Chapter 3.4.2 - Profit and Loss Account

*Please note that the case studies will no longer include answer keys as per the business department's request

Purpose of Profit and Loss Account

The **profit and loss account** (or the **income statement**) is a financial statement of a firm's trading activities over a period of time, usually one year. Most businesses that operate in the private sector aim to make a profit (see Chapter 3). Even for non-profit organizations and those in the public sector, it is important to make a financial surplus in order to survive. The main purpose of the profit and loss (P&L) account is to show the value of profit or loss for a business during a particular trading period.

Profit, in its simplest form, is the positive difference between a firm's revenues and its costs. **Revenues** are the inflows of money from ordinary trading activities, such as cash sales, credit sales, charges/fees charged to customers and royalties (see Chapter 15). **Costs** are the outflows of money from a business arising from its operations, such as wages, salaries, rents and the purchase of stocks (inventories). Profit creates an incentive for most businesses to do well. After all, if a business does not earn profit, it would struggle to survive.

The Trading Account

(i) The trading account

The trading account is the first section of the P&L account and shows the difference between a firm's sales revenue (the value of products sold to customers) and its costs of producing or purchasing those products to sell. Hence, the trading account shows the **gross profit** of the business:

Gross profit = Sales revenue – Cost of goods sold

The **cost of goods sold** (COGS) is the accountant's term for the direct costs of the goods that are actually sold, such as raw material costs. COGS (or cost of sales when referring to services) is worked out by using the formula:

COGS = Opening stock + Purchases – Closing stock

For example, if a business opens trading this morning with $5,000 of stock (the cost value of the inventory) and receives a delivery of stock for which it pays $25,000 then the business has costs of stock valued at $30,000. Suppose that at the end of the trading day, the firm has $3,800 of stock remaining. Using the formula, the calculation of COGS then becomes:

COGS = $5,000 + $25,000 – $3,800 = $26,200

Thus, the COGS is $26,200. Assume that the stocks sell for three times their cost value - this would generate sales revenue of $78,600 (i.e. $26,200 × 3). Thus, the value of the firm's gross profit would be $78,600 – $26,200 = **$52,400**.

Using this example, the trading account is shown in the following format:

Statement of profit or loss for the year ended 1st April 20XX

	$	$
Sales revenue		78,600
Cost of Sales:		
Opening stock	5,000	
Purchases	25,000	
Closing stock	3,800	
		26,200
Gross profit		**52,400**

A business can improve its gross profit by reducing costs and/or raising revenue, such as:

- Using cheaper suppliers – This reduces the COGS, although finding cheaper suppliers without hindering quality can be problematic.
- Increase selling price – This raises the value of each item sold, but is likely to cause a fall in the volume of sales.
- Enhanced marketing strategies – Methods such as promotions and repackaging can be used to make the product more appealing. However, this will raise the firm's expenses.

The Profit and Loss Account

(ii) The profit and loss (P&L) account

The profit and loss account (or the **profit statement**) shows the **profit** (or loss) of a business at the end of a trading period. Profit is the financial surplus from sales revenues after all costs and expenses are accounted for. Hence, profit is the actual profit earned from a firm's normal trading activities. The gross profit is used to deduct all expenses to calculate the value of profit:

Profit = Gross profit – Expenses

Expenses are the indirect or fixed costs of production (see Chapter 16), such as administration charges, management salaries, insurance premiums (for buildings, vehicles and stock), rent of land and property and stationery costs.

Suppose that Florists-R-Us sold $230,000 of stock with a market value of $460,000 during the fiscal (tax) year ended on 31st December 2022. Rents payable amounted to $90,000 whilst utility bills (gas, water, electricity and telephone) totalled $60,000. Other overheads amounted to $15,000. Note that negative numbers are shown using brackets in the P&L account to represent costs and expenses. The profit statement would then be shown as follows:

Profit statement for Florists-R-Us, for the year ended 31st Dec. 2022

	$	$
Sales revenue		460,000
Cost of Sales		(230,000)
Gross profit		230,000
Expenses:		
Rents	(90,000)	
Utility bills	(60,000)	
Other overheads	(15,000)	
		(165,000)
Profit		65,000

There are several ways that a business might try to reduce its expenses in order to increase its profit. For example:

- Rent charges could be negotiated or the firm could consider moving to cheaper premises; although relocation might not prove feasible due to industrial inertia (see Chapter 38).
- Fuel consumption, such as heating and lighting, could be reduced. For example, businesses could turn down the heating temperature during the winter, use less air conditioning in the summer and turn off lights when not required. Such actions help to reduce electricity bills as well as helping to protect the natural environment.
- Administration costs could be examined by reviewing the work of clerical staff to reduce expenses. This might be achieved by combining jobs or employing fewer people to carry out such tasks. It might also be possible to outsource some jobs in order to reduce costs (see Chapter 38).

