Management Accounting
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Lecture 27
Flexible Budget – A Mini Case - I

Welcome students, so after learning conceptually the concept of flexible budgeting, now we will discuss, solve a mini case and will try to learn the process of preparing the flexible budgets and in this case we have to first understand the information given in the case. Try to find out what exactly is required in this case and how to prepare the flexible budget for this information, right. For your reference I would like to tell you that these cases, the two cases which I discussed with you in the master budget and this case which I am discussing in case of the flexible budget I have referred to the book, that is, Management Accounting.

The book is entitled as Management Accounting written by C T Horn Green and Stratton this is a Print Sol Publication. All these cases, sub cases, solved and unsolved are given in that book. So for the further reference and if you want to understand this process in detail, if you are not able to understand anything here, for any doubt you can refer to that book, which is easily available in the market, the book is Management Accounting by the C T Horn Green and Stratton and it is the Print Sol Publication.

So, in that book these cases are given is unsolved cases. So, we are, means taking the cases, I am taking the cases from that book which is given in the course plan also, that is first book I have given in the course plan for this course, so you can refer to that book. All these cases are given in that book and I am referring from that book these cases and these unsolved cases I am going to say solve here for your reference so that you can understand the concepts of budgeting, that is the master budget and the flexible budget in the proper manner and in the greater detail, right. So, now, let us understand what is required in this case. What information has been given in this case?

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Flexible Budget

8-A1 Flexible and Static Budgets

	Budget	Actual	Variance
Net revenue	$8,000,000	$7,600,000	$400,000 U
Fuel	$ 160,000	$ 157,000	$ 3,000 F
Repairs and maintenance	80,000	78,000	2,000 F
Supplies and miscellaneous	800,000	788,000	12,000 F
Variable payroll	5,360,000	5,200,000	160,000 F
Total variable costs*	$6,400,000	$6,223,000	$177,000 F
Supervision	$ 180,000	$ 183,000	$ 3,000 U
Rent	160,000	160,000	—
Depreciation	480,000	480,000	—
Other fixed costs	160,000	158,000	2,000 F
Total fixed costs	$ 980,000	$ 981,000	$ 1,000 U
Total costs charged against revenue	$7,380,000	$7,204,000	$176,000 F
Operating income	$ 620,000	$ 396,000	$224,000 U

U = Unfavorable, F = Favorable

Now, what is given here is Drake Shipping Company's general manager reports quarterly to the company president on the firm's operating performance. The company uses a budget based on detailed expectations for the forthcoming quarter. The general manager has just received the condensed, quarterly performance report shown in the exhibit 8.10, which is exhibit given here, this is exhibit, so it 8.10 exhibit given here and in this exhibit the general manager has just received the condensed report, quarterly performance report shown in this exhibit.

And in this exhibit is this that we are given the budget information, we are given the actual information and then we are given the variances also which are calculated, so budgeted information was for the 800, it is 80 lakhs of the revenue and with the budget was for the 80 lakhs, actual performance is 76 lakhs worth of the sales or the revenue and we have found out the variances given in the last column, right. And similarly, you look at this, now information given; the general manager has just received this report the condensed report.

Although the general manager is upset about the not obtaining enough revenue as she was happy that her cost performance was favourable. Though, the revenues are not very much favourable, they have not got the revenue to the larger extent, they are not up to the mark. For example, revenue target was 80 lakhs and for this quarter and actual the revenue has come up is 76 lakhs, so revenue has come down but if you talk about the cost part, so cost has come down and that has been controlled to the larger extent and the cost has decreased.

So, you can say that the variances which are unfavourable means finally in the operating income also if you look at this variance this is negative, that is unfavourable to you can call it as how much see this is the 2,24,000 of the negative variance in the operating income is there but because actual income is 3,96,000 dollars, operating income whereas the budgeted income was 6,20,000, so there is a negative variance of the 2,24,000s but still she is happy that though the revenue is not up to the mark but cost being uncontrolled variances have not gone much beyond the say controlled, they are negative variances but they still means, you can call it as that not very bad, means the situation is still under control.

