Management Accounting
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Lecture 03
Branches of accounting and cost sheet

Welcome students. So, continuing further the process of learning about the basics of management accounting. In the previous class we talked about the different say components which make management accounting as a subject and we were talking about the contents of the management accounting and when you talk about the contents we have discussed about the full cost accounting, we have talked about the differential accounting and we have been talking about the responsibility accounting, right? So, I told you in the previous class that responsibility accounting is another technique of management accounting.

I would say, where the whole form is divided into different responsibility centers right. We have largely three kind of the centers, one is the cost center, second is the investment center and third one is the profit center. So, all the departments units and subunits of the form contributing towards the cost of production of the product they are called as different responsibility centers. For example, purchase of raw materials that is a one responsibility center.

Then is the processing of the raw material say for example a process one is the one responsibility center, process two is a two a responsibility center, three is the three responsibility center, HR department is the one responsibility center, marketing department is another responsibility center, so the whole firm means those say departments sub-departments, units and sub-units which constitute to the total cost of the product they are divided into small units and each unit is called as responsibility center.

Why it has been done or why it is suggested to be done just to find out that if anything at any time or at any point of time, things go out of control, for example, cost is increasing beyond the budget rate level or the estimated level or the standard level that we want to make a proper cost analysis and try to find out that why the cost has increased beyond the level and who has caused the increased cost which department which say component which unit subunit of the form has caused.

The increased cost of the form so a cost of the product in the form so we want to clearly find out who is responsible for that and fix up the responsibility and take the corrective actions if you are not dividing the whole unit into the different responsibilities centers, then who is involved to what extent and who is causing a what harm to the product or to the cost of the product or to the form as a whole that won't be possible to be identified.

So whole department, whole form means cost the center, all the unit subunits which are causing the cost or which are contributing towards the cost of the production of the form that is one. Second, is the investment center when we want to go for that say increasing the production capacity or adding the new product lines or may be entering into the new markets new investment is required so for that purpose we have the investment center which makes a proper evaluation of all the further steps to be taken and finally deciding whether to go for a particular level of investment or not.

Similarly, the profit center, may be say finally means when the product has to go to the market and it has to be sold at a price it means it will bring the profit back to the firm so how the profit can be increased who are the department say, for example, advertising is the one even part of the marketing is one they are the profit centers where they have to or the sales department that is a profit center so they will have to take the product to the market and then finally sell it in the market and add up to the profitability of the firm. So, whole form at every step it is known who is contributing what in the cost in the selling in the distribution of the product.

And finally, if anything needs to be controlled or improved then, we can find out which is the weakening point or which is the soft point where the efforts should be made and if the efforts are made, then yes we can certainly improve the performance. So, responsibility centers are the subunits of the form and they are created just to maximize the control and to maximize the efficiency of the form. I would share a very classical example with regard to the responsibilities centers, say, for example, when you talk about the electricity boards in India.

You would agree with me that electricity boards position or the financial position, as far as the financial position is concerned if you talk about the financial position of the boards it was really very bad till sometime past, if you talk about their overall performance and how they have been performing as far as their financials were concerned sources of an financial concerned and then utilization of the funds were concerned so every board was in a very-very difficult state of affairs, so then the government thought of reviving these boards revitalizing these boards electricity boards.

Some where they are converted into the power supply in companies or sometime somewhere they are working as the same power boards itself in certain states. So, there government approached ADB Asian Development Bank for the financial aid for restructuring these electricity boards or the power boards and when the ADB studied the overall financial health and structure of these boards they suggested to the Government of India as well as two different state governments that if you want to improve really improve the health of these words or these electricity generating companies.

Then you have to do one thing that you have to create different responsibility centers in the country with regard to the power sector. Earlier what was there, before this kind of suggestion what was there one single state board was generating the power they were transmitting the power to different places in the state and they were finally distributing the power to the household in the whole part of the state but when this kind of the model was suggested by ADB.

