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## C H A P T E R T H R E E

## THEORETICAL ASPECT OF THE STUDY

## 3.1 EVOLUTION OF COSTING IN WORLD.

Cost Accounting practices and theories were established at about fourteenth century with the growth of Italian, English and German Commerce. Then after the efforts were made rise of the factory system in industrial Revolution in England in later part of 18th century. In Great Britain and in United States efforts were made to install factory cost system in 1805. Further development was made in 1875 by Lawrence and Humphreys with the method of arriving at all the general averages required. In 1890, Mateolfe, Norton, Lewis cost concept was developed like fixed and variable cost; cost centres, etc. In 1919, the Institute of Cost and Work Accountant in Great Britain and National Association of Cost Accountant in New York come into existence. With the growth of scientific Management cost control technique was influenced and in 1920 standard costs were developed in the United States of America and in Great Britain. This technique recognised as progressive addition.

United States of America has occupied crucial place in development of cost Accountancy and then followed by Great Britain.

## 3.2 EVOLUTION OF COSTING SYSTEM IN INDIA.

During the second World War the need for cost accountants was keenly felt in India. In Indian Defence Factories the cost

accountants were employed who obtained training and education from Institute of Cost and Management Accountants. In 1959 the Cost and Work Accountants Act of India was enacted by the Government of India. At the same time the Institute of Cost and Works Accountants of India started functioning as a body corporate. The Government of India have been taking many vital steps to improve the profession. Accordingly Cost Accounting Recording Rules are framed for maintenance of Cost Statements. The Institute of Cost and Works Accountants of India has also been making efforts for development of the profession. A separate Directorate has been functioning exclusively for promoting professional development.

### 3.3 IMPORTANCE OF COSTING.

Cost is the price one has to pay for procuring economic resources for production or rendering services. Sacrifice by rendering services is measured in monetary terms. Cost information can assist the management in decision making but it cannot replace Management decision can be taken if benefits are greater or equal to cost i.e.  $\text{Decision} = \text{Benefits} - \text{Cost}$ . Different costs are used for different purposes. So some costs are relevant for some purpose and other costs are not relevant. Relevance differs from decision to decision.

Determination of costs consists of the classifying, recording and appropriate allocation of expenditure. These costs are related to sales value and the ascertainment of profitability. Hence, the technique of costing involves.

- a. Collection and classification of expenditure according to cost elements.
- b. Allocation and Apportionment of the expenditure to cost centres or cost units.

Actual or notional amount of expenditure incurred on or attributable to a given thing refers as the objective which finally results from process of costing. Costing consists of principles and rules which are used for determining (a) the cost of manufacturing of product (b) the cost of providing a service.

#### 3.4 CONCEPT OF COST.

The Institute of Cost and Management Accountants, London has defined cost as the amount of expenditure, actual or notional incurred on or attributable to a given thing.

Cost concepts used in ascertainment of cost and in managerial decision making.

1. Historical Cost : It is ascertainment of actual costs after they have been incurred.
2. Standard Cost : This is predetermined cost for each element of cost based on scientific study.
3. Estimated Cost : It is predetermined cost based on experience and judgement of the relevant factors involved.
4. Total Cost : This is sum total of all items of expenses direct and indirect.

5. **Marginal Cost :** It is sum total of direct material, direct wages, direct expenses and variable overheads.
6. **Direct Cost :** This is the sum total of marginal cost plus a portion of fixed costs which are directly identifiable with product process, department etc.
7. **Differential Cost :** It is a change in total cost from one level to another level of activity.
8. **Conversion Cost :** This is sum total of direct wages and production overheads in connection with converting raw material into partly finished work in progress and fully finished products.

### 3.5 METHODS OF COSTING.

The methods of costing refers to the technique and processes employed in the ascertainment of costs. The method of costing to be applied in a particular concern depends upon the type and nature of industry.

Basically there are two methods of costing.

#### 1. Job Costing.

Any manufacturing organisation is not producing goods for stock instead they engage in production only when they receive an order from a customer. The two orders are not alike. All orders are not passing through the same manufacturing processes. Cost information must be accumulated for each job. The system of accounting that provides information in this way is called a job order cost system.

Definition : Kohler defines a method of cost accounting whereby cost is compiled for a specific quantity of product, equipment repair or other service that moves through the production process as a continuously identifiable unit applicable material direct, direct labour, direct expense and usually a calculated portion of the overhead being charged to a job order distinguished from process costing.