The president was totally unhappy and remarked, “I can see some merit in comparing actual performance with budgeted performance because we can see whether actual revenue coincided with our best guess for budget purposes but I cannot see how this performance report helps me evaluate cost control performance,” right. So, looking at this information given about the budget and about the actual information and the variances given to us and this information is about the sales, variable cost and the fixed cost and the operating income.

What is a required for us to do? Prepare a columnar flexible budget for Drake Shipping at revenue level of say how much 70 lakhs, 80 lakhs and the 90 lakhs dollars that is a sales level of the 70 lakhs, 80 lakhs, and 90 lakhs of the dollars, so use the format of the last three columns, so it means the format which I have discussed with you in the PPT, we have to use that format and assume that the prices and mixes of the products sold are equal to the budgeted prices and the mix.

Second requirement is the flexible budget for the cost in the formula form and third requirement is prepare a condense table showing the master budget, variances sales activity variances and the flexible budget variances and for that the format which we have to use is, I have already discussed with you in the conceptual part that format is already given in the PPT, so you refer to the PPT for the third statements purpose and you will be very clear about that how to prepare a statement which helps us to calculate the sales activity variance and the flexible budget variance.

Where you have to make the comparison between the master budget and the (static) master budget and the flexible budget, for the same level of production and then the comparison between the actual level of the performance and the flexible budget at par or equal to the flexible budget and then try to find the variances. So, that last statement will be very important for us and after that we can go for the finding out the reasons why the variances

have occurred, where the cost has increased, where the revenues (have) why the revenues have come down.

And what are the reasons that the operating performance has not been up to the mark or the operating loss which was expected to be means the if you talk about the income that was expected to be 6,20,000 dollars but actually it is 3,96,000 dollars so there are the variances of 2,20,000 dollars and they are the unfavourable variances. So these cases you might be finding out they are given in dollars because they are from the foreign authors book, this is an American author, these two or three authors this is the group of authors C T Horn Green, Stratton and one more, they are Americans.

So they have written that in that context but it does not affect us because ultimately the process is same whether you talk about the Indian economy you talk about American economy anywhere. The process of preparing the flexible budget is same, whether you are doing it on dollars rupees or any other currency that does not affect us while learning about the process of flexible budgeting or learning the concept of the flexible budgeting, right.

So, now our job is we have to prepare these required statements and we have to start with preparing the columnar flexible budget for the levels of production that is the 70 lakhs means that is for the 7 million, 8 million and 9 million worth of the revenue and then we will have to make a comparison between the actual sales level that is 76,00,000 revenue and then comparing it with the 80 lakhs of the budget. So budget we are given here is 80 lakhs and actual performance 76 lakhs. So, what we will do here is, we will have to do two things, number one is the master budget is for 80 lakhs means 8 million worth of the dollars actual performance is 76 lakhs dollars.

So, what we have to do here is while preparing that means the finally the summary statement or the variance statement you will put in the last column the master budget information that is 8 million worth of the revenue, then in the third column there will be the flexible budget for the actual level of production that is the 76 lakhs dollars and then comparing the two variances, those variance will come up as sales activity variances. Then you have to prepare the column number one that is the actual performance or the actual results or the actual activity level and then compare the column number three with column number one and then you have to find out the flexible budget variances.

So, we will prepare that statement but before that our requirement in this case is to prepare the budget for different levels of production and sales and these different level of the production or maybe the sales and the cost and the operating incomes and the three levels that is the 7 million, 8 million and 9 million dollars that first we will be preparing and then we will be preparing the statement that is a summary of the performance comparing the master budget of 8 million worth of the revenue with 7.6 billion worth of revenue which is the actual performance and will try to find out the reasons for those variances, right.

