Management Accounting

Professor Anil K. Sharma
Department of Management Studies
Indian Institute of Technology, Roorkee

Lec 06: Fundamentals of Management Accounting- II

Welcome all. In the previous class we were talking about the current changes which have taken place in the past some period of time or in the some recent past some changes some new trends have come up some changes have been experienced or seen by the industry in India also and I discussed with you those changes that now the role of the service industry is the highest of the biggest as compared to the other two sectors.

Now we talked about that say the global competition has changed the working spheres and then we have seen, we have discussed that technological advances technological advances have also changed the entire process, right. So, as these things have come up in the market the challenges to the Management Accountants have also increased. Now, since the competition is increased in the market so continuously they are under pressure how to reduce the cost of production, because people have got the choice, customers have got the choice.

See biggest example is your Telecom sector, there was a time when we have to apply for a landline telephone to the department of Telecommunication and once we after 2, 3, 4, years of application, once we say got a phone was considered as a miracle or something say we can call it as a wish coming true. And we were worshiping the phone like our God and it was really something fantastic we have got in the life or something very useful and wonderful we have got in the life.

Today we see that people are roaming with mobile phones everywhere, every person whether he has the money to eat food or say have the 3 meals food with him or not but he is carrying a mobile phone. And it is at the throw away prices; it is so cheap. So it is because of the technological advancement, it is because of the say growth of the servicing sector, it is because of the growth of the stiff competition in the telecom sector.

So it has happened in every sector, supply side has improved and improvement in the supply side has say facilitated the customer but really put forward the challenges for the manufactures. So, it naturally, your budgeting has changed your controlling process has changed and in between their costing process has changed and say your overall profitability, maintaining the desired profitability has become a challenging factor.

Now, we talk about certain another changes in the market, for example, in the inventory management today we are talking about just in time. Earlier we had one single technique that is EOQ order of inventory or EOQ amount of inventory or EOQ technique of inventory management (Economic order quantity). Today that technique I do not say that has become irrelevant, that is still relevant in most of the parts of the world in most of the economy in the world but not we also have the just in time.

And just in time is again brought in practice for the industry with the major objective of reducing the cost, because when you have to bring the material in advance, store it, use it as and when it is required. You have the ordering cost, you have the storage cost, you have the handling cost, you have the perseverance cost and there is a pilferage also, wastage also and there is obsolescence also. All cost are there when you keep the inventory, so manufacturers thought can't we have a method or technique of inventory management, where on the one side a truck load of inventory comes straight way to the plant and a truck load of the finished goods goes from the plant to the market, we don't need to keep an inventory for this. So why it was thought about, it is not difficult that we can't keep inventory, we can keep inventory that is safer but to avoid the cost, to minimize the cost, to lower the cost, we developed just in time.

Just in time is not possible to be implemented in an economy like India where we have the very poor supply chain systems but in the countries like Japan where this technique is implemented, there also, there it can be implemented but not fully as it was thought in the beginning. There also the minimum inventory has to be kept but to a larger extent those countries have solved their problem of lowering down the stocks, level of inventory level because of the improved supply chain systems. Because of the improved transportation system, roads, railways, airways transport and they can afford to have minimum stock of the material as and when it starts coming down they can have it or they can replace it with a new lot of the material. So just in time is means why it is here because we have to reduce the cost of production and finally pass on an efficient product to the customers.

Now, when you are talking about the Computer Aided Designs we are talking about the CAD (Computer Aided Designs). Computer aided designs are really very-very helpful to increase the efficiency of the product and minimize the resources required for manufacturing that product and lowering down the cost and the price. Now, for example, you talk about the designing of cars. Today we have multiple types of designs for the cars.

Maruti was instrumental, they were the pioneer in India to bring a small car in the country and at the time there thinking was that even a common man in India can think of having a car. So Maruti 800 was the design, miracle of design that you have avoided the back part of the car at least people can have the car, it’s the small car but it is a car and it can give the comforts of the car.

Later on there was a series of the models in the market all the multinational companies came in 1991 and after that to India's market and today you see that every say now and then we see the new designs of the car. So how this is all become possible? Manually it is not possible, had it been possible, Hindustan Motors who were manufacturing Ambassador Car they would have really done it or the Premier Padmini or may be that Fiat, they could have really done it who were selling the cars in Indian markets since independence. So, it was not possible with growth of Technology, with improvement of the technological processes we have got new say designing systems, today we have the computer aided design and that allows the companies to design products that can be manufactured very efficiently in all respects including cost, price distribution and handling.

