CHAPTER III

COST CLASSIFICATION:
A BEHAVIOURAL APPROACH
"What size do you want to be" (the Caterpillar) asked.  
"Oh, I'm not particular as to size", Alice hastily replied; "only one doesn't like changing so often, you know".  
"I don't know", said the Caterpillar.  

Advice from a Caterpillar

In absorption costing system the criterion considered to classify the costs into direct and indirect costs is the "traceability" of costs to a unit of output. Those costs which can be traced to a unit of output are 'direct costs', and those which cannot are 'indirect costs'. In contrast to this approach to the classification of costs, there is another which classifies the costs according to their 'behaviour' and the criterion considered for the classification is the 'variability' of the costs. According to this approach, costs, with reference to 'cost behaviours', are classified into two categories: variable costs and non-variable costs.

In general usage 'variable' means 'changeable'. In this sense, a cost that is subject to change, no matter with which the change is associated, should be called a 'variable cost'. "But in accounting it (variable) refers not to changes that take place over time, or to changes associated with the level of activity, that is, with volume. If a cost goes up as volume goes up, it is variable cost, otherwise it is not." 1

* This chapter is entirely based on an article by the researcher.


It is to be noted that only if the variation in the cost is associated with the variation in volume the cost could be considered as a variable cost. In substance, whether a cost is 'variable' or not depends on whether the cost would vary or not in accordance with the variation in volume. A cost may vary over time also and in that instance too, the cost has the character of 'variability'. But, as the 'variability' is associated with time - and not with the volume - the cost is not a variable cost.

Designating the costs which vary with change in volume as variable costs, management accountants presume that these costs vary in a relation directly proportional to changes in volume. Under this presumption the variable cost per unit of output would remain constant and would not be affected by change in volume. Thus, a variable cost is a cost which in total varies proportionately (or remains constant per unit) with changes in volume.

Under the behavioural classification of costs, the variability of costs being associated with the volume, those costs which do not vary with change in volume are considered as non-variable (or fixed) costs.

It is relevant to emphasize that the 'change in volume' referred to above implies 'change in volume within the range of existing production capacity'. This range of capacity is otherwise called 'relevant range'. A period of time during which the production capacity remains unchanged but the volume of production may be changed within the existing production capacity is what economists call "short-run" (a short period). The distinction
between variable and fixed costs is a matter basically related to the concept of 'short-run'.

During short-period when the volume of production is varied, the costs which vary with the volume of production are variable costs. During the short-period the volume could be changed only within the relevant range which is the existing production capacity. The costs which remain constant during the period, irrespective of the change in volume, are the fixed costs. If the period is long enough to permit increase or decrease in the capacity the so-called fixed costs will change in response to change in capacity. Thus, in the 'long run' the fixed costs will also vary. Hence, the distinction between variable costs and fixed costs is relevant only to short period. In the long run all costs are variable.

Keeping the above points in view the variable cost and the fixed cost could be defined as follows:

Variable cost: A cost that fluctuates in total in direct proportion to change in the related volume and, therefore, is uniform per unit.

Fixed Cost (Non-variable cost): A cost that, for a given period of time and range of activity called relevant range, does not change in total and, therefore, becomes progressively smaller on a per unit basis as volume increases.
As variable costs vary with volume they are also referred to as 'volume costs'. On the other hand, the fixed (non-variable) cost is one that does not vary in response to change in volume. This cost is associated with a 'period' and is not dependent on the volume of production. Fixed costs are those costs "which remain constant in total within defined limits". As fixed costs are related to 'period', they are sometimes referred to as "period costs".

Direct material and direct labour are the best examples of variable costs. These costs are presumed to vary directly with and proportionately to the volume of output as shown in the following example.

Table 3.1
Variable Cost Function

<table>
<thead>
<tr>
<th>Output (units)</th>
<th>Percentage change in output</th>
<th>Direct Material cost per unit (Rs.)</th>
<th>Cost (Total for the units of output) (Rs.)</th>
<th>Percentage change in cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>..</td>
<td>5</td>
<td>0</td>
<td>..</td>
</tr>
<tr>
<td>200</td>
<td>..</td>
<td>5</td>
<td>1,000</td>
<td>..</td>
</tr>
<tr>
<td>400</td>
<td>100</td>
<td>5</td>
<td>2,000</td>
<td>100</td>
</tr>
<tr>
<td>600</td>
<td>50</td>
<td>5</td>
<td>3,000</td>
<td>50</td>
</tr>
<tr>
<td>750</td>
<td>25</td>
<td>5</td>
<td>3,750</td>
<td>25</td>
</tr>
</tbody>
</table>

(As the percentage change in output and percentage change in cost are the same, the cost varies directly proportionate to volume of output. The cost per unit at all volumes is the same.)

