

Business Performance Sustained

Best Practice eXensys – Production Costing

Exensys Software Solutions Ltd.		AA/B/CCDD V x.y
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Introduction:

Costing is a vital production activity, as it gives information about what can be produced profitably and how much will be the loss for the business. Costing also make out key areas for reducing wasteful production. Costing is a significant aspect of production because:

- On arriving at cost of producing an item or to execute an operation it is possible to price the item.
- It becomes possible to see how much of the total cost of an organisation, production line, or process can be attributed to particular items or activities
- It helps in identifying those cost that are too high & reduce the same.
- It is possible to make comparisons between the costs of different activities.

Overview:

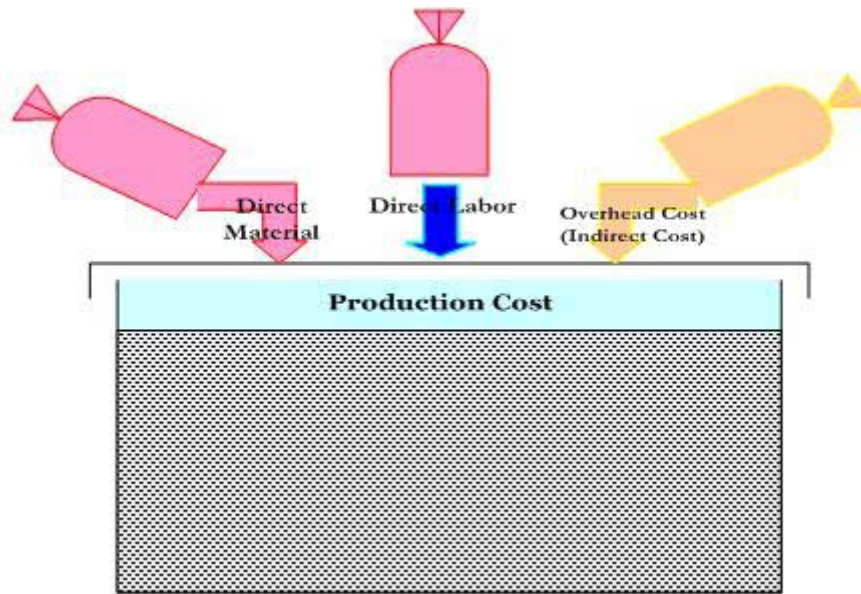
The main costs that are incurred in production are:

- **Direct Costs:**

These are costs, which are related with each unit of output produced. For example, in producing a car a company will incur the direct material costs that go into each car (Metal, Plastic, etc) as well as the direct labor costs.

- **Indirect Costs:**

These costs are the overheads incurred in making the cars. Eg Factory lighting, rent and management salaries. These indirect costs need to be proportioned in a suitable way to the products made. i.e how much indirect costs should be apportioned to each individual end item produced.



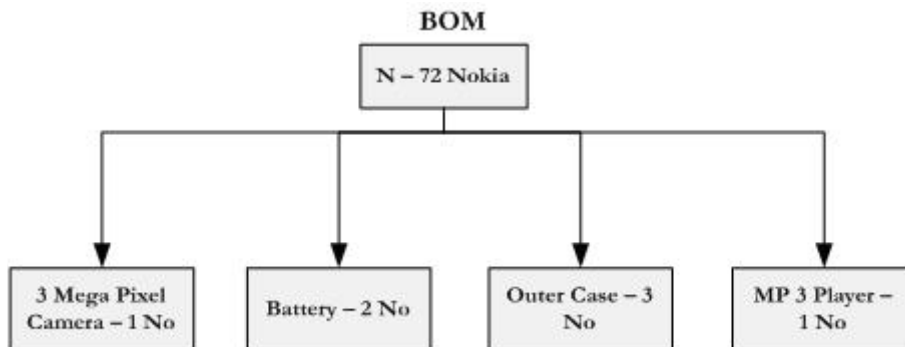
Once the direct and indirect costs have been assessed it is possible to make important decisions including:

- What price to charge for the item produced.
- Which products to expand production of and which to decrease.
- How to save costs of production.

How Production Costing is carried out in eXensys Application:

Production costing process is altogether an automated process which is carried out during the production order is settled. Let's consider an example:

PO Code	Item Code	Item Name	PO Quantity	Operation Code	Start Date	End Date
1000	N 72	Nokia	100	Op - 0001	18.09.2008	19.09.2008
				Op - 0002	20.09.2008	21.09.2008
				Op - 0003	22.09.2008	23.09.2008



- The process is initiated by requesting items from the inventory through item planned/Unplanned requisition (In case of any extra materials are required they are moved from inventory through unplanned withdrawal).
- Issue price of the Raw Material are captured during requisition transaction.

PO Code	Item Code	Item Name	Quantity	Issue Price/ Unit
1000	2000	3 - Mega Pixel Camera	100	1250
	2001	Battery	200	788
	2002	Outer Case	300	350
	2003	MP 3 Player	100	750



Now let's assume that the execution of the production starts and all the details are captured in shop floor reporting.