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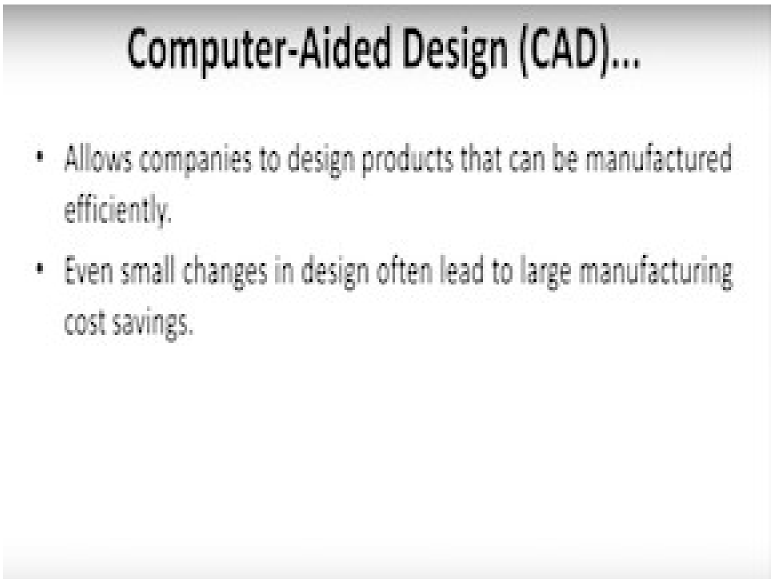

Even small changes in design often leads to the large manufacturing cost savings so, your ultimate objective is how to reduce the cost and if the cost comes down ultimately the price will come down, so there you need all Management Accounting techniques because we use all costing techniques here for decision making, we use the financial accounting techniques for decision making in some of these help us to take the better appropriate and efficient decisions.

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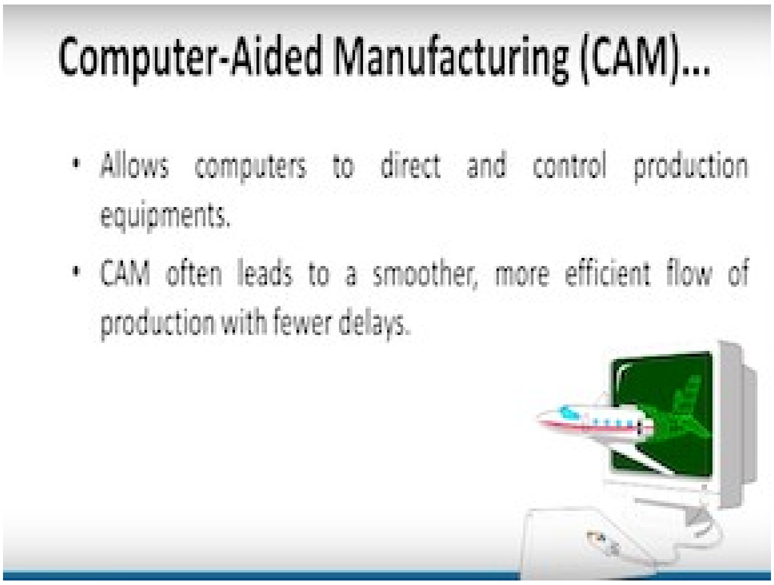

Then, we have the CAM, Computer Aided Manufacturing; it's not only helping in designing, its helping the companies into manufacture the products. All your defence products are largely based upon CAM, it allows computers to direct and control the production equipment and it's not only helping in the manufacturing of the products but operating the products.

Now, we have got the driverless trains, we have got the driverless cars, trains are very common in US, driverless trains are local trains they are very common in US they are controlled by the computers by the people sitting in one control room; train runs without driver, there is no driver at all. So designing, manufacturing and operating of the products have become or totally it has changed, they have become computer based, it means certainly the entire business process has changed and put forward the new challenge.

Now, why we have removed the driver from the train in US, we wanted to save the cost, means one person sitting in the control room can run a train or maybe more than one trains at the same point of time so it means we can save the drivers cost. CAM often leads to a smoother, more efficient flow of the production with fewer delays. It is very-very effective manufacturing process; very-very effective ultimate objective is a reduction of cost and maximizing the profits by keeping the price under control.

