



Start-up Village Entrepreneurship Programme

FACULTY MANUAL

Team B Module



Aajeevika
National Rural Livelihoods Mission
Government of India



Kudumbashree
Kerala State Poverty Eradication Mission
Government of Kerala

Kudumbashree-National Resource Organization

Published by

Kudumbashree – National Resource Organization

Contributors:

Sajith Sukumaran & Kurian George

Illustrations:

Deepak Sivarajan

Cover Photo Courtesy : Nishanth Chavan, **State Project Coordinator**

Photo Details: Community Resource Person for Enterprise Promotion (CRP-EP) Vijayakumari conducting enterprise census in Waltair Gram Panchayath, Srikakulam, Andhra Pradesh

PREFACE

Kudumbashree National Resource Organisation (KS - NRO) began working in the area of enterprise promotion in the year 2013 initially with Bihar and Jharkhand States, by supporting entrepreneurs among the rural poor. The partnerships have steadily grown and have increased to six States under the Micro Enterprise Consultants (MEC) Project and seven States under the Start-up Village Entrepreneurship Programme (SVEP). This work has been based on the experiences of Kudumbashree, the State Poverty Eradication Mission of Kerala, which has been working with more than thirty thousand enterprises in the State.

The Micro Enterprise Consultants (MEC) Project focuses on building an ecosystem for supporting and encouraging rural entrepreneurship. Capacity building of micro enterprise consultants being one of the most important tasks on hand, a lot of work has gone into developing a systematic process for meeting their training needs. The initial training modules to be used under the MEC project were developed by Kudumbashree Training Resources for Enabling Enterprises (TREE) Society, a professional training group run by practicing entrepreneurs and professionals. Later, these modules were incorporated under SVEP to impart training to Community Resource Persons -Enterprise Promotion (CRP-EP) in Kerala, Rajasthan, Jharkhand, and Bihar. With the objective of standardising training tools for SVEP, the National Rural Livelihoods Mission (NRLM) has entrusted the task to Kudumbashree NRO so that it can be used by SRLMs across the country.

The book Faculty Manual developed under the Start-up Village Entrepreneurship Programme (SVEP), is part of a set of three training tools developed for enhancing the skill sets of CRP-EPs. The other two are (1) Classroom Teaching Aids and Participant Handbook. Faculty Manual, which covers TEAM (Training in Enterprise Administration and Management) training programme developed by TREE Society for Kudumbashree has been divided into two parts- TEAM A and TEAM B.

TEAM A includes a general preparatory session on mathematics, various types of businesses, understanding customers, and making products. TEAM B covers topics such as generation of financial statements, business diagnostics, and opportunity identification. The modules can be used by faculty members for providing training to MECs and CRP EPs under SVEP.

It should be noted that these training materials have been developed based on years of experiences of working with enterprises and are intended to be continuously improved through its practical usage.

Kudumbashree NRO

INDEX

Sr. No.	Module	Page number
1	MATHEMATICS PREPARATORY II	3
	Recap of percentages and advanced problems in percentages	4
	Recap of simple equations and advanced problems in simple equations	12
2	INTRODUCTION TO FINANCIAL STATEMENTS	19
	Part 1- Introduction to Profit and Loss Statement	21
	Revenues, costs and profits	21
	Components of P& L statement – Revenues and costs	25
	Direct Costs and Inventory	30
	Cash & Profits are not the same	35
	P&L and Loans	37
	Components of P&L statement – Gross profits and Net Profits	39
	Profitability	43
	Part 2 – Introduction to Cash Flow Statement	46
	Cash and credit in Business and effects on Profit	47
	Cash Management	53
	Cash Flow Statement	55
	Part 3- Introduction to Balance Sheet	59
	Assessing long-term health of a business	59
	Components of the Balance Sheet	61
	Balance Sheet Preparation	64
3	PREPARING FINANCIAL STATEMENTS	67
	Understanding financial transactions in a business and its impact	68
	Preparing financial statements for Year 1 of a business	78
	Preparing financial statements for Year 2 of a business	84
	Linking Records with Financial Statements	95

4	UNDERSTANDING CAPITAL	99
	Types of Capital	100
	Fixed Capital	103
	Working Capital	108
5	CALCULATION OF WORKING CAPITAL	113
	Cash inflows and cash outflows	114
	Calculating working capital – Step 1	116
	Calculating working capital – Step 2	118
	Calculating working capital – Step 3	120
	Calculating working capital – Step 4	122
	End of day exercise	124
6	MANAGING CAPITAL	126
	Source of Capital	127
	Managing Fixed Capital	130
	Managing Working Capital	133
7	BREAKEVEN ANALYSIS	135
	Breakeven Point	136
	A different way to look at the costs- Fixed and Variable costs	138
	Calculating breakeven for single product business	142
	Calculating breakeven for business with more than one product	147
	Calculating breakeven for service and production businesses	150
	Exercise	154
8	IDENTIFYING AND EVALUATING FEASIBLE BUSINESS OPPORTUNITIES	155
	Understanding feasibility of business opportunities	156
	Factors contributing to business opportunities	159
	Checklist for evaluation opportunities	163
9	HOW TO PROVIDE CONSULTING SERVICES	166
	What is consulting?	167
	Expectations and requirements	169
	Value creation for the client	170
	Building trust with client	171
	Service offering to focus on	172
	Pricing for your services	174
	Keeping the relationship going	177

Mathematics Preparatory ii

In the first module of Part A, we have been introduced to some basic concepts in maths.

We will now revise some of these concepts before moving on to solving more difficult problems using these concepts.



This module introduces the second module on maths to the participants in two sections. The following table summarises the sections and the topics covered.

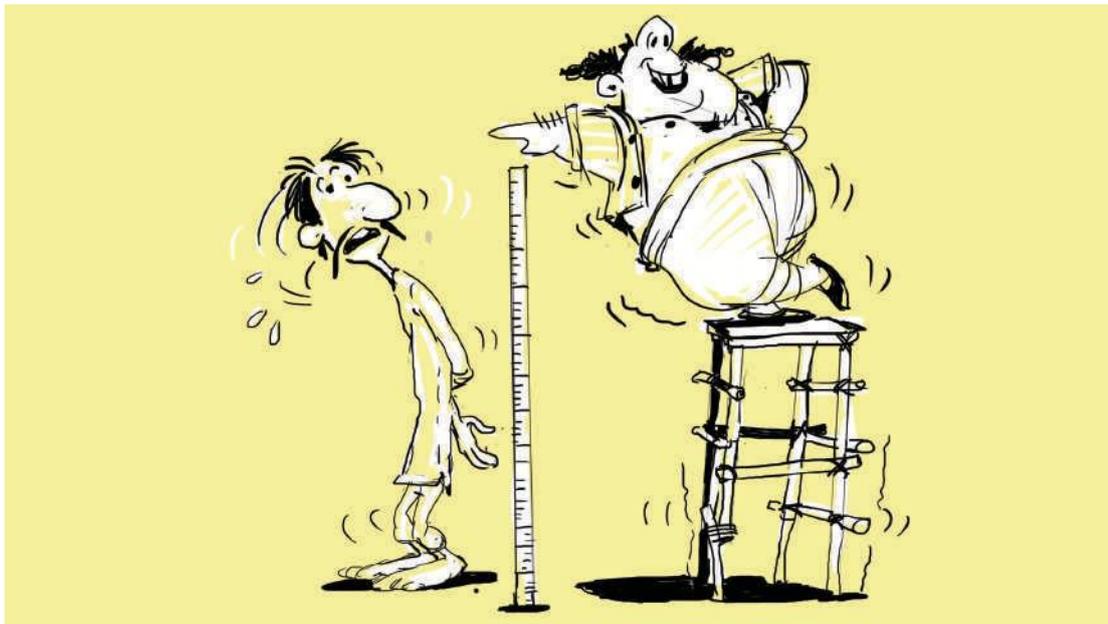
The first and second column shows the order of the sections and topic covered in each section. The next column shows page numbers corresponding to each section in this chapter. The corresponding slide Numbers in the Classroom Teaching Aid are shown against each section.

Sections	Topics	Page Nos in this Manual	Slide Numbers
1	Recap of percentages and advanced problems in percentages	1 - 8	3 – 8
2	Recap of simple equations and advanced problems in simple equations	9 - 14	10 – 14

Now let us move on to the first section, which is 'Why we teach Mathematics?'

Section 1

Recap of Percentages and Advanced Problems in Percentages



What will you say at the start of this section?

In the first module on Math in Part A, we were introduced to the concept of percentages to help us make complex comparisons.

We will look at this in more detail now and use it in solving complex problems related to business. We will first recap what we learnt about percentages in Mathematics Preparatory 1 in Part A.

How Will You Teach This Section?



Recap



Remind the participants of the example of comparing the heights of two participants, who are standing on stools of different heights.



Ask the participants how such complex comparisons can be made.



Then, say the following:

We saw that such comparisons can be made only after the ground (or the height of the stool) is made equal first.

This is where we saw the use of percentages come in. Percentages help us make the ground equal while comparing two items. This is done by making the ground equal to 100 for both items.

Now let us revise the steps for calculating percentages.

Show slide 3.



Ask the participants to calculate percentage of water in the milk provided by Chandru if he adds 6 litres of water to 24 litres of milk.

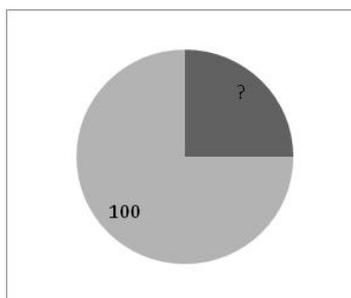
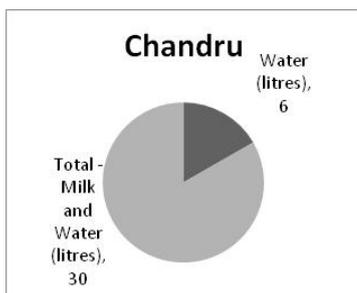


Ask a few participants to work it out on the board and then show the following solution on the board step by step.



We know that the “part” (which is water here) is 6 litres and the “total” (which is total volume of water and milk) is $24+6$ i.e. 30 litres here. To convert this into percentage, we know we need to find the “part” when the total is 100 litres.

Step 1: We start off by keeping the two pictures of the above situation next to each other.



We know that the above two pictures are different ways of expressing the same thing.

Step 2: We now make a table with two columns and two rows.

Step 3: We now fill the table by first writing the missing number in the bottom right corner. We also name the columns based on the missing number. Since we know that the missing number is a “Part”. We name that column as the “Part” portion of the house. We name the other column “Total” based on the total or ground part of the houses.

Total	Part
	?

Step 4: We next write equivalent number in the other house directly above it. The equivalent number (i.e. Part) in the other house we know is 6.

Total	Part
	6
	?

Step 5: We will now write the “total” number corresponding to the parts next to it. We know that for the first house this is 30 and for the other house, it is 100.

Total	Part
30	6
100	?

Step 6: We will now use an inverted (ultra) ‘L’ tool for helping us calculate the missing number. This tool will have the division symbol on one side and the multiplication symbol on the other side. We keep this tool above the table as shown below.

	÷	
X	Total	Part
		6
		?

Step 7: We will now see the actual calculation.

Show slide 4.

To find “?”, we start from the number we first wrote on the table after ? i.e. 6. Since the division symbol is above 6 and 30, we divide 6 by 30 i.e. $6 \div 30$. Since the multiplication symbol is above 30 and 100, we multiply $6 \div 30$ with 100 i.e. $6 \div 30 \times 100$.

We have seen that $6 \div 30 \times 100$ is 20 by following the steps in the previous section.

20, the missing number is the volume of water in 100 litres. Total volume of water and milk provided by Chandru OR we can say that 20% is the percentage of water in the total volume of milk and water provided by Chandru.

Thus, when we change the ground to 100, 6 litres of water in 30 litres of water and milk becomes 20 litres of water or 20%.

In the rest of this section, we will see the use of percentages to solve complex problems in business.

For calculating percentages, we can simplify the above steps by directly using the formula:

$$\frac{\text{Part}}{\text{Total}} \times 100$$

In the above case, we can find percentage of water by directly calculating $6/30 \times 100 = 20\%$ water.

Advanced problems in percentages

Let us now see the application of percentages in profitability.



Show slide 5.



In the module ‘Introduction to Business’, we saw that profitability is defined as the relationship between profit and revenue that is expressed as a percentage.

We will now try to understand what this means.

This means that profit is a “part” of the “total”, which is the revenue. The other part we know is

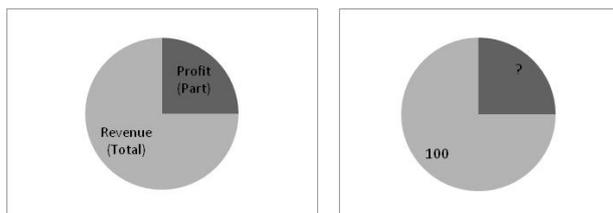
the cost. Since profit is only a part, it wouldn't be correct to compare two profits without making the "ground" or "total" equal.

This is where profitability comes in.

Profitability is the profit when the total or ground, which is revenue, is made equal to 100.



Show the following steps on the board one by one.



Repeating the steps for calculating percentage, we can calculate profitability in the following way.

Step 1: We start off by keeping the two pictures of the above situation next to each other as shown above.

Step 2: We now make a table with two columns and two rows.

Step 3: We now fill the table by first writing the missing number i.e. Profitability in the bottom right corner. We also name the columns based on the missing number. Since we know that the missing number is a "Part". We name that column as the "Part" portion of the house. We name the other column "Total" based on the total or ground part of the houses.

Total (Revenue)	Part (Profit)
	?

Step 4: We next write equivalent number in the other house directly above it. The equivalent number (i.e. Part) in the other house we know is Profit.

Total	Part
	Profit
	?

Step 5: We will now write the "total" number corresponding to the parts next to it. We know that for the first house this is Revenue and for the other house, it is 100.

Total	Part
Revenue	Profit
100	?

Step 6: We will now use an inverted (ultra) 'L' tool for helping us calculate the missing number. This tool will have the division symbol on one side and the multiplication symbol on the other side. We

keep this tool above the table as shown below.