Then what is now done, today you would have seen or you must be seeing or experiencing in your day-to-day life that not the power sector has a three different kind of entities, one entity is the one which is generating the power or which is responsible only for generating the power, how many millions of units of the power is generated, second company which is created is the transmission company, so generating company will generate the power and they will pass on the power to the transmission company.

And then transmission company will take you to the different places in the state but they will not distribute the power to the people, then that power will be transmitted by the transmission company to the distribution company and the distribution company will distribute it to the people in the market or in the real different parts of the state. Now, why it has been done why the financial health of the boards are deteriorated because earlier it was a single entity, they are generating the power, they are transmitting the power and they are distributing the power right and if at the end of the year if the board is incurring the loss it was not known that at what level the loss has incurred or which level of the overall power generation and distribution has caused the loss.

Whether the loss has come out up at the generation level or at the transmission level or at the distribution level so it was not possible to fix up the responsibility and plug the losses. But now when we have created that the three different type of entities, then now it is easily possible that how many units or millions of units of the power is generated by the generating company or by the power board and how many millions of the units after generating power are passed on by the power board to the transmission company.

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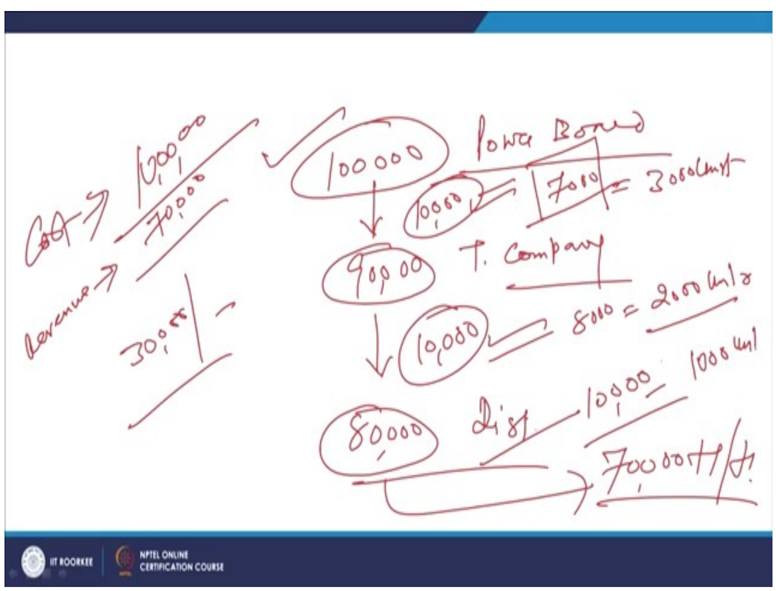

So, for example, if the power board is generating the 1 lakh units or the hundred thousand units of the power if they have generated, in that case out of this one lakh units, now because of the transmission process and other things say 90,000 units are going up to. This is the power board or the power generation company, this is the transmission company who are responsible for transmitting the power from the place of generation to the place of use and finally we have the distribution.

So, here it is 80,000 units are finally distributed to the people; this is the job of the distribution company. Now, we have seen here that we have invested the funds to generate how many units of the power, 100,000 units of the power, 1 lakh units of the power right. Finally, we lost in the process of transmission from the generation to the transmission company be handed over the 90 thousand units through the transmission company and in the process of transmitting the power to the distribution company or taking it up to the distribution company distribution company received 80,000 units of the power.

And finally, if you talk about, 70,000 units of the power was distributed to the households right. So, it means in this entire process how much units of the power we have lost, we have lost 30,000 units of the power. But here it is clearly, now I say the information is available that where the power has gone where the power has been lost now because our expenditure for generating the 1 million units will be for the 1 lakh units that will not be for the 70,000 units you spent the money for generating one lakh units or 100,000 units we lost 10,000 units by say transmitting the power from the generation to the transmission and from transmission to distribution company.