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Now, we have the CIM-Computer Integrated Manufacturing it utilizes both CAD and CAM. First we design and then we manufacture with robots and the computer control machines, the small amount of the labour required in this manufacturing process allows for greater flexibility since changes are made to computer programs without say retraining entire work force. See, in the other country, we are not talking about India's labour efficient country; we have the say surplus labour and availability at very cheap price.

But think about US, think about Europe, even in Japan the labour is very-very expensive and there, they are thinking about that the labour cost can be minimized or may be brought down to 0. For example, if everything they are running through technology, in that case cost will be seriously coming down, product is highly efficient and it is better than how the human resources or the human beings are the say people can manufacture the product on the machine.

And if there is any change in the design of the product then there is no need to need to train the work force which is already manufacturing it, computer automatically changes it, they start manufacturing a new product and again we are here to save the cost and to pass on this cost, the benefit of this cost to the customers. Because competition for the manufacturing side is very-very strong, severe competition is there.

All manufacturers they are fighting with each other, they have to face the competition and if they are not able to take the help of the technology, reduce the cost of production then certainly the customers would reject their product or the service. So, naturally we will have to think every day is a constant regular decision making and thinking like regular planning and regular budgeting for the new things because ultimately it has become all economies in world have become the buyers economy, they are not seller’s economy. Once they are the buyer’s economy, because people have got the choices, so people have got the strength and the power to reject any product at any point of time and to look for the alternative. So, to sustain in the market to regain, to gain or regain the market share or maximize the market share we will have to continuously thinking upon that's why I told you that now the budgeting horizon when you talk about the operating budget, you talk about the cash budget, you talk about any other budget. Which is very-very strong tool for planning of doing anything or implementing any process, you need to have the budgets or plans and with the help of the very-very efficient IT systems in big companies the budgeting horizon has come down from 1 year to 1 week, there was a time when you were preparing the budgets only for 1 year and at the end of the year we were making a variance analysis if anybody was doing and we were coming to know that whether we have ended up having the profit or loss.

We were not knowing in between because there is no internal reporting, there was no regular reporting in between and because of the lack of the information reporting and the data, firms were not able to correct their problem, their mistakes during the process and only it was a postmortem comparison at the end of the budget orbudget period or the budgeting horizon. Today we have the one week as the budgeting horizon.

We are planning, we are preparing the entire production budget for 1 week, they are preparing the entire sales budget for 1 week and at the end of the week we make the analysis that how far we have fair in the market and do we need to make any kind of the changes in our budget, are you able to achieve the objective or some changes are required to be done. It means, if anything goes wrong in the first week it can be corrected in the next week in the next week or in the next week.

So though the weekly budgeting is not possible for all the companies but at least monthly budgeting is possible for all the companies. So, with the easy availability of data information, sources of data and analysis, monthly budgeting is very-very useful tool and we come to know that annual objective would certainly be achieved when in any month, we do anything and it goes wrong then we can do it in the next 2nd, 3rd, 4th, 5th we have 12 months, we have 12 budgets.

So one budget goes wrong, second will do well, third will do well, ultimately the annual results can be improved. So this all has happened with the help of the process, the data, the information we have and we need this data this information and constant and regular decision making for improving our day-to-day process and overall performance of the firm and here Management Accountants job is to generate that data, identify the data which is useful for us, make use of that and finally take the decision based upon that information that data so I would again say that under

Management Accounting we will draw relevant information from financial accounting and cost accounting but how to use that information and how to draw meaningful inferences from that information, how to use that data appropriate in the firm that we are learning in the subject and that's why this new branch of accounting has been evolved, has been developed by experts and we are learning about that.

Now, I will take it to the next part because sufficiently we had talked about, we have spent sufficient time on same, about 5 lectures we have devoted on the basics of the fundamentals of Management Accounting, learning about that how it is useful and as a third branch accounting why it has been developed, how it is useful and how it facilitates the management decision making.

What is the subject of the management accounting as such as a subject? So, we have talked sufficiently at length about all this and now I think it is the time to move forward to learn about the different techniques of cost accounting and financial accounting which are relevant for the management decision making and learn about how the management decision making can be facilitated by using the different techniques of financial accounting and cost accounting.