Shop floor Report - Dated on 20.09.208						
Transaction details	Raw Material	UOM	Received Quantity	Consumed Quantity	Unit Rate (Rs.)	Operation Status
OP1 / SFR1	2000 - Camera	Nos.	100.000	50.000	1250.00	In Progress
	2001 - Battery	Nos.	200.000	110.000	788.00	In Progress
OP1 / SFR2	2000 - Camera	Nos.	100.000	52.000	1250.00	Closed
	2001 - Battery	Nos.	200.000	99.000	788.00	Closed
OP2 / SFR3	2002 - Outer Case	Nos.	300.000	95.000	350.00	In Progress
OP2 / SFR4	2002 - Outer Case	Nos.	300.000	89.000	350.00	In Progress
OP2 / SFR5	2002 - Outer Case	Nos.	300.000	125.000	350.00	Closed
OP3 / SFR6	2003 - MP 3	Nos.	100.000	63.000	750.00	In Progress

Labor Report - Dated on 20.09.2008 - For Making 60 Components				
Transaction details	Labor Code	Total Time Spent(Mins)	Rate / Hour	Labor Cost
OP 1 / Lab 1	L1	150	60	150
OP 2 / Lab 2	L2	130	75	162.50
OP 3 / Lab 3	L3	90	55	82.5
				395.00

Overhead Details - Dated on 20.09.2008 - For Making 60 Components				
Transaction details	Activity Code	Total Time Spent(Mins)	Rate / Hour	Overhead Cost

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OP 1 / Lab 1	A1	150	15	37.5
OP 2 / Lab 2	A2	130	12	26
OP 3 / Lab 3	A3	90	9	13.5
				77

Assume that 60 Mobiles are being partially settled through the first PO Settlement.

Raw Material Consumption for 60 Items						
SFR Code	Item Code	Item Name	Qty Consumed	Proportioned Consumption	Unit Rate	Total Amount
SFR 1	2000	Camera	50.000	30.000	1250	37500
SFR 2	2000	Camera	52.000	31.200	1250	39000
SFR 1	2001	Battery	110.000	66.000	788	52008
SFR 2	2001	Battery	99.000	59.400	788	46807.2
SFR 3	2002	Outer Case	95.000	57.000	350	19950
SFR 4	2002	Outer Case	89.000	53.400	350	18690
SFR 5	2002	Outer Case	125.000	75.000	350	26250
SFR 6	2003	MP 3 Player	63.000	37.800	750	28350
						268555.2

Initially as we are settling 60 Nos, the raw material consumed for making 60 Nos are proportionality calculated. Similarly overhead & Labor Costs are arrived.

Production Cost for Settling 60 Nos			
Total RM Cost	Total Labor Cost	Total Overhead Cost	Total Amount
268555.2	395	77	269027.2

Suppose after settling this 60 Nos, assume only 35 Nos are produced and a final settlement is being done. Then the calculation will be carried out in the way mentioned below:

Shop floor Report - Dated on 23.09.208					
Transaction details	Raw Material	Received Quantity	Consumed Quantity	Unit Rate (Rs.)	Operation Status
OP3 / SFR7	2003 - MP 3	100.000	39.000	750.00	Closed

Labor Report - Dated on 23.09.2008 - For Making 35 Components				
Transaction details	Labor Code	Total Time Spent(Mins)	Rate / Hour	Labor Cost
OP 1 / Lab 1	L1	88	60	88
OP 2 / Lab 2	L2	76	75	95.00
OP 3 / Lab 3	L3	54	55	49.5
				232.50

Overhead Details - Dated on 23.09.2008 - For Making 35 Components

Transaction details	Activtiy Code	Total Time Spent(Mins)	Rate / Hour	Overhead Cost
OP 1 / Lab 1	A1	88	15	22
OP 2 / Lab 2	A2	76	12	15.2
OP 3 / Lab 3	A3	54	9	8.1
				45.3

Raw Material Consumption for 35 Items						
SFR Code	Item Code	Item Name	Qty Consumed	Proportioned Consumption	Unit Rate	Total Amount
SFR 1	2000	Camera	50.000	20.000	1250	25000
SFR 2	2000	Camera	52.000	20.800	1250	26000
SFR 1	2001	Battery	110.000	44.000	788	34672
SFR 2	2001	Battery	99.000	39.600	788	31204.8
SFR 3	2002	Outer Case	95.000	38.000	350	13300
SFR 4	2002	Outer Case	89.000	35.600	350	12460
SFR 5	2002	Outer Case	125.000	50.000	350	17500
SFR 7	2003	MP 3 Player	39.000	15.600	750	11700
						171836.8

Here the proportioned consumption will be considered for 40 Nos rather than 35 Nos as there is balance qty of 5 Nos to be settled. Here in the above example 35 Nos of FG is produced but then the material consumed is for 40 Nos. So the proportioned consumption will happen for all 40 Nos and not 35 Nos which will in turn increase the unit rate of the Finished Good.

Production Cost for Settling 35 Nos			
Total RM Cost	Total Labor Cost	Total Overhead Cost	Total Amount
171836.8	232.5	45.3	172114.6

Benefits:

- Helps in pricing of products.
- Cost Reduction.
- Compare costs between different activities.

Conclusion:

From this paper the purpose of costing and how it is carried out in eXensys application is understood.

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