When we gave the power we further lost 10,000 units and finally up to the households we got back say we could take only 70,000 units right. It means against the total generation of the 1 lakh units we have been able to distribute only how much 70,000 units, so cost if you talk about here is that is only for say that is for the 1 lakh units and when you talk about the revenue, so revenue we will be getting back for the 70,000 units. So, this is the very technical process and you can call it as the process which is causing the serious losses to the board.

So, for example, if it was happening, when it was at the board was say acting as the single entity say, for example, you talk about the power board and in the Power Board what is happening here? We have spent money for generating 100,000 units and finally we have collected the funds from the households for the say how many units, 70,000 units. So, we have lost in the process how many units, 30,000 units.

Now, it was not possible to be known that where these 30,000 units have gone to, we have generated one lakh units we could have sold the one lakh units in the market but we have sold only 70,000 units in the market so this loss of the 30,000 units, the power loss of the 30,000 units is not able or is not possible to be traced until and unless if it is clearly bifurcated that at what level the loss has happened.

Now, when you are talking about the loss here so in this case when we are knowing now that the power board generating company generated this much number of units 90,000 were passed on to the transmission company. It means we know at this level we lost 10,000, at the next level we also lost 10,000, so what is the loss here, this is a loss of 10,000 units here. It is also the loss of how many, 10,000 units.

But we know it very clearly that we have a loss of the 10,000 units at the transmission level and loss of the 10,000 units by taking the power from the transmission to the distribution company and for the loss of 10,000 units at the level of distribution when the power has gone to the households. Now, we will make estimate that loss of 10,000 units at each of the three levels is the expected loss or it is more than the expected loss. So, for example, the loss at that transmission level expected was only seven thousand units right, but we have actually occurred a loss of 10,000 units so it means abnormal losses how much 3,000 units in this case also by taking the power from.

The transmission to distribution we were expecting a normal loss of the 8,000 say availability of the 8,000 units and the loss of 2,000 units finally the loss of the 2,000 units which is a say normal loss means finally we were expecting that 7,000 units will reach up to the say power company because here we have the loss of 10,000 units we were expecting the loss will be 7,000 units not 10,000 units, it means there is an abnormal loss of the 3,000 units. In this case if you talk about we were expecting a loss of the 8,000 units but the actual losses of the 10,000 units.

So abnormal losses of how much 2,000 units and in this case also we were expecting a higher level of distribution the loss of 9,000 but we have a loss of 10,000 so it means abnormal loss is how much 1,000 units. Now we have found out that out of the total 30,000 units lost in the process from the generation to distribution about 6,000 units' loss is abnormal loss there should have been a loss maybe there was the expected loss was how much 24,000 units but actual loss is 30,000 units means our loss has increased by 6,000 units.

Now, why it has happened, who has caused this loss and how to plug this loss, we can easily find out if we are creating that is 3 responsibility centers in the power sector. If we are not creating the proper responsibility centers then we will not be able to find out that within one single entity, if you talk about the one single entity that is a Power Board and we have a loss of the 30,000 units, it means at what level the loss is there, loss is at the generation level, loss is at the distribution level or the loss is at the transmission level.

We are not able to find it out and that was the reason that if you are not able to find out the cause of any problem you cannot rectify it. So, for rectify we have to find out the cause and for finding out the cause you have to divide the whole form into the different responsibility centres, if all the centres' are doing very well and achieving that predetermined objectives of the form then it is fine but if it is not doing and if there is a problem of any kind in that case, we will have to find out at which part of the say, the system or maybe the whole of the firm there is a problem so we will have to create the centers.

