

COMPANY CONTINUOUS USE OF OVERHEAD APPORTIONMENT: A STRATEGY FOR ACHIEVING EFFECTIVE TREATMENT OF INDIRECT EXPENSES

by

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Abstract

The importance of indirect expenses as overhead apportionment in company manufactory account cannot be over emphasized. The apportionment of overhead in manufacturing company helps to carry along offices of the company which do not produce anything at all through setting off their expenses. This paper, therefore, examined the three processes of allocation, absorption and apportionment necessary for effective cost treatment of overhead or indirect expenses in a manufactory company. It was concluded that there are so many absorptions and conventions involved in establishing overhead and as such intense point in pursuing accuracy over such matters as the base apportionment will be assumed. It was recommended among others that there should be the choice of better method of apportionment of overhead or indirect expenses like machine hour, labour hour and so on.

Introduction

An overhead, as exposted in the Dictionary of Accounts is a generic name for cost of materials and services, not directly adding or readily identifiable to the product or service constituting the main object of an operation. The overhead can also be called manufacturing cost or indirect cost. Generally speaking, the item "Overhead" comprises all those costs which cannot conveniently be directly attributed to cost unit produced. These costs are incurred as the collective responsibility of a number of different products or cost centre and therefore a method has to be deduced on how to share these costs among the different items of production. Costs, which are included in this classification, involve indirect materials, indirect labour and other indirect expenses whether incurred at the factory or it consists of distribution, selling or administrative expenses. If each production unit is assigned its share of indirect expenses full absorbed costs for that unit will be computed. The direct cost such as materials, labour and expense costs can be identified to specific product without great difficulty. Time sheets, invoices, clock cards materials, requisitions etc can be analyzed to ascertain how much time has been spent, the amount of materials used or other expenses for the specific product or job. However, the allotment of indirect cost to cost center and then to cost unit entails a complex system of allocation and apportionment. The usual method is to assign certain expenses to cost center to which they logically belong. Costs that cannot be allocated are then apportioned or divided up on logical bases, so that each cost center is assigned its appropriate share. Once the organization concerned has attributed overhead costs to various cost centers, then the costs can be assigned to the different cost units by means of absorption rate as those units move through the cost centers.

Therefore, the three processes of allocation, absorption and apportionment are necessary for effective cost treatment of overhead.

Overhead include a large number of types of indirect costs so that the frame up of overhead is a more complicated process than the calculation of prime cost which merely consists of direct cost clearly related to the cost unit being produced.

Accounting for Overhead

The procedure in accounting for overhead “departmentally” is thus as follows:

1. Record all costs incurred in the appropriate cost center’s ledger control account (LCA) (in total); at the same time posting items in detail to the relative cost center accounts.
2. Costs which are capable of direct allocation to cost units (for example, product direct wages) are transferred to work-in-progress, the entries being: debit work-in-progress ledger control (in total), and job account individually and credit the production cost center ledger control (in total) and the cost center ledger account (in detail). Any balance remaining on the production cost ledger control represents production cost which is indirect in relation to the product; that is, it represents production overhead.
3. Service cost and center costs are then apportioned to the main activity cost center, that is, to production, selling, distribution, and administration cost center, may then either be apportioned to production, selling, or distribution.
4. The costs remaining on each production cost center account are then applied (as production overhead) to the job upon which it is engaged, work-in-progress ledger control account being debited with the total production overhead absorbed (while the various job accounts are debited individually) and a production overhead absorbed account credit there with
5. Where production overhead is absorbed by means of a predetermined rate, the production is unlikely to match exactly what is incurred, but if a separate production overhead absorbed account is maintained for each cost center, it will be possible to obtain details of any under or over absorption, cost center by cost center, by overhead absorbed account. Where such an analysis is required when only one overhead absorbed account is kept, it will be necessary to work from basic documents.
6. Selling and distribution overhead at this stage remain debited to their appropriate cost center accounts.

Recording Overhead Cost

Entries for indirect material and indirect labour are recorded on departmental overhead analysis sheets. Other manufacturing overhead costs are posted from purchase vouchers (purchased from outsiders) and at the end of the month, from general journal vouchers (adjusting centers to cover accrued or differed costs).

Voucher Register Entries

The cost of repairs, utilities, or other overhead items purchased from outsiders is usually obtained from an invoice.

Difference between Direct and Overhead Costs

Direct cost can be identified with unit to be costed (that is its department activities, orders and product) at the time the cost is incurred. This is accomplished by measuring quantity of materials and hours of labour used for each cost unit. Source records are then coded to permit subsequent assembly of the cost for each cost unit. For example, direct labour ticket may bear department and job numbers.

