

Solution 15.1

Advantages of departmental accounting

- The overall profit figure disguises individual department losses.
- Promotes responsibility accounting
- Managers have increased cost awareness
- Department contribution is highlighted
- Motivation of staff

The **gross profit method** breaks down sales, purchases and stock items into the various departments with the aim of controlling the gross profit of each department. Each department reports its gross profit which, when added together, gives the total gross profit for the organisation. From this, all the other expenses of the business are deducted to give a total net operating profit.

Advantages:	Disadvantages:
<ul style="list-style-type: none">• Simplicity• Gross profit items with control of department manager	<ul style="list-style-type: none">• No attempt to associate other expenses with the departments• A department may have gross profit eroded by overheads

The **department profit method** deducts all the expenses attributable to, and controlled by, a department from departmental sales. The aim is to ascertain and control the revenues, costs and thus profits of each department. The expenses that are not directly attributable to a specific department are charged against the total departmental profit to give a total operating profit for the organisation.

The disadvantage of this approach is that it requires an elaborate accounting system to provide the information and many smaller businesses would not have the access to such accounting systems.

Advantages:

- More information on department performance
- Only controllable costs included in department profit
- Form of responsibility accounting
- Fairer
- Motivation improved

Disadvantages:

- Requires elaborate accounting system

In the **net profit method** all the expenses of the business are charged to each revenue producing department whether they are directly related and controlled by that department or not.

Advantages:

- Profit reflects benefit from shared expenses
- Focuses on net profit rather than gross profit of each department

Disadvantages:

- Needs elaborate accounting system
- Method of apportionment can be arbitrary and subjective
- Departments contributing to the organisation may now show a net loss
- Incorrect decision making (shutdown)
- Managers may be demotivated by inclusion of uncontrollable costs

Solution 15.2

Cost apportionment represents the assignment of a cost to a number of departments or cost centres. Cost apportionment is necessary when 'shared' costs of an organization need to be divided among all the departments that incur a benefit from

that cost.

Depreciation of equipment	Value of equipment
General managers salary	Sales volume
Head office administration costs	Number of employees
Depreciation of premises	Area / floor space
Rent and rates	Area / floor space
Advertising	Sales revenue
Accounting	Total cost

Solution 15.3

Departmental Income Statement Based on Net Profit Method

	Accommodation	Restaurant	Bar	Total
	€	€	€	€
Sales	500,000	250,000	200,000	950,000
Less cost of sales				0
Opening stock		4,000	3,000	7,000
Purchases		120,000	90,000	210,000
closing stock		<u>3,500</u>	<u>2,000</u>	<u>5,500</u>
		<u>120,500</u>	<u>91,000</u>	<u>211,500</u>
Gross profit	500,000	129,500	109,000	738,500
Less direct expenses				
Wages	117,500	80,120	32,500	230,120
Repairs and main	<u>29,500</u>	<u>14,500</u>	<u>6,000</u>	<u>50,000</u>
	<u>147,000</u>	<u>94,620</u>	<u>38,500</u>	<u>280,120</u>
Less Indirect expenses				

Electricity & power	60.00%	27,000	35%	15,750	5.00%	2,250	45,000
Rent & Rates	60.00%	73,200	30%	36,600	10.00%	12,200	122,000
Depreciation	60.00%	36,000	30%	18,000	10.00%	6,000	60,000
Postage & telephone	52.63%	9,211	26.32%	4,605	21.05%	3,684	17,500
Advertising	52.63%	23,684	26.32%	11,842	21.05%	9,474	45,000
Laundry & cleaning	52.63%	4,737	26.32%	2,368	21.05%	1,895	9,000
Administration	52.63%	<u>36,842</u>	26.32%	<u>18,421</u>	21.05%	<u>14,737</u>	<u>70,000</u>
	52.63%	<u>210,674</u>	26.32%	<u>107,587</u>	21.05%	<u>50,239</u>	<u>368,500</u>
Net Profit / (Loss)		<u>142,326</u>		<u>(72,707)</u>		<u>20,261</u>	<u>89,880</u>

The main disadvantages of the net profit method are:

- Needs elaborate accounting system
- Method of apportionment can be arbitrary and subjective
- Departments contributing to the organisation may now show a net loss
- Incorrect decision making (shutdown)
- Managers may be demotivated by inclusion of uncontrollable costs

Solution 15.4

Departmental Income Statement (Departmental profit method)

	Cinema	Restaurant	Bowling	Total
	€'000	€'000	€'000	€'000
Sales	2,100	3,000	1,200	6,300
<i>Less cost of sales</i>				0
Opening stock	100	120	80	300
Purchases	1,050	1,200	700	2,950
closing stock	<u>80</u>	<u>105</u>	<u>65</u>	<u>250</u>
Cost of sales	<u>1,070</u>	<u>1,215</u>	<u>715</u>	<u>3,000</u>
Gross profit	1,030	1,785	485	3,300
<i>Less direct expenses</i>				
Wages	200	150	130	480
Repairs and main	<u>50</u>	<u>40</u>	<u>20</u>	<u>110</u>
	<u>250</u>	<u>190</u>	<u>150</u>	<u>590</u>

Departmental profit	780	1,595	335	2,710
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Less Indirect expenses

Rent				800
Light and heat				150
Insurance				200
Admin. And accounting				80
Personnel				200
Head office costs				120
General expenses				50
Depreciation				10
Canteen costs				<u>20</u>
Indirect expenses				<u>1,630</u>
Net Profit				1,080

Departmental Income Statement (Net Profit method)

	Cinema	Restaurant	Bowling	Total
	€'000	€'000	€'000	€'000
Sales	2,100	3,000	1,200	6,300
Less cost of sales				0
Opening stock	100	120	80	300
Purchases	1,050	1,200	700	2,950
closing stock	<u>80</u>	<u>105</u>	<u>65</u>	<u>250</u>
	<u>1,070</u>	<u>1,215</u>	<u>715</u>	<u>3,000</u>
Gross profit	1,030	1,785	485	3,300
Less direct expenses				
Wages	200	150	130	480
Repairs and main	50	40	20	110
Less Indirect expenses				
Rent	33.33% 266.6	40% 320.0	26.67% 213.4	800
Light and heat	33.33% 50.0	40% 60.0	26.67% 40.0	150
Insurance	33.33% 66.7	40% 80.0	26.67% 53.3	200
Admin & accounting	50% 40.0	37.50% 30.0	12.50% 10.0	80
Personnel	50% 100.0	37.50% 75.0	12.50% 25.0	200
Head office costs	33.33% 40.0	47.62% 57.1	19.05% 22.9	120

General expenses	33.33%	16.7	47.62%	23.8	19.05%	9.5	50
Depreciation	33.33%	3.3	47.62%	4.8	19.05%	1.9	10
Canteen costs	50%	<u>10.0</u>	37.50%	<u>7.5</u>	12.50%	<u>2.5</u>	<u>20</u>
		<u>843.289</u>		<u>848.216</u>		<u>528.495</u>	2,220
Net Profit		<u>186.711</u>		<u>936.784</u>		<u>-43.495</u>	<u>1,080</u>

Appropriateness of some of the apportionment methods – key points

- Can be a very subjective process.
- The best way to apportion costs is on the basis of the greatest benefit- i.e. the department who gets the greatest benefit from the cost must take the greatest amount of the cost.
- This makes the apportionment process very time consuming and expensive.
- More appropriate basis may be for depreciation to be based on the book value of assets in each department.
- Insurance of the assets based on the book value of the assets.