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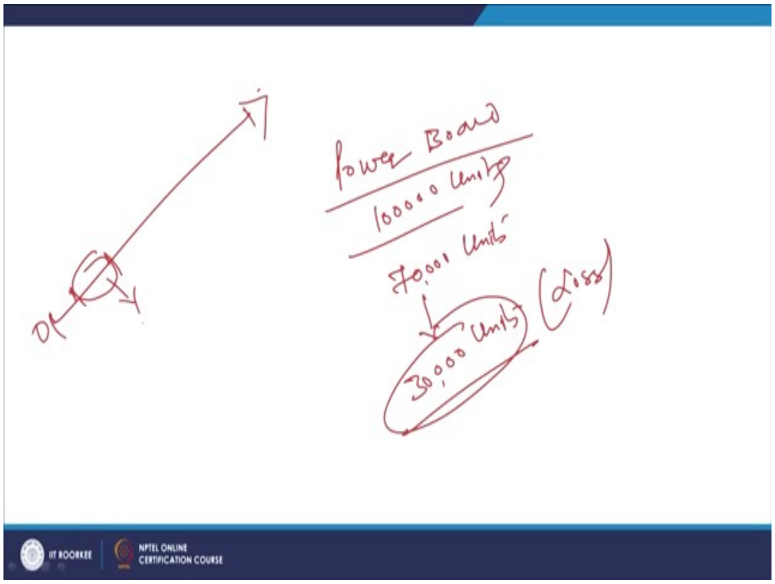

For example, I will talk about a long wire we have a long wire from here to here and you have to pass electricity through this wire so starting from this point it has reach up to this point. Now, for example, this part of the wire is defective, so if you want to check it out you will have to find it out that which part of the wire is defective so you but what you will do is you will see you have to find out this part so what you will do, you cut from here, you will cut from here, finally reconnect the wire and try to see that yes whether the wire is working or not and if the wire is working it means.

Then this part of the wire was defective same is the case with the firm same is the case with the organization's you have to cut or you have to remove the factors causing the loss to the firm and that is only possible if you divide and bifurcate the whole form whole organization into the different responsibility centers. So here we have found out that originally where we had the depression of 1930s we developed a technique which is called as full cost accounting means so that we know that how to calculate the cost of the product and services.

But later on because of the intensified competition and 50s and onwards we had to calculate the differential cost and then we had to control the increased cost or maybe increasing losses or say decreasing revenue by dividing the whole form into the different responsibility centers. So responsibility accounting came into being. Now, we talk about the different tools which are used for say better decision making by the management in the different in the firms and one important thing here is, we will be talking about these different techniques one by one.

But one important thing here is that is the cost sheet or the cost statement, I was talking to you that there are different techniques of cost accounting which are used by the management accounting or under the management accounting for the management decision-making, so different tools and techniques of the cost accounting we use the profit and loss account and balance sheet which are drawn from the financial accounting and different rules of the cost accounting.

First, tool of the cost, first and important tool of the cost accounting is that is the cost sheet or the statement of the cost. So, let us just have a glimpse of the cost sheet or the statement of the cost, later on we will learn how to prepare the cost sheet in detail or the statement of the cost in detail but here we have the cost sheet and how we prepare the cost sheet, what purpose the cost sheet serves and how it helps or facilitates the decision making. It means this is a cost sheet which helps us to determine the cost of the product or service we divide the total cost like responsibility centers here.

Now there two ways, if you want to calculate the cost of a product final cost of a product or service you calculate the final total cost but if you want to say scientifically calculate the cost and exercise the control or if I try to find out which are the factors causing the loss to the say, the firm or maybe increasing the cost or maybe say there is a say resources going down in the drain which are causing the cost of the firm so in that case we should be able to know it at that a different level of the costing of the product or manufacturing of the product.

What are the factors contributing to the cost and if the cost increases at one particular point how to control that, so for calculating the total cost of the product or service what we do here, we calculate the sub cost and then we sum them up so we calculate the total cost of the product, this is done only to facilitate or exercise that better control over the cost because in this competitive economy of today, this economy is controlled by the buyers now.