The above definition of cost accounting is self-explanatory. The record is maintained in a systematic manner to calculate the cost of job.

Job costing may be the method suitable for printing industry and hence it may offer the following advantages.

1. The cost of material, labour and overhead for every job is available daily. This enables the management to know the trends of costs.
2. On completion of a job the cost under each element is immediately ascertained.
3. Historical costs for past periods for each product compiled by orders, departments or machines provide useful statistics for future production planning and for estimating the costs of same job.
4. The adoption of predetermined overhead rates in job costing necessitates the application of the system of budgatory control of overhead.
5. The actual overhead costs are compared with the overhead applied at predetermined rates.

6. Spoilage and defective work can be easily identified with specific jobs or products.
7. Job costing is particularly suitable for cost plus and such other contracts where selling price is determined directly on the basis of costs.

Disadvantages.

1. Job costing is comparatively more expensive as more clerical work is involved in identifying each element of cost.
2. With the increase in the clerical processes, chances of manual errors are enhanced.
3. The cost as ascertained, even where they are compiled very promptly are historical.
4. The cost compiled under job costing system represents the cost incurred under actual conditions of operations.
5. If major economic changes take place, comparison of cost of a job for one period with that of another becomes meaningless.

Looking to the above explanation which consists certain characteristics, the job order costing system is very much appropriate to the printing industry as a whole.

Types of production activity in printing press for job costing.

1. Jobs based on customers specifications. Material contents and labour contents of each jobs are different.
2. Production pattern is not repetitive and continuous.
3. Virtually every job produced is some what different.
4. Each job maintains its separate, identify through out the production stage.
5. The different jobs are independent of each other.

#### Routine Under Job Costing.

1. **Estimation :** Estimation plays an important role in job costing because the cost estimates furnished to customers play important role in receiving the orders. Production Planning Department with cost accounting departments prepare cost estimates.
2. **Review of customer's order by production planning department :** Each job has its own characteristics that cause it to differs from other jobs. For this reason production Planning Department, first of all analysis the customers order. Then the production Planning Department assigns each production order a number that is called a job order number.
3. **Production order :** It represents instruction to shop personnel to do the work. It is also known as work order or job order record. A copy of production order is sent to accounting department to set up a cost sheet on which production cost is afterwards

accumulated. A presentative format of a production order is as below :

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X Y Z C O.  
PRODUCTION ORDER

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Customer's Name ..... Production Order No. ....  
 Bill of Material No..... Date of Order .....  
 Special Instruction ..... Date to be complete .....  
 ..... Authorised by .....

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Qty.	Descri- ption.	Bill of Material No.	Composing	Printing	Binding	Remarks
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For Office use ..... Date of Starting the work .....  
 Entered in Cost ..... Date of completion .....  
 Sheet No. by ..... Quantity produced .....  
 Checked by .....

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4. Job Order No: The assigned number to each production order is called job order number. The direct cost relating to the particular job is reported to accounting department through this job order number.
5. Job Cost Card : This cost is the most important document in job costing system. A separate card of cost sheet is maintained for each job. This job sheet

is designed to collect cost of materials, labour and factory overhead applicable to a specific job.

When job is completed the cost is totalled on the job cost sheet and used as basis for transferring the cost of particular job order from work in process account to finished goods account of cost of sales account.

SPECIMEN OF JOB COST SHEET

**XYZ CO.**

Description .....	Job Cost Sheet No. ....
Customer's No. ....	Job No. ....
Reference No. ....	Quantity .....
	Date of commencement.....
	Date of Completion .....
	Delivery Date .....

MATERIAL			LABOUR			OVERHEAD			
Date	Deptt.	Matl. Amt. Reqn. No.	Date	Deptt.	Time Memo	Amt.	Date	Dept.	Rate Amt.

Total :	Total :	Total:
SUMMARY		
Costs	Estimate Actual Variance	For the Job
Direct Material		Units produced .....
Direct Wages		Cost per unit .....
Production overhead	_____	Remarks
Production Cost	_____	
Administrative overhead		
Selling & Distribution Overhead	_____	
Cost of Sales	_____	
Profit or Loss	_____	
Selling Price	_____	

Prepared by .....

Checked by .....

Accountant

## 2. Process Costing.

This method of costing is employed in industries where a continuous process of manufacturing is carried out. Costs are ascertained for a specified period of time by departments or processes. Chemical industries, refineries and gas and electricity generating concerns may be quoted as examples of undertakings that employ process costing.