X	÷	
	Total	Part
	Revenue	Profit
	100	?

Step 7: We will now see the actual calculation.

To find “?”, we start from the number we first wrote on the table after ? i.e. Profit. Since the division symbol is above Profit and Revenue, we divide Profit by Revenue i.e. Profit ÷ Revenue. Since the multiplication symbol is above Revenue and 100, we multiply Profit ÷ Revenue with 100.

Thus, we can get the missing number i.e. Profitability with the above calculation or formula:

$$\frac{\text{Profit}}{\text{Revenue}} \times 100$$



Let us now try to solve the problem on the slide (slide 5) using the above steps.

- If Ravi’s business has made a profit of Rs. 16,000 and his total revenue was Rs. 80,000, what was his business’s profitability ?



Ask the participants to work out themselves and a few of them to work it out on the board.



Hide the solution.

Once the participants have attempted the problem, discuss the following solution. Show slide 5 only after participants have worked out the problem themselves.

We will combine some of the steps to save time.

Step 1: We start off by keeping the two pictures of the above situation next to each other.



Step 2,3,4 and 5: We will make the following table and write down the values starting with the ? on the bottom right. We then name the column with ? part or total based on what kind of item it is and name the other column as well. We then write equivalent item in the other house directly above it. We then write the item in the house next to each of the first two items

Total (Revenue)	Part (Profit)
80,000	16,000
100	?

Step 6: We will now use an inverted (ulta) ‘L’ tool for helping us calculate the missing number. This

tool will have the division symbol on one side and the multiplication symbol on the other side. We keep this tool above the table as shown below.

X	÷	
	Total (Revenue)	Part (Profit)
	80,000	16,000
	100	?

Step 7: We will now do the actual calculation.

To find “?”, we start from the number we first wrote on the table after ? i.e. Profit. Since the division symbol is above Profit and Revenue, we divide Profit by Revenue i.e. Profit ÷ Revenue. Since the multiplication symbol is above Revenue and 100, we multiply Profit ÷ Revenue with 100.

OR

we can directly apply the formula $\frac{\text{Profit}}{\text{Revenue}} \times 100$ to get:

$$16,000 \div 80,000 \times 100 = 20$$

Thus we get profitability as 20% meaning profit of the business is Rs. 20 when revenue is Rs. 100.

Based on the understanding of the participants, give more examples if needed with different values of profit and revenue.

Now that we have understood how to calculate profitability, let us see another problem where the profitability is given but another item, profit, is missing.

- If Ravi’s business has total revenue of Rs. 1,25,000 and the business’s profitability was 10%, what was his profit ?

Ask the participants to work out themselves and a few of them to work it out on the board.



Hide the solution.

Once the participants have attempted the problem, discuss the following solution. Show slide 6.



We can solve the problem using the same steps. In this question, profitability, and revenue (total) is given while profit (part) is missing or ?.

Profitability is 10% means that when revenue (Total) is 100, profit is 10. We show this in the second house.

Step 1: We start off by keeping the two pictures of the above situation next to each other.



Step 2,3,4 and 5: We will make the following table and write down the values starting with the ? on the bottom right. We then name the column with ? part or total based on what kind of item it is and name the other column as well. We then write equivalent item in the other house directly above it. We then write the item in the house next to each of the first two items

Total (Revenue)	Part (Profit)
100	10
1,25,000	?

Step 6: We will now use an inverted (ultra) 'L' tool for helping us calculate the missing number. This tool will have the division symbol on one side and the multiplication symbol on the other side. We keep this tool above the table as shown below.

	÷	
X	Total (Revenue)	Part (Profit)
	100	10
	1,25,000	?

Step 7: We will now do the actual calculation.

To find "?", we start from the number we first wrote on the table after ? i.e. 10. Since the division symbol is above 10 and 100, we divide 10 by 100 i.e. $10 \div 100$. Since the multiplication symbol is above 100 and 1,25,000, we multiply $10 \div 100$ with 1,25,000.

i.e. $10 \div 100 \times 1,25,000$ to get 12,500.

Therefore, Rs. 12,500 is the profit when the revenue is Rs. 1,25,000 and the profitability is 10%.

Let us see another problem where the profitability is given but another item, revenue, is missing.

- If Ravi's business made Rs. 25,000 as profit. If his profitability was 20% what was his total revenue?



Ask the participants to work out themselves and a few of them to work it out on the board. Hide the solution.

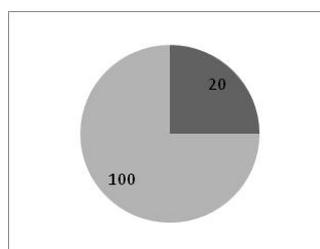
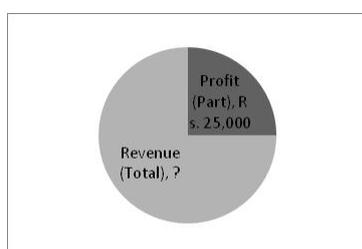


Once the participants have attempted the problem, discuss the following solution. Show slide 7.

We can solve the problem using the same steps. In this question, profitability, and profit (part) is given while revenue (total) is missing or ?.

Profitability is 20% means that when revenue (Total) is 100, profit is 20. We show this in the second house.

Step 1: We start off by keeping the two pictures of the above situation next to each other.



Step 2,3,4 and 5: We will make the following table and write down the values starting with the ? on the bottom right. We then name the column with ? part or total based on what kind of item it is and name the other column as well. We then write equivalent item in the other house directly above it. We then write the item in the house next to each of the first two items

Part (Profit)	Total (Revenue)
20	100
25,000	?

Step 6: We will now use an inverted (ultra) 'L' tool for helping us calculate the missing number. This tool will have the division symbol on one side and the multiplication symbol on the other side. We keep this tool above the table as shown below.

X	÷	
	Part (Profit)	Total (Revenue)
	20	100
	25,000	?

Step 7: We will now do the actual calculation.

To find “?”, we start from the number we first wrote on the table after ? i.e. 100. Since the division symbol is above 100 and 20, we divide 100 by 20 i.e. $100 \div 20$. Since the multiplication symbol is above 20 and 25,000, we multiply $100 \div 20$ with 25,000.

i.e. $100 \div 20 \times 25,000$ to get 125,000.

Therefore, Rs. 125,000 is the revenue when the profit is Rs. 25,000 and the profitability is 20%.

What will you say at the end of this section?

Conclude by revising the following key points on percentages.

Show slide 8.



- Percentages are used to express relationship between numbers.
- In business, profitability is the relationship between profit and revenue expressed as %

Section 2

Recap of Simple Equations and Advanced problems in Simple Equations

What will you say at the start of this section?

In the previous module on Maths Preparatory, we were introduced to the concept of simple equations. We saw how simple equation can help us to solve problems more easily not only in business but also in our daily lives. We will first revise these concepts in this section before seeing some advanced problems in simple equations. This will help us in supporting businesses.

How Will You Teach This Section?



Recap

Equations are mathematical models used for solving problems. An equation is used to show that two quantities on either side of the '=' sign are equal.



Show the weighing balance with the "=" sign pasted in the middle to revise the concept of equations.

Let us revise equations by using the example we used in the previous module.

You bought 6 kgs of potatoes for Rs. 72. What is the cost of 1 kg of potato?



Ask the participants to write down the equation for this problem by speaking out the problem aloud and writing the equation alongside.



Show slide 10 once they are done.

6 x price of 1 kg of potatoes is 72

i.e. $6 \times p = 72$ where p is the price of 1 kg of potatoes



Now ask them to recollect the following steps to solve an equation that they learnt in the previous module.

Ask the participants to explain each step for solving the equation $6 \times p = 72$.

To solve equations, we will follow four simple steps.

Step 1: Circle what you don't know in the equation

We don't know the value of p in the equation $6 \times p = 72$. Therefore, we circle p – the person that we don't know.

Step 2: See who is its friend

The friend of any a person (number or letter) in an equation is the operation next to it. Therefore, in the equation $6 \times p = 72$, the friend is 'x' – multiplication.

Step 3: Use the opposites card to find the opposite of the friend

The opposites card is a card which tells you the opposites of different operation. We have already seen this in section 2 – Understanding Operations and Fractions. We learnt there that addition and subtraction are opposites while multiplication and division are opposites. The opposites card is an easy way to remember this.

+	opposite	-
x	opposite	/

Therefore, in the equation $6 \times p = 72$, the opposite of x is /.

Step 4: We apply the operation, which is the opposite of the friend, to both sides of the equation with the person attached to the friend in the equation

The person attached to the friend, other than the unknown person p, is 6.

Therefore we divide by 6 on both sides of the equation.

Therefore,

$$\frac{(6xp)}{6} = \frac{72}{6}$$

We solve both sides of the equation separately.

We know from the rules for multiplication of fractions learnt in section 2 that we can divide the top floor and bottom floor by the same number.

Let us divide the top floor and bottom floor of the left hand side by 6 and the top floor and the bottom floor of the right hand side also by 6 as shown below.

$$\frac{(\cancel{6}^1xp)}{\cancel{6}} = 12$$

$$p=12$$

We also saw two shortcuts that can be used to simplify the solving of equations.

Ask the participants what these are and explain the following.

Shortcut 1 → $3 \times a$ can be written as $3a$

Shortcut 2 → $3a + 4a = 14 \rightarrow 7a = 14$

We also saw how to replace unknown persons with numbers when their value is known.

i.e. if $3x + 4y = 20$



and value of y is 3. Then we can rewrite the equation as:

$3x + 4 \times 3 = 20$ or $3x + 12 = 20$. Thereafter, we can solve for x using the steps we learnt above.

We also solved certain examples in business where calculation of profits were involved.



Ask the participants what is the commonly used equation seen by us on profits.

Then explain the following equation: Profit = Revenue – Costs.

How to solve more difficult equations

But before we move ahead, we will introduce a few more steps to the steps we have already seen in the previous module to help us solve more difficult equations.

We have already seen the 4 steps required to solve simple equations. However, to solve more difficult problems we will need more steps.

We will see what these steps are:

In the problems we have seen so far, there has only been limited application of division operation. In the problems that we will see now, we will see more and more division operations in the problems.

Therefore, the first step for us will be to identify these operations and the numbers involved. Since these are usually in the form of, let us imagine this as a house with 2 floors.

Step 1: Identify the houses in the equation and circle them.

Step 2: In each of these houses, see if the top floor or the bottom floor can be simplified or worked out using the basic mathematical operations

Step 3: If any of the houses are being multiplied to another number, see if the number being multiplied is the same as the ground floor. If so, cancel the ground floor and the number being multiplied. Else, multiply all the members of the top floor with that number.

Step 4: Now, see if house can be solved directly by dividing top floor by bottom floor. If not, multiply both sides of the equation with the same number or unknown as the ground floor of the house.

By multiplying the house with the same number or unknown as ground floor, we can cancel the number or unknown on one side of the equation as seen in step 3.

Step 5: If no houses are left in the equation, then solve using the 4 steps we have learned for solving simple equations.



Tell the participants that we will now see some applications of the above steps to solve different equations related to profitability in business.

Profitability

For this, we start with a concept we have already seen before - **Profitability**.



Show slide 11.

We have already seen the following equation for profitability in percentages.

$$\text{Profitability \%} = \frac{\text{Profit}}{\text{Revenue}} \times 100$$

If we look carefully, we can see that this is also an equation. But if we expand profit as revenue – costs, this becomes a more difficult equation.

$$\text{Profitability} = \frac{\text{Revenue} - \text{Cost}}{\text{Revenue}} \times 100$$

Now let us try to solve a problem using this equation.

Work out the following problem on the board for the participants.



Show slide 12.



- If I tell you that revenue is 5000, profitability is 20%, can you find out the cost ?

Plugging the above values into the equation, we have

$$20 = \frac{5000 - c}{5000} \times 100$$

Following the steps above,

Step 1: We circle the house

$$20 = \left(\frac{5000 - c}{5000} \right) \times 100$$

Step 2: We can see that we cannot simplify the top or bottom floor of the house

Step 3: Since the house is multiplied to a number that is different from the bottom floor, we multiply the number to all members of the top floor of the house. The number here is 100.

$$20 = \left(\frac{500000 - 100c}{5000} \right)$$

Step 4: We now multiply both sides of the equation with the number on the bottom floor and cancel the same numbers on one side of the equation.

$$20 \times 5000 = \left(\frac{500000 - 100c}{5000} \right) \times 5000$$

$$20 \times 5000 = 500000 - 100c$$

Step 5: We now solve using the 4 steps for finding unknown in a simple equation

$$100000 = 500000 - 100c$$

$$100000 + 100c = 500000 - 100c + 100c$$

$$100000 + 100c = 500000$$

$$100000 + 100c - 100000 = 500000 - 100000$$

$$100c = 400000$$

$$\frac{100c}{100} = \frac{400000}{100}$$

$$c = 4000$$

Therefore, we have found out that the cost is 4000.



Ask the participants to work out the following problem on their own.



After all the participants have attempted the problem, ask one of the participants to work out the problem on the board. In case, they have difficulty help the participants.



Show slide 13.

- If revenue is 5000 and cost is 4500, what is the profitability ?

Plugging the above values into the equation, we have

$$p = \frac{5000-4500}{5000} \times 100$$

Step 1: We circle the house

$$p = \left(\frac{5000-4500}{5000} \right) \times 100$$

Step 2: We can see that we can further simplify the top floor of the house to get.

$$p = \left(\frac{500}{5000} \right) \times 100$$

Step 3: Since the house is multiplied to a number that is different from the bottom floor, we multiply the number to all members of the top floor of the house.

$$p = \frac{50000}{5000}$$

Step 4: We can now see that we can directly divide the top floor with the bottom floor. Therefore,

$$p = 50000/5000 = 10$$

Therefore, profitability is 10 %.



Ask the participants to work out the following problem on slide 13 on their own.



After all the participants have attempted the problem, ask one of the participants to work out the problem on the board. In case, they have difficulty, help the participants.

- If cost is 4000 and profitability is 20% what is the revenue?

