Cost Accounting Prof. Varadraj Bapat School of Management Indian Institute of Technology, Bombay

Lecture - 02 Classification of Costs

[FL]. Welcome back to our course on Cost and Management Accounting. In our first session we discussed about what is cost accounting? There are three steps involved ascertainment of cost, where we will record the cost in details, then we will go for analysis of cost. So, the total cost is broken down, on variety of basis to get the details and then that cost breakup or that analysis is used for preparation of cost statements, which help in cost control, they also help in taking variety of decisions like, make or buy decision, or like outsource or not type of decisions.

This is broadly the cost accounting is this is the particularly the decision making part of it is particularly for the use of management, that is why we have got an umbrella concept known as management accounting. In this course our focus is going to be on cost and management accounting, mainly on the techniques which are used for decision making. We also discussed, what is cost and then we went into classification of cost? So, let us start with the cost I think [FL] cost incur [FL]. So, there is no need of any definition [FL] activity [FL] we have pay for it we have to incur expense.

Sometimes we have to sacrifice our time or we have to give up an opportunity all this is added together and is called as a cost. Now, the classification, this classification is very important, because it leads us to variety of concepts within cost and management accounting. And a few of the techniques to control those cost or this classification is used by us for providing the information for decision making. Now, the first classification is by elements, which we have already discussed.

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Cost Classification		
<ul> <li>By elements</li> <li>By function</li> <li>As direct and indirect</li> <li>By controllability</li> <li>By normality</li> <li>By variability</li> <li>By relevance</li> </ul>		
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So, you do you remember now, what are the important elements of cost? I think most of you know, first one is material, next is labour, and third is expenses, this is the oldest form of classifying.

So, all tangible cost item related cost are included in material, human related cost are classified into labour and service purchases related cost are expenses. Now, this is a very basic classification from where we have evolved and we go for a further classification as per the function.

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So, important business functions like, production, administration, selling distribution, R and D, the business is normally divided into units as per the functions. So, the cost is also classified as per the function like, production cost, admin cost, marketing cost and so on.

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By Function			
In this classification costs are divided according to the function for which they have been incurred. They include ?? e.g. production cost, office & administration cost, selling & distribution costs			
<ul> <li>Production cost: materials, direct labour, stores overheads etc.</li> <li>Office &amp; administration cost: cost of formulating policy, directing the organisation and controlling the operations. E.g ??</li> <li>Selling and distribution expenses or marketing cost: expenditure incurred generating demand, on moving articles to prospective customers etc.</li> </ul>			
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Then, there is another way of classifying the cost that is by direct and indirect. Do you remember, what is direct cost? This is very important for cost control view point. I think you are remembering direct costs are those costs, which can be attributed to a particular cost center or a product [FL] at least keep this example of food pulp in mind.

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That cost of fruit going into production of fruit pulp, you can identify it, you know that raw material like mangoes are purchased and you are making mango juice. So, the mangoes purchased will be directly charged to production of mango juice, but all cost cannot be directly charged, remaining cost which cannot be charged directly are considered as indirect cost.

Suppose, we have a fruit pulp making unit, we have got four types of fruits and we make four types of pulps. So, any fruit purchased we charge to these 4 units apart from that what are other cost which are indirect in nature. Suppose, we for our factory which has this 4 units, we pay common rent. Rent will not be for just for 1 unit, it is the total rent for all the four types of pulp units. So, it is going to be an indirect cost. Same way security insurance, maintenance, these are typical examples of indirect cost. What about manpower cost, is it direct or indirect?

Suppose, there are employees who work on a specific pulp making unit, let us say there are 15 employees who are only working in mango unit, then their cost you know that this is specifically identifiable to mango pulp making, then that will be considered as a direct cost. But, the cost of the supervisors, who are supervising all the 4 units, it will be an indirect cost. Cost of production manager indirect cost, cost of helper who help in moving items from here to there, but not identifiable to any one unit, then that will be an indirect cost. Like that, whether it is material or labour or overheads those cost now are being reclassified as per directness.

If, they can be identified exclusively, if it is possible to relate them easily to a cost center or a product, we will call it as a direct cost. And, those which cannot be related very easily like rent or like security they would be considered as indirect cost. Now, we need to charge these indirect cost also. Direct costs we can easily charge, but indirect costs we cannot charge directly that is why there normally an rate per unit is calculated or a composite rate is calculated, technically we call them as absorption rate. (Refer Slide Time: 07:43)

INDIRECT CC	DST	
Overheads		
Rate per hour Composite rate/ D ABC	epartmental Rates	
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So, we take total of indirect costs, suppose we divide it by number of hours we will get rate per hour, but this is a very basic method, there are advance methods like activity based costing ok. So, this is how indirect costs are charged to products or to cost centers. There is another way of classifying that is classification based on controllability.

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Now, controllable cost are those costs which can be influenced by the action of a specific person. So, if you have got a factory manager, who can decide to take purchase or not purchase certain categories of mangoes, who has the authority to decide certain day to

day actions, then those costs which can be attributed to his or her decisions would be the controllable cost for that level.