It is not the sellers' economy, it is a buyers' economy, when it is a buyers' economy buyer has now number of options available because of the globalization and liberalisation the supply side has also improved very effectively right, for example, if you talk about Indian market before 1991 say you talk about the steel sector, if somebody had to buy steel who was manufacturing and supplying steel to the say different interest groups in India, in industry households maybe government roads.

In all industries the steel was coming from one single company and that was SAIL Steel Authority of India Limited. TISCO was also there but TISCO also had to depend for their raw material and other things for on the SAIL. So, entire market of this country was in the hands of SAIL so it means whatever the product they manufacture at whatever the price they manufacture the product you have to buy it but after the liberalisation of economy, steel sector was opened up for the private competition and when it is opened up for the private competition.

Now, we have many companies in that say southern part of India we have the say Jindal steel work, it is a very big company, Asia's first high-tech plant. Initially, it was known as Jindal's Vijaynagar Steel Plant but now it is renamed as Jindal Steel Works, that is a covering the southern market and then in the western part of India, we have the Lloyd and Steel, SR steel so these steel manufacturing companies have come up in that say a market.

So, now the SAIL has lost the market and now there is a stiff competition in the steel sector. So, in this case today if you have to sell the steel, manufacture and sell the steel in the market customer would be buying the steel of that company who is providing it or selling it at a very effective price, very competitive price and in every say efficient distribution through the very efficient distribution system. So, in in this today's competitive scenario, I am not talking only about the steel sector everywhere you talk about, you talk about automobiles, you talk about electronics you talk about the consumer products you talk about the consumer durables.

Everywhere the cost is the main factor to decide the market share of the form so you have to control the cost. Yesterday, I was giving you the example of the Jio phone and the one reason of the success, spectacular success of the Jio is the cost, it is an unmatched cost and unmatched quality. So here, now the cost sheet is the one technique which helps the companies to understand the different factors constituting the total costs are contributing towards the total cost of the product and if you want to keep the cost under control you must be clearly knowing at what level the cost is going beyond control only to hit at that point and then to rectify it

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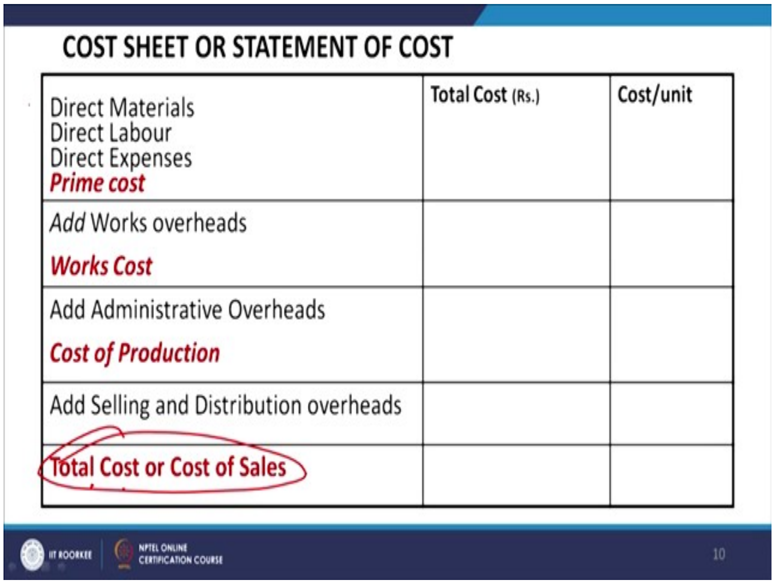

So, if you see the cost sheet here just a glimpse that we have that to calculate the total cost of the product we have here that is the total cost or the cost of sales, it means when you manufacture a product to arrive at this total cost or the cost of sales what you have to do here is that is you have to now say, use different you see you coming from the top to bottom, coming up to this point, but you have to do here is this is our total cost and if you talk about this total cost here, total costs are the cost of sales, we have arrived at this after starting from this level, where we have first of all, what is the first component of input that is a direct material.