Plugging the above values into the equation, we have

$$20 = \frac{R-4000}{R} \times 100$$

Step 1: We circle the house

$$20 = \left(\frac{R-4000}{R} \right) \times 100$$

Step 2: We can see that we cannot simplify the top or bottom floor of the house to get

Step 3: Since the house is multiplied to a number that is different from the bottom floor, we multiply the number to all members of the top floor of the house. The number here is 100.

$$20 = \left(\frac{100R - 400000}{R} \right)$$

Step 4: We now multiply both sides of the equation with the number on the bottom floor and cancel the same numbers on one side of the equation.

$$20 \times R = \left(\frac{100R - 400000}{R} \right) \times R$$

Cancelling R on the bottom floor and the one multiplied.

$$20 \times R = 100R - 400000$$

Step 5: We now solve using the 4 steps for finding unknown in a simple equation

$$20R = 100R - 400000$$

$$20R - 20R = 100R - 20R - 400000$$

$$0 = 80R - 400000$$

$$400000 = 80R - 400000 + 400000$$

$$400000 = 80 \times R$$

$$\frac{400000}{80} = \frac{80 \times R}{80}$$

$$5000 = R$$

Therefore, revenue is Rs. 5000.

Ask the participants to work out the following problems on slide 14 as



homework.

1. If revenue is 12000 and profitability is 10% what is the cost ?
2. If cost is 8500 and profitability is 15% what is the revenue ?

What will you say at the end of this section?

Thus, we have now seen how to solve advanced problems related to equations in business.

Tell the participants that the above steps can also be used to solve other complex equations in mathematics.

Introduction to Financial Statements

We will start the class by showing the 4C + E framework, which was introduced in Part A of the course



And linking the financial statements to this.



Therefore, we will begin by asking the participants to recollect what 4C+E is and what it is used for.



We will then show slide 2 and briefly elaborate each of the 4 C's and E. Tell the participants that we will focus on the third 'C', which is Cost and Profits in detail in this chapter.



We have already seen this in brief in the module "Introduction to Business". Refer to this module for terms such as Revenue, Costs and Profit and about Financial statements which was introduced in that module.



Now ask the participants about the financial statements which was seen in that module. Ask them what they are and what each of the three types of financial statements means.



Now show slide 3 and explain the following:



Financial statements tell us about the health of a business just like a health report after getting a

health check-up.

Every business used three statements to do that. These are

1. Profit and loss statement
2. Cash flow statement
3. Balance sheet



Say that in the next 2 modules we will cover each of them in greater detail and learn how to prepare these statements for businesses that the CRP-EP will support.

This module introduces the financial statements to the participants in three parts. The first part is the “Introduction to Profit and Loss Statement” covering seven sections. The second part is the “Introduction to Cash Flow Statement” covering three sections. The third part is the “Introduction to Balance Sheet” covering three sections. The following table summarises the sections and the topics covered.

The first and second column shows the order of the sections and topic covered in each section. The next column shows page numbers corresponding to each section in this chapter. The corresponding slide Numbers in the Classroom Teaching Aid are shown against each section. The pages in the Participant Handbook that have material linked to the topic are also shown.

Sections	Topics	Page Nos in this Manual	Slide Numbers
Part 1 – Introduction to Profit and Loss Statement			
1	Revenues, costs and profits	21-24	6-11
2	Components of P&L statement - Revenues and Costs	25 - 29	13-23
3	Direct costs and Inventory	30 - 34	25-33
4	Cash and Profits are not the same	35 – 36	34 - 38
5	P&L and Loans	37 - 38	40
6	Components of P&L statement - Gross profits and Net profits	39 - 42	42-51
7	Profitability	43 - 45	53-58
Part 2 – Introduction to Cash Flow Statement			
1	Cash and Credit in Business and effects on profit	47 - 52	61-70
2	Cash Management	53 - 54	72-76
3	Cash Flow Statement	55 - 58	78-81
Part 3 – Introduction to Balance Sheet			
1	Assessing long-term health of a business	59 - 60	84-85
2	Components of the Balance Sheet	61 - 63	87-90
3	Balance Sheet preparation	64 - 66	92-94

Now let us move on to the first section of the first part of this module “Introduction to Profit and Loss Statement” – Revenues, costs and profits

Part 1 Introduction to Profit and Loss Statement

Section 1

Revenues, costs and profits



What will you say at the start of this section?

We will first look at the Profit and Loss (P&L) statement. We will revise what it is and see what the components of the statement are i.e. revenue, costs and profit. To understand the concepts better, we will use the example of Sundari Garments.

How Will You Teach This Section?

Say that it is important to understand the various aspects of the business – what it produces, how it produces and how much, where it buys from etc.
– if we are to understand the revenues and costs of the business and in turn, calculate the profits. The numbers are derived from the actual doing of the business.



We will first look at 'Revenue' by asking the participants to define what revenue for a business is.



After listening to a few participants, we will show slide 6 to the participants.

We have seen that Revenue (also called Sales) is the money that a business earns by selling its products or services.



Highlight using the key point on slide 6 that Revenue is only that money earned by the business by selling its products or services and not through any other way.

Therefore, the following are not revenues for the business:

1. Borrowing money for running the business is NOT revenue
2. Capital investment by the owner is NOT revenue
3. Money received through selling of productive assets (like building, machinery) is NOT revenue.



Now, we will look at 'Costs' by asking the participants to define what costs for a business is.



After listening to a few participants, we will show slide 7 to the participants.

We have seen that 'Costs' in business has a different meaning than the way we use it in our daily life.

Costs of a business include two things -1. Money spent on making, buying or selling its products or services 2. Interest paid on loans borrowed to run the business

Therefore, anything other than this does not count as a cost for the business. The following are not costs of a business.

1. Money spent on repaying loans
2. Money spent on buying productive assets (e.g. machinery, land etc.)



Use the key point in the slide to define 'cost of a business'.

Now we will use the example of Sundari's Garments to apply the concept of revenues and costs for a business.



Show slide 8 to the participants and explain the following details about Sundari's Garments to them.

This business is run by Sundari. Her business stitches salwar kurtas and skirts for women and schoolgirls

- The customer buys cloth and brings it to the shop
- The business buys threads, buttons, etc. and stitches the clothes as per the customer's measurements

- The business also buys some readymade items such as handkerchiefs and night gowns, which it sells to the customers
- Clothes are delivered to local shops for selling to women customers
- The business has a loan from a bank for which the business pays monthly interest to the bank

Now ask the participants to list all the different cost items on the board. Ask different participants to add to the list until there is an exhaustive list.

Now, do the same for revenues by asking participants to list all sources of revenue for this business.



Once the participants have listed the cost and revenue items with respect to the case on the board, we will show slide 9 and discuss the following costs for the business mentioned on the slide.



1. Raw materials – cloth, threads, buttons, etc.
2. Cost of sewing machines purchased 2 years ago
3. Sewing machines maintenance – cleaning, oil, repair, etc.
4. Rent, electricity, water
5. Transportation of raw materials
6. Transportation of finished goods
7. Labour – production, sales and marketing, accounting
8. Cost of pamphlets & sign boards
9. Interest on loan

Highlight any cost item/s that the participants may have listed on the board but which is missing on the slide.

Now, we will show slide 10 and discuss the following revenue sources mentioned on the slide.



1. Sale of skirts
2. Sale of salwarkurtas
3. Sale of readymade items

Highlight any revenue item/s that the participants may have listed on the board but which is missing on the slide.



We will ask the participants whether all the costs and revenues listed can be



considered as costs and revenue for the business. If not, which ones cannot be considered as costs or revenue for the business based on the definition discussed before.

After listening to a few participants, we will tell them that we will see this



later.

Now that we have seen the different types of revenue and costs for the business, we can calculate the profits for the business.



We will show slide 11 and revise the following about profits of the business.

Profit is the gain made by the business after total costs are deducted from total revenue. We can therefore define profits as follows:

Profits = Revenues (Sales) - Costs

Profit is calculated for a period

- It can be for a year
- It can be half yearly
- It can be for 3 months
- It can be for a month

To calculate profit for a period, we include revenues and costs only during that period.

What will you say at the end of this section?

Revise the concepts Revenue, Costs and Profit once again with the participants as this is very important for the rest of the module. Tell the participants that we will see how to use these concepts in more detail in the next section.

Section 2

Components of P&L statement – Revenues and Costs

What will you say at the start of this section?

We have heard of the P&L statement and have tried to understand what it contains. We need to look at the Revenue and Cost parts. We will continue to work with the example of Sundari garments.

How Will You Teach This Section?

Show slide 13 on the “Introduction to Profit and Loss Statement”.



We have already seen this in the module “Introduction to Business”.

The Profit and Loss Statement (“P&L”) shows how much profit or loss a business made over the statement period (typically one year).

For creating a Profit and Loss Statement, we need to understand and collect data on the revenues and the costs of the business that we have discussed in the previous slides. Let us try to do this for our example business.

But before this,

Ask the participants which record will get them the data on revenues and costs of a business they are supporting?



After listening to a few participants, tell them that most of the revenue and cost items are got from the Day-Book while the Stock Register might help in calculating the cost of goods sold. The aggregate values for this for a period of time can be found in the PT Sheet.

Let's first look at the revenues for our example business – Sundari Garments.

Show slide 14.



Revenue from two sources has been mentioned in the slide. Revenue from salwarkameez – Rs. 6,00,000 and revenue from skirts – Rs. 4,00,000.

We need to point out to the participants that we have shown the revenues by the main products/services here.



This is often a good way to show revenues since it helps us understand which ones are selling better. But this is not practical when a business has too many products/services such as in the case of a grocery store.

Let's now look at the costs. We will first discuss the different categories of costs.



Ask the participants what are the two categories of costs, which they have seen in the "Introduction to Business".



Once they have answered, show slide 15 and explain that there are two types of costs Direct and Indirect costs.

Now explain these two types of costs using slide 16 and slide 17.

Direct and Indirect costs

Direct costs is the money spent specifically for production of goods or providing services.

Thus, we will define direct costs into two sub-categories: Raw material cost and Labour cost.

Indirect costs is the money spent on running the business but on activities not directly related to production of goods or services

These costs usually (but not always) remain fixed whether one produces one item or 1000 items. They are also known as overheads.

Some examples of indirect costs include salary paid to the accountant, rent for the office, interest paid on loans etc. Another example is Depreciation (which we will see soon)



There might be some confusion among the participants with respect to interest on loan and monthly loan instalments.



Ask the participants what is the difference between the two?

Clarify that while interest on loan is an indirect cost, monthly loan instalments are not a cost.

Depreciation



We will now look at depreciation which was mentioned as an indirect cost in the last slide.



Ask participants what they remember about depreciation.



Now show slide 18 to explain what depreciation is.

We saw earlier that money spent on buying productive assets (e.g. machinery, land etc.) is not considered as cost in P&L. The main reason for this is that the P&L is for a short period (e.g. 3 months or 1 year) but machinery and land is supposed to last much longer than that for a business.

So for each period's P&L, we use only a portion of the money we spent as a cost. This is called 'depreciation'.

Now highlight using slide 19 that unlike other cost elements, this item does not involve any pay out of money during this period. It is a notional cost. Explain what notional cost is to the participants with the help of the slide.



By notional cost, we mean that the business does not pay any money each year for depreciation. It has already paid the whole amount when it bought the asset. It absorbs that amount in every year's P&L in small amounts.

We will now explain how to calculate depreciation using slide 19.



Although there are different methods for calculating depreciation. We will use the most common one here.

We will calculate depreciation by dividing the money spent on the asset (eg. Machines) by the number of years of useful life of that asset.

This can be explained using the formula for this shown on the slide i.e. $\text{Depreciation} = \frac{\text{Money spent on an asset (e.g. machines)}}{\text{Number of years of useful life of the asset}}$

Provide for longer discussion on the slides on depreciation since some participants might have difficulty in understanding it.



Ask participants to repeat what depreciation is and why it is a notional cost.



If all participants have not understood the concept of depreciation properly, repeat the content in slides 18 and 19 again.



To help the participants better understand the different costs discussed so far, we will use the example of Sundari's Garments

Show the following revenue and cost items for Sundari's Garments for the current year shown in slide 20 and 21.

Revenue	Amount
Revenue – salwarkurta	6,00,000

Revenue - skirts	4,00,000
------------------	----------

Cost	Amount
Labour – production	3,60,000
Raw materials	3,20,000
Labour – sales & marketing	75,000

Rent, electricity, water	48,000
Interest on loan	35,000
Depreciation on machinery	5,000
Pamphlets, sign board, etc.	33,000
Transportation of finished goods	28,000
Labour – accounting	24,000
Transportation of raw materials	10,000
Maintenance of sewing machine	2,000



Ask the participants to identify which category each of the cost items belong to. Also ask them to find the total direct costs and total indirect costs of the business for the current year.



Once the participants have worked out for themselves, show the following solution given on slide 21 and slide 22 and explain why each of them is a direct or indirect cost.

Cost categorization

Cost	Category
Labour – production	Direct
Raw materials	Direct
Labour – sales & marketing	Indirect
Rent, electricity, water	Indirect
Interest on loan	Indirect
Depreciation	Indirect
Pamphlets, sign board, etc.	Indirect
Transportation of finished goods	Indirect
Labour – accounting	Indirect
Transportation of raw materials	Direct
Maintenance of sewing machine	Direct

Cost category calculation

Cost	Category	Amount
Raw materials	Direct	3,20,000
Cost of sewing machine maintenance	Direct	2,000
Transportation of raw materials	Direct	10,000
Labour – production	Direct	3,60,000
TOTAL DIRECT COSTS		6,92,000
Production center rent, electricity, water	Indirect	48,000

Transportation of finished goods	Indirect	28,000
Labour – sales & marketing	Indirect	75,000
Labour – accounting	Indirect	24,000

Pamphlets/sign board	Indirect	33,000
Interest on loan	Indirect	35,000
Depreciation	Indirect	5,000
TOTAL INDIRECT COSTS		2,48,000

What will you say at the end of this section?

End the section by revising the key points given in slide 23. If the participants have difficulty in any part of this section such as indirect costs, depreciation etc., repeat those parts.



Section 3

Direct costs and Inventory

What will you say at the start of this section?



Refer to section 6 in “Making Products”.



Revise following concepts from there before moving on to the rest of the section.