### 3.6 TECHNIQUE OF COSTING :

Costing is defined by Govdon Shillinglaw, as " the classifying recording and appropriate allocation of expenditure for the determination of costs the relation of these costs to sales value and the ascertainment of profitability.

Cost accounting is defined by Govdon Shillinglaw, as " the application of accounting and costing principles, methods and techniques in the ascertainment of costs and the analysis of savings and / or excesses as compared with previous expense or with standards.

Cost Accountancy is defined by the Institute of Cost and Works Accountants of United Kingdom, as " the application of costing and cost accounting principles, methods and techniques to the science, art and practice of cost control and the ascertainment of profitability. It includes the presentation of information derived therefrom for the purpose of managerial decision making.

In each of the costing methods various techniques may be used in ascertaining costs. They are as follows :

1. Historical or Absorption Costing.

This is ascertainment of costs after they have been incurred.

2. Standard Costing.

This is ascertainment and use of standard cost and measurement and analysis of variances. It is predetermined costs which is computed in advance. It is very useful for cost control. This is employed in conjunction with Budgetary Control.

3. Marginal Costing.

This is ascertainment of costs by differentiating between fixed costs and variable costs. Marginal costing is a valuable aid to management in taking many important policy decisions.

4. Uniform Costing.

It refers to the use by several undertakings of the same costing principles and / or practices. When used and operated under a Central Control, uniforming costing will promote operating efficiency by ensuring inter unit and interfirm comparisons.

3.7 INSTALLATION OF COSTING :

The necessity of costing is felt for the purpose of achieving specified objectives at minimum cost. It forms basis



for future operations. The approach of installation of costing is to develop the system that has up with the existing practices.

The pre-requisites satisfied and points looked out before installing costing in the press.

1. The objective to be achieved must be identified. This is because of the system adopted to suit the general nature of the printing press.
2. The participation from all levels of management is a pre-requisite to successful operation of costing system. A study of all the technical aspects e.g. composing methods, printing style is to be made to select the costing method.
3. Details of records to be maintained should be arranged complete analysis at reasonable cost are desirable.
4. Forms to be used by foreman, workers, etc. should be standardised as far as practicable. It should involve minimum clerical work at different stages.
5. Every original entry on press forms should supported by an examiners signature. This will ensure reliability of data to be used for decision making.
6. Costs and other data are presented to different levels of management concerned regularly and promptly should be arranged properly.
7. Reconciliation of cost and financial profits should be made for the decision and guidance of the management.

Difficulties likely to be experienced. It is studied that the following initial difficulties are likely to be experienced when a new costing system is introduced.

1. Lack of support from other departmental heads.  
Often a system is introduced as a result of directive from Chairman and difficulty is experienced in getting active co-operation of departmental heads.
2. Resistance from accounting staff.  
This is due to the fear of losing importance after the introduction of costing system.
3. Non- Cooperation from the supervisory staff.  
Supervisory staff may not render full co-operation in the introduction of the system.
4. Shortage of trained staff.  
The understanding of cost concepts and cost practices may require some professional back ground and there may be shortage of trained staff at the initial stages.

### 3.8 LIMITATIONS OF COST ACCOUNTANCY,

It is studied that cost accountancy is not science but an art. This has developed through theories and accounting practices based on reasoning and keen common sense. Many of the theories cannot be proved nor can they be disproved.

It is also studied that no costs can be exact as they incorporate a large number of conventions, estimations and flexible factors such as :

1. Classification of cost into elements.
2. Materials issue pricing based on average or standard cost.
3. Apportionment of overhead expenses and their allocation to cost centres or cost units.
4. Arbitrary allocation of joint costs.
5. Division of overhead into fixed and variable.
6. Allocation of direct labour and direct material costs in the absence of correct and complete data.
7. Adoption of standard costs and marginal costs.

It is said that when a cost accountant presents cost data, he does not necessarily present absolutely true costs. This tells us to be the cost actually a congregation of data, some of which have been allocated, some apportioned and a few suitably moulded and modified in the light of conventions and according to the judgement and opinion of the cost accountant.

This is also studied that no one cost is suitable for all purposes and under all circumstances - the computation and presentation of a particular cost depends upon the use to which the data are required to be put to.

It should also be studied that accuracy in cost accounting is relative. Certain presumption are always made while determining cost to suit a particular situation and as these

presumptions are largely a matter of personal opinion. Costs presented by two accountants may not always be identical.

In the study of costing system these limitations are to be accounted for and the results or suggestions made for installation of costing system in printing industry.

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