Now, we are going to talk about the something, first thing something, which is called as cost sheet or the statement of cost. I talk to you, I showed you the statement, the format that how the cost sheet is prepared, how the statement of the cost is prepared and we normally have the data from the internal records available with us and with the help of that data we can prepare the cost sheet and we can find out that what will be the cost of the product for the given period of time.

We have the selling price from the market, so we compare the cost with the selling price we can find out the operating profit we are ending up with the profit operating profit or the operating loss or how the loss can be converted into profit and how the profit can be improved all these things we will be learning about with the help of this cost sheet.

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Prepare cost sheet and work out cost of sales and profit from the given information drawn from the books of Alfa India Ltd.

	Rs.		Rs.
Direct materials	1,00,000	Depreciation:	
		Factory plant	500
		Office premises	1250
Direct wages	25,000	Consumable stores	2500
Direct expenses	5,000	Manager's salary	5000
Wages of foreman	2,500	Director's fees	1250
Electric power	500	Office stationery	500
Lighting: Factory	1500	Telephone charges	125
Office	500		
Storekeeper wages	1000	Postage and telegram	250
Oil and water	500	Salesman's salaries	1250
Rent: Factory	5000	Traveling expenses	500
Office	2500		
Repairs and renewals:		Advertising	1250
Factory plant	3500		
Office premises	500		
Carriage outwards	375	Warehouse charges	500
Transfer to reserves	1000	Sales	189500
Discount on shares written off	500	Income tax	10,000
		Dividend	2,000

So when you talk about this cost sheet here is information available with us and if you read this information if you look at this information so we are simply given the data that information about - prepare cost sheet and workout cost of sales, profit on sales and profit from the given information drawn on the books of Alpha India Limited. Now, look at this information, this information is total which is given to us.

Now, as a student of this subject we must be capable of identifying that we are going to prepare the cost sheet of statement of the cost not the profit and loss account or the balance sheet so we should be aware about that to calculate the total cost of the product which information is useful for us which information is irrelevant for us and how to make use of that.

So, the cost sheet, as I have shown you the pro forma in the previous lecture or in the last part of discussion sometimes you know it that for the cost sheet is that we have on the one side or all the cost factors on the other side we have all the values of those cost factors and then we keep on putting them one by one and we don't jump to straight to calculate the total cost of the product.

We divide into two different 4-5 different kind of the sub cost and finally we sum up these 4-5 cost or maybe the 4 costs and then we end up calculating the total cost of the product of the cost of the product, or the cost sales or cost of the product to be sold in the market. So we divide it into different costs, sub costs. First, we calculate which cost, that is the prime cost. Second cost is the works cost. When in the prime cost you add up all factory overheads, then it becomes the works cost or the factory cost and then when we add all office administrative overheads, then we calculate the cost of production and then when we calculate, add up the selling and distribution overheads in the cost of production, then finally we say arrive at the cost of the product to be sold in the market or you can call it as cost of sales.

So, we are not jumping straight way to calculate the total cost of the product because we want to facilitate the control of the cost and that is only possible if you know that how to control the cost means if it is bifurcated into different units and sub units. It is sort of a responsibility centers, prime cost is one responsibility centre, works cost is another responsibility centre, cost of production is another responsibility centre, cost of sales is another responsibility centers.

So, we have the four responsibility centers. If the cost of product is going up, beyond our control, we will have to look first of all, is the prime cost at the acceptable level or the works cost is more, I think it is not acceptable, so it means you have not to touch the other cost, you have not to touch the prime cost, you not to touch the administrative overheads neither you have to touch the selling and distribution overheads.

You only have to touch one that is the factory overhead, works overhead because when you compare our factory overhead with the other competitors factory overheads, they are spending too less as compared to ours expenses, so we will have to focus on upon the factory overheads. Similarly, if the cost of production is getting your problem up to works cost it is fine then you have to look for that of administrative overheads are very high, we will have to reduce the administrative expenses or it may be the selling and distribution expenses.

So there are the different four responsibility centers and we will have to find out at which centre what cost is there whether it is accepted the acceptable level, whether it is competitive or not and anything is it required to be done we will have to do that. So from this information, if we will look at now you have to first read the information given to us, in the real life tomorrow also whatever the information is available to you or maybe to anybody in the practical life.

First we have to look for that for preparing the cost sheet of the statement of the cost all information is not important for us only some limited information is important for us because we have to calculate the cost, operating cost. So we have to calculate the prime cost, what is required in a prime cost, only three things material, labour and the other direct overheads.