- Inventory in different stages of operations
- Operations Overview – Inventory – Briefly explain the three kinds of inventory i.e. Raw materials, Work-in-progress (WIP) and Finished goods.
- Costs associated with Inventory– Bulk raw material cost, Stock ordering cost and Stockholding cost

Many businesses purchase raw materials during a given period, for which we make the P&L statement, but do not use them in the same period. Some materials are left unused. It is necessary to understand how the cost related to the unused items are to be calculated. We use the concept of inventory to understand this. Inventory is thus linked to direct costs.



We will explain this link between inventory and direct costs using the example of Maya’s Fruit Trading business on slides 25 and 26.

How Will You Teach This Section?

Case of Maya’s Fruit Trading Business

Maya has a shop in the market for which she pays a monthly rent. She buys fruits from the wholesale market, takes them to her shop, and then sells them to retail customers. Currently she is selling only bananas as they are in the season. She will soon sell other fruits.

We will now look at what Maya did in the month of April.

- She started the month with 0 bananas
- During the month, she bought 2000 bananas for Rs. 1 each. The bananas were not bought all at one time but in small batches once or twice every week.
- In the month, she sold 1700 of them for Rs. 2 each.
- At the end of the last day of the month, she still had 300 bananas left which she plans to sell during May.

Ask the participants to understand the case carefully and find out the profit or loss for the month of April.



Have a discussion on how they calculated profits and their explanation for the calculation.



Once the discussion in the class is over, we will now explain the following using the slide 27.

In the case, since no other costs are mentioned, only direct costs and revenues are used for calculating the profit/loss.

- Revenues: She sold 1700 bananas in the month at Rs. 2 each for 3400 revenue
- Direct costs:
 - o The cost of 1700 bananas sold is Rs. 1700.
 - o Labour cost is 0
- Her profit/loss will be a net profit of $3400 - 1700 = 1700$

Highlight using the key point on the slide that direct costs includes only the cost of goods which are sold or for which revenue is shown.



Therefore, the cost of 300 **unsold** bananas is not included in direct costs. This is the 'inventory' for the business.

We will explain this further by showing slide 28.



In Maya's fruit trading business, when a banana is sitting in Maya's shop, it is called inventory. But, the moment it is taken by a customer, it becomes revenue for the business.

Direct costs are the cost of items (in this case, bananas) generating revenue and hence it doesn't include the bananas which are inventory for the business. So, the cost of 300 bananas, which were unsold, will show up in inventory for the next month.

Trading vs Production business - Inventory

In case of a trading business (like Maya's fruit business), what is unsold is inventory. The moment it is taken by a customer, it becomes revenue.

In case of production businesses such as a tea-shop, we have seen in the module "Making products" that there can be three different kinds of inventory.



The raw materials, work-in-progress and finished goods can all be inventory in the case of such businesses and should not be treated as a direct cost unless converted into final product and sold.

Question



The question on the slide How will we show the cost of remaining 300 bananas, if it does not go in the calculation of profit and loss needs to be discussed with the participants.

It needs to be explained that the cost of these bananas are not considered as a cost in calculation of profit/loss **only for this month**. It is instead treated as inventory. But if these bananas are sold in the next month, it is then immediately treated as a cost in the calculation of profit/loss for that month .

Link between direct costs and inventory

We have now seen the relation between direct cost and inventory in the example of Maya's banana business.



We will explain the link between the two using the slide 29.

Explain the following formula to the participants which links direct cost with inventory.

Direct cost = Cost of opening inventory + Cost of raw material purchased + Labour cost – Cost of closing inventory, where

- Opening inventory is the amount of money locked in the raw material at the start of the period
- Cost of raw material is the money spent on buying raw material during the period
- Labour is the cost paid to workers for making the goods or services
- Closing inventory is the amount of money still locked in the raw material as they have not been sold during the period



Ask the participants to apply this formula in the case of Maya's fruit business and ask a few participants to show the calculation of direct costs on the board.



Once the participants have worked out the solution on the board, show slide 30 and explain the following solution.

- Cost of opening raw material inventory: Since Maya had no bananas to start with, the opening inventory is Rs. 0
- Cost of raw material: Since Maya spent Rs. 1 per banana for 2000 bananas, the cost of raw material is Rs. 2000
- Since she didn't pay any labour costs, that is Rs. 0
- Cost of closing raw material inventory: Since there are 300 bananas left and the cost per banana

was Rs. 1, the closing inventory is Rs 300
Now applying the formula discussed above,

Direct cost= Cost of opening inventory (Rs. 0) + Cost of raw material purchased (Rs. 2000)
+ Labour costs (Rs. 0) – Cost of closing inventory (Rs. 300) = Rs. 1700

Ask the participants which record would get them the data on inventory for the business they are supporting?



After listening to a few participants, tell them that this data will be got from the Stock Register.

Now we will ask the participants to work out the direct costs for the following case of a production business – Sundari Garments, given in slide 31. Ask them to use the same formula for calculating direct costs used before which is shown in slide 31 as well.



In the month of April, Sundari Garments focused only on making and selling salwarkurtas. The following activities took place in April:

- Bought material for Rs. 10,000
- Paid wages of Rs. 6,500
- Made 150 kurtas
- Sold 100 kurtas @ Rs. 150 each
- The month ended and they couldn't sell the remaining 50 during the month of April

Find the direct costs for Sundari Garments for the month of April.

Ask a few participants to work it out on the board.



Once a few participants have attempted to solve the exercise on the board, explain the following solution to the exercise given in the solutions slide.

- There was no opening inventory for Sundari Garments for April
- Total raw material + labour costs was Rs.16,500 (for making 150 kurtas)
- We can use this to find (raw material + labour cost) for 1 kurta = $(16,500 / 150) = \text{Rs. } 110$
- Closing Inventory is 50 kurtas with value 5,500 (50×110)
- Direct costs, therefore, is equal to $0 + 16,500 - 5,500 = \text{Rs. } 11,000$

Show slide 32.

Use the class exercise given on this slide to test the understanding of the participants on what are the common direct and indirect costs associated with a service business.



Ask the participants to make a list of direct and indirect cost items for a



beauty parlour business to be started by Namita. Ask them to then present it on the board.

Make sure other participants add to the list to make it an exhaustive list.

What will you say at the end of this section?



After completing the exercises, revise points about profits, direct costs and cost of inventory from slide 33 (key points) to conclude the session.

- In general, we can define profit as $\text{Profits} = \text{Revenues} - \text{Costs}$
- $\text{Direct cost} = \text{Cost of opening raw material inventory} + \text{Cost of raw material used in production} + \text{Labour cost} - \text{Cost of closing raw material inventory}$
- Cost of closing inventory is not included in the P&L

Section 4

Cash and profits are not the same



What will you say at the start of this section?

Refer to discussions in “Introduction to Business” about cash and profits.



Tell the participants to recollect discussing about instances where businesses may have cash but no profit and instances where there is profit but no cash.



Business may not get cash for all the sales it has made during a period. It will still be counted as revenue and hence will increase the profit. The sale that is not made in cash, is known as credit sale.

Similarly, some costs may be incurred but not paid for. The total cost is taken as costs in the P&L and hence will reduce the profit. It is important to understand the difference between profits and cash, and how to treat credit transactions in the P&L.

We will discuss about cash, profits and credit based activities in more detail in this section.





How Will You Teach This Section?

Show slide 35.

We will first discuss the situation where business has cash but no profits.

Let us take the example of Maya, the banana shop owner. It is possible that she may have Rs. 2500 in cash at the end of the day but she may also owe Rs. 1000 for the bananas she bought on credit from the supplier.

Therefore, having cash is not the same as making profits.

Now let us look at the other scenario where business is making profits but has no cash.



We will discuss an example for this given in slide 36 now.

Maya uses previous days cash of Rs. 2000 to buy 2000 bananas.

The local school headmaster comes and buys all her bananas (at Rs. 2 each) for the school function but promises to pay the next day

So, in this case, Maya has made a profit of Rs. 2000 but has no cash at the end of the day.

We have seen instances of credit sales/purchases in both the above cases. We will now look at such instances of giving and taking credit in business in more detail now.



Show slide 37.

Businesses often performs the following credit activities:

- Sell things to customers who promises to pay later – We say that the business has given credit
- Buy things from suppliers and promise to pay later – We say that the business got credit

It is a good idea to give (to customer) and take credit (from supplier) as it helps the business to grow.



Ask the participants the question on the slide 'Is it a good idea to give credit to customers and take credit from suppliers?'



After listening to a few participants, explain the impact of these on cash and profits of the business discussed before.

Now we will see how credit transactions are treated in Profit and Loss Statement by showing slide 38.

For the P&L, we have two very important questions to answer:

- When we calculate revenue, should we include sales on credit?
- When we calculate raw materials costs, should we include items bought on credit?

Yes we should. P&L shows the profit and loss made by the business and it doesn't say how much cash the business has.

What will you say at the end of this section?



See key point at bottom of slide 38.

The cash part of these transactions will be captured in the Cash Flow Statement.

Section 5

P&L and Loans



What will you say at the start of this section?

Ask if loan taken by a business during the period will appear in the P&L. Then, ask if loan repaid during the period will.



We will discuss this in this section.

How Will You Teach This Section?

Show slide 40.



Businesses often have loans and it is important to understand answers to these questions:

- Where do we show loan amount owed to a bank?
- Where do we show loan instalments paid to a bank?
- Where do we show the amount invested in the business?



These are all shown in a Balance Sheet which we will see later.



Clarify that only those transactions which are either revenue or cost items for the business appear in the P&L.

Since neither loan taken or loan repaid during the period is a revenue or cost item, they will not be shown in the P&L.

Point out that interest on loan, discussed in chapter 2 of this module, is an indirect cost and hence shown in the P&L.

What will you say at the end of this section?



Use key point at bottom of slide 40.

Re-iterate point that all transactions of a business are not captured in the P&L. Cash was mentioned in previous section. Loans will be mentioned in the part on Balance Sheet. So will amount invested in the business.

Section 6

Components of P&L statement – Gross profits and Net profits

What will you say at the start of this section?

Refer to discussion in “Introduction to business”.



Ask about difference between Gross and Net profit which they have seen in “Introduction to business”.



After listening to a few participants, show slide 42.



We will deal with calculation of profit in detail in this section.

How Will You Teach This Section?

We will first look at Gross Profit.

Gross Profit is the profit of the business after subtracting only the direct costs from the revenue.

Gross Profit = Revenue – Direct Costs

Ask the participants to work out on the board the Gross Profit for the case of Sundari Garments



(seen in section 2 of the module)

for the given year and ask how the business seems to be doing?

We will see the answer to this at the end of this section. We will now see how



to calculate Gross Profit by showing slide 43.

A business must make things (or services) before it sells them to get revenues. We have seen that the cost of making such things such as labour and raw material costs is roughly the direct costs of that business.

Since the definition of gross profit requires us to subtract direct costs from revenues, this helps us gauge if the business is doing production well.

Therefore, a gross loss means that the revenues are not enough to cover even the raw materials and labour costs of the business.



We will now see what are the main things that a business can do to improve the Gross Profit or reduce the Gross loss in slide 44.

This can be done by either increasing revenue or decreasing direct costs as seen below

1. Revenue – Increase price or quantity of products sold
2. Raw material cost – Find cheaper raw material or do better negotiations to reduce this cost
3. Labour cost – Reduced labour payments is an option but a better choice is to make workers more productive



We will see the second type of profits discussed in the beginning of the section – Net Profit by showing slide 45.

Net profit is the final profit left for the business after subtracting all costs.

Since we have already subtracted direct cost from Revenues to get gross profit, we only need to subtract indirect costs from Gross Profit now to get 'Net Profit'.

$\text{Net Profit} = \text{Gross Profit} - \text{Indirect Costs}$



Now ask the participants to work out on the board the Net Profit for the case of Sundari Garments (seen in section 2 of the module) for the given year and ask how the business seems to be doing?



We will see the answer to this at the end of this section. We will now see how to calculate Net Profit.

Show slide 46.

Net profit considers the performance of all business functions including production, sales, and finance. This is because net profit is calculated after considering both direct and indirect costs of the business unlike direct costs.

Thus net profit helps us gauge if all functions of the business are healthy.



Remind the participants that direct costs meanwhile only helps us gauge if all the production functions of the business are healthy.

Therefore, if the business has a gross profit but net loss then it means:

Revenues are enough to cover raw material and labour expenses, but not indirect costs (such as

interest paid and other overheads)

In the discussion on gross profits, we saw three different things the business can do to improve the gross profit. Since gross profit is already a part of net profit, these three things will also improve net profit.

We will now see some other things the business can do to improve the net profit in slide 47.



1. Get cheaper loans if possible
2. Reduce loans
3. Sell items such as machinery that is not needed for the business and use the money to repay the loan

All these will have the effect of reducing indirect costs and in turn improve net profits or reduce net loss.

Other income and other costs

We will now see one more category of revenues and costs called 'Other income/costs' in slide 48.



A business sometimes may have income or costs which are not related to the core operations. These are called "Other income" and "Other costs".

Other income coming in exceptional cases are not considered part of revenue.

Ask for examples and ask how often these will happen.



Since they are not part of the main activity of the business, they are taken as income while calculating net profit. Similarly, in business there can be other costs that are exceptional as well.

Ask for examples of other costs.



Example of Other income is Bank interest earned. Example of Other costs include theft of an asset, loss due to fire, donation made by the business, etc. As can be seen, these cannot be included in the core operations of the business.

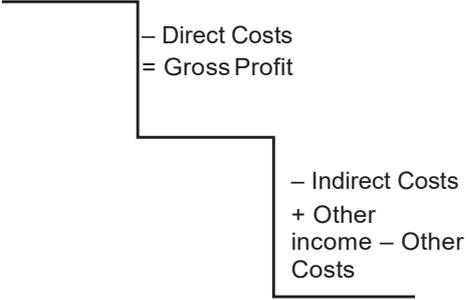
We will not consider other income and other costs in our analysis as they are rare for the businesses we will deal with. But in real-life we may encounter them. We can add other income to net profits or subtract other costs from net profits to get the final number.

Show slide 49.



The step method is a good way to understand how the P&L statement is made and we will use this to calculate net profit from now on. The size of the steps indicate costs.

Revenues



Let us now use this to create a P&L statement for the case of Sundari Garments for the current financial year.



Ask the participants to work out the net profit this way on the board.