Overhead cost on the other hand cannot, as a practical matter, be traced directly, to individual costing units, either because the process of making direct measurement is too costly or because there is no method of direct measurement available. Since overhead cost can be charged to individual costing unit at the time the costs are incurred, these are collected as total and subsequently spread over the various units by allocation, apportionment, absorption etc.

Accounting for Overhead Cost

Objectives of Overhead Cost

Accounting for overhead cost has the following principal objectives, which are itemized below with their functions.

1. **Cost Control:** It provide useful information to management in exercising control over cost. For example, fixed cost can be apportioned according to the relative benefit being received by cost centers or productions. In this way, the use of overhead is charged only with the appropriate amount, which has been determined in a logical manner.
2. **Ascertainment of Product Cost:** It assists in determining the product cost, for inventory-cost purposes, by allocating manufacturing overhead cost to product. The total unit may be used as a base for price fixing.
3. **Enhancement of Management Position:** The classification and collection of cost in a logical and flexible manner enables the best use to be made of management information. Usually, management attention towards ensuring that overhead cost is kept within the limit prescribed by budget or previous cost level. However, there may be deviation depending on the nature of the business concerned.

Nature of Overhead

In the conversion of direct material into a finished product direct labour and a large measure of indirect costs are incurred. These indirect costs are summarized in a manufacturing overhead control account. Since many of the indirect manufacturing costs will not be known and recorded

until the end of the accounting period, it becomes necessary to change most jobs, or the departmental work-in-progress, accounts with an estimated amount for the manufacturing overhead. Further-more, the actual overhead relates for each month would be misleading from the stand point of valuing inventories and measuring operating efficiency.

Therefore, a predetermined relate is computed at the beginning of the year. Based upon the budgeted of manufacturing overhead, and computing the amount of overhead to be charged to jobs or departmental work-in-progress accounts during the year. Periodically, entries are made charged, for the work-in-progress accounts and crediting temporary accounts known as the manufacturing overhead.

Classification of Overhead Cost

There are many different ways of classifying overhead costs.

The system to use in any organization depends on the type of organization, the information requirements and the costing method however, classification of overhead costs can be expensive to operate if it is too detailed. If on the other hand, the classification is easily done, it may lead to lose of information. Any classification of overhead costs begins with determination of responsibilities for cost incurrence. For this purpose, responsibility such as a department having a single head accountable for cost incurred by the activity of the unit. The classification of department fixes responsibility for control and at the same, facilitates allocation of cost of product. Costs incurred by each responsibility are classified by nature of expenditure or the object with which expenditure was made. However, the classification of overhead may take the following summarized approaches:-

- a) Functional
- b) Cost center
- c) Cost behaviour
- d) Divisional
- e) Pre-determined/actual
- f) Class of expense

The explanation goes thus:

Classification according to Function: Function classification usually takes the following breakdown of cost.

Manufacturing (Fixed and Variable) Overhead

These have been broken down into fixed, variable and semi-variable. Total fixed manufacturing cost remains less constant in amount, regardless of the volume of production. Total variable cost fluctuates with and in the same manner as the volume of production whereas semi variable cost

fluctuates with the volume of production but not in the same manner, rather by periodic step. The per unit cost of fixed overhead decreases in a given period as a number of unit produced increases.

Selling Overhead

This will include the following: showrooms and other sell offices, rent and rate, insurance of sales premise. Wages or salaries of employees engaged in selling including commission and expenses of salesmen. Remuneration paid to a sales director (apportionment may be necessary if he has other functions). Heat, power and light used in sales premises. Depreciation of sales premises and content, bad debt and cost incurred in collecting bad debt. ‘Advertising, telephone, postage apportionment of sales’ element is often stationary necessary.

Distribution Overhead

This is sometimes merged with selling overhead, but where separate analyses is maintained, it will include the following: running expenses of delivery vehicles, depreciation of delivery vehicle, wage of park man and drivers, parking charges, carriage outward, warehouse cost, (rent, rate, depreciation and insurance). “Advertising, telephone, postage apportionment of sales” element is often stationary) often necessary.

Administrative Overhead

This includes the following general office expenses (rent, rate, depreciation, light, power and heat). Audit and other professional fees, wages or salaries of clerks, typist etc “Advertising telephone, postage apportionment of sales” element is often stationary) often necessary.