For, calculating the factory cost you need to have the prime cost and the factory overheads anything which is not included in the prime cost and it is required in the factory that is the factory component of the cost of the factory, part of the factory overheads, then which ones are the administrative overheads; office rent, office depreciation, employees salaries all these are the administrative overheads so look for those overhead and selling and distribution expenses.

So, these are the four broad heads of expenses which are important for us for this case on the basis of that we will prepare a cost sheet and that cost sheet will help us guide us to attain that cost which has been worked out in the cost sheet or in the statement of the cost. So, I have brought to you an hypothetical example or hypothetical say information that if you have this kind of information tomorrow in your practical life then how to make use of this information for developing a cost sheet or the statement of the cost and finally deciding that how much should be the cost.

And if you are given the sales amount budgeted sales amount also then we can pre plan and know it in advance the operating profit we can expect from our production process and the sales. Now, here you look at that number one here is the different information given here is we have on this side the total inputs, its not a trial balance, it’s nothing, it is only a information.

Means if you have a trial balance you have the heads of accounts on the right hand side, you have two balances, debit balance and credit balance, right. So we know, we have some idea that debit balances will go to which side of the profit and loss accountant balance sheet and credit balance will go to which side of the profit and loss accountant balance sheet, but here from this information we have no idea because it is not the trial balance.

You see continuous information given to us in a tabular form that we have this this all information available with us and we want to develop the cost sheet or estimated cost of the product. We are going to manufacture so what would be the cost, total cost for the total unit we are manufacturing and the selling, if the sales value, for example, in this case if we are given the sales value 189,500 rupees, so this is expected sales value.

These all are the input cost or say heads of the cost so now you prepare a cost sheet and then try to find out what is operating profit, what is the total cost what is operating profit and we are given the sales. So, then we have to now learn preparing the cost sheet, as the first ruler under the management accounting to the cost sheet is a tool of cost accounting but we will have to use it in the management accounting.

And by developing this cost sheet will know how to develop it that we have learned under the cost accounting but after developing this cost sheet, how to make use of this information that is we are going to learn here. So, it means, since it is new to use we are doing both the things that developing the first the cost sheet of the statement of the cost and then will interpret information there and we will use it for the strategic decision making in the firm.

So, now we have first, say before preparing it and going forward let us discuss this information that where this information could be put into the cost sheet and which part of the cost sheet it can be useful to say, say include in the which type of the cost. So, for example, where given here the information is like direct material, now as I told you that in the say for calculating the prime cost we need three things, material, labour, first is the material second is labour and third is the direct overheads.

So, it means we are clearly given, it is simplest form of the example we will increase the level of difficulty in the in the subsequent problems but this is the simplest form of the problem here so directly we are given here, we have the direct material which is required for manufacturing the product which is this firm Alpha India Limited manufactures. Then we are given the direct wages, so always differentiate between wages and salary.

Wages are to be the part of the prime cost and salaries are the administrative overhead and they have to be the part of the administrative cost, so never include the salaries into the wages or wages into the salaries; be very clear wages are direct expense where as the salary is the indirect expense, right. Then we have the direct expenses, so it means it is a direct expense means other direct overheads.

So, we have material, we have wages and we had the other direct expenses, so in this case if you want to prepare the cost sheet and calculate the first component of the cost of the total cost that is a prime cost so we have the three important components of the material labour and other expenses. We have material of 100 thousands worth 100, direct wages 25,000 and direct expenses 5000.

I will prepare it but just for the sake of simplicity see if you calculate the prime cost here it works out to be 130,000 rupees. Now, you will proceed further means once the prime cost is there that is the 130,000 rupees, now next item is wages of foreman, where the foreman works, he works in the factory, he is a technical person what is a direct person, he only is required that there is any defect or any fault when the plant is going on is going on is not like material labour or the other direct expenses, it is indirect overhead but required in the factory, so its a part of the factory cost.

Then is the lighting and power, lighting is required in the factory we know it, power is specially when it is given to us lighting, so it means power, to increase say power, lighting and power is given to us if you look at this we are given the electric power, when it is written only electrical you may get very confused but it is clearly written electric power, electric power is always required in the factory so it will be the indirect factory overhead.