Then show slide 50.

Revenue	10,00,000
- Direct Costs	7,20,000
= Gross Profit	2,80,000
- Indirect Costs	2,20,000
= Net Profit	60,000



Use the key point on slide 50 to highlight the point mentioned before about steps reflecting costs.

For any business, if there are significantly large costs (big steps!) then the profits are quite below the revenues

What will you say at the end of this section?



Revise the use of creating P&L statement.

Its components. Also concepts such as depreciation, credit, inventory that affect the P&L. There are elements that are not part of the P&L such as loans taken and monthly instalments of loan repaid– this needs to be stressed.



Use key points on slide 51 for this.



Profitability

What will you say at the start of this section?

Revise discussion on profitability.

Refer to 'Introduction to Business'.



Ask the participants to do the following exercise on how to calculate it.



If a business has made a profit of Rs. 12,000 and his total revenue was Rs. 60,000, what was his business's profitability ?

How Will You Teach This Section?

Show slide 53.



Profit amounts can be converted to “Profitability” by dividing them by revenue amount as we have already seen.

$$\text{Profitability} = \frac{\text{Profit}}{\text{Revenue}}$$

We will now solve the exercise given to the participants in the beginning of the class. If a business had Rs. 12,000 as profits and the revenues Rs. 60,000 then

- Profitability = 12,000/60,000
- Profitability = 0.2 or 20%



Show slide 54.

Profitability thus tells us what proportion of the money that customers give to a business, it gets to keep for itself after taking care of the costs.

We will look at two main types of profitability measures

$$\text{Gross Profitability} = \frac{\text{Gross Profits}}{\text{Revenue}}$$

$$\text{Net Profitability} = \frac{\text{Net Profits}}{\text{Revenue}}$$



Now ask the participants to calculate Gross and Net Profitability for Sundari Garments on the board.

Once they have worked out, show them the following calculation.

$$\text{Gross Profitability} = 2,80,000/10,00,000 = 0.28$$

$$\text{Net Profitability} = 60,000/10,00,000 = 0.06$$



We will now ask the participants to work out the following exercise on slide 55 and 56.

- Sundari Garments is a business that makes clothes for women. It makes salwarkurtas and skirts.
- They buy cloth, threads, buttons, etc. and stitch the clothes at a facility
- The clothes are delivered to retail shops for selling to women customers
- The owners had started the business three years ago when they put in Rs. 1,00,000 in cash and borrowed Rs. 2,00,000 as loan.
- They purchased sewing machines worth Rs. 2,40,000.

The transactions for the third financial year are given below.

Transaction	Amount (Rs.)
Opening Inventory	30,000
Production Labour	1,20,000
Raw materials	3,40,000
Salaries to admin staff	60,000
Production center rent	30,000
Interest on loan	16,000
Transportation to shops	24,000
Machine Maintenance	3,000
Closing Inventory	75,000
Loan Repaid	25,000
Revenues	6,00,000

Ask the participants to identify the cost categories and then calculate each type of costs. Also ask them to find the Gross Profit and Net Profit.



After the participants have worked out the exercise, discuss the following solution with the participants.



Direct costs = Cost of opening inventory + Cost of raw material used in production + Labour cost + Transportation to shops – Cost of closing inventory = 30,000 + 3,40,000 + 1,20,000 + 3000 + 24,000 – 75,000 = Rs. 4,42,000

Gross Profit = Revenue – Direct costs = 6,00,000 – 4,42,000 = Rs. 1,58,000

Indirect costs = 60,000 + 30,000 + 16,000 = Rs. 1,06,000

Net Profit = Gross Profit – Indirect costs = 1,58,000 – 1,06,000 = Rs. 52,000

What will you say at the end of this section?

Conduct a discussion on use of profitability. Also revise all concepts learnt in the module. Use key points on slide 57 and 58 to further make the points.



Part 2

Introduction to CASH FLOW STATEMENT

Say that we continue from P&L Statement to the next financial statement.

We will revise the understanding of financial statements before we move on to the first section of this part.



Ask participants what are the three financial statements.



Explain each of the three in brief.

Section 1

Cash and Credit in business and effects on profit

What will you say at the start of this section?

Say that we are repeating the concept of cash and profit not being the same, as it is very critical to understand this. If this is not clearly understood by the CRP-EP and the entrepreneur, assessing the health of business becomes difficult or may even make wrong assessments.

Check participants' understanding and repeat if needed.



How Will You Teach This Section?

Ask participants to give examples of situations where cash and profits are not the same.



After listening to a few participants, repeat the following example from the P&L part of the module shown in slide 61.



When cash is more than the profits -

- Maya may have Rs. 2500 cash at the end of the day but she may also owe Rs. 1000 for the bananas she bought on credit from his supplier

When profits are enough but not enough cash -

- The headmaster bought all her bananas for the school function but promises to pay the next day. So Maya has made a profit of Rs. 2000 but has no cash



Revise concepts such as AR and AP seen in 'Introduction to Business'.



Ask the participants to briefly explain what Accounts Payable and Accounts Receivable are.



After listening to a few participants, explain what they are using slide 62.

We know that businesses sell to customers and buy from suppliers. In such instances,

When customers buy on credit (means they take the items but promise to pay later), then the amount they owe the business is called Accounts Receivable (AR)

Similarly, when the business buys on credit (means they take the items from suppliers but promise to pay later), then the amount the business owes to supplier is called Accounts Payable (AP).

We will now revise the participant's understanding of cash before looking at various aspects of Cash Flow Statement.



Ask the participants which record will get them the data for calculating AP and AR for the business they are supporting?

Tell them that the Day-book will provide them details regarding the cash sales and cash purchases as well as amount repaid by debtors and amount paid back to suppliers. These will help calculate accounts receivable and accounts payable as mentioned before.



Ask the participants what is meant by 'cash' and possible ways in which business can get cash based on their recollection of it from 'Introduction to Business'.



After listening to a few participants, explain the following on slide 63.

In business terminology, "Cash" refers to currency notes/coins and bank balance (but not fixed deposits and investments)

A business can get cash from:

- Selling products/services (Operations of the business)
- Collecting accountsreceivables
- By taking loans or investments
- Sale of assets



Ask the participants which of the above is the best way to get cash for the

business.

We know that for most businesses the main source of getting cash is selling products/
services.

In the next slide (slide 64), we explain the ways a business can spend on cash.



A business can spend cash on:

- Payment for raw materials, salaries, etc. (Operations of the business)
- Payments for purchase of assets such as machinery
- Paying off accounts payables
- Payments for interest and to settle loans, dividends to investors, etc.

Ask the participants how do they keep track of how much cash comes in and goes out for the businesses they support for a period of time?



Tell them this is done by looking at the cash items in the PT sheet and seeing the cash inflows and cash outflows.

Also ask the participants which of the above is not desirable for the business. We will see this later.



We will now do a class exercise by dividing the participants into groups and asking them to solve the following given in slide 65.



Calculate the AR (Accounts Receivable) and AP (Accounts Payable) for the following example:

1. A business bought Rs. 5000 worth of raw materials from suppliers, of which it paid for Rs. 3500 in cash, rest is in credit.
2. It sold products worth Rs. 8000, out of which Rs. 850 was sold on credit to a trustworthy customer

Credit transactions

We will now revise credit transactions in business discussed in the last part on P&L.



Ask the participants to give examples about credit transactions.



Show slide 66.



Credit transactions are very common. Customers routinely promise to pay later and the suppliers are often paid later.

When calculating profits the business should include both the cash transactions and credit transactions for that period. Because of this, the cash balance for the period may not match the profits.



Ask the participants whether the profit of the business for a period and the cash balance at the end of the period be the same.

As we have seen in the last part, these can be different.



Give examples about this in the last part if needed.

Advance transactions



Show slide 67.

The opposite of credit transactions are advance transactions.

Some common advance transactions are:

- A customer may pay advance for delivery of products/ services for the next month
- A supplier is given advance for the next month's material
- Rent is paid in advance



Explain the following key point on the slide.

Credits and advances have impact on profits and/or cash of the business.



We will see these in detail now. The explanation for each transaction to be made to the participants has been given below the respective transaction. Show slide 68.

	Profits	Cash
Credit transactions and payments		

1. Sales on credit	Increase	No change
Since there is an increase in sales or revenue of the business, this will have a positive impact on profits. But since there was no cash transaction involved, there is no change in cash of the business.		

2. Purchase on credit	Decrease	No change
Since there is a decrease in sales or revenue of the business, this will have a negative impact on profits. But since there was no cash transaction involved, there is no change in cash of the business.		
3. Receipt of payment against credit sales	No change	Increase
Since this is not the actual sale, there is no impact on profits. But since cash is received by the business against the credit sales made earlier to the customer/s, there is an increase in cash.		
4. Payment against credit purchases	No change	Decrease
Since this is not the actual purchase, there is no impact on profits. But since cash is given by the business against the credit purchase made earlier to the supplier/s, there is a decrease in cash.		
Advance purchases or payments by customers and by the business		
5. Advance payment by customer for future delivery	No change	Increase
Just like a credit transaction, an advance payment by the customer is not an actual sale to the customer but a payment for a future sale. Thus, there is no increase in revenue and no impact on profit. But since cash is paid by the customer to the customer as advance, there is an increase in cash.		
6. Advance payment for rent, supplies for next month	No change	Decrease
Just like a credit transaction, an advance payment to the supplier is not an actual purchase from the supplier but a payment for a future purchase. Thus, there is no decrease in revenue and no impact on profit. But since cash is paid by the business to the supplier as advance, there is a decrease in cash.		

Now we will look at the impact of some transactions other than advances and credits on cash and profits. This is shown in slide 69.



	Profits	Cash
Other transactions		
7. Purchase of large assets	No change	Decrease, if paid in "cash"
Since large assets are going to be part of the company for more than just the current period, purchase of the asset cannot be included as a cost in that periods P&L. But if the asset is bought in cash, there is a decrease in cash.		
8. Sale of large assets	No change	Increase, if receive "cash"
Since large assets are going to be part of the company for more than just the current period, sale of the asset cannot be included as a revenue in that periods P&L. But if the asset is sold in cash, there is an increase in cash.		
9. Repayment of loan principal	No change	Decrease
Since repayment of loan is not a revenue or cost for the business, it does not affect the profits of the business. But since the repayment is made in cash, there is a decrease in cash.		
"Non-transactions"		
10. Depreciation	Decrease	No change
We have seen that depreciation is a 'notional cost' for the business.		



Revise slide on depreciation in 'Introduction to P&L' if needed.



Stress the tables in Slide 68–69. Point out that depreciation is labelled a non-transaction and see how it effects P&L only. Recall discussion on depreciation from the P&L Statement module.

We will end this section by asking the students to work out a class exercise on slide 70.

In the exercise, they will examine and explain the effect of various transactions of Sundari Garments given below on its cash and profits.



The effect of the transactions are given below each transaction. If participants are not clear on any impact, refer the tables above and explain it to them.

- Got Rs. 500 from a customer who bought a kurta last year

Profits – No impact, Cash - Increase

- Repaid loan Rs. 5000

Profits – No impact, Cash - Increase

- Paid next 2 months' rent of Rs. 4500 in advance

Profits – No impact, Cash - Decrease

- Sold a table fan for Rs. 1200 as it was not needed

Profits – No impact, Cash - Increase

- Sold a salwarkurta to a customer for Rs. 450 and she promised to pay next month

Profits – Increase (as a result of increase in sales/revenue), Cash – No increase (Credit)

- Calculated depreciation of Rs. 3500 for the last year

Profits – Decrease, Cash – No impact

What will you say at the end of this section?



Review the result of the exercise.

Say that we have already seen various facets of profit in the previous module. We will try and understand Cash in the next two sections. Both are equally important to the business.

Section 2



Cash Management

What will you say at the start of this section?

Ask which is better - Having little cash or a lot of cash.

Check participants' understanding and move to Slide 72.



How Will You Teach This Section?

Help answer the previous question by explaining the contents of slide 72.



Having sufficient cash is as important to the business as making profits.

Therefore, if the business doesn't have enough cash, it will not be able to make payments for costs when needed.

Similarly, if the business has too much, it will have money sitting idle.

Show slide 73 and 74.



We will now discuss several ways in which business can ensure there is adequate cash.

These are:

1. Giving less credit to customers
2. Encouraging advance payments
3. Ensuring that collections against Accounts Receivables (AR) are prompt
4. Ensuring that revenues are generated continuously and uniformly rather than periodically or unevenly
5. Negotiating high credit limit and long re-payment terms with suppliers
6. Minimizing advance payments
7. Ensuring that the business does not hold too much inventory, or hold it for too long
8. Ensuring that asset purchases are timed, taking into account cash required for operations



Point out how each of these transactions either increase cash or decrease cash of the business.

Highlight the seasonality element of cash by showing following examples of seasonal businesses in slide 75.

1. A retail shop may sell quite a lot of item during Diwali month
2. A pickle business may buy a lot of mangoes during summer months



Link with discussion on fluctuations in business due to seasonality from 'Introduction to business'.



Check participants' understanding of how much they remember - what causes fluctuations etc. (Raw materials, customer preferences). Link this to how these affect cash flows.

Use the slide (slide 75) to explain precautions to be taken by seasonal businesses.

1. Be careful about timing of buying machinery etc. for the business
2. Build adequate cash reserves to deal with seasonality
3. Revisit credit policy during seasonal period

What will you say at the end of this section?



Use slide 76 to conclude this section and revise key points of the section.

Section 3

Cash Flow Statement

What will you say at the start of this section?

Ask for the difference between P&L and Cash Flow Statement.

Refer 'Introduction to Business', if needed.

Ask also for any similarities between the two (answer to be "both made for a specific period of time").



How Will You Teach This Section?

Show slide 78.



We will answer the question asked above using this slide.

P&L statement helps us understand the profitability of the business. While the Cash Flow Statement helps us understand the cash situation of a business.

A Cash Flow Statement shows four things:

- Opening Cash Balance
- Cash Inflows for the period
- Cash Outflows for the period
- Closing Cash Balance

The formula for the Cash Flow Statement is $\text{Closing Cash Balance} = \text{Opening Cash Balance} + \text{Inflows} - \text{Outflows}$.

Ask the participants which record will get them the data on cash transactions of the business they are supporting?



