## Cycle of costing accounting



- Costs classification by items

1- material cost
2- labor costs
3- overhead costs

## - Costs classification Manufacturing

1- Marketing
2- Administrative
3- Environmental

## Example(1):

The following is the information of costs production and sales of EL- moneer company for the year 2003

| Beginning inventory of direct materials | 15000 |
| :--- | :--- |
| Purchases of direct materials | 180000 |
| Ending inventory of direct materials | 20000 |
| Direct labor costs | 65000 |
| Electricity costs of plant | 8000 |
| Depreciation expense - equipment | 12000 |
| Other manufacturing overhead (60\% variable) | 16000 |
| Beginning inventory of finished goods (in units) | 1300 |
| Produced units | 6400 |
| Ending inventory of finished goods (in units) | 1200 |
| Cost per unit of finished goods for the year 2002 | 41 |
| Marketing costs | 17500 |
| Administrative costs | 14200 |
| Selling price per unit | 70 |

## Instructions:

1- prepare manufacturing costs statement classified into direct and indirect costs for the year 2003
2- prepare the previous costs statement classified, into variable and fixed costs
3- prepare the income statement for the year 2003

## Solution:

El-moneer company manufacturing costs statement for the year 2003 ( classified into direct indirect costs )

| Details | Cost per unit | Quantity | Sub total | total |
| :---: | :---: | :---: | :---: | :---: |
| Manufacturing costs for the year |  |  |  |  |
| 1) Direct costs |  |  |  |  |
| Beginning inventory |  |  |  |  |
| Plus : purchased |  |  | 180000 |  |
|  |  |  | 195000 |  |
| Less : ending Inv |  |  | (20000) |  |
| Direct materials |  |  | $175000$ |  |
| Direct labor |  |  | 65000 |  |
| Total direct costs |  |  | - | 240000 |
| Over head costs |  |  | 8000 |  |
| Electricity |  |  | 12000 |  |
| Depreciation |  |  | 16000 |  |
| Other overhead |  |  | - | 36000 |
| Cost of finished goods | 43.12 | 6400 |  | 276000 |
| Add cost |  |  |  |  |
| Of finished goods at the begin of the | 41 | 1300 |  | 53300 |
|  |  |  |  | 325200 |
| Less: |  |  |  |  |
| Costs of finished goods at the end of the year | 43.12 | 1200 |  | (51747) |
| Costs of goods soled | 42 | 6500 |  | 273456 |

Sold unit = produced units + beginning Inventory - Ending Inventory
Sold unit $=6400 \quad+\quad 1300 \quad$ - $1200=6500$ units

El-moneer company manufacturing costs statement for the year 2003 ( classified into Variable and Fixed costs )

| Details | Cost per unit | Quantity | Sub total | total |
| :---: | :---: | :---: | :---: | :---: |
| Manufacturing costs for the year: |  |  |  |  |
| Variable costs: |  |  |  |  |
| 1- direct costs |  |  |  |  |
| direct Materials direct labor costs |  |  | $\begin{gathered} 175000 \\ 65000 \end{gathered}$ |  |
|  |  |  |  | 240000 |
| Indirect Variable costs |  |  |  |  |
| Electricity costs |  |  | 8000 |  |
| Other overhead |  |  | 9600 |  |
|  |  |  |  | 17600 |
| Total variable costs |  |  |  | 257600 |
| Fixed costs |  |  |  |  |
| Depreciation cost |  |  | $1200$ |  |
| Other overhead |  |  |  |  |
| Total fixed cost |  |  |  | 18400 |
| Total cost of finished goods | 43.12 | 6400 |  | 276000 |
| Add: cost of finished goods at the end of the year | 41 | 1200 |  | 49.200 |
|  |  |  |  | 325.200 |
| Less: | 43.12 | 1200 |  | 51.744 |
| Cost of finished | 43.12 | 1200 |  |  |
| Goods at the end of the year |  |  |  |  |
| Costs of goods sold |  |  |  | 273.456 |

El- moneer company
Income statement for the year 2003

|  |  |  |  |
| :--- | :---: | :---: | :---: |
| Sales revenue <br> (6500 units X 70L.E) <br> less: <br> costs of goods sold <br> marketing Costs |  |  | 455 |
|  |  | 273.456 |  |
| Gross profit <br> Less: <br> Administrative costs |  | 17.500 | $(290.965)$ |
| Net income |  | 164.044 |  |

## Break even point

Break even sales =
total fixed cost

Contribution margin
( sales price unit - variable cost unit )

Break even point pound $=$ Break even point unit's $\times$ sales price unit
total fixed cost + Profit Target
TARGT PROFIT =
Contribution margin
Margin safety $=$ sales total - break even sales Volume

## Example

Variable cost
80 pre unit
Fixed cost 130000

Selling price
150
and sold unit
3000

## Instruction

1) prepare income statement for the year 2008 to compute profit margin and net income
2) compute the break even sales
3) compute the sales volume profit target 60000 L.E
4) compute margin safety

## Income statement 2008

| Sales revenues <br> ( produced sold $\times$ selling price ) $(3000 \times 150)$ | 450000 |
| :---: | :---: |
|  | - |
| Less variable cost (produced sold $\times$ variable cost pre u $(3000 \times 80)$ | 240000 |
| Contribution margin | $210000$ |
| Less fixed cost | 130000 |
| Net income | 80000 |

total fixed cost
Break even point unit's= $\qquad$
Contribution margin
( sales price unit - variable cost unit)

130000
$=$
150-80

## total fixed cost + profit target

TARGT PROFIT =
Contribution margin
$130000+6000$

150-80

Margin safety $=$ sales total - break even point pound

$$
3000-185=1143 / U
$$

## Example

Manufacturing costs of unit 180
Marketing costs pre unit 15
Other additional costs 25000
Expected produced unit 2000
Selling price pre unit 300
Additional investment 400000
Deprecation expenses
( $10 \%$ straight line method)

## Instruction

1)Compute the additional net income of the above mentioned investment
2)Compute the annual cash flows generated
3) compute payback period and rate of return on investment

## Income Statement

| Additional revenues |  | 600000 |
| :---: | :---: | :---: |
| ( expected produced * selling price ) $(2000 \times 300)$ |  |  |
| Less cost of goods sold | 360000 |  |
| Manufacturing costs $(2000 \times 180)$ |  |  |
| Marketing costs | 30000 |  |
| $\begin{aligned} & \text { (expected produced *mark) } \\ & (2000 * \text { 15) } \end{aligned}$ |  |  |
| Deprecation expenses (investment $\times$ ratio $\div 100$ ) | 40000 |  |
| $400000 \times 10 \div 100$ |  | 430000 |
| Gross profit |  | 170000 |
| Less |  |  |
| Administrative costs |  | 25000 |
| Net income |  | 145000 |

## Annual cash flows

| additional net income | 145000 |
| :--- | :--- |
| add |  |
| Deprecation expenses <br> (investment * ratio / 100 ) <br> $400000 * 10 / 100$ | 40000 |
| Annual net cash flows | 185000 |