Lighting, you are clearly given, where we need the lighting, we need the lighting in the factory, and we need the lighting in the office also so you have to put the factory lighting in the factory overheads and office lighting in the administrative overheads. Then you have to store keeper wages there are two words, one is a store keeper and other is the warehouse, store we use for storing the raw material and warehouse we normally use the term for storing of the finish goods.

So, if it is a store keeper wages in make it is a part of the factory cost, but if it is a warehouse it make it is a part of the selling and distribution overheads, right. Oil and water clear, it is required in the factory then we talk about the rent, rent is factory and office. Now, clearly given part of rent 5000 is for the factory to be the part of the factory cost and 2500 is the part of the office rent as a part of the administrative overheads.

Repair and renewals factory plant and office premises, you are clearly given that how much is required in the office how much is required in the factory plant 3500 in the factory, 500 in the office, it means 4000 rupees total expense is there on the repair and renewals but clearly given to us.

Carriage outwards, carriage outwards is basically the carriage on sales anything which is going out of the factory that is called as carriage outwards so carriage outwards means what goes out of the factory it is the finished product, it means it is carriage on sales and it will be the part of the sales and distribution over heads of that I will come for calculating the cost of the product to be sold in the market that will be added into the administrative cost as the carriage outwards.

Then we have the next thing is the transfer to reserves, then see reserves are not the part of any cost, reserves are created only in the profit and loss appropriation account but when we have the profit worked out in the profit and loss account then extension of the profit and loss account is a profit and loss appropriation account this is how it is this account, this statement tells us how the profit earned by the firm will be distributed.

Part of the profit goes to the share holders as dividend, part of the profit is transferred to the balance sheet as reserves so it is not at all related to the cost, it is a profit and loss appropriation item and we will not include in the cost sheet anymore, so you have to reject this item. Discounts on the shares written off, it is not a cost sheet item, it is a share capital related item, it will go to the balance sheet and nothing to do here. Depreciation, factory plant, office premises, clear.

Factory plant is a part of the factory cost, office premises is a part of the administrative overheads. Consumable stores, consumable stores are always required in the factory, stores, so it means it is going to the part of the factory overheads and will be the part of the factory cost so in the, while calculating the factory cost of the prime cost you can add consumable stores. Manager salary, you can understand where the managers is sitting, he is sitting in the factory or in the office, he is sitting in the office.

We use a term, manager is in the office is administrative overhead so add up in the factory cost means affecting cost it will be the added up as a administrative overhead and will help us to calculate the cost of production. Director’s fees are again the administrative overhead. Office stationery clearly is administrative overhead, telephone charges again administrative overhead, postage and telegram is again a administrative overhead.

So, these all expenses up till this are expenses related to the prime cost, expenses related to the factory cost and expense related to the cost of production. Now, other expenses here are the expenses which will be after that means calculating the cost of production and these expenses, for example, salesman salary, salesman salary is again the part of the selling and distribution cost which will be added into administrative overheads and will be helping us to calculate the cost of the product to be sold.

Then is the travelling expenses, then is advertising, means travelling expense is normally the allow to the salesman means not clearly given, it can be administrative expense also but travelling expenses we assume here if nothing is specifically mentioned then we assume here that it is allowed only to the salesman and it has to be the part of selling and distribution overhead. So it’s a treated as the selling of distribution overhead.

Advertising certainly it's required for the sales not for any kind of the production. Then we have the warehouse charges; warehouse charges are say 500 rupees. Now you see we have both the things store expenses and warehouse charges also. Store house expenses they will go in the factory cost and warehouse charges will be the cost of the product to be sold, that is cost of sales and that will be added as the selling and distribution overhead not as the administrative or the factory or the prime cost item.

And then after that we have the sales information, so we will prepare the cost sheet and at the end we will write here, mean total cost then is a sale and in between we will create a figure that will be the difference between the sales and the cost and that will be called as the operating profit. We have other items also say, for example, income tax and dividend. Income tax and dividend they also are the part of the profit and loss account. Income tax is a part of profit and loss account and dividend is the part of the profit and loss appropriation account.