Will the rent be a controllable cost? Mostly no, because the decision of rent would have been taken already by higher levels; the decision on wage rate might have been taken by higher levels, then those costs will be considered as non-controllable cost. Now, this particular classification is not very sharp, it will go on changing as per level of activity. Like say supervisor of a particular unit may have certain decisions within his or her power, factory manager may have more decisions, a general manager have more level of authority to take more decisions.

So, for each level of management, the controllable cost changes. Now, the advantage of this classification is when we segregate controllable cost, we can make that particular person responsible only for those cost, which are controllable within his or her decisions. Otherwise, [FL] every manager will say I do not have much authority seniors are taking decision, other departments are in incurring more expenses. So, I cannot control my expenses. So, out of all these cost most of the cost [FL] control [FL].

So, the controllability becomes identification of control becomes difficult, that is why under controllability classification; all costs related to that department or unit are classified into two types; one which are controllable, others which are not controllable. And, we will try to hold, that particular person responsible only for controllable costs. As the name suggests this technique is very much useful for cost control purposes. Now, the next is classification as per normality. Now for a certain level of output, certain cost are considered as normal.

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But, if the cost exceed that level then that will be considered as abnormal. For example, if you go to petrol pump they are dealing with petrol or diesel, now these items are meant to be evaporated. So, suppose 50,000 litres of petrol is sold in a day, it is known that 0.3 percent of that is likely to be evaporated, that is considered as a normal evaporation. So, whoever is incharge of sale of petrol, nobody will ask if the loss of petrol is limited to 0.3 percent.

But, if actual loss exceeds that then the person will be questioned, whether there was any unbilled sale or something like that. So, it any extra loss will be considered as a abnormal loss, same thing is true also for goods which are kept in storage. So, for different types of losses we divide them into normal and abnormal and normal losses are treated differently. They are charged to good units produced, because they are bound to happen. Whereas if there is a abnormal loss in excess of that normal percentage, we will charged it to that particular department or to the manager, we cannot charged it to the customers ok.

Now, the next class type of classification is as per variability. Now, here the base of classification is slightly different, the earlier classifications which we studied where mainly for cost control purposes. Now, classification as per variability is mainly useful for decision making purposes. So, how will you classify this cost?

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The cost will be classified into fixed variable and semi variable.

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As the name suggests variable costs are those cost which change or vary. Here when we say vary what we are thinking of is variation as per level of output. More the usage or more the production that cost goes up in a linear proportion that is called as a variable cost.

Examples are direct wages, direct materials, if a vehicle is being operated; normally as per the use in kilometers the petrol cost would go up or fuel cost will go up. So, that will

be considered as a variable cost. As against this there are certain costs which are known as fixed cost fixed cost are those cost, which are related to time and they do not change with volume or with the level of activity.

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For example, if we take cost of the car more the operation on more the running of car, fuel cost will change it is a variable cost, but the insurance cost is most likely not going to change or depreciation cost of the car is not likely to change. Hence, that comes as a fixed cost. Other examples as you can see here include rent or property or taxes; these are also examples of fixed cost.

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Now, this table gives the summary classification so, variable cost in total change with the level of activity, if you calculate it on per unit basis they would remain constant on per unit basis.

As per as fixed costs are concerned they are going to be constant at a total, but on per unit basis they go on reducing for every extra unit, because they are common in total, they will go on reducing for more units got it. Now, there are certain cost which are in between, they have some component of variability some component of fixed so, that is called as a semi variable cost.

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Example is telephone bill. Nowadays I think most would not even have seen this type of telephones, these are old fixed line telephones, not like mobile phones which we use now. They used to our fixed rent. And, for every call you have to pay extra, that is why it is a variable cost. The rent part is fixed call charges are variable. Even today, even for mobile phones, normally there could be a fixed charge and extra of amount if it increases as per calls it becomes a variable cost.

Of course, if you have got unlimited calling plan then variable cost is 0 you only have fixed cost. Similarly, for electricity or for maintenance also there will be a fixed component and variable component. So, total cost will vary, but not in the direct proportion. So, it is considered as a semi variable cost.

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	Example			Ê	
A company has prepared budget for July and Aug 2018.					
	Particulars	1000 Units	2000 Units		
	Direct Material	50000	100000		
	Direct Labour	28000	56000		
	Rent of the factory	75000	75000		
	Power	35000	50000		
(*	Maintenance	17000	26000		
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Now, here is an example now for 2 months. Let us say July and august for first month the units are 1000, for next month it is 2000. Now, you can see here cost are given and you have to identify them as fixed variable or semi variable. Now, the first item is direct material, it will fall in which category.

As you can see the cost of material as increased from 50000 to 100000 so, it has doubled. Number of units have doubled the cost has also doubled; that means, is an example of variable cost. Direct labour again same 28, 56 so, it has doubled it is a variable cost, rent of the factory unchanged. So, it is a fixed cost power 35000, 50000 it has changed, but not in the direct proportion, it has not become 35 and 70. So, it is not variable neither it is fixed it is a semi variable maintenance same way 17 and 26. So, it is a semi variable cost.