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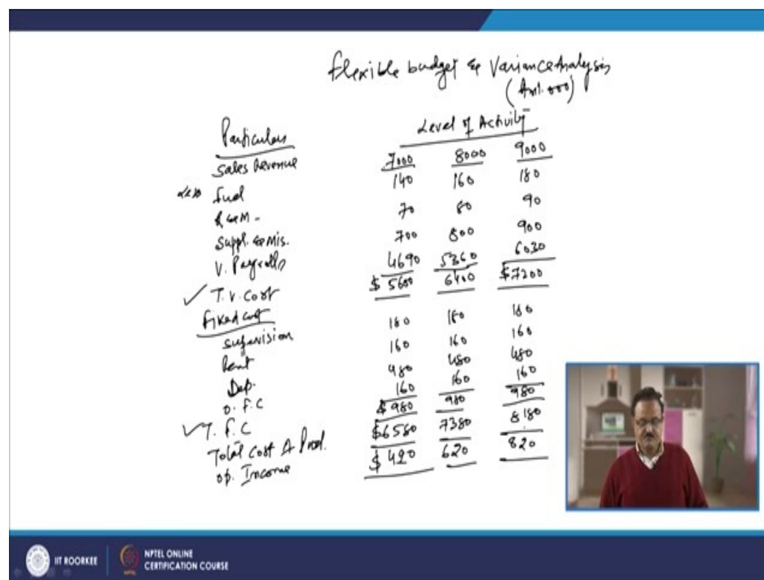

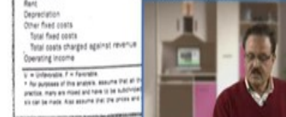

So, now let us go preparing the budget. I will put the title here is flexible budget so the title for this will be flexible budget, flexible budget, and variance analysis, flexible budget and

variance. What is required to be done here, that is the flexible budget, flexible budget and the variance analysis? Variance analysis and the amount we have to take here is that is the amount we have to take here is that is in the thousands of dollars, right. So amount is thousands of dollars we will be taking here and finally we will be preparing this budget.

So, for this purpose we have to prepare a three columnar budget for three levels and if you prepare this budget, so again we will have to create a statement like first column is for particulars, first column is for particulars, then is the you can call it is as the level of the activity, particulars, level of activity. So, particulars, levels of activity, so if you take the level of activity that is first is 7 million, then it is for the 8 million, then is for the 9 million level of the revenue or the sales, right

So we are starting with revenue. What is this because we are taking these figures in thousands so it means finally it is the 70 lakhs, 80 lakhs and then the 90 lakhs and what this amount is, this particular you will put here is the sales revenue. This is the sales level or the sales revenue which is 7, 70 lakhs, 80 lakhs ad 90 lakhs, 7 million, 8 million, and 9 million, right. Now, we will have to take the cost here, less, less, the cost and the first part of the cost is what, that is the variable cost and what is the variable cost, first head is fuel.

So we will take this as that is fuel and second one is the repair and the maintenance so it is the fuel cost. So we have taken the sales revenue which is7 million, 8 million and the 9 million, so it means, now you look at the focal point is the 8 million worth of the revenue which here it is given to us. So, what we have to do is now that to prepare the budget for the two other levels which is not prepared here. So, it is a situation of the static budget and not the flexible budget.

So it means we have to first convert that budget of that 8 million worth of the revenue to the 7 million and 9 million and then we have to compare the performance which is actual and which somewhere in between the say this is 8 and 9, so here the focal point is 8 million so you can simply, say that the variable costs are proportionate to the change in the level of the revenue or the level of the sales. So variable cost changes in the same proportion, if the revenue goes up variable cost will go up, total variable cost will go up, if the revenue comes down, variable cost will come down.

So, we are assuming here that, for example, 8 million level of the revenue, here fuel cost is how much i.e. 1,60,000 dollars. So, it is 1,60,000 dollars so I am putting it here 1,60,000

dollars, so proportionately coming down how would it be much would it be for this level that is 1,40,000 and if you increase the level from 8 million to 9 million. So, this will be, what it is 1,80,0000. So, in this case we have found out the fuel cost for the three levels taking the 8 million worth of the revenue as the base.

Next is the repair and maintenance, repair and maintenance, so if you take the repair and maintenance what is the repair maintenance cost here, repair and maintenance cost given here is 80,000. So, proportionally we will have to change it, putting here as 80,000 thousand taking from that case how much will it be 70,000 and in this case it will come out as 90,000, that is repair and maintenance. Next item is what, next head is supplies and miscellaneous, so it is supplies and miscellaneous, so how much it is, supplies and miscellaneous is going to be how much, this is 800 given to us.

