# The definition and features of a marginal costing system

# Introduction

The costs that vary with a decision should only be included in decision analysis. For many decisions that involve relatively small variations from existing practice and/or are for relatively limited periods of time, fixed costs are not relevant to the decision. This is because either fixed costs tend to be impossible to alter in the short term or managers are reluctant to alter them in the short term

# Marginal costing – definition

Marginal costing distinguishes between fixed costs and variable costs as conventionally classified.

The marginal cost of a product -“ is its variable cost”. This is normally taken to be, direct labor, direct material, direct expenses and the variable part of overheads.

What is Marginal Costing?

It is a costing technique where only variable cost or direct cost will be charged to the cost unit produced.

Marginal costing also shows the effect on profit of changes in volume and type of output by differentiating between fixed & variable costs.

Salient Points:

Marginal costing involves ascertaining marginal costs. Since marginal costs are direct cost, this costing technique is also known as direct costing;

In marginal costing, fixed costs are never charged to production. They are treated as period charge and is written off to the profit and loss account in the period incurred;

Once marginal cost is ascertained contribution can be computed. Contribution is the excess of revenue over marginal costs.

The marginal cost statement is the basic document/format to capture the marginal costs.

Features of Marginal Costing System:

It is a method of recording costs and reporting profits;

All operating costs are differentiated into fixed and variable costs;

Variable cost " charged to product and treated as a product cost whilst

Fixed cost treated as period cost and written off to the profit and loss account

## Advantages

Marginal costing is simple to understand.

By not charging fixed overhead to cost of production, the effect of varying charges per unit is avoided.

It prevents the illogical carry forward in stock valuation of some proportion of current year's fixed overhead.

The effects of alternative sales or production policies can be more readily available and assessed, and decisions taken would yield the maximum return to business.

It eliminates large balances left in overhead control accounts which indicate the difficulty of ascertaining an accurate overhead recovery rate.

Practical cost control is greatly facilitated. By avoiding arbitrary allocation of fixed overhead, efforts can be concentrated on maintaining a uniform and consistent marginal cost. It is useful to various levels of management.

It helps in short-term profit planning by breakeven and profitability analysis, both in terms of quantity and graphs. Comparative profitability and performance between two or more products and divisions can easily be assessed and brought to the notice of management for decision making.

## Disadvantages

The separation of costs into fixed and variable is difficult and sometimes gives misleading results.

Normal costing systems also apply overhead under normal operating volume and this shows that no advantage is gained by marginal costing.

Under marginal costing, stocks and work in progress are understated. The exclusion of fixed costs from inventories affect profit and true and fair view of financial affairs of an organization may not be clearly transparent.

Volume variance in standard costing also discloses the effect of fluctuating output on fixed overhead. Marginal cost data becomes unrealistic in case of highly fluctuating levels of production, e. g., in case of seasonal factories.

Application of fixed overhead depends on estimates and not on the actual and as such there may be under or over absorption of the same.

Control affected by means of budgetary control is also accepted by many. In order to know the net profit, we should not be satisfied with contribution and hence, fixed overhead is also a valuable item. A system which ignores fixed costs is less effective since a major portion of fixed cost is not taken care of under marginal costing.

In practice, sales price, fixed cost and variable cost per unit may vary. Thus, the assumptions underlying the theory of marginal costing sometimes becomes unrealistic. For long term profit planning, absorption costing is the only answer.

## Marginal Costing Formulae:-

MARGINAL COST = VARIABLE COST DIRECT LABOUR

+

DIRECT MATERIAL

+

DIRECT EXPENSE

+

VARIABLE OVERHEADS

## Theory of Marginal Costing

The theory of marginal costing as set out in “ A report on Marginal Costing”.

In relation to a given volume of output, additional output can normally be obtained at less than proportionate cost because within limits, the aggregate of certain items of cost will tend to remain fixed and only the aggregate of the remainder will tend to rise proportionately with an increase in output. Conversely, a decrease in the volume of output will normally be accompanied by less than proportionate fall in the aggregate cost.

The theory of marginal costing may, therefore, by understood in the following two steps:

If the volume of output increases, the cost per unit in normal circumstances reduces. Conversely, if an output reduces, the cost per unit increases. If a factory produces 1000 units at a total cost of Rs. 3, 000 and if by increasing the output by one unit the cost goes up to Rs. 3, 002, the marginal cost of additional output will be Rs. 2.