Tell them such data is recorded in Day-book, Stock Register Capital Register and aggregated in PT Sheet.



We will now show the following example of a Cash Flow Statement to the participants by showing slide 79.

We can see that the above formula has been applied here to arrive at the closing cash balance.

Jan	Jan	Feb	Mar
Opening Balance	10,000	19,000	37,500
Cash Inflows			
Cash Sales	35,000	40,000	35,000
Credit Collection	50,000	60,000	48,000
Cash Outflows			
Labour	30,000	30,000	30,000
Salaries	8,500	8,500	8,500
Transportation	3,000	3,500	3,250
Cash Purchases	18,000	22,000	20,000
Credit Payment	9,000	10,000	11,000
Rent	4,000	4,000	4,000
Interest Payment	3,500	3,500	3,500
Pamphlets Printing			33,000
Closing Balance	19,000	37,500	7,250

Before moving on to the next slide, we will discuss the difference between a post-facto CF statement and a budgeted CF statement with the participants.

Explain that while the former is made at the end of the period in which the cash transactions have taken place, the latter is done in advance/prior to the actual cash transactions taking place.



Now show slide 80 on budgeted Cash Flow Statement.

A business should create a budgeted Cash Flow Statement at the start of the year. This helps business to run its operations smoothly throughout the year

- The business should plan what it plans to buy and what it plans to sell and put these in the budgeted Cash Flow Statement
- It should also plan the purchase of machinery, repayment of loans etc. and include these in the budgeted cash flow



Now we will ask the participants to work out the following exercise in slide 81 to test their understanding of budgeted Cash Flow Statement.

Planned Transactions	Amount
Collect last month's Accounts Receivable	17,000
Pay accountant's salaries	2,500
Buy raw material on credit	8,750
Pay last month's credit Payment to the supplier	12,050
Pay rent in advance	4,500
Sell a table that is not needed for business	1,200
Buy a new machine	34,500
Sell products on credit	14,500
Opening balance	54,000

Ask the participants to create a budgeted Cash Flow Statement for the above planned transactions.



Before discussing the solution, discuss which of the planned transactions are cash transactions with the participants as shown below.



	Planned Transactions	Cash flow item?
1	Collect last month's Accounts Receivable	Yes
2	Pay accountant's salaries	Yes
3	Buy raw material on credit	No
4	Pay last month's credit Payment to the supplier	Yes
5	Pay rent in advance	Yes
6	Sell a table that is not needed for business	Yes
7	Buy a new machine	Yes
8	Sell products on credit	No
9	Opening balance	Yes

The solution to the exercise is given below.

	Rs.
Opening Balance	54,000
Cash Inflows	
Collect last month's Accounts Receivable	17,000
Sell a table that is not needed for business	1,200
Total Cash Inflows	18,200

Cash Outflows	
Pay accountant's salaries	2,500

Pay last month's credit Payment to the supplier	12,050
Pay rent in advance	4,500
Buy a new machine	34,500
Total Cash outflows	53,550
Closing Balance	18,650



What will you say at the end of this section?

Use solution slides for the above exercise to firm up understanding about cash flow items.

Part3

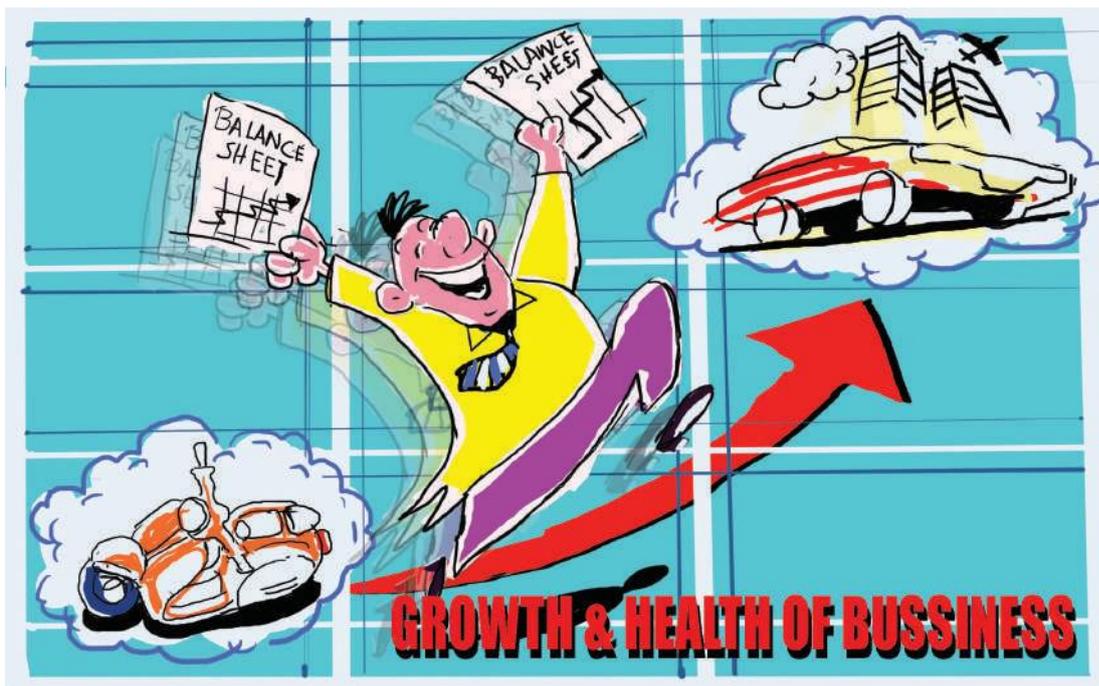
Introduction to Balance Sheet

Say that we continue from P&L Statement and Cash Flow (CF) Statement to the next financial statement– the Balance Sheet.



Section 1

Assessing long-term health of a business



What will you say at the start of this section?

We will revise understanding of financial statements before we move on to the first section of this part.



Discuss the differences and similarities between the three from what the participants have seen so far.

Show slide 84.



P&L and CF are for a specific period of time. They will have a start date and an end date. So they provide information for only that period. While P&L gives information about performance of a business during a period Cash Flow Statement tells us about how much cash did we start with and how much did we end with.

What about information about previous periods? What does the P&L and Cash Flow Statement not tell us.



Ask if it is feasible to assess the performance of a business that is 5 years old, with only P&L and CF statements?

We would have to go through a lot of P&L and CF statements to get information about the long term health of the business such as from the start of the business. Moreover, as we have seen, P&L and CF does not cover all transactions such as loan taken, heavy machinery bought etc.

Thus the focus of both statements is on periods. They do not tell us the long-term health of the business right from its start.



Now lead to slide 85 which talks about Balance Sheet and how it gives information that the P&L and Cash Flow Statement does not give.

How Will You Teach This Section?

We use Balance Sheet to get information about the business from its start till a date that we want to look at.

The statement that gives information about the long-term health of a business is called the Balance Sheet. It does it by giving us a financial state of the business at a specific point.

Specifically, it indicates what the business owns and what it owes to others at a point in time. Emphasize this using the key point on the slide.

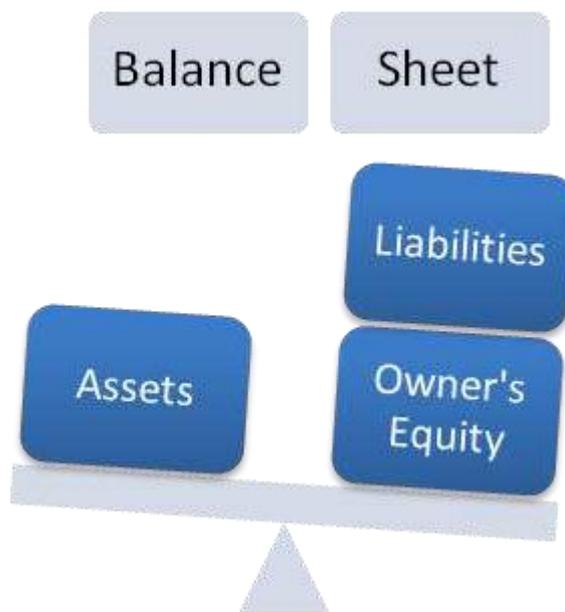
What will you say at the end of this section?



We will now look at Balance Sheet in detail in the rest of the sections.

Section 2

Components of the Balance Sheet



What will you say at the start of this section?

Balance Sheet is a statement of balances. What is left with the business as on any particular date. These balances are shown under three major heads.

How Will You Teach This Section?

Show slide 87.



Balance Sheet is used to understand the value of things the business own and what it owes to others

The Balance Sheet has three main components

- Assets
- Liability
- Owner's Equity

Let's look at each of these in some detail.

Balance Sheet– Assets



Show slide 88.

The Assets of a business can be

1. Fixed Assets – these are the productive things that the business needs for its operations.
E.g. Machinery, Furniture, Equipment etc.
2. Current Assets – these are things that the business would convert into cash soon (within a year).
They are
 1. Cash and Bank balances
 2. Inventory-



Check if participants can connect the entry on inventory to previous to previous discussions on the same

3. Money due from customers -



Check if participants can connect the entry on money due from customers (Accounts receivable) to previous discussions on the same

4. Investments – such as short-term fixed deposits

Balance Sheet - Liabilities



Show slide 89.

Liabilities is the money owed by the business and it consists of:

1. Long Term Debt – This is the money borrowed as loans to run the business. The business would need to pay interest on these loans
2. Current Liabilities – These are short term credit availed by the business from its suppliers.



Check if participants can connect this to previous discussions on Accounts Payable

Balance Sheet – Owner's equity

Show slide 90.



The money that the business owes to its owners is the Owner's Equity. It consists of:

1. Equity Capital – This is the money invested by the owners in the business.
2. Retained Earnings – This is the profit that the owners have decided to keep in the business and not taken it out yet.

Ask the participants to name some common items in Assets, Liabilities and Owners Equity for different sample businesses. Then ask them to name such items which are unique to the sample businesses.



Eg. Inventory might not be there as an Asset item for a service business like Namita's Beauty Parlor but will be there for Kirana store.

Similarly, Accounts receivable might not be there for a business if it does not make any credit sales.

What will you say at the end of this section?

It is necessary to understand each of the three – Assets, Liabilities, Owners Equity – properly as all of them are equally important for the business.

Section 3

Balance Sheet preparation



What will you say at the start of this section?



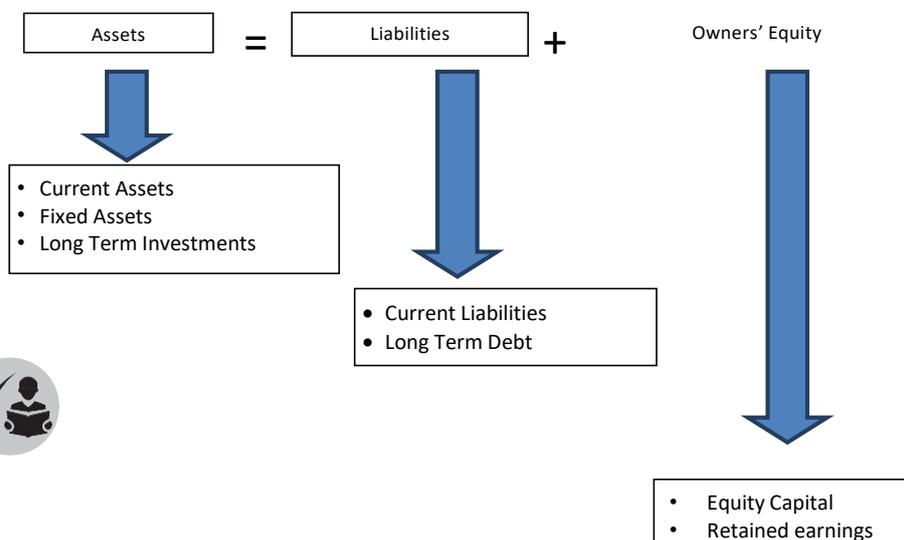
Check if the participants can say how the 3 components of Balance Sheet are arranged. Lead to slide 92.

How Will You Teach This Section?

Balance Sheet equation



Now we will help the participants understand the relationship between the three Balance Sheet items by using the following equation on slide 92.



Now ask the participants to work out the exercise on slide 93 to prepare Balance Sheet for Sundari Garments as on 31st March.

They will use the above equation for this.

1. The owners had invested Rs. 1,00,000
2. They had borrowed Rs. 2,00,000 as loan but repaid Rs. 25,000 during the year
3. The value of the machines at the end of the year was Rs.2,16,000
4. They had inventory worth 75,000
5. The profit for the year was 28,000
6. On March 31st 2016 Sundari Garments had Rs. 10,000 in the bank and Rs. 2,000 as cash balance.

The solution to this exercise is given below.

Discuss this with the participants once they have worked it out themselves.



Balance Sheet of Sundari Garments as on 31st March

Equity Capital	1,00,000
Retained Earnings	<u>28,000</u>
Owners Equity	1,28,000
Liabilities	1,75,000
Liabilities + Owner's equity	<u><u>3,03,000</u></u>

Fixed Assets	2,16,000
Inventory	75,000
Bank	10,000
Cash	2,000
Total Assets	<u><u>3,03,000</u></u>

Also, ask the participants which record would get them the data on assets, liabilities and owners equity for the business they are supporting?



Tell them that this is mainly got from the Capital Register and the PT sheet which aggregates items related to assets, liabilities and owner's equity from all other records.

What will you say at the end of this section?



After the Sundari Garment exercise, stress following key points on slide 94.

- The Balance Sheet provides information on the financial state of a business on a specific day
- The Balance Sheet shows what the business owns and what it owes to others. These are always equal through the Balance Sheet equation
- $\text{Assets} = \text{Liability} + \text{Owner's equity}$

Say that this and the preceding two modules were about understanding the statements. We will now do preparation of the 3 statements (P&L, CF and BS) in greater detail in the next module.

Preparing Financial Statements

In the previous module, we have seen what the three Financial Statements are, what each means and the different components of each of these.



We will start this class by briefly revising the three Financial Statements discussed in the last module. Revise the point that P&L and CF looks at a period of time, while Balance sheet gives information at a specific point in time.



Tell the participants that this module will help them understand how to prepare the three Financial Statements for a business.