The variable cost function is graphically presented in page 50 - Fig. 3.1.

Depreciation on machinery, Factory rent, Salaries in the production department etc. are some of the examples of non-variable costs. These costs are charged for a period regardless of the volume of output. If machinery in the production department has a capacity to produce 10,000 units of output, the depreciation (and such other fixed expenses) that will be charged during a period would remain unchanged whatever may be the units of output produced within the range of 0-10,000 units during the period. The behaviour of this type of cost is graphically illustrated in page 51 - Fig. 3.2. Depreciation for the period is assumed to be Rs. 50,000.

A comparison between the variable cost (VC) function in fig. 3.1 and the non-variable cost (or fixed cost-FC) function in fig. 3.2 will show the following:

a. Both variable and non-variable cost functions are linear functions. However, the VC schedule is sloping upwards as the volume increases, and the FC schedule is flat - horizontal to OX axis.

b. Over the period, VC per unit is constant - VC varies directly proportionate to volume - while FC in total remains constant irrespective of the volume.
FIG. 3.1: VARIABLE COST FUNCTION
FIG. 3.2: NON-VARIABLE COST FUNCTION
c. VC schedule intercepts OY axis at the point of origin, O, but the FC schedule intercepts OY axis at a point above the point of origin (in the figure the point is Rs. 50,000 in Y axis).

d. At 'Zero' volume of output VC is zero, but at zero volume of output (as well as for other volumes also within the range 0-10,000 volume) FC is not zero.

e. As VC varies with output, it is associated with volume. But FC is not associated with volume; it is associated with the period. Therefore, VC can be identified with output (or volume) but FC cannot be so identified.

There are certain elements of cost which do not exactly fit into the category of either variable cost or fixed cost. Such costs have to be very carefully analysed with reference to their 'behaviour'. For example, certain elements of cost possess some of the characteristics of both variable and fixed costs.

Consider, for example, the cost of Repair and Maintenance Service (RMS). Whether the production activity is carried out or not, during a period - say one year - certain amount of repair and maintenance will have to be done. This expenditure is not associated with the volume of production. Suppose for a period of one year this expenditure is Rs. 3,000. If the production is undertaken, additional expenditure on account of the utilisation of equipments and machinery, will have to be incurred for repairs and
maintenance. As the additional expenditure is necessitated by the production activity the expenditure is associated with the volume of production. Suppose this additional expenditure is Rs. 2 per unit of production. Then, for a period - one year - the cost of RMS will be equal to Rs. 3000 + (Rs. 2 x volume of production). The RMS cost associated with different levels of volume of production is presented in table 3.2 below:

<table>
<thead>
<tr>
<th>Volume of Production (Units)</th>
<th>Cost not associated with volume (Rs.)</th>
<th>Cost associated + with volume (at the rate of Rs.2 per unit) (Rs.)</th>
<th>Cost (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>3,000</td>
<td>0</td>
<td>3,000</td>
</tr>
<tr>
<td>1,000</td>
<td>3,000</td>
<td>2,000</td>
<td>5,000</td>
</tr>
<tr>
<td>2,000</td>
<td>3,000</td>
<td>4,000</td>
<td>7,000</td>
</tr>
<tr>
<td>3,000</td>
<td>3,000</td>
<td>6,000</td>
<td>9,000</td>
</tr>
<tr>
<td>4,000</td>
<td>3,000</td>
<td>8,000</td>
<td>11,000</td>
</tr>
</tbody>
</table>

As the 'cost' varies with volume the cost looks like a variable cost. But a cost to be variable cost should vary proportionately to the volume. The cost illustrated in table 3.2 does not satisfy this condition. For example, for a 100% increase in volume (from 1000 units to 2000 units) the cost increase is only 40% (from Rs. 5,000 to Rs. 7,000). Therefore the cost does not fully qualify for the category of variable cost.
In the above example even when the volume of production is zero there is cost. Therefore the cost seems to be a fixed cost. But, as the cost varies with volume it does not fall under the category of fixed cost either.

The behaviour of the cost considered above does not strictly conform to the behaviour of either variable cost or fixed cost. This cost schedule is presented in fig. 3.3 in page 55.