Research and Development

These two functions may be grouped separately:

- ❖ **Classification on the Bases on Cost Centres:** It is always useful to classify an apportion overhead cost-to-cost centres. This may take the form of production and services cost centre.
- ❖ **According to the Behaviour or Nature of the Overhead Cost:** Its necessary to classify cost according to their behaviour or nature. Usually, a thorough understanding of the nature of costs how they are likely to behave essential for effective and efficient control of cost. However, likely division could take the following form:
 - a) Fixed cost
 - b) Variable cost
 - c) semi variable cost
 - d) Controllable cost

- e) Uncontrollable cost
- f) Abnormal cost

- ❖ **Classification according to Division of Business:** classification sometimes, could be done on the bases of division of the business under this system, an understanding of the cost relating to each division or branch as well as those of head office is necessary.
- ❖ **According to Pre-determined or Actual Cost:** Classification of cost may be based on pre-determine or standard cost both standard and actual. In job costing forms, pre-determined overhead cost are most likely used to determine the overhead rate.
- ❖ **Classification on the Bases of Class of Expense:** Cost is usually grouped along the lines of expense heading. Such headings can be arranged as follows:
 - a) Rent
 - b) Rate
 - c) Salaries
 - d) Heating
 - e) Depreciation
 - f) Light
 - g) Traveling

In nut shell, classification could be done in some other ways depending on the costing system of the business. However, the classification listed above can serve most business purposes.

Method of Allocation

It is always possible for overhead cost to relate to one particular cost centre. In a situation, were a cost is directly attributed to a department, for example, electricity metered to that department, allocation can take place. However, some cost cannot be allocated should be appointed on logical bases to be divided between the cost centre concerned.

The overhead cost may be allocated on the following bases:

- a) Unit bases
- b) Material cost
- c) Labour cost
- d) Prime cost
- e) Labour hour

f) Machine hour

In calculating the rate of allocation, the estimated overhead cost becomes the numerator, while the bases of allocation become the denominator. For example let's assume that the overhead cost we are going to use for the six different basis is N456,000

a. **Unit basis**

Let us assume that the estimated number of unit to be used is 20,000 units

Computation: N456,000

$$20,000 \text{ Unit} = 22.80 \text{ per unit}$$

Assume that a department produces 5,000 Units. The overhead allocated to this department is $5,000 \times 22.80 = \text{N}114,000$

b. **Material cost basis**

Assume that material cost to be use is N240,000 rate N456,000

$$\text{of mt. Cost} \qquad \qquad \qquad \text{N}240,000 = 190\%$$

If material cost of a% department is N100,000 then overhead allocated to it is: $\text{N}100.00 \times 190\%$ or $100,000 \times 190 = \text{N}190,000$

$$100$$

c. **Labour cost basis**

The labour to be used is N360,000 rate = N456,000

$$\text{N}360,000 = 1.267\% \text{ of labour cost}$$

d. **Prime cost basis**

Prime cost is assumed to be N60,000 rate = N456,000

$$\text{N}600,000 = 76\% \text{ of prime cost}$$

e. **Labour hour basis**

Labour hour to be used is N180,000 hours rate = N456,000

$$\text{N}180,000 = 2.53 \text{ per man hour}$$

f. **Machine hour basis**

Machine hour to be use is N84,000 rate = N456,000

N84.000hrs = N5.43 per machine hr.

Conclusion

- a) The term “overhead” comprises all those cost which cannot conveniently be directly attributed to cost unit produced. These costs are incurred as the collectively responsibility of a number of different product or cost centres.
- b) Direct wages, direct labour hour, machine hour etc are some of the absorption basis.
- c) Overhead absorption rate (OAR) are usually pre-determined and are calculated as follows: overhead absorption rate = Budgeted overhead for cost centre
Budgeted unit of absorption base
- d) When the overhead absorbed are less than the actual overhead, there is over absorption.
- e) The process of allocation appointment and absorption are necessary for effective costing treatment of overheads.
- f) The absorption basis to be used should be the one that will accurately reflect the burden of overhead in given cost centre or cost unit.
- g) The amount of under or over absorption is usually charged to the costing profit and loss account
- h) The process of continuous allotment, specific clearance or elimination and simultaneous equation are the three methods of establishing service department overhead when reciprocal servicing occurs.
- i) The overhead of service department are built up by allocation and primary apportionment and are then spread over the production department by secondary appointment and are then spread over the production department by secondary apportionment in proportion in usage.
- j) Because there are so many absorptions and conventions involved in establishing Overhead, there is little point in pursuing minute accuracy over such matters as the base of apportionment.

Recommendations

1. There should be the choice of better method of apportionment of overhead or indirect expenses like machine hour, labour hour and soon.
2. There is the need to reduce the setting up of offices that do not produce in order to curtail accumulation overhead arising from them.
3. There is the need to utilize accurately the main four sources of overhead collection in order to achieve effective treatment of indirect expenses.

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