Appropriation Account

(iii) The appropriation account

The final section of the profit statement is called the **appropriation account**. There are two parts to this account, which show how the profit after interest and tax is distributed:

- **Dividends** - This shows the amount of profit after interest and tax that is distributed to the owners (shareholders) of the company. The proportion of profit (after interest and tax) allocated to shareholders is based on the decision of the Board of Directors and is approved at the company's Annual General Meeting. It is usual for dividends to be paid bi-annually. An *interim dividend* is paid approximately

Format on The Profit and Loss Statement

Table 17.1 - Format of the P&L account for a profit-making organization

Statement of profit or loss for (Company name), for the year ended (date)

	$m
Sales revenue	700
Cost of sales	(350)
Gross profit	350
Expenses:	(200)
Profit before interest and tax	150
Interest	(10)
Profit before tax	140
Tax	(25)
Profit for period	115
Dividends	(35)
Retained profit	80

Table 17.2 - Format of the P&L account for a non-profit organization

Statement of profit or loss for (name of NPO), for the year ended (date)

	$m
Sales revenue	700
Cost of sales	(350)
Gross surplus	350
Expenses:	(200)
Surplus before interest and tax	150
Interest	(10)
Surplus before tax	140
Tax	0
Surplus for period	140
Retained surplus	140

Interest charges and taxes, despite being expenses, are shown as separate items in the P&L accounts. This is because both interest and tax rates change over time and are beyond the control of the business - profit might be lower this year only because tax or interest rates were raised. Recording profit before interest and tax allows firms to compare like with like and enables historical comparisons of financial performance. Interest is a cost as it represents the charge or fee that a business pays to its financiers such as commercial banks. Corporate tax is the levy payable on a company's profits.

Suppose that Florists-R-Us has $10,000 of interest to repay to the bank and that corporate tax is charged at 10%. By including interest and tax, the P&L account is shown as:

Statement of profit or loss for Florists-R-Us, for the year ended 31st December 2022

	$
Sales revenue	460,000
Cost of sales	(230,000)
Gross profit	230,000
Expenses:	(165,000)
Profit before interest and tax	65,000
Interest	(10,000)
Profit before tax	55,000
Tax (10%)	(5,500)
Profit	**49,500**

Profit Making Organisation:

In reality, the three parts of the P&L account are combined into one final account. Assume that Florists-R-Us allocates 30% of its profit after interest and tax to shareholders and retains the rest for reinvestments in the company. Combining the three parts of the account will produce a full P&L account like this:

Statement of profit or loss for Florists-R-Us, for the year ended 31 December 2022

	$	
Sales revenue	460,000	Trading account
Cost of Sales	(230,000)	
Gross profit	230,000	
Expenses:	(165,000)	Profit & Loss account
Profit before interest and tax	65,000	
Interest	(10,000)	
Profit before tax	55,000	
Tax (10%)	(5,500)	
Profit after interest and tax	49,500	
Dividends (30%)	(14,850)	Appropriation account
Retained profit (70%)	34,650	

Non-Profit Organisation:

Table 17.2 - Format of the P&L account for a non-profit organization

Statement of profit or loss for (name of NPO), for the year ended (date)

	$m
Sales revenue	700
Cost of sales	(350)
Gross surplus	350
Less Expenses:	(200)
Surplus before interest and tax	150
Less Interest	(10)
Surplus before tax	140
Less Tax	(25)
Surplus for period	115
Retained surplus	115

Limitation of Income Statement

The P&L account is important as it shows the profit (or loss) that is generated after all costs and expenses are accounted for. The gross profit might seem appealing, but if the expenses are higher than the gross profit, the business makes an overall loss. Clearly, a business cannot survive for long without making any actual profit.

There are, however, several limitations of the P&L account:

- The P&L account shows the historical financial performance of a business. There is no guarantee that future performance is linked to past performance or success.
- As there is no internationally standardized format for producing a P&L account, it might be difficult to compare the profit or loss of different firms in different countries, be they in the same or dissimilar industries.
- **Window dressing** can occur. This refers to the legal act of creative accounting by manipulating final accounts to make them appear more attractive, even though this disguises the underlying financial position of the company. For example, a company might include the sale of some fixed assets or non-operating income in its P&L account to boost the value of profits, thereby impressing its shareholders.