The schedule representing the cost is C which is an upward sloping schedule. The slope of this schedule is akin to that of variable cost. But a comparison between the 'C' schedule in fig. 3.3 and the VC schedule in fig. 3.1 shows that there is a marked difference between the two schedules. The VC schedule in fig. 3.1 intercepts OY axis at "0", the point of origin, whereas the C schedule in fig 3.3 intercepts OY axis at a point above the point 'O'. As a sloping upward schedule the C schedule in fig 3.3 has the variable character but as the schedule intercepts OY axis at a point above '0' it is not fully in conformity with the 'variable cost' schedule.

The C schedule in fig 3.3 represents the cost function presented in Table 3.2. It may be observed from the table 3.2 that the 'cost' at different volumes consists of (a) an amount of cost not associated with volume and (b) an amount of cost associated with volume. That part of the cost not associated with volume (the amount is Rs. 3,000) being fixed for all levels of volume is fully in conformity with 'fixed cost' function. That part of the cost
FIG. 3.3: FUNCTION OF COST NOTED IN TABLE 3.2

\[ C = 11918 \times V \]
associated with volume varies directly proportionate to volume. (This part of the cost varies from Rs.2,000 to Rs.4,000 to Rs. 6,000 to Rs.8,000 as the volume varies from 1,000 to 2,000 to 3,000 to 4,000 units). Thus the cost consists of two parts; one part is ‘fixed’ and the other is ‘variable’.

In fact the cost referred to above is a ‘two-in-one’ cost in the sense that the cost has two constituents, ‘fixed’ and ‘variable’. The ‘fixed’ constituent (Rs. 3,000) does not vary with volume and the ‘variable’ constituent varies proportionate to volume. The point at which the ‘C’ schedule intercepts Y axis (the point is Rs. 3,000) denotes fixed cost. From that point if a line parallel to OX axis is drawn, that line would represent the fixed cost. This is shown in fig 3.4. in page 57.

In the figure the cost at any level of volume is the distance between the OX axis and the C schedule. For example, at volume M the cost is MS. The vertical line MS intercepts the fixed cost line at P. The MS has two constituents; MP and PS. MP is the fixed cost and PS is the variable cost. Thus this is a ‘fixed cost plus variable cost’.

(The ‘fixed plus variable cost’, noted above, is often called by the name ‘semi-variable or semi-fixed cost’. The researcher prefers to name this cost, particularly for the sake of clarity, as ‘fixed plus variable cost’ (FPVC). From the point of view of the behaviour of the cost the name FPVC is self-explanatory.
FIG. 3.4: FIXED PLUS VARIABLE COST FUNCTION

[Graph showing a linear relationship between cost (Rs.) and volume (units). The graph has a line stretching from a point near the origin to a higher point labeled C, with a dashed line from the origin to a point labeled M on the volume axis, and another dashed line from the point labeled M to a point labeled S on the cost axis, indicating a break-even point.]
The unacceptability of the expression 'semi-variable or semi-fixed cost' is that there is the possibility of equating 'semi-variable cost' with 'semi-fixed cost' presuming that 'semi-variable cost' is 'semi-fixed cost'. It is significant to note that the 'fixed plus variable cost' is not in tune with 'fixed cost' at all for the simple reason that the cost schedule (in fig. 3.3) is a sloping schedule unlike the horizontal schedule of fixed cost. In fact, the cost is neither 'semi-variable' nor 'semi-fixed'. It is 'fixed plus variable'.

Before calling the 'fixed plus variable cost' as 'semi-variable or semi-fixed cost' beware of the fallacy of composition in logic: Half shut door is half opened door; therefore full shut door is full opened door! Similarly, 'semi-variable cost' is 'semi-fixed cost'; therefore (full) variable cost is (full) fixed cost!!

Charles T. Horngren has called the 'variable plus fixed cost' as 'mixed cost. "As the name implies, a mixed cost has both fixed and variable elements. The fixed element represents the minimum cost of supplying a service. The variable element is that portion of the mixed cost that is influenced by change in activity"[1].

Strictly speaking, in the cost under consideration, 'fixed cost' and 'variable cost' are not 'mixed'; in fact, the 'variable cost' is 'added' to 'fixed cost'. Note that, whether production is carried out or not, fixed cost has to be

incurred and the variable cost is ‘added’ to it depending on the production. As 
the variable cost is added to the fixed cost a more appropriate name for the 
cost referred to in the above discussion would be "fixed plus variable cost".

["What is the use of their having names", the Gnat said, "if they won’t 
answer to them?"]