Are you getting this is simple, but this classification is going to be very much useful, when we go for variety of decisions. And, in coming sessions we are going to in depth look into those use of this classification, but right now we will go to the next classification that is as per the relevance.

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Now, relevant costs are those future costs which differ between alternatives. So, if you take a particular decision it changes certain cost in future, those cost will be called as relevant, while sunk costs are the costs in the past irrespective of decision they cannot change. So, we call them as sunk cost.

Now, what is an example? Suppose, you have developed a product P, for development of the product you have incurred research and development cost of 10 lakhs. Now, the question is shall we launch the product or not launch. If, we launch the product the cost of manufacture will be 25 lakhs and we are expecting a revenue of 30 lakhs. I will just repeat the figures again R and D costs is 10 lakhs, manufacturing cost is 25 lakhs, the revenue likely to be generated is 30 lakhs.

Now, shall we launch the product, what is the relevant costs, and what is a sunk costs? I think most of you are getting it we should launch the product, because relevant cost is a manufacturing cost which is 25 lakhs. We are going to get thirty lakhs from the sale; that means, we are making a profit of 5 lakhs, sunk cost is 10 lakhs which we have incurred on R and D, [FL] product [FL] launch [FL] loss already [FL] we cannot change or increase or reduce it by this decision that is why it is a sunk cost.

So, R and D is a sunk cost, manufacturing cost which we are going to incur we may or may not be incur, because of the decision of launching or not launching. That is why this launch this manufacturing costs becomes a relevant cost. Now, while taking decisions you should only look at the relevant cost and not look at sunk costs, are you getting it? So, this classification is very much useful for decision making it is not very much useful for control purposes.

They are different classifications, which we have seen earlier like direct indirect or controllable non controllable, this is primarily for decision making. There is a another variant of this cost that is known as differential costs. So, if you have 2 alternatives and if you are going to incur any extra expense by that alternative, then it is called as a differential cost.

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So, if we take root the cost is 100 rupees. If we go by root b the cost is 120 rupees. So, difference between the two alternatives is 20 rupees, that is a differential cost, this is also useful in decision making. Now, the opportunity cost. Now, opportunity cost is not something which you pay in cash that is why many people get confused, this is the cost of lost benefit.



So, if something is in short supply we choose alternative a we cannot go for alternative b. So, the benefit from b is lost that is a opportunity cost. So, suppose you can either watch the video of this course that is alternative a, alternative b is you watch you can watch a movie. So, which one will you choose [FL] scholarly students [FL]. So, you have chosen to watch this boring video. So, you have sacrificed watching a movie, that is a opportunity cost of seeing this video are you getting me. Maybe you are not paying anything in cash, but your time is limited [FL] time [FL] you are sacrificing it that is a opportunity cost of this.

Suppose you join a college and you are paying a fees of 50,000 if it is a MBA college maybe 5 lakhs. So, you are paying a fees of 5 lakhs for 2 years. So, 5 lakhs into 5 lakhs, it is a 2 year MBA course. What is the cost of doing MBA in monetary terms? It is 5 into 2 10 lakhs plus maybe some other expenses of 2 lakhs so, 12 lakhs. But, you also have a opportunity cost if you are doing a job and you are getting a package of say 10 lakhs, then 2 years 10 lakhs you are losing. So, 10 into 2 you are losing 20 lakhs, that is the opportunity costs. So, cost of doing MBA is opportunity cost of 20 lakhs plus cash cost of 12 lakhs.

So, total cost of doing MBA is 32 lakhs. Now, if you are getting commensurate benefit you should take a decision to do MBA. Otherwise maybe you can go for a part time MBA, where your fees is a cost, but you are not losing on your job or your on your

salary. So, that is how for making variety of decisions we need to consider the benefit which you have lost and that is called as a opportunity cost. Are you getting?

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Now here is an example, that suppose you want to start a business and if you go for doing it from your own premises from your own house maybe, you are not paying any salary now sorry you are not paying any event now. So, rent [FL] cost [FL] that becomes a opportunity cost for you got it.

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Now, the next one is marginal cost. This is the cost of making one extra unit later on we are going to study marginal costing where this will be very much useful. So, for 100 units if cost is 1000 rupees, if you make 100 and 1 unit and the cost is 1005, then for 1 unit the extra cost is 5 rupees, that is the marginal cost of 1 unit, then there is average cost. So, you take the total cost divided by number of units you get average cost this is also useful, but mainly for control purposes.

Now, the last classification is product cost versus period costs. If you calculate the total cost for manufacturing or purchase of a product, it becomes a product cost, it is inventoriable, because you can add it to the inventory as against this there are period cost.

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These are more related to time for example, rent for example, salary, it is being incurred for certain time not much for the number of units. So, they are considered as period costs. So, today we have discussed important cost classifications stating from elements that is material labour overheads.

Then, we have seen control related classifications, we have also seen decision making related like relevant cost, or like variable cost, or differential cost, etcetera. Now, these classifications are very much useful and in coming sessions we will be solving certain problems or solving certain cases using this classification; right now let us stop here [FL].