Then we have direct labour and direct expenses. These are the three expenses which are called as direct means without which you cannot think of producing anything or generating any service this is the first and foremost and the direct and for manufacturing the products and when you see calculate the cost of these three first inputs, for example, when you are manufacturing this pointer now in this point that we have used a raw material without raw material you cannot manufacture it.

You need the labour to work on the machine and to convert that raw material into a product and then other direct overheads like power, we have the water, then we have the lubricants fuels other things which are not directly material or labour so they are the other direct expenses. So first of all we will have to calculate that how much is the cost of material, how much is the cost of labour and how much is the cost of the other direct expenses without which the production is not possible right and if you look at this pointer, you have, you will see that 50 to 60 percent of the cost of this pointer is just because of material.

Other things are after this right. So these three direct factors input factors make the cost which is called as the prime cost. Prime cost is the sum total of the three direct cost, material cost, labour cost and the direct expenses. After that, means once you have these three inputs then we have to have some other overheads in the factory. In the factory you need to have say, for example, say power you, need to have your lubricants, you have to have the fuel itself is a depreciation of the factory building.

Then you have foremen, you have some technical worker working there so their support is also must means only with labour material and say power water production is not possible you have to have the support facilities in the factory itself the depreciation of the factory labour and other kind of things may be it can be factory furniture or it can be the say a building of the factory, it can be other supportive facilities available in the factory, all these things Foreman's technical people their salary everything that has to be added in to so that is added after the prime cost is calculated.

So, in the prime cost when you add the works overheads, factory overhead, you call them the factory overheads or the Works overheads, so when you add up them so it helps you to find out that yes to give the shape to the product, to bring it into the shape finally produce the product which will be in the saleable form or taking up to the market form how much cost we will have to incur.

This is a predetermined cost because cost sheet it helps you to predetermine the cost, most expected cost that if we have to manufacture this product, what is the most expected cost, then in the works cost, once you have calculated the prime cost and works cost, then you add up the supportive overheads which are called as administrative overheads because along with the factory the forms need to have the office also, without the support of the office staff, without the support of your administrative staff, who are permanent employees of the company, who are white-collar employees of the company, the labour is the blue-collar employee.

But the staff working in the administration in the office providing or performing supportive activities they are the white-collar employees, without them say finally taking the product from the place of production to the market is not possible, so we have to incur the administrative expenses so they are also added proportionately into the one unit of the product, then we have the, so it means once you add the direct three cost, factory overheads and administrative overheads so this cost becomes a cost of production.

But again manufacturing the product and keeping it in the warehouse is not the purpose. We are not manufacturing the product for keeping it in the warehouse we have taken to the market, for taking the product to the market you have to shell out extra funds, extra money and you have to incur some extra expenses and they are called as selling and distribution overheads. Selling and distribution overheads are all marketing overheads, distribution overheads, transportation expenses, insurance expenses all these expenses which are incurred for taking the product.

Means still the cost of production if you talk about here that till the cost of production it is a manufacturing process, this process is called as manufacturing process right, and from here we start something which is called as from this to this then we start up to this point it is called as the commerce related activities commerce means, taking the place of production product from the place of production to the place of consumption and once you add up that cost also then this cost becomes the total cost of the production or the total cost of the sales or total cost of the goods to be sold in the market you call it that at any name.

So, we are dividing the total cost of the product into how many sub cost, it is into the four costs, first we calculate the prime cause, we calculate the works cost, then we calculate the cost of production and then we calculate the total cost of the sales or the cost of the goods to be sold. Now, why we are doing it? Like responsibility centers we are also within the cost sheet creating different responsibility centers, so that if the cost of the product goes beyond control.