"No use to them," said Alice; "but it’s useful to the people that name 
them, I suppose. If not, why do things have names at all?"

"I can’t say," the Gnat replied.]¹

The "fixed plus variable cost" function has to be carefully analysed and 
the fixed cost and the variable cost portions contained in the cost have to be 
identified to be accounted under variable cost and fixed cost - the two 
categories under which costs are classified according to their 'behaviour' 
respectively.

There is another interesting type of cost behaviour which requires 
careful analysis. This cost could be better explained with the help of an 
example.

¹ Lewis Carroll: "Alice in Wonderland and Other Favorites". (Washington Square Press, Inc., 
The production capacity of a machine is 5000 units of output per annum. The estimated life of the machine is 10 years and the machine costs Rs. 5,00,000. The depreciation, under the straight line method, accounted per annum is Rs. 50,000. Depreciation being a fixed cost, irrespective of the volume of production within the range of 0 - 5000 units in a year, this cost (Rs.50,000) will remain constant. If an additional machine is bought, the production capacity will increase to 10,000 units per year and the depreciation (fixed cost) per year will increase to Rs. 1,00,000.

It is relevant to note that as long as the relevant range of production volume is 0 - 5000 units (only one machine) the fixed cost is Rs. 50,000; but the fixed cost will increase to Rs.1,00,000 when an additional machinery is bought to increase the production capacity from 5000 units to 10,000 units. Having bought the second machinery the relevant range goes to 10,000 units and irrespective of the number units produced within the limit of 10,000 units the fixed cost per annum would be Rs.1,00,000. If a third machinery is bought the capacity will increase to 15,000 units and the fixed cost per annum would increase to Rs. 1,50,000.

The fixed cost increase with reference to the increase in the range of production capacity is shown in the table 3.3 below.
Table 3.3
Fixed cost and range of activity

<table>
<thead>
<tr>
<th>Range of production capacity (Units)</th>
<th>Fixed cost (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Above 5,000 - 10,000</td>
<td>1,00,000</td>
</tr>
<tr>
<td>Above 10,000 - 15,000</td>
<td>1,50,000</td>
</tr>
</tbody>
</table>

Though the cost referred to in table 3.3 is fixed cost it does vary. Nevertheless, it does not qualify to be treated as variable cost because it varies not with the variation in the volume of production but with the variation in the range of production capacity. The cost is fixed at Rs.50,000 upto 5,000 units of production. When the production capacity goes beyond 5,000 units the cost 'jumps up' to a new level of Rs.1,00,000 and remains fixed up to 10,000 units of production. Likewise, the cost jumps from Rs.1,00,000 to Rs.1,50,000 when the production capacity is increased beyond 10,000 units and remains fixed at Rs.1,50,000 up to the production level of 15,000 units. This cost function is represented in the fig. 3.5 in page 62.

It may be noted that the cost schedule AB for the relevant range of volume 0 - 5000 units is parallel to OX axis. When the 'relevant range of volume' changes from 0-5000 units to 5,000-10,000 units the schedule 'steps up' to a higher level, and the 'stepped up' schedule, CD, relevant to the new 'relevant range' of volume, 5,000 - 10,000 units, is also parallel to OX axis.
FIG. 3.5: FUNCTION OF COST NOTED IN TABLE 3.3
When the relevant range of volume is further increased the cost schedule further steps up to a higher level (EF).

As the above noted cost remains 'fixed' for a given range of volume and changes when the range of volume changes, it would seem that the cost has both fixed and variable elements in it. But, since the cost schedule is neither a single sloping upward schedule intercepting at point '0' nor a single horizontal schedule, it can not be definitely stated that the cost is either "variable" or "fixed".

It is pertinent to note that, though the cost 'changes', the type of change - variability - is such that it cannot be taken as an indication to conclude that the cost has 'variable' element in it. In accounting sense, 'variability', as noted earlier, is associated with change in volume of output. But in this particular case the cost change is associated with change in the 'range of volume' rather than with change in 'volume'. It is interesting to observe that the cost 'shifts' to new levels but the character of the cost basically is related to 'fixed cost'. The cost schedule over any range of volume is parallel to OX axis and therefore it does not have the 'sloping upward' character of the variable cost.