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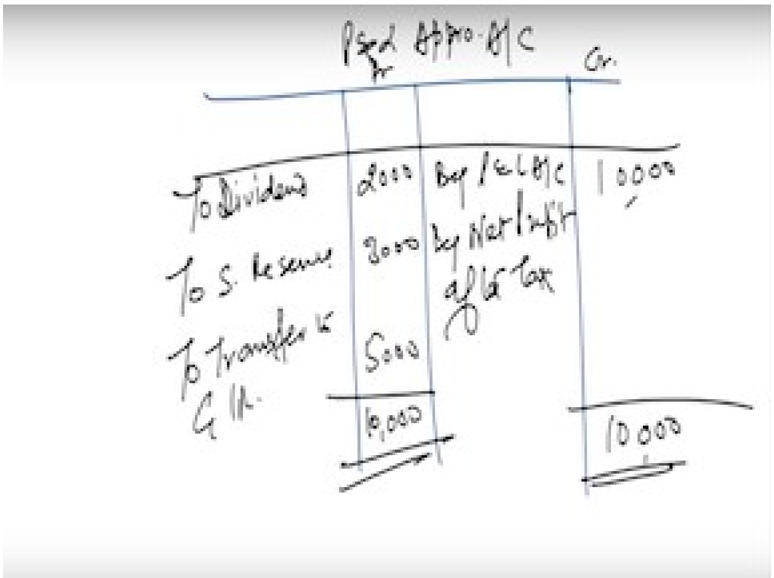

So transfer to the reserves and dividend where the part of the profit and loss appropriation accounts, they are nowhere concerned with the, they are nowhere concerned, for example, you talk about when we prepare the profit and loss appropriation account here this is the same format we are preparing this is called as profit and loss appropriation account so what we do here is we put the total profit on the one side this is account here we want to write here the account and in this case this is the profit and loss appropriation account.

So, what we do here is this is the debit side and this is the credit side, right. So we write here by profit and loss account. Whatever the total profit or you can write here as the by net profit after tax, by net profit after the tax, whatever the total profit amount comes here, for example it is 10000 rupees, right. Now, first of all we will write here to dividend, dividend for example it is 2000 Rupees is distributed as dividend, then to say some specific reserve we want to create.

There are different reserves which are created for the specific purpose we want to transfer 3000 rupees for that and then finally is to transfer, to general reserve and remaining amount will be transferred to the general reserve that amount is say, for example, in this case is 5000 rupees. So, both the sides are equal this is 10000 rupees and this is again 10000 rupees and profit and loss account is balanced.

Just is just recall you I just discuss with you that how this these items for example the transfer to the reserves and the dividend will be taken care of an income tax we provide only in the profit and loss account that is you, you when you calculate the profit after say subtracting all the expenses from the sales value you arrive to at two figures, first is PBT, profit before tax then minus corporate tax on income tax on the firm of the firm's income and it is subtracted you arrive at the PAT, that it is a profit or the net operating profit after tax that is called as no PAT.

So you arrive at the no pat so income tax is required there. So in this total information you will not be making use of the transfer reserve information, discount on shares, written off and then the income tax information and the dividend information. You will not make use of this information you will only use the other items and you should be knowing it very clearly where the which are the prime cost items, which are the factory item, factory cost items, which are the cost of production items, which are sales and distribution items and finally the items which give us the factory cost, prime cost, factory cost, then the cost of production and cost of sales.

So once all these four heads of the cost, sub components of the cost are ready with us we subtract, we calculate the total cost, subtract from the sales and calculate the net operating profit. So, this is the process how we prepare the cost sheet, this is I am theoretically explaining it to you but in the next class I will be preparing here from this information we will prepare the cost sheet and then we will see that how this sheet is prepared.

And a million dollar question is that preparing the cost sheet is not a difficult thing these days we have the IT support systems and if you have the relevant information available with you and put it in the IT systems or in this software it will a generate a cost sheet which will give us the total cost of the product. Here the million dollar question is how to look at that information, we want to see that say what the purpose is, purpose is only the cost of that ascertainment that we do not need management accounting then cost accounting will serve the job.

But if the purpose is a cost control then that's why we have device this statement that purpose is a cost control innovatively so that the efficiency of the product is not compromised but the cost is kept under control brought under control and for that reason we have to look at the different components and sub components of the cost, will have to look that say what is the prime cost what is our factory cost what is the cost of production what is the cost of sales.

Now, who will tell us that whether the cost is more or less, you can make the say time series analysis of your own cost, means over the period of time the cost of production for one particular product of the firm is going up or is remaining stable or is going down. It may be possible the cost is increasing because input cost is increasing, it may be possible that input cost is gone down and it may remain stable this is one way of the comparing it.