And for this, this will come up as 700 and this will come up as 900, right? This supplies and miscellaneous and then is the variable payroll. Next item is variable pay rolls. So, if we take the variable pay rolls, how much it is given for the 8 million. It is given to us is the 5360, so we will take it as 5360 and proportionately bringing it down, so it will work out as 46 something, 4690, for this and in this case it will work out as 6030 right. 6030 as the variable pay rolls and is there anything left, fuel, repair and maintenance, supplies and miscellaneous, variable pay rolls.

So, it means almost we have taken everything here also given only the four things so we have taken here and what is the total variable cost. Total variable cost is how much you total it up. The total variable cost is how much, we are taking it up as the total variable cost and total variable cost level is how much 6400, 64 hundred thousand or the 64 lakhs. At this level it should be proportionately coming down means 56 lakhs dollars and in this case it will be automatically going up to 72 lakh dollars, right.

So this is the total variable cost we are taking here. Now, we will have to go for subtracting. This is the total variable cost and now we will go for the less fixed cost. This is a total variable cost we calculated here. Now, let us calculate the fixed cost, fixed cost and finally we will calculate the, say your total profit means the total cost we will calculate and will calculate the operating income. So, what is the fixed cost now? Fixed cost will not change at all because for the 8 million level, what is the fixed cost 180, 160, 480 and 160, that will remain the same.

So, you cannot change this, so what is this first is the supervision. Supervision cost is how much, it is 180 and then we will take the next one, it is again the 180 here. Whatever the level of the production in sales you have that will not change again and again it will 180. This is the supervision. Then is the supervision, right. Next head is rent. Rent is also the fixed cost and it is again 160, then 160 and then it is 160, fine. Then is the depreciation, what is the depreciation cost now, depreciation is 480. 480 and it is the 480, right.

Then is the other fixed cost OFC, other fixed costs is what is given to us is 160, this is again 160 and this is again hundred and sixty thousand so it is 1,80,000, 1,60,000, 4,80,000 and 1,60,000, right. Now you calculate the total fixed cost. This is the total variable cost, now you calculate the total fixed cost. So, what is the total fixed cost, total fixed cost here is how much, total fixed cost if you take here is this works out as 567, it is 980. 980 thousand dollars, 980 thousand dollars, 980 thousand dollars, right. This is the fixed cost so you can close it and finally summing up the total variable cost and total fixed cost.

If you take these two into consideration how should works out as total cost. Total cost of production and if you take the total cost of production here how much is this, this will be 6580 dollars then it is 7380 dollars and then is it 8180 dollars, right. Now, we calculate the operating income. This is the operating income, if you calculate the operating income so how it will be calculated. It will be sales minus this amount. What is the sale? It is 7millions and how much is the total cost is 6.5 million. So it means what is going to be now the operating income.

The operating income will be you can say that is 400 dollar, 420,000; 42,000 dollars. Then it is how much it is 620 dollars, 620,000 dollars and then lastly it is 820 for the 9 million level of revenue. 620 for 8 million level of revenue and 420 for the 7 million level of revenue. So, this is the flexible budget and the variance analysis. So, first we have created a flexible budget and now we will go for the variance analysis. So we will prepare the second statement for that and while preparing the second statement for that we will have to first create the columns for this variance analysis. So budget, flexible budget part we have done and this variance analysis we will do in the next statement.

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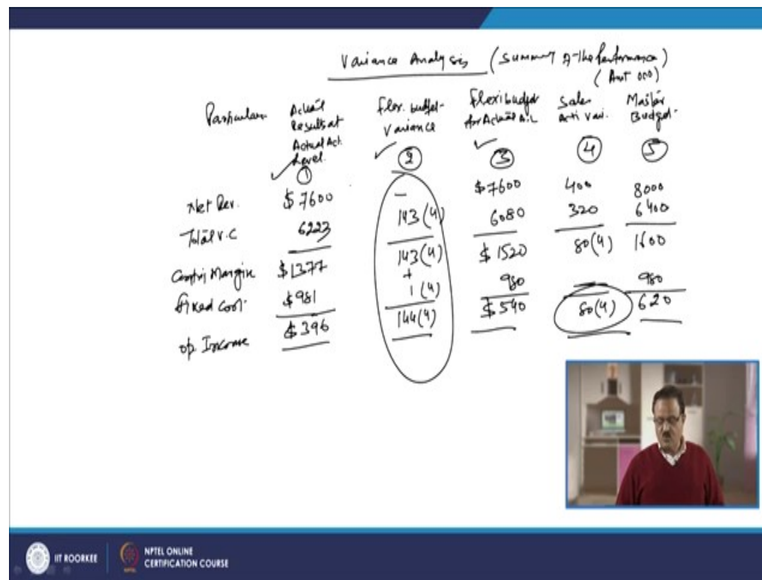