This module introduces preparing the Financial Statements to the participants in three sections. The following table summarises the sections and the topics covered.

The first and second column shows the order of the sections and topics covered in each section. The next column shows page numbers corresponding to each section in this chapter. The corresponding slide Numbers in the Classroom Teaching Aid are shown against each section. The pages in the Participant Handbook that have material linked to the topic are also shown.

Sections	Topics	Page Nos in this Manual	Slide Numbers
1	Understanding financial transactions in a business and its impact	68	3-20
2	Preparing Financial Statements for Year 1 of a business	78	22-35
3	Preparing Financial Statements for Year 2 of a business	84	37-69
4	Linking Records with Financial Statements	95	71-77

4	Linking Records with Financial Statements	68	71-77
---	---	----	-------

Section 1

Understanding financial transactions in a business and its impact

This section will help the participants develop an understanding about how to interpret the financial information of the business. This learning will be used in the rest of the module to show how to prepare the Financial Statements for the business.



This section should be covered in 2/3rds of a day. We should make sure that the participants are clear about all the different kinds of financial transactions discussed in this section.

What will you say at the start of this section?



Call attention of the participants to the formats of different records that were discussed in the records kept in a business module.



Ask them about the businesses they are supporting and ask them to share their experiences with examples in helping businesses keep records.



Ask some of them to show the PT Sheets of the businesses they have supported. Ask them if they will be able to create the Financial Statements that were discussed in the previous module with the information they have collected.

In this section, we will see how to use financial information from the various records kept in a business to prepare the Financial Statements. We have already seen these records in the module 'Record keeping in business'. We will use Leena's Pickles as the example to do these.

How Will You Teach This Section?

We will now introduce the following example of Leena's Pickles by showing slide 3 to the participants.



Leena prepared a business plan with the help of a CRP-EP, and received a loan from an Self-Help Group (SHG) to start the business.

She started the business on January 1, 2014. The business transactions of Leena's Pickles for the next two years are given in this module.

The list of all the business transactions for the year 2014 is given on slides 2, 3 & 4

The list of all the business transactions for the year 2015 is given on slide 38, 39 & 40.

Let us begin by looking at the following business transactions of Leena's Pickles for the year 2014 by showing slides 4–6. Read out each of the following transactions to the participants and explain it in brief.



No.	PT Sheet entry	Business transaction	Amount
1	Cash added to business	Owners invested money in the business (equity)	30,000
2	Cash Purchases	Bought raw materials - assorted vegetables	40,000
3	Cash Purchases	Bought raw materials - Lemons	30,000
4	Cash Purchases	Bought raw materials - Oil, salt, sugar and spices	10,000
5	Transportation cost	Paid for transporting raw materials from the market	500
6	Purchase of fixed assets	Purchased fixed assets	40,000
7	Loan taken	Owners took a loan	20,000
8	Other expenses	Paid rent, electricity and water bills	3,000
9	Amount paid to workers	Paid production labour charges	12,000
10	Other expenses	Bought bottles	18,000
11	Transportation cost - Indirect	Paid for transporting finished goods to the market	2,000
12	Amount paid to workers	Paid salary of salesman	6,000
13	Cash sales	Sold pickles - cash sales	1,20,000
14	Other expenses	Paid for printing of marketing leaflets	300
15	Other expenses	Bought labels for the bottles (To be paid April 2015)	3,000
16	Interest paid	Paid interest on the loan	3,000
17	Cash sales	Sold pickles - credit sales	30,000



Tell the participants that any payment or receipt transactions, if not specifically mentioned, is to be considered as a cash transaction.

Impact of transactions

Now that we have seen the different transactions of the business that took place in 2014. Let us try to see how each of these transactions impact the three Financial Statements based on our learnings from the previous module.



Show slides 7–10 for this.

Say that the tick mark shows which all financial statement/s the business transaction will have an impact on. The reason for the impact has been described below each transaction.



Ask the participants the reason for the impact and then explain the reason for the impact as given below.



Also ask them to classify the costs into direct and indirect costs.

In the following table, we will only look at the details of the transactions. But, participants should remember the PT Sheet information associated with these transactions.

No.	Business transaction		Cash Flow		P&L		Balance Sheet	
			In	Out	Revenue	Cost	Assets	Liabilities
1	Owners invested money in the business (equity)	30,000	✓					✓

Cash inflow – The business is receiving cash from the owners when they invest in the business

Liability (Balance Sheet) – The business owes this money to the owners since it is owner's money that has been invested in the business

2	Bought raw materials - assorted vegetables	30,000		✓		✓		
---	--	--------	--	---	--	---	--	--

Cash Outflow – The business is paying cash to buy the raw materials

Cost (P&L) – The cost of the assorted vegetables bought appears as cost in P&L since this is a direct cost for the business

3	Bought raw materials – Lemons	40,000		✓		✓		
---	-------------------------------	--------	--	---	--	---	--	--

Cash Outflow – The business is paying cash to buy the raw materials

Cost (P&L) – The cost of the lemons bought appears as cost in P&L since this is a direct cost for the business

4	Bought raw materials - Oil, salt, sugar, spices	10,000		✓		✓		
---	--	--------	--	---	--	---	--	--

No.	Business transaction		Cash Flow		P&L		Balance Sheet	
			In	Out	Revenue	Cost	Assets	Liabilities

Cash Outflow – The business is paying cash to buy the raw materials

Cost (P&L) – The cost of the oil, salt, sugar and spices bought appears as cost in P&L since this is a direct cost for the business

5	Paid for transporting raw materials from the market	500		✓		✓		
---	---	-----	--	---	--	---	--	--

Cash Outflow – The business is paying cash to pay for transporting the raw materials

Cost (P&L) – The cost of transportation appears as cost in P&L since this is a direct cost for the business

6	Purchased fixed assets	40,000		✓			✓	
---	------------------------	--------	--	---	--	--	---	--

Cash Outflow – The business is paying cash to pay purchase fixed assets for the business

Assets (Balance Sheet) – Buying fixed assets is not a cost as it has a long life-time and therefore appears as an asset in the Balance Sheet

7	Owners took a loan	20,000		✓				✓
---	--------------------	--------	--	---	--	--	--	---

Cash Inflow – The owners have taken a loan on behalf of the business in cash

Liability (Balance sheet) – The business owes this money and therefore it is a liability for the business

8	Paid rent, electricity and water bills	3,000		✓		✓		
---	--	-------	--	---	--	---	--	--

Cash Outflow – The business is paying cash to pay for rent, electricity and water bill

Cost (P&L) – Rent, electricity and water bills appears as cost of raw materials in P&L since this is an indirect cost for the business

9	Paid production labour charges	12,000		✓		✓		
---	--------------------------------	--------	--	---	--	---	--	--

Cash Outflow – The business is paying cash to pay for the production labour charges

Cost (P&L) – Labour charges appears as cost of raw materials in P&L since this is a direct cost for the business

10	Bought bottles	18,000		✓		✓		
----	----------------	--------	--	---	--	---	--	--

Cash Outflow – The business is paying cash to pay for the bottles

Cost (P&L) – The cost of the bottles appears as cost in P&L since this is a direct cost for the business

11	Paid for transporting finished goods to the market	2,000		✓		✓		
----	--	-------	--	---	--	---	--	--

Cash Outflow – The business is paying cash to pay for transporting the finished goods

Cost (P&L) – The cost of transportation appears as a cost in P&L since this is an indirect cost for the business

No.	Business transaction		Cash Flow		P&L		Balance Sheet	
			In	Out	Revenue	Cost	Assets	Liabilities
12	Paid salary of salesman	6,000		✓		✓		

Cash Outflow – The business is paying cash to pay for the salaries of salesman

Cost (P&L) – Salaries appears as cost in P&L since this is an indirect cost for the business

13	Sold pickles - cash sales	1,20,000	✓		✓			
----	---------------------------	----------	---	--	---	--	--	--

Cash Inflow – The customer pays cash to the business on being sold pickles by the business

Revenue (P&L) – Selling of its product pickles is a revenue for the business and appears in P&L

14	Paid for printing of marketing leaflets	300		✓		✓		
----	---	-----	--	---	--	---	--	--

Cash Outflow – The business is paying cash to print marketing leaflets

Cost (P&L) – The cost of printing the marketing leaflets appears as cost in P&L since this is an indirect cost for the business

15	Bought labels for the bottles	3,000				✓		✓
----	-------------------------------	-------	--	--	--	---	--	---

Cost (P&L) – The cost of the labels for the bottles appears as a cost in P&L since this is a direct cost for the business

Liability (Balance Sheet) – This is a credit transaction since the business will pay for this only in the next month. Therefore, the business owes money to the supplier of the labels and this appears as a liability in the Balance sheet

16	Paid interest on the loan	3,000		✓		✓		
----	---------------------------	-------	--	---	--	---	--	--

Cash Outflow – The business is paying the interest on the loan it has taken in cash

Cost (P&L) – The interest cost appears as cost in P&L since this is an indirect cost for the business

17	Sold pickles - credit sales	30,000			✓		✓	
----	-----------------------------	--------	--	--	---	--	---	--

Revenue (P&L) – Selling of its product pickles is a revenue for the business and appears in P&L

Asset (Balance Sheet) - This is a credit transaction since the customer will pay for this later. Therefore, the customer owes money to the business and this appears as an asset in the Balance sheet of the business



Show slide 11 and 12.

Tell the participants that for preparing the Financial Statements for 2014, we need to remember some more transactions. These will need to be 1) further calculated from the current period transactions given above and 2) taken from the previous period's Financial Statements.



Explain each item to the participants using the comments given below each item.

1) To be calculated from the current period's transaction (Slide 11)

No.	Items	Cash Flow	P&L	Balance Sheet	
				Assets	Liabilities
	To be calculated				
1	Cash – Closing balance	✓		✓	

Ask the participants the formula for Closing cash balance seen in the previous module.



Explain the following after they have attempted.



Closing Cash Balance = Opening Cash Balance + Inflows – Outflows

2	Net profit /loss		✓		✓
---	------------------	--	---	--	---

Ask the participants what net profit is and the formula for it.



Explain the following after they have attempted.



Netprofit = Revenue – Direct costs – Indirect costs
OR

Net profit = Gross profit – Indirect costs

3	Depreciation		✓	✓	
---	--------------	--	---	---	--

Refer to item 3 above list and say that depreciation has to be calculated. While the entrepreneur may be able to keep records for all the 17 transactions discussed before, she may not know how to calculate depreciation. The CRP-EP will need to learn this. We have seen this in the previous module.

Depreciation is to be calculated as seen in the previous module by dividing Total value of

No.	Items	Cash Flow	P&L	Balance Sheet
	Fixed Assets by expected life of the Fixed Assets in Years. This amount comes out to be 1800 in this case.			
	Cost (P&L) – Depreciation appears as cost in P&L since this is a notional and an indirect cost for the business. The cost of the fixed assets which last for a long term are written down in parts as depreciation every period			
	Assets (Balance sheet) – Since the fixed assets which is depreciated loses its value, the value of the fixed assets on the assets side of the Balance Sheet is reduced by the amount of depreciation charged as a cost in the P&L			

2) From previous period's statements

No.	Items	Cash Flow	P&L	Balance Sheet	
				Assets	Liabilities
	Check the previous period's statements for				
3	Cash – Opening balance	✓			

The Opening cash balance for this period's Cash Flow Statement will be the closing cash balance on the previous period's Cash Flow Statement. For a new business, since there is no previous period's Cash Flow Statement, this will be 0.

4	Retained earnings				✓
---	-------------------	--	--	--	---



Ask what retained earnings is and how it is calculated.



Revise from previous module 'Introduction to Financial Statements'.

The retained earnings from the previous periods balance sheet. This will appear on liability's side under Owners equity. For a new business, this will be 0.

5	Fixed asset value after depreciation			✓	
---	--------------------------------------	--	--	---	--

Fixed asset value from previous period's balance sheet after subtracting depreciation for that year will appear on the assets side of the Balance Sheet.



Ask why this is done.



Revise from previous moduel on 'Introduction to Financial Statements'.

For a new business, this will be the value of the fixed assets bought at the start of business.

6	Accounts receivable – Opening balance			✓	
---	--	--	--	---	--



Ask participants what Accounts Receivables are.



Revise that this is the money that others (customers) owe to the business from previous module – Introduction to Financial Statements.

No.	Items	Cash Flow	P&L	Balance Sheet
The Accounts receivable closing balance from the previous period's Balance sheet(Assets side) will appear on the assets side of this period's balance sheet as accounts receivable opening balance. For a new business, this will be 0.				

We have now seen the impact of the financial transactions on the different Financial Statements.

We will now ask the participants to write down the value of each item into the three categories of Financial Statements as shown below on slides 13-17



and summarized in slide 18.

We will now use this table to prepare the Financial Statements more easily.

No.	Business transaction		Cash Flow		P&L		Balance Sheet	
			In	Out	Revenue	Cost	Assets	Liabilities
1	Owners invested money in the business (equity)	30,000	30,000					30,000
2	Bought raw materials - assorted vegetables	30,000		30,000		30,000		
3	Bought raw materials - Lemons	40,000		40,000		40,000		
4	Bought raw materials - Oil, salt, sugar and spices	10,000		10,000		10,000		
5	Paid for transporting raw materials from the market	500		500		500		

6	Purchased fixed assets	40,000		40,000			40,000	
7	Owners took a loan	20,000	20,000					20,000
8	Paid rent, electricity and water bills	3,000		3,000		3,000		
9	Paid production labour charges	12,000		12,000		12,000		
10	Bought bottles	18,000		18,000		18,000		
11	Paid for transporting finished goods to the market	2,000		2,000		2,000		
12	Paid salary of salesman	6,000		6,000		6,000		
13	Sold pickles - cash sales	1,20,000	1,20,000		1,20,000			
14	Paid for printing of marketing leaflets	300		300		300		
15	Bought labels for the bottles	3,000				3,000		3,000
16	Paid interest on the loan	3,000		3,000		3,000		
18	Sold pickles - credit sales	30,000			30,000		30,000	
	Total		1,70,000	1,64,800	1,50,000	1,29,600	68,200	53,000



We will now also write the values for the other transactions that are calculated from the above transactions or from previous periods Financial Statements shown in slide 19 and 20.

