

Relevant Costing Decision Making

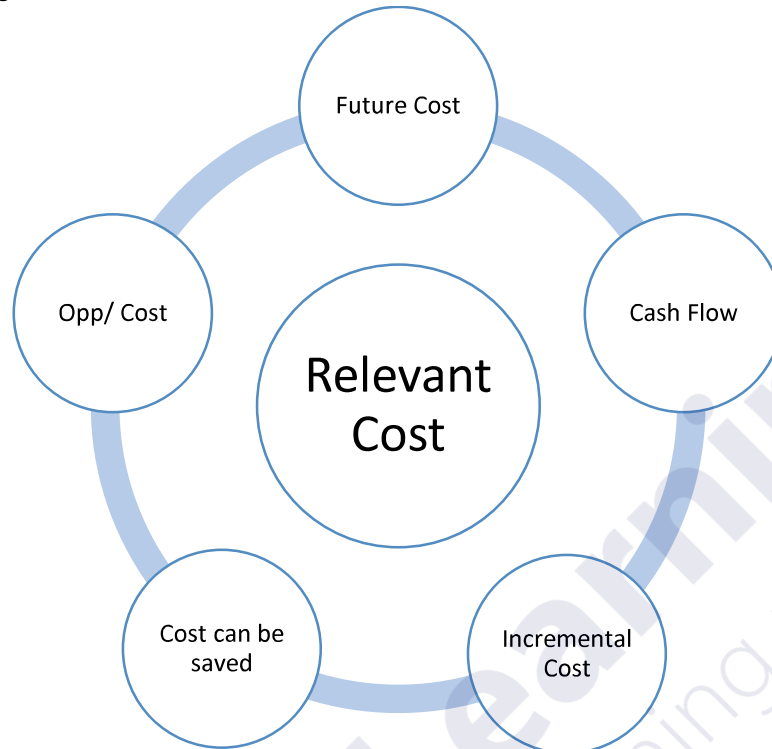
AAT Level III Management Accounting and Finance (MAF)

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Relevant costing – Decision Making

Relevant Cost

These are the costs which change by managerial decision. In other words these are the costs which will be affected by the decision being taken. One or few of the following features can be identified in the relevant costing based on the different situations.



1. Future cost

A decision can be taken on something which can be happened in the future and not on what we have done already in the past. Because, the costs we have incurred already in the past cannot be changed from the decisions which we are taking now. Historical events are only experiences. Therefore, only the future costs are considered as relevant costs in the decision making. Future costs are not a cost that will be incurred in the future. But it is a cost which will be incurred in the future due to the decision we are taking.

2. Cash flow

To recognize an item as an income or as an expense, it is necessary to incur such items in cash.

3. Incremental Cost

If the costs that are being incurrent at present will increase as result of a decision taken, such amount of costs which are incremental considered as a relevant cost for our decision

4. Costs to be saved

If a cost we are incurring today can be saved due to the decision, it is considered as a relevant cost.

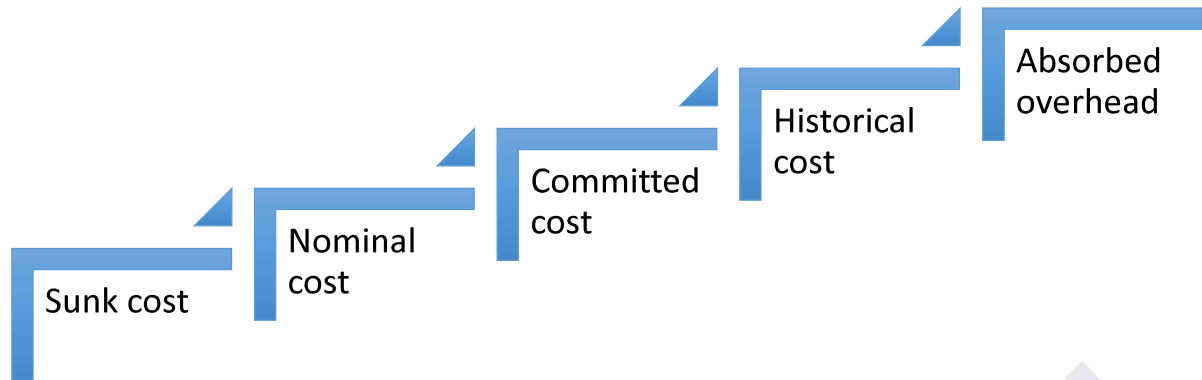
5. Opportunity cost

The value of the next best alternative sacrificed due to a decision is considered as an opportunity cost. In making decisions opportunity cost is considered as a relevant cost.

Irrelevant Cost/ Non – Relevant Costs

These are the costs which do not get affected by the decision. In other words these are the costs which will remain unchanged regardless of the decision being taken.

The costs which are not suitable for a management decision, which means the costs which cannot be changed due to management decisions are called non-relevant costs. One or few of the following features can be seen in the non-relevant costs based on the different situations.



Sunk Cost

The costs which are already incurred at the time of making the decision are called sunk costs and these costs cannot be changed due to management decisions. Hence, sunk costs are not considered as relevant costs.