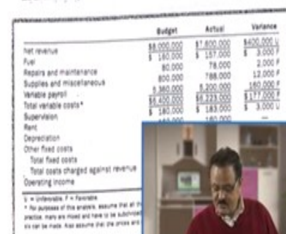

So, let us go for that statement. Next statement is the summary of the performance of the variance analysis as you can say; this is called as the variance analysis. Variance analysis, so variance analysis as I told you we have to create how many columns we have to create five columns and five columns are, first one is the actual results, so first column will be for particulars, then we have to have actual results, actual results at actual activity level, at actual activity level, actual result at actual activity level. Then is the flexible budget, flexible budget for actual activity level, actual activity level and last is the, you call it as the master budget.

Last column is the master budget, if you recall that statement which I discussed with you the PPT, you will find this statement as the master budget and this is the column number one, this

is the column number three and this is the column number five. In between this and this the variance will be called as the sales activity variance, sales activity variance and this column will be known as the flexible budget variance, this is the flexible budget variance, this is the flexible budget variance.

This is the column number two and this is the column number four, right. So these are the total columns and this is the statement which is called as the variance analysis or you can call it as summary of the performance, summary of the performance. This is the summary of the performance, right. So, now we have created this variance analysis statement we have created and in this variance analysis statement we are going to now put the figures, right. Now what is the, we will start with particulars and what is our particulars here, net revenue. What is the net revenue here?

Now actual results or the actual activities level how much, that will again be in say you can call it as thousands the amount will be how much, it is in the amount will be in the thousands, right. So, what is actual results or the actual activity level, that is the 76,00,000, flexible budget again for 76,00,000 level of the revenue but what was the master budget, master budget was for the 8 million, this is for the 8 million, so it is 7.6 million is the actual results we have to convert the budget for 7.6 million and the master budget information is the 8 million worth of the revenue.

This is the net revenue and in this we have to calculate the variants, so if we calculate the variants, it comes out as 400, your sales activity has come down by 400,000 and what is the flexible budget variance? There is not variance expected in the flexible budget and the actual results so there is nil variance here, we are not going to have, we are not expecting any variance; there should not be any kinds of the variance and now we take the total variable cost, total variable cost.

What is the total variable cost, at this level the expected was, we will put here 64,00,000; 6.4 million dollars cost, variable cost was expected and in proportion to that if you bring it down this should be 6080 for the reduced level of decreased level of performance that is for the 7.6 million worth of revenue, if you are selling worth rupees 7.6 million in the market, your variable cost proportionally should come down to 6080 but what is the actual variable cost? The actual variable cost which is given to us.

Look at the statement here, the actual variable cost is how much? That is the 6223 that is the variance has come up. 6223, this is 6223 and now we will have to find out the variance and if you take the variance here, this variance works out as how much, 143 unfavourable, this variance is 143 unfavourable and what is the variance between this and this? This variance is 320 so it means, now if you calculate the, say we have taken the net revenue, we have taken the total variable cost and now we calculate the contribution margin, right, we will calculate now the contribution margin here.

What is the contribution margin? Contribution margin, if you calculate the contribution margin, what is the contribution margin here? It is 1377 dollars was expected which is, the revenue level is 7.6 million and your total variable cost is 6.223 million so it means the margin, the contribution margin expected was or the actual contribution margin was 30,77,000 and if you look at the contribution expected at the flexible budget level then that should have been how much? 7600 minus 6080 that was expected to be 1520 right.