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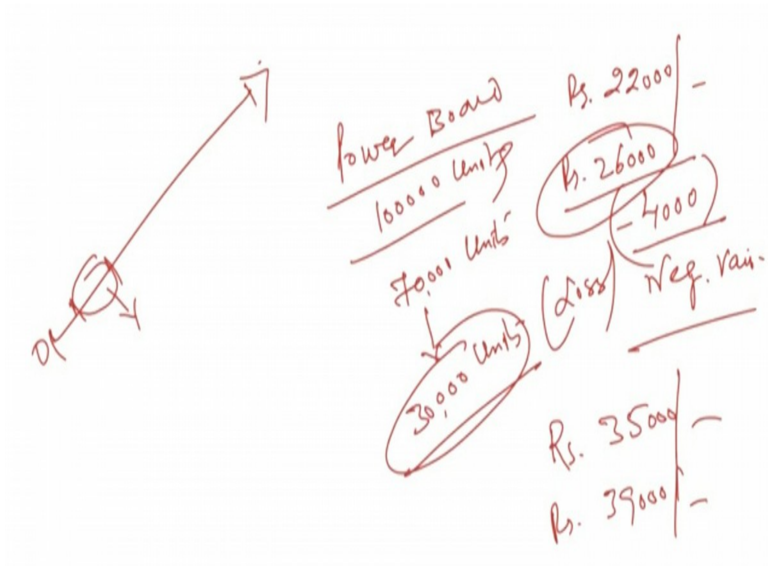

For example, now we were expecting that when you are manufacturing one air conditioner it should be costing us some beer you can call it as 22,000 rupees that should be the total cost means even up to taking to the place of the distributor. But our cost, when we have finally taken at the product to the distributor our total cost is going to be 26,000 rupees, it means there is a variance of the cost and that variance of the cost is up to the say 4,000 rupees which is called as the negative variance, this is called as a negative variance.

Now, we will have to be careful that if you are shelling out 4,000 rupees extra and manufacturing our air conditioner for not 22,000 rupees but for 26,000 rupees, you are shelling out 4,000 rupees extra so either the form has to pay for that 4,000 rupees extra because customer is not going to pay customers for the customer. For example, now the normal price of the air conditioner in the market is say I would call it as say, if you are manufacturing for 22,000 rupees so normally the product is reaching up to the customer at 35,000 rupees.

But if you are manufacturing it for 26,000 rupees it means in that case it will be reaching up to the customer for 39,000 rupees, now why should he pay 4,000 rupees extra. Either there should be some specific features in the product that you are giving some extra features for the extra money but if you are not giving any extra feature for the extra money in that case he would be very happy to buy a product which is available for 35,000 rupees and firms product will be blocked, it will not be able to pass down to the customer in the market so that is a one thing.

It means in a competitive economy in the competitive market, in the competitive system you cannot past on the pass on the extra cost to the customer, it means if the firm has to be other cost their forms losses will start mounting. So, finally we will have to check it up who has caused this cost of the 4,000 rupees extra cost of 4,000 rupees and for that reason what you have to do is, you have to now make the cost analysis you have to do the cost analysis and if you want to do the cost analysis.

And if your cost sheet is has prepared the cost like this where the prime cost is separate work cost is separate the cost of production is separate cost of sales or the goods to be sold is separate in that case it will be very easy to find out and what level the cost has gone beyond in the expected level. Have you purchased a material at a very expensive price or the labour is being paid extra or other expenses are paid extra, it means we have to now find out the controllable and the uncontrollable factors causing the cost?

And if the factors are controllable but still not controlled and the cost has increased then appropriate action will be taken but if the say factor is uncontrollable, in that case that is uncontrollable not for the form X. It is for all the firms in the market so in that case overall cost of the production will go up so it will not affect anybody, so if it is any of voidable factors within the firm that should be certainly identified, found out and corrective action must be taken.

So, for that reason when you use the costing, methodology or costing technology, in that case the cost statement or the statement of the cost plays a very-very important role, furthermore about the cost sheet and statement of the cost, I will talk to you in the next class thank you very much.