Figure 17.2 - Window dressing is about making a firm's products or accounts look more attractive

Relation between Balance Sheet and Income statement

- In the income statement the retained profit will be added to the section of reserves under the shareholder funds in the balance sheet.
- If there is a loss in the income statement, this has to be reflected in the retained profit in the balance sheet.
- If dividends are declared and not distributed they are put into the income statement but are considered as a current liability in the balance sheet, same with the Taxes.
- The depreciation in the income statement is shown as a depreciation expense. In the balance sheet it is called accumulated depreciation.

The difference between Cash and Profit

It is important for businesses to recognise the difference between cash and profit. At the end of a trading year it is unlikely that the value of profit will be the same as the cash balance. Differences between cash and profit can arise for a number of reasons:

- During the trading year a business might sell €200,000 worth of goods with total costs of £160,000. Its profit would be £40,000. However, if some goods had been sold on credit, payment by certain customers may not yet have been réceived. If £12,000 was still owing, the amount of cash the business had would be £28,000 (£40,000- £12,000). Thus, profit is greater than cash.
- A business may receive cash at the beginning of the trading year from sales made in the previous year. This would increase the cash balance, but not affect profit. In addition, the business may buy resources from suppliers and not pay for them until the next trading year. As a result its trading costs will not be the same as cash paid out.
- Sometimes the owners might introduce more cash into the business. This will increase the cash balance, but have no effect on the profit made. This is because the introduction of capital is not treated as business revenue in the profit and loss account. The effect will be the same if a business borrows money from a bank.
- Purchases of fixed assets will reduce cash balances, but have no effect on the profit a company makes. This is because the purchase of assets is not treated as a business cost in the profit and loss account.
- Sales of fixed assets will increase cash balances but have no effect on profit unless a profit or loss is made on disposal.
- It is possible for a business to trade for many years without making a profit. For example, British Biotech, a pharmaceuticals company, traded between 1985-98 without ever making a profit. The company survived because it was able to generate cash. Extra cash was introduced by shareholders on several occasions since 1985. In 1998 the company lost £44.8 million. However, the cash in the bank was £132.8 million. Shareholders may be happy to contribute more capital if they think that a company has a lot of potential. However, it is possible for a profitable business to collapse if it runs out of cash. This is likely to happen if a business has to meet some substantial unexpected expenditure or if a bad debt occurs.

Case Studies

Case 1:

At the beginning of the year 2021, Jan 1st, a retail outlet buys carpets to resell them. The business has an available stock of $80,000 and during the year 2021 it purchased carpets by the amount of $600,000. At the end of the year 2021, Dec 31st, the company has $180,000 value of stocks in its inventory (stores). The sales revenue of the business is $900,000 during the year.

Calculate the gross profit of the business.

Case 2:

Suppose a florist sold $200,000 of stocks with a market value of $450,000 during the year ended Dec 31,2020. Rent expenses amounted to $80,000, utility bills totaled $50,000, and other overhead expenses amounted to $20,000. The florist has $8,000 interest to pay to the bank and corporate tax charges of 10%. 30% of the profit after interest and tax will be distributed as dividends.

14 Complete the profit and loss account below.

	£	£
Sales revenue (50 000 @ £6)		
Less cost of sales		
Labour (£2 per unit)		
Materials (£1.50 per unit)		
Gross profit		
Less overhead expenses	20 000	
Trading profit		
Less interest (£600 000 @ 10%)		
Profit before tax		
Less tax (@ 33%)		
Profit after tax		
Less dividend (75% of post-tax profit)		
Retained profit		

15 Construct a profit and loss account from the information given below.

(a) Sales revenue was £6m.

(b) Interest payments of £0.2m were made.

(c) To the stock, valued at £0.2m, left over from the previous year was added £2.5 m of purchases. Closing stock was valued at £0.3m.

(d) Overheads amounted to £1.5m.

(e) £1m of wages were paid.

(f) Tax is 30% of profits after all expenses.

(g) 50% of post-tax profits were retained.

16 Construct a profit and loss account from the information below.

Output: 60 000 units
Price: £7 per unit
Labour costs: £3 per unit
Materials: £2 per unit
Overheads: £30 000
Interest payments: £200 000 loan at 10%
Tax payments: 33% of profits before tax
Dividend: 75% of post-tax profit.