Second thing is how means this is a cross-section analysis, cross section analysis means how the other companies are doing in the same field. We have to procure their cost sheet somehow, may be by spying, or may be from some formal informal sources and then we will have to compare that if the other company is able to have X amount of the prime cost and ours cost is more than that why it is so. How they are controlling the cost from where they are procuring the raw material, how they are managing their workers, and how their managing their other direct costs?

Similarly, how they are managing factory overheads. So we will have to compare it and the focal point here is that every company should try to compare it with the leaders' performance because there are the rankings of the firm in the market. One is at the top the others follow how the top firm is able to reach upto that position that how they are able to reduce the cost and to provide very efficient product to the people at that particular price and we are not able to reduce the cost of the product.

So we can make the time series analysis of our cost, our cost in the past or we can make the cross-sectional analysis of the cost of the other firms and finally we can arrive at a conclusion that whether the cost is under control or not and here the cost sheet because we divided into the four components of the cost. So the purpose is that to know it that if at any point of time the cost control is required to be attained or implemented.

We need not to look at the entire cost sheet, will compare our different sub components of the cost with other companies cost and try to find out which point is the weak point. If our prime cost is very high we will look at only three components, material cost, labour cost and the other direct overheads and out of these three also only material cost, for example, is the one which is worth looking because material cost is somewhere 50 to 55 or even sometime 60 percent of the total cost of the product.

So, it is always better to hit upon the bigger element of the cost if you want to implement the cost control, if you want to achieve the cost control then always hit at the biggest element because, for example, if the material cost is 50 percent and we are able to reduce the material cost even by 10 percent of that 50 percent, it means we are able to reduce the overall cost of the product by 5 percent, because it constitute the 50 percent cost of the product of the total cost of the product and if you are able to reduce the material cost even by 10 percent then 5 percent cost of the product overall cost of the product will be reduced.

So you can understand how much big difference is there and if you for example, you, your waste your time in analyzing the other directed over heads. Other direct overheads are for example how much you can say, it is 2 percent of the total cost of the product, even you say manage 50 percent of that how much achievement you are going to make in the total cost of the product. Not a big amount so always we have to look at which are the bigger heads, which are the bigger components of the cost total cost of the product and if you want to control the cost.

For example, we see that the material cost is now very high, we are finding the material cost is very high then you try to find out who are the suppliers of the leader or the best companies in the market who are our suppliers. At what term they are supplying the material to them, at what terms they are supplying the material to us. So we should also be able to have the same terms, the material on the same terms which our competitors are able to have if their sources are different we have to look for the sources, reduce the cost of the material.

So in this case you will have to find out, for example, talk about say I was talking to about the steel sector, in the steel sector there is one source because all the captive minds of the iron ore in India they are in the control of SAIL. So, when the steel sector was opened up for the private sector participation and when we had the Lloyd and SR Steels in the western part of the country and the Jindal Steel in the western part of the country, Vijayanagar Steel Plant in I think in Karnataka.

So now the option with these private sector companies is that either they can import the raw material from the other countries markets or if they have to buy the raw material from India they have to buy it from SAIL. If SAIL is there in the competitor in this product also so SAIL may be possible that Sail may not be selling the material at a price which is a comfortable to them or may be acceptable to them so their choice should be that from where to get raw material, they can import even the raw material from any other country and they can convert that into the finished product to reduce the cost.

For example, now the Jindal Steel Work has been importing the material from the Middle East countries, they have the huge amount of the used steel and they have the huge amount of the even I iron ore also which is available at very cheaper price, they are importing from there and they are reducing the cost of production. So it means we have to see that how to hit the biggest component of the cost which is able to give us the minimum cost.

If we are not able to hit at the biggest component and smallest component which has 2, 3, 4 percent of the contribution to the total cost then what is happening we are only making efforts but we are not achieving results. So, it means make the efforts there only where the outcome is maximum, so and always the golden principle which we have to use here is all the times is the principle of the cost and benefits, cost should always be less than the benefits of derived out of that analysis or of that any say cost control technique, so cost has to be certainly lesser than the benefits available.

If it happens go for it, if it does not happen then do not go for implementing that kind of the decision. So this is how particularly we discuss what is the cost sheet and how we can prepare it what is the relevant information for the cost sheet but how to prepare the cost sheet and how to say finally look at the different components of the cost from this information will prepare cost sheet in the next class and then we will analyze it also that how that cost sheet looks like and how we have to analyze it, that all we will discuss in the next class. Thank you very much.