In fig. 3.5 there are, strictly speaking, three schedules - AB, CD, EF - and they are, though their positions are at different levels, horizontal schedules. The discontinuity at the point of the schedule 'stepping up' makes the function a 'step function'.
A comparison of fig. 3.5 with Figures 3.1, 3.2, and 3.4 would show the following:

a. In figures 3.1 and 3.4 the schedules slope upwards and in figures 3.2 and 3.5 the schedules are parallel to OX axis.

b. The sloping upward schedule in fig. 3.1 intercepts OY axis at the point of origin and the sloping-upward schedule in 3.4 intercepts OY axis at a point above 'O'. This difference in respect of the interception point - between the schedule and OY axis - is the basic difference between the 'variable cost' and the 'fixed plus variable cost'.

c. The schedules in figures 3.2 and 3.5 being parallel to OX axis, the schedules in both the figures are Fixed Cost schedules. But the fixed cost schedule in Fig 3.2 being a single schedule and the fixed cost 'schedules' in fig. 3.5 being 'stepping up' schedules, the fixed cost represented in fig. 3.2 should be distinguished from the 'step function' cost in figure 3.5. For distinguishing these two costs, the former (fig. 3.2) is called 'fixed cost' and the later (fig. 3.5) is called 'step cost'.

It is obvious from the above discussion regarding the 'step cost' that this type of cost basically has all the characteristics of 'fixed cost'. Nevertheless, in practice, all the costs 'behaving' like 'step-cost' are not treated as fixed costs. Certain costs, though they are in fact step-costs, are treated, for all practical purposes, as 'variable cost'. Whether a 'step-cost' is treated as 'fixed cost' or 'variable cost' depends on the size of the steps
relative to range of volumes under consideration. "The step cost may be considered 'variable' or 'fixed' depending on the size of the steps relative to range of volume under consideration. If the steps are very small relative to the range... the error caused by fitting continuous straight line through the step function is negligible. In this case the cost can be considered to be variable cost.... However, if the steps are very large, with a single step extending over the entire range of likely volume of output the cost may behave almost as if it were a fixed cost."1

"Step costs are forced into the nearest applicable category. They are treated as fixed costs when the output distance between cost changes is relatively large... and as variable cost when the distance between cost changes is relatively small.... For control purposes it is possible incorporate expected changes in stepwise cost function explicitly in the control system, so that the classification of costs at the recording stage assumes less importance".2

A comparison of the data in the following table 3.4 in respect of a step-cost function with those in table 3.3 would show the difference in the size of 'steps'.

Table 3.4
Step-Cost: Small Steps

<table>
<thead>
<tr>
<th>Range of production (Units)</th>
<th>Cost capacity (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 10</td>
<td>50</td>
</tr>
<tr>
<td>Above 10 - 20</td>
<td>100</td>
</tr>
<tr>
<td>Above 20 - 30</td>
<td>150</td>
</tr>
<tr>
<td>Above 30 - 40</td>
<td>200</td>
</tr>
</tbody>
</table>

The step function is presented in fig. 3.6 in page 67. In fig. 3.5 each step is related to a volume range of 5,000 units and the output distance between cost changes is relatively large. In contrast to the 'steps' in fig. 3.5 the 'steps' in fig. 3.6 are relatively small. Each step is related to a small volume range of 10 units. The output distance between cost changes is relatively very small. In fig. 3.6 if a straight line from the point of origin is fitted through the 'step' (note the dotted line), that straight line could reasonably represent the step function. The error caused by fitting a straight line through the step function is not that significant. As the straight line so fitted is similar to variable cost schedule, such step function can be treated as representing 'variable' rather than 'fixed' cost. If the steps are large the margin of error caused by fitting a straight line through the step function would be very significant and hence such step functions are treated as fixed cost functions.
FIG. 3.6: FUNCTION OF COST NOTED IN TABLE 3.4
In classifying the costs on the basis of their 'behaviour' normally the costs could be identified with one or other of the four - variable, fixed, fixed plus variable, and step - cost functions detailed above.

After identifying the costs according to different cost 'behaviours', the variable costs and fixed costs could be separately classified under 'variable cost' and 'fixed cost' respectively.

As far as the costs identified as 'fixed plus variable' costs are concerned, the variable and fixed cost portions in these costs are to be separated and the costs belonging to the variable part are to be included in the variable cost category and the costs belonging to the fixed part are to be included in the fixed cost category.

Regarding the costs identified as 'step costs', those step costs whose steps are very small relative to the range of volume are to be included in the 'variable cost' category and those step costs whose steps are large relative to range of volume are to be included in the 'fixed cost' category.