17 Prepare a trading and a profit and loss account from the information below.

1 Barry started trading as a van-based mobile ice-cream salesman on 1 May. The account will cover the first three months of trading.

2 He rented the van at a cost of £700 per month.

3 Running expenses for the van averaged £200 per month.

4 Part-time labour cost £200 per month.

5 Total sales for the three months were £15 000.

6 Barry purchased ice-cream from a local manufacturer at a total cost of £7 500.

7 All his stock had been sold by the end of the three-month period although Barry still owed £800 for stock purchased on credit.

8 He used his own home for office work. Telephone and postal costs associated with the business came to £250 for the three months.

9 Each month Barry paid himself £600.

18 Complete the profit and loss accounts below and calculate profit before interest and tax as a percentage of sales revenue.

	Company				
	A	B	C	D	E
	£000	£000	£000	£000	£000
Sales revenue	500	800	900	2000	5000
Cost of sales	400	400		1000	3000
Gross profit			200		
Overheads	80				1000
Operating profit		200	−100	300	
Non-operating profit	100	0	500		1000
Profit before interest and tax				300	
Interest	50	100	100	150	500
Profit before tax					
Tax	30	30	200		500
Profit after tax				100	
Dividend	30		40		500
Retained profit		20		50	

19 An abridged version of the profit and loss account of a public company is reproduced below.

	£000	£000
Turnover		4562
Less cost of sales		3309
Gross profit		1253
Less		
Distribution costs	872	
Administrative costs	624	
		1496
Profit/(Loss) for the year		(243)

Prepare a new profit and loss account to take account of the following changes:

(a) a 10 per cent rise in turnover;

(b) a rise in gross profit margin to 35 per cent;

(c) a 10 per cent reduction in the fixed element of distribution costs but with the variable element remaining constant as a proportion of sales. The fixed element is currently 40 per cent of distribution costs;

(d) a 10 per cent reduction in administrative costs.

20 The profit and loss account shown below refers to the year ending 30 April 1995.

	£000	£000
Sales		2000
Less cost of sales		1300
Gross profit		700
Less		
Administrative costs	300	
Selling costs	200	500
Profit before taxation		200
Less corporation tax		50
Profit after taxation		150
Less dividends paid		50
Retained profit		100

Prepare a profit and loss account for the subsequent year based on the following assumptions:
(a) Sales and cost of sales both rise by 10 per cent.
(b) Administrative and selling costs rise by 5 per cent.
(c) Corporation tax is levied at a rate of 25 per cent on profit before taxation.
(d) 50 per cent of post-tax profits are retained.

Question 17.2 - Clockworks Ltd

Refer to the information below for Clockworks Ltd. and answer the questions that follow.

- 3,000 clocks sold at $35 each
- **Closing stock** valued at $20,000
- Purchases valued at $50,000
- Stocks on 1st April 2022 were valued at $15,000

(a) Define the term *closing stock*. *[2 marks]*

(b) Construct a trading account for Clockworks Ltd. for the year ended 31 March 2022. *[4 marks]*

Question 17.3 - Masks-R-Us Ltd.

An extract of this year's financial data for Masks-R-Us Ltd. for the period ended 31st August is shown below::

• Closing stock	$12,000
• Interest	$5,000
• Opening stock	$10,000
• Overhead expenses	$17,000
• Purchases	$35,000
• Sales turnover	14,000 masks @ $10 each
• Tax	15% of net profit after interest

(a) Construct a full profit and loss account for Masks-R-Us Ltd. *[5 marks]*

(b) Discuss whether the performance of Masks-R-Us Ltd. can be judged solely on this quantitative information. *[10 marks]*

Question 17.4 - TOYS

The information below is from the profit and loss account for TOYS for the years ended 31st March. TOYS is a privately held company that sells children's toys in a busy town.

	Year 1 ($'000)	**Year 2 ($'000)**
Sales	450	**(i)**
Cost of sales	**(ii)**	200
Gross profit	270	300
Expenses	90	100
Profit before interest and tax	180	**(iii)**
Interest	0	10
Taxation	**(iv)**	48
Profit after interest and tax	135	142
Dividends	15	10
Retained profit	**(v)**	132

(a) Complete the missing figures (i) to (v) in the above profit and loss account for TOYS. *[5 marks]*

(b) Discuss whether the owners of TOYS would be pleased with the performance of the company. *[10 marks]*