radiotherapy), Neurosciences, Urology, Nephrology, Kidney Transplant, Aesthetics and Reconstructive Surgery, and other ancillary services. Most of the community members have their livelihood linked with the hospital. Many of them are directly employed at the hospital as doctors, nursing staff, lab technicians or as other support staff. While others are indirectly related as suppliers of medical devices or drugs to the hospital, catering or housekeeping contractors etc. for the hospital. Hence, the existence of the hospital is vital to the community.

Growing awareness about sustainable business prompted the management to identify areas that can help the hospital operate in a sustainable manner that would be mutually beneficial to the organization as well as the town that depends on it. Therefore, it has identified the initiatives that have been put in place to create a sustainable business. Information captured from various departments are being considered to prepare the Triple Bottom Line (TBL) report that is for the consumption both to internal and external stakeholders.

#### Required

Identify, which of the following aspects need to be reported in the TBL report and under which of the three categories. Provide reasons for classifying the aspect under a specific category, if applicable.

- (i) Medical staff conduct charity camps every month. Open to all members of the community, who are provided with consultation free of charge.
- (ii) Prompt and accurate tax payments based on records maintained without errors or fraud.
- (iii) Caregiver, with the help of traffic police, has implemented a "green corridor" for ambulances that carry donor organs for transplantation. Organs harvested from the donor at one hospital can reach another hospital with the recipient patient at the earliest.
- (iv) Medical waste is discarded at a landfill in a nearby dumpsite. Some of the waste are not bio-degradable.
- (v) During review of the supplier for housekeeping service, it was observed that the service provider resorted to child labour to keep cost of operations lower.
- (vi) Training and professional development programs doctors and nurses.
- (vii) Lab reports are being made available online within the hospital computer system. This would reduce printing costs and storage space needed to maintain older records.
- (viii) Caregiver has a good track record of having no medical negligence litigation cases filed against it.
- (ix) The hospital is planning to market medical check-up packages so that facilities in its out- patient department can be utilized better.
- (x) The number of inpatient hospital deaths decreased 8%, from 776 in 2022 to 715 in 2023.

Assume all aspects are material enough to be reported in the TBL report.

### Solution

Aspects that need to be reported in the TBL report:

S.N.	Aspect	Category on the TBL Report
(i)	Medical staff conduct charity camps every month. Open to all members of the community, who are provided with consultation free of charge.	<b>Social bottom line</b> , as it benefits the local community.
(ii)	Prompt and accurate tax payments based on records maintained without errors or fraud.	<b>Economic bottom line</b> , since tax payments impact an organization's bottom line and money flow.
(iii)	Caregiver, with the help of traffic police, has implemented a "green corridor" for ambulances that carry donor organs for transplantation. Organs harvested from the donor at one hospital can reach another hospital with the recipient patient at the earliest.	<b>Social bottom line</b> , since green corridor would enable the ambulance to transport harvested organs between the hospitals at the earliest this would be beneficial for patients in need of critical care.
(iv)	Medical waste is discarded at a landfill in a nearby dumpsite. Some of the waste are not bio-degradable.	<b>Environmental bottom line</b> , as it affects the ecological surroundings of the town.
(v)	During review of the supplier for housekeeping service, it was observed that the service provider resorted to child labor to keep cost of operations lower.	<b>Social bottom line</b> , since employing child labor leads to exploitation of children within the community.
(vi)	Training and professional development programs doctors and nurses.	<b>Social bottom line</b> , since it contributes towards employee development.

<b>(vii)</b>	Lab reports are being made available online within the hospital computer system. This would reduce printing costs and storage space needed to maintain older records.	<b>Environmental bottom line</b> , since paper, cartridge and storage requirement would be lower. This preserves environmental resources.
<b>(viii)</b>	Caregiver has a good track record of having no medical negligence litigation cases filed against it.	<b>Social bottom line</b> , since this is an indicator of the quality of services provided to patients.
<b>(ix)</b>	The hospital is planning to market 'medical check-up packages' so that facilities in its outpatient department can be utilized better.	Not relevant to TBL report. This is a marketing strategy to improve profitability (alternatively, Economic bottom line).
<b>(x)</b>	The number of inpatient hospital deaths decreased 8%, from 776 in 2022 to 715 in 2023.	<b>Social bottom line</b> , since hospital mortality rate measures the clinical quality.