Ultimately, all the costs are classified under two categories - variable cost category and fixed cost category. This classification, as discussed in this chapter, is based on the 'cost behaviour'. In general terms, those costs which vary directly proportionate to change in volume are variable costs and those costs which remain constant over the relevant range of volume considered for the period are fixed costs.
For easy understanding and proper evaluation of cost functions, graphical representations of cost schedules (as in fig. 3.1 to 3.6) would be very useful. An important conceptual difference between the variable cost schedule and the fixed cost schedule is worth noting.

As per definition, variable cost is associated with production volume and fixed cost is associated with production capacity. Under normal conditions, during short period, production capacity cannot be changed. However, in the long period production capacity could be changed. It is relevant to repeat that the classification of costs into 'variable' and 'fixed' costs is relevant only to short period. As fixed cost is associated with production capacity and as production capacity cannot be changed during short period fixed cost in total remains unchanged during short period. In other words, a change in production volume during short period will not have any effect on the fixed cost. To put it differently, fixed cost will change only when the production capacity is changed.

If a cost changes with volume (the reference is to variable cost), such changes related to different levels of volume are measured along the same cost schedule (fig. 3.7 in page 70). If a cost changes with production capacity (the reference is to fixed cost), an increase in capacity will 'shift' the cost schedule to a higher level and a decrease in capacity will 'shift' the cost schedule to a lower level (fig. 3.8 in page 71). Therefore, cost changes associated with capacity changes could be measured only by considering the magnitude of the gap between the 'shifting' schedules. (Fixed cost schedule being parallel to OX axis there cannot be any cost change along a schedule).
FIG. 3.7: SCHEDULES SHOWING COST CHANGES ASSOCIATED WITH VOLUME CHANGES
FIG. 3.8: SCHEDULES SHOWING COST CHANGES
ASSOCIATED WITH CAPACITY CHANGES
In fig. 3.7 cost schedule OV is a single schedule. At OM volume the cost is MN. The cost changes to QP when the volume is increased to 'OQ'. The cost change from MN to QP is represented by N and P points which are in the same OV schedule. As the volume changes from OM to OQ, the point N on the VC schedule moves to point P on the same schedule. The point P is in the same schedule in which the point N is located.

In Fig. 3.8, within the capacity OR the cost does not vary and remains at OA (or AB). The relevant cost schedule is AB. As the capacity changes from OR to OM (by increasing the capacity by RM) the cost schedule AB shifts to a higher level, and the cost schedule relevant to RM range of capacity is CD. The cost change from OA (or RB) to RC (or MD) is represented by point A (or B) on the AB schedule and point C (or D) in the CD schedule. The points A (or B) and C (or D) are not in the same schedule, they are in two different schedules. When the point A 'moves' to 'C' it moves 'off' the schedule.

In fig. 3.7 the schedule moves in the same track but in fig. 3.8 the schedule goes 'off' the track (the schedule is shifting). In both the figures it is along the schedules that the cost changes are indicated. What the schedule, which moves in the same track helps to measure is, to use an appropriate term, 'change in the cost'. What the schedule, which moves 'off' the track helps to measure is 'change of the cost'.

Variable cost schedule is a single sloping upward schedule (fig. 3.1) which is similar to fig. 3.7 and hence it would show 'change in (variable) cost'. The fixed cost schedule for the relevant range is a single schedule parallel to
OX axis (fig. 3.2). It would not show any cost change (that is why the cost is called ‘fixed’ cost) within the relevant range. But it would change if the relevant range of volume changes. In that case the schedule will shift. Hence, in the long run if the relevant range is changed the shift in the cost schedule would show "change of (fixed) cost." (In the short run the fixed cost does not change).

A better term for ‘fixed cost’ is ‘non-variable cost’ With change in capacity (relevant range) this cost will change. But it will not be a ‘change in cost’; it will be a ‘change of cost’.

In classifying the costs into variable costs and fixed costs, only in the case of ‘fixed plus variable cost’ the cost has to be segregated to include the ‘variable portion’ in the variable cost category and the ‘fixed portion’ in the fixed cost category. Though there is probably no accurate method of segregating the fixed and variable portions from the ‘fixed plus variable cost’ there are methods like straight line equation method, least square method, range method etc. which can be used for the purpose of segregating the costs.

"Profit planning, cost control and decision-making require an understanding of the characteristics of costs and their behaviour at different operating levels. While cost trends cannot be predicted with certainty, they generally follow a sufficiently regular pattern to be useful for profit planning, cost control and management decisions”1.

* In this thesis the terms ‘Fixed cost’ and "Non-variable cost" are used synonymously.