And the variance here which we have experienced here that is the, again the variance is 143, that is negative that is unfavourable that is the difference of 1520 minus 1377 so this is the variance and same figure has come here. There is no variance in the revenue level and if you calculate this variance here, it was expected to be how much? 1600,000 and actually it is how much? We have taken this as 80 which is unfavourable so means naturally this has to be there that at the 8 million level of sales your contribution expected was 1600 thousands and at the budgeted level of the 7.6 million worth of revenue.

The contribution expected was 1520 so there is a negative variance of 80 thousands. So this is not very important, the important variance is this which is 143 unfavourable which should not have been there right? Now we talk about the fixed cost, we talk about the fixed cost. So what is the fixed cost here? Fixed cost, now we see, what was the expected fixed cost? Look at the statement: the expected fixed cost was total is 980 but actually it is 981 for the 7.6 million level of the revenue. So, 980 were expected here and at this level also it was expected to be how much?

It was expected to be again the same level and that is 980, but actually it is 981 thousand dollars, so now there is the variance. At this level no variance is expected but at this level the variance has come up and that variance is how much, that variance is 1 and that is unfavourable. So, finally let us now find out the operating income. If you calculate the operating income here, after subtracting the total cost; variable cost and fixed cost from the

sales revenue, so your operating income comes up as how much? At the actual result, at the actual activity level is, what is this? This is 1337 minus 981.

This is something like 396 thousand dollars, how much it is? It is coming up as 144 unfavourable, this plus this, these two. And here it is how much it is, this is 1520 minus 980 this is expected to be how much? That is 520 thousands and if you see this, this variance was expected to be, means this operating income, budgeted operating income at the master budget level expected was how much? That is 620, but actually at the flexible budget level it was expected to come down to 540 so this variance is going to be certainly there and that is 80 unfavourable.

So, in any case this variance is not important because your master budget is for the 8 million worth of the revenue and the actual performance has come down by the 4 lakhs. So, it means it has come down to 7.6 million of the revenue so these two columns are important for us; column number 1 and column number 3 and this variance which has occurred because of the difference between the performance level of the two columns, so column number 1 and column number 3 and these variance have come up.

So, we have seen the variances, negative variance in the variable cost also and the cause of concern here is that we have seen the variance in the fixed cost also so which is not permissible, which is not desirable so we will have to look for that, what has happened here. So operating income means, if you look at this final statement; the operating income which was expected to be 540 thousand dollars at the, say performance level of 7.6 million worth of revenue but actually it has come down to 396 thousand dollars and there a negative variance, unfavourable variance of how much, 144 thousand dollars, which is a cause of concern.

If you look at this condensed statement or the summary report, you can easily find out that this variance has come up because of the two reasons because both the components of the cost have become very high as compared to the budgeted level. So the variable cost has also gone up by 1,43,000 dollars and fixed cost has gone up by 1000 dollars. So because of that the total negative variance, we have found out here, that is 1,44,00 dollars; because of which operating income has come down from the budgeted level of the 542; 396,000 dollars which is a serious cause of concern.

So, after knowing all of this, by preparing the summary report or the variance analysis, now we will have to go in detail, we will have to find out the detailed analysis of this column we

have to do. And we have to further dissect these variances that why this negative variances in the variable cost have occurred, why there are negative variances in the fixed cost, why the fixed cost has gone up, why the variable cost has gone up, why the negative variances are in the variable cost, why the negative variances in the fixed cost and we will have to go for the further analysis of this column.

And on the basis of this information; analysis of these variances, we will have to take the corrective actions and we will have to make sure that this time variable cost has increased and affected our operating income, fixed cost has increased and affected our operating income negatively; this should not happen in the next quarter next time so we will analyse this in detail so by preparing another statement and then we will try to find out the reasons and fixed the reasons so that this type of variances do not reoccur and they do not affect our operating income negatively.

So, that next statement explaining the reasons for this variances, negative variances amounting to total of 144,000; I will prepare the next statement. The third statement and that statement will be prepared in the next class and try to know the reasons about the negative variances which have occurred here in the variable cost and the fixed cost. Thank you very much.