Committed Cost

Even though the costs are not incurred in cash, the costs that are already agreed to be incurred as a result of a past agreement are called committed costs. Since these costs cannot be changed due to the decisions that we are taking, committed costs are considered as non-relevant costs.

Nominal Cost

Since these costs do not represent a cash flow, those are not considered as relevant costs.

Historical Cost

Historical costs are already incurred and cannot be changed due to the management decisions. Hence, those are not considered as relevant costs.

Absorbed overhead cost

Since the aborted costs are based on the budgeted costs and they do not represent actual cash flows, they are not considered as relevant costs in decision making.

Short term decision making

1. Limiting factor analysis
2. Make or buy decision
3. Accept or reject decision
4. Shut down decision

Limiting Factor Analysis

It is all about the main factor that limits the business activity such as raw material, skilled labour, machinery capacity etc.

Example 01

ABC Ltd Manufactures 3 Products namely L, M, A. They are using 2 different materials & the supply of material are available for next period.

A – 1,030Kg

B – 1,220Kg

Information related to this 3 Products are given:

Details	L	M	A
Material A per unit	2kg	1kg	4kg
Material B per unit	5kg	3kg	7kg
Minimum sales demand	120 units	160 units	110 units
Contribution per unit	Rs. 15	Rs. 12	Rs.17.50

You are required to determine Optimum Product Mix.

Make or Buy Decision

Here the Relevant decision is taken comparing to its relevant cost of the product which is manufactured within the firm against the supplies price. The relevant cost of the product to be manufactured is included,

Incremental Cost

1. Variable cost
2. Extra fixed cost

Opportunity cost

Example 02

One of the divisions in the Super Bicycle Company is currently negotiating with other supplier regarding outsourcing of component A. This manufacturing division is currently manufacturing 10000 units per annum.

Direct Material – Rs. 1,200,000

Direct Labour – Rs. 1,000,000

Variable Production O.H – Rs. 100,000

Fixed Production O.H – Rs. 800,000/=

Share of Non-manufacturing O.H – Rs. 500,000/=

If company manufactures, these Cost remain constant. The supplier can offer this component for Rs. 300. If it is outsourced direct labour will be abundant. Fixed production O.H can be reduced by Rs.100,000. Direct Material & Variable Production O.H also will be excessed.

You are required to determine make or buy this component

Accept or Reject Decision

Example 03

R company manufactures & sells product X @ Rs. 60/= & Variable cost per unit Rs. 40. AQ company has placed a special order for 10000 units in product x & agreed to pay Rs. 45 per unit .However it is noted if the special order is accepted the present demand of the company is brought down by 200 units.

You are required to determine whether this special order should be accepted or not.

Shutdown decision

Example 04

PQR Company produces product namely A, B & C and the following information related to this 3 products are given below,

Description	A	B	C
Sales revenue	50000	40000	60000
(-)Variable cost	(30000)	(25000)	(35000)
Contribution	20000	15000	25000
(-) Fixed cost	(17000)	(18000)	(20000)
Profit/Loss	3000	(3000)	5000

Since revenue loss by product B, the company has decided to drop the production of the product B. You are required to,

1. Advise the company regard to dropping down the product.
2. If an extra fixed cost of Rs. 5,000 is incurred to this product B, then what will be the decision?
3. In addition to No. 2 information, the company is able to receive sales income of Rs. 50,000 by using the same resource to produce product Y. The variable cost & extra fixed cost are Rs. 30,000 & Rs. 6,000 respectively. Now what will be the decision?

MULTIPLE LIMITING FACTOR DECISION MAKING USING GRAPHICAL LINEAR PROGRAM METHOD.

In order to deal with this method, the following steps have to be followed,

- a. Defining the decision variables
- b. Constructing of the objective function
- c. Constructing of constraints
- d. Constructing of non- negativity constraints.

Example 05

KG Company manufactures & produces 2 products namely Table & Chair. Table has the contribution of Rs. 3 & chair for Rs. 4 per unit. This manufacture seeks to maximize the contribution by establishing the weekly production plan.

Details	Machine hours per unit	Labour hours per unit	Material kg per unit
Table	4hours	4 hours	1 kg
Chair	2 hours	6 hours	1 kg
Total availability in a week	100 hours	180 hours	40 kg

Because, of the trade agreement sale of table is limited to weekly maximum of 20 units & to honor agreement with an old customer at least 10 units of chair per week should be sold.

You are required to develop a linear program in model & solve the model using graphical method to determine the optimum product mix of the company.

Example 06

RST Ltd assembles 2 types of computers namely P3 & P4 using skilled labour and unskilled. Labour. Following estimated labour requirement for the each type of computers are given Below.

Details	P3 per unit	P4 per unit
Skilled labour	10 hours	8 hours
Unskilled labour	15 hours	4.5 hours

The management has budgeted the selling price & variable cost of computers are as follows.

Details	P3 per unit	P4 per unit
Selling price	Rs. 30,000	Rs. 45,000
Variable cost	Rs. 20,000	Rs. 30,000

The estimate available skilled labour & unskilled labour hours are 2400 hours & 2250 hours respectively .Because of the scarcity of special type of hardware required for P4 Computer, the company can maximum produce 250 P4 computers during this time period.

You are required to develop linear Programming model by graphical presentation & determine optimum product mix.