If an increase in output is more than one, the total increase in cost divided by the total increase in output will give the average marginal cost per unit. If, for example, the output is increased to 1020 units from 1000 units and the total cost to produce these units is Rs. 1, 045, the average marginal cost per unit is Rs. 2. 25. It can be described as follows:

Additional cost =

Additional units

Rs. 45 = Rs. 2. 25

20

The ascertainment of marginal cost is based on the classification and segregation of cost into fixed and variable cost. In order to understand the marginal costing technique, it is essential to understand the meaning of marginal cost.

Marginal cost means the cost of the marginal or last unit produced. It is also defined as the cost of one more or one less unit produced besides existing level of production. In this connection, a unit may mean a single commodity, a dozen, a gross or any other measure of goods.

For example, if a manufacturing firm produces X unit at a cost of Rs. 300 and X+1 units at a cost of Rs. 320, the cost of an additional unit will be Rs. 20 which is marginal cost. Similarly if the production of X-1 units comes down to Rs. 280, the cost of marginal unit will be Rs. 20 (300-280).

The marginal cost varies directly with the volume of production and marginal cost per unit remains the same. It consists of prime cost, i. e. cost of direct materials, direct labor and all variable overheads. It does not contain any element of fixed cost which is kept separate under marginal cost technique.

Marginal costing May be defined as the technique of presenting cost data wherein variable costs and fixed costs are shown separately for managerial decision-making. It should be clearly understood that marginal costing is not a method of costing like process costing or job costing. Rather it is simply a method or technique of the analysis of cost information for the guidance of management which tries to find out an effect on profit due to changes in the volume of output.

Marginal costing technique has given birth to a very useful concept of contribution where contribution is given by: Sales revenue less variable cost (marginal cost)

Contribution may be defined as the profit before the recovery of fixed costs. Thus, contribution goes toward the recovery of fixed cost and profit, and is equal to fixed cost plus profit (C = F + P).

In case a firm neither makes profit nor suffers loss, contribution will be just equal to fixed cost (C = F). this is known as breakeven point.

The concept of contribution is very useful in marginal costing. It has a fixed relation with sales. The proportion of contribution to sales is known as P/V ratio which remains the same under given conditions of production and sales.

## The principles of marginal costing

The principles of marginal costing are as follows.

For any given period of time, fixed costs will be the same, for any volume of sales and production (provided that the level of activity is within the ' relevant range'). Therefore, by selling an extra item of product or service the following will happen.

Revenue will increase by the sales value of the item sold.

Costs will increase by the variable cost per unit.

Profit will increase by the amount of contribution earned from the extra item.

Similarly, if the volume of sales falls by one item, the profit will fall by the amount of contribution earned from the item.

Profit measurement should therefore be based on an analysis of total contribution. Since fixed costs relate to a period of time, and do not change with increases or decreases in sales volume, it is misleading to charge units of sale with a share of fixed costs.

When a unit of product is made, the extra costs incurred in its manufacture are the variable production costs. Fixed costs are unaffected, and no extra fixed costs are incurred when output is increased.

## Features of Marginal Costing

The main features of marginal costing are as follows:

## Cost Classification

The marginal costing technique makes a sharp distinction between variable costs and fixed costs. It is the variable cost on the basis of which production and sales policies are designed by a firm following the marginal costing technique.

## Stock/Inventory Valuation

Under marginal costing, inventory/stock for profit measurement is valued at marginal cost. It is in sharp contrast to the total unit cost under absorption costing method.

## Marginal Contribution

Marginal costing technique makes use of marginal contribution for marking various decisions. Marginal contribution is the difference between sales and marginal cost. It forms the basis for judging the profitability of different products or departments.

## Presentation of Cost Data under Marginal Costing

Marginal costing is not a method of costing but a technique of presentation of sales and cost data with a view to guide management in decision-making.

The traditional technique popularly known as total cost or absorption costing technique does not make any difference between variable and fixed cost in the calculation of profits. But marginal cost statement very clearly indicates this difference in arriving at the net operational results of a firm.

Following presentation of two Performa shows the difference between the presentation of information according to absorption and marginal costing techniques:

## Summary

Marginal cost is the cost management technique for the analysis of cost and revenue information and for the guidance of management. The presentation of information through marginal costing statement is easily understood by all mangers, even those who do not have preliminary knowledge and implications of the subjects of cost and management accounting.