No.	Items	Cash Flow	P&L	Balance Sheet	
				Assets	Liabilities
	To be calculated				
1	Cash – Closing balance	5,200		5,200	
2	Net profit / loss		20,400		20,400
3	Depreciation		1800	(1800)	
We will see the calculation for this in the next section.					
Check the previous period's statements for					
3	Cash – Opening balance	0			
4	Retained earnings				0
5	Fixed asset value after depreciation			0	
6	Accounts receivable – Opening balance			0	
7	Accounts payable – Opening balance				0
Since the business the period 2014 is Year 1 for the business and since it does not have a previous period financial statement, the above values are zero.					

What will you say at the end of this section?

We need to check if all transactions have been captured. This will not happen in one go, often we will have to go back to the business to get more information. In this example, all necessary information has been provided since the purpose is to familiarise CRP-EP with preparation of the statements. The process of getting these information is also critical and only if the CRP-EP knows how to create the statements from the information will she become well-versed with what information is needed and go about getting those.

Section 2

Preparing Financial Statements for Year 1 of a business

What will you say at the start of this section?

Tell the participants that we have seen how to arrange the financial information required to create the three Financial Statements in the previous section. In this section, we will see some basic principles needed to create the Financial Statements.

How Will You Teach This Section?



Use slides 22–23 to drive home the following basic principles.

Now that we know where each transaction needs to be placed in the Financial Statements, in which order should we create the statements?

First, we create an opening balance sheet.

- For existing businesses, the balance sheet at the beginning of a period (opening balance sheet) is the same as the balance sheet at the close of the previous period.
- For new businesses, we have to prepare a balance sheet that shows how the business looked at the start of the first day of operations.

This means that, for our example, we have to create a balance sheet as on January 1, 2014, when Leena started Premium Pickles.

The opening balance sheet shows the business before it begins operations.

Next, let us create the Cash Flow Statement.

Third, we create the profit & loss (P&L) statement.

And lastly, we create the closing balance sheet for the period, i.e. as on December 31, 2014.

We create the closing balance sheet last because we need data from the cash flow and P&L statements to complete the balance sheet

Opening Balance Sheet

Now we will start the actual process of creating the Financial Statements mentioned above starting with the opening Balance Sheet.



In the class, ask each participant to create the opening BS based on their learnings from the previous module. Then ask a group of 4–5 to check if each one of them was able to do it. Get 2–3 persons to do the opening BS on the board.

Tell them to prepare the opening balance sheet using the information on slides 19 and 20 for previous periods transactions and slide 18 for current periods transaction which have taken place on January 1st, 2014.



Tell the participants that we will assume that only the loan taken and owners equity transactions have taken place on this date with all other transactions having taken place after January 1st, 2014 and not included in the Opening Balance sheet.

Once this is done, show slide 24 to show them the following correct Opening Balance Sheet.



Premier Pickles (Balance Sheet as on January 1, 2014) Assest	
Purchase value of fixed assets	-
Total depreciation so far	-
Depreciation during the year	-
Depreciated value of fixed assets	-
Cash balance	50,000
Tell the participants that since the new business has no cash to begin with, the only cash it has on January 1st 2014 is the cash from the loan taken (20,000) and the cash invested by the owners (30,000)	
Accounts receivable (AR)	-
Total Assets	50,000
Liabilities	
Accounts Payable (AP)	
Original loan amount	20,000
Loan repaid till last period	-
Loan repaid during the period	-
Loan balance outstanding	20,000
Since this balance sheet is for the time of start of the business, the entire original loan amount is outstanding as no repayment has started.	
Owner's Equity	
Original equity paid by owner	30,000
Retained Earning till last period	-
Net profit for the period	-
Total Retained Earnings	-
Total Liabilities	50,000





Tell the participants that all other items are zero since no transactions have taken place before January 1st, 2014, the start of the business.



Now, ask each participant to create the Cash Flow Statement for 2014. Then ask a group of 4–5 to check if each one of them could do it. Get 2–3 persons to do the Cash Flow Statement on the board.



Tell the participants to refer to slide 18 which shows the transaction entered into the three financial statement categories. Use the cash inflows and cash outflows from the table to create the Cash Flow Statement.

Show the following on slide 29 once they have done the Cash Flow Statement on the board.

Premier Pickles		
Cash Flow Statement for the period January 1 - December 31, 2014		
<i>Opening balance</i>	0	0
<i>We have seen that the opening cash balance is zero since this is a new business.</i>		
Cash Inflow		
Cash invested in the business by owners (equity)	30,000	
Cash from the loan taken	20,000	
Cash sales	1,20,000	
<i>Total inflow</i>		<i>1,70,000</i>
Cash Outflow		
Cash paid for raw materials (Lemon)	30,000	
Cash paid for raw materials (assorted vegetables)	40,000	
Cash paid for raw materials (Oil, salt, sugar & spices)	10,000	
Cash paid toward rent, electricity and water bills	3,000	
Cash paid to transport raw material from the market	500	
Cash paid toward wages for production labour	12,000	
Cash paid for bottles	18,000	
Cash paid to transport finished goods	2,000	
Cash paid toward salesman's salary	6,000	
Cash paid for printing of marketing leaflets	300	
Cash paid toward interest on loan taken	3,000	
Cash paid to purchase fixed assets	40,000	
<i>Total outflow</i>		<i>1,64,800</i>
Closing balance		5,200



Using this table, we can see that closing balance is 5,200 using the formula Opening cash balance

+ cash inflow – cash outflow.

Now, ask each participant to create the P&L (may want to break it into Revenues, Direct Cost, Gross Profit, Indirect Cost, Net Profit in getting different people to the board). Then ask a group of 4–5 to check if each one of them could do it. Get 2–3 persons to do the P&L on the board.

Tell the participants to refer to slide 18 which shows the transaction entered into the three financial statement categories. Use the revenues and costs from the table to create the P&L statement as shown below.



Show the following on slide 34 once they have done the P&L statement on the board.

Leena's Pickles		
Profit & Loss statement for the period January 1 to December 31, 2014		
Revenues		
Revenue from cash sales	1,20,000	
Revenue from credit sales	30,000	
<i>Total revenue</i>		1,50,000
Direct Costs		
<i>We now list down the direct costs and use this to calculate the Gross Profit as shown below.</i>		
Cost of rawmaterials (Lemon)	30,000	
Cost of raw materials (assorted vegetables)	40,000	
Cost of raw materials (Oil, salt, sugar & spices)	10,000	
Cost of transporting raw material from the market	500	
Cost of bottles	18,000	
Cost of labels for the bottles (to be paid)	3,000	
Cost of production labour	12,000	
Total Direct Costs		1,13,500
<i>We now use the above data to calculate the Gross Profit</i>		
Gross Profit (Revenues – Direct costs)		36,500
Indirect Costs		
<i>We now list down the indirect costs and use this to calculate the Net Profit as shown below.</i>		
Cost of transporting finished goods	2,000	
Cost of salesman (salary)	6,000	
Cost of rent, electricity and water	3,000	
Cost of printing marketing leaflets	300	
Interest paid on loan	3,000	
Depreciation	1,800	
Total Indirect Costs		16,100
Net Profit (Gross Profit – Indirect costs)		20,400



Now, ask each participant to create the Closing Balance Sheet. Then ask a group of 4–5 to check if each one of them could do it. Get 2–3 persons to do the Closing Balance Sheet on the board.



Tell them to prepare the closing balance sheet using the information from the opening balance sheet and from the slide 18, P&L and Cash Flow Statement. Slide 18 shows the transaction entered into the three financial statement categories. Use the transactions marked as assets and liabilities from the table to create the Closing Balance sheet.

This is shown on slide 35.

Premier Pickles

Balance Sheet as on December 31, 2014

Assets



Purchase value of fixed assets 40,000

Total depreciation so far -

Depreciation during the year 1,800

Depreciated value of fixed assets 38,200

*(Purchase value of fixed assets -
Depreciation)*



Cash balance 5,200



*(Closing cash balance from Cash
Flow Statement)*



Accounts receivable 30,000

(Credit sales from slide 17)



Total Assets 73,400

Liabilities



Accounts Payable 3,000

*(Credit purchases from
suppliers shown in slide 17)*

Original loan amount 20,000

*(Same as in Opening Balance
Sheet)*



Loan repaid till last period -

Loan repaid during the period -

*(No repayment of principal during
the year)*



Loan balance outstanding 20,000

Owner's Equity

Original equity paid by owner <i>(Same as in Opening Balance Sheet)</i>	30,000
Retained Earning till last period	-
Net profit for the period <i>(From P&L statement)</i>	20,400

Total Retained Earnings 20,400
(Net profit since there is no retained earnings from last period)



Total Liabilities (<i>Liabilities + Owner's Equity</i>)	73,400
---	--------

Also highlight the fact that the two sides of the balance sheet have to tally (Assets = Liabilities+ Owner's Equity).

What will you say at the end of this section?

Ask participants to share their experience in preparing these statements. What were the difficulties they faced? What are the challenges they are likely to face in the field while doing this for entrepreneurs? How will they prepare themselves to overcome these. Say that we will discuss these issues once more before the end of this module. For now, we will focus on creating the statements for the next year of Premium pickles.

Section 3

Preparing Financial Statements for Year 2 of a business



What will you say at the start of this section?

We have prepared the Financial Statements for Year 1 ie. 2014 in the last section. We will now prepare the Financial Statements for Year 2 ie. 2015 for Leena's Premium Pickles.



Ask the participants what would be the difference between making statements for year 1 and year 2. Which statement is most affected?

Balance sheet, as opening BS will be same as the closing BS from previous period. In case of Year 1, the opening BS had to be made. For year 2, it will be the same as CB of last year. But before we get there, we need to work the entire process of looking at the information, checking their impact and arranging the information as per different statements.

How Will You Teach This Section?

We will approach this section similar to the way S1 and S2 were done. Focus on CRP-EP who were struggling earlier and give them special attention. Use the smarter ones in the class (ones who can solve the statements faster) to help the others.



Now show the following transactions on slides 37-39 and ask the

participants to work out all the Financial Statements as they did for Year 1.

No.	PT Sheet information	Business transaction	
1	Cash added to business	Owners invested money in the business (equity)	10,000
2	Cash purchases	Bought raw materials	85,000
3	Amount received from debtors	Received cash from customers for 2014 purchases	20,000
4	Amount paid to suppliers	Paid cash to settle accounts payable for 2014	3,000
5	Transportation cost	Paid for transporting raw materials from the market	600
6	Purchase of Fixed Assets	Purchased fixed assets	10,000
7	Loan amount repaid	Owners repaid a part of the loan taken in 2014	10,000
8	Other expenses	Paid rent, electricity and water bills	3,000
9	Amount paid to workers	Paid production labour charges	12,000
10	Other expenses	Bought bottles	18,000
11	Transportation cost	Paid for transporting finished goods to the market	2,000
12	Amount paid to workers	Paid salary of salesman	6,000
13	Cash sales	Sold pickles - cash sales	1,30,000
14	Other expenses	Paid for printing of marketing leaflets	300
15	Other expenses - credit	Bought labels for the bottles (To be paid in April 2016)	3,000
16	Interest paid	Paid interest on the loan	3,000
18	Credit sales	Sold pickles - credit sales	25,000

Impact of transactions

Now that we have seen the different transactions of the business that took place in 2015. Let us try to see how each of these transactions impact the three Financial Statements based on our learnings from the previous module.

Show slides 40–43 for this.



Say that the tick mark shows which all financial statement/s the business transaction will have an impact on. The reason for the impact has been described below each transaction.

Ask the participants the reason for the impact and then explain the reason for the impact as given below.



Also ask them to classify the costs into direct and indirect costs.



No.	Business transaction		Cash Flow		P&L		Balance Sheet	
			In	Out	Revenue	Cost	Assets	Liabilities
1	Owners invested money in the business (equity)	10,000	✓				✓	✓
<p>Cash inflow – The business is receiving cash from the owners when they invest in the business again</p> <p>Liability (Balance Sheet) – The business owes this money to the owners since it is owner's money that has been invested in the business</p>								
2	Bought raw materials	85,000		✓		✓		
<p>Cash Outflow – The business is paying cash to buy the raw materials</p> <p>Cost (P&L) – The cost of the raw materials bought appears as cost in P&L since this is a direct cost for the business</p>								
3	Received cash from customers for 2014 purchases	20,000	✓				✓	
<p>Cash Inflow – The business receives cash from the customers for products purchased by them in the previous year</p> <p>Assets (Balance Sheet) – The money received from the customers has an impact of reducing the asset 'accounts receivable' owed to the business</p>								
4	Paid cash to settle accounts payable for 2014	3,000		✓				✓
<p>Cash Outflow – The business pays cash to the supplier for raw materials purchased from them in the previous year</p> <p>Liability (Balance Sheet) – The money paid to supplier has an impact of reducing the liability – 'accounts payable' owed by the business</p>								
5	Paid for transporting raw materials from the market	600		✓		✓		
<p>Cash Outflow – The business is paying cash to pay for transporting the raw materials</p> <p>Cost (P&L) – The cost of transportation appears as cost in P&L since this is a direct cost for the business</p>								
6	Purchased fixed assets	10,000		✓			✓	
<p>Cash Outflow – The business is paying cash to pay purchase fixed assets for the business</p> <p>Assets (Balance Sheet) – Buying fixed assets is not a cost as it has a long life-time and therefore appears as an asset in the Balance Sheet</p>								
7	Owners repaid a part of the loan taken in 2014	10,000		✓				✓
<p>Cash outflow – The owners on behalf of the business pays back part of the loan in cash</p> <p>Liability (Balance Sheet) – This will have the effect of reducing the loan amount in the Balance Sheet</p>								
8	Paid rent, electricity and water bills	3,000		✓		✓		
<p>Cash Outflow – The business is paying cash to pay for rent, electricity and water bill</p> <p>Cost (P&L) – Rent, electricity and water bills appears as cost of raw materials in P&L since this is an indirect cost for the business</p>								

9	Paid production labour charges	12,000		✓		✓		
Cash Outflow – The business is paying cash to pay for the production labour charges								
Cost (P&L) – Labour charges appears as cost of raw materials in P&L since this is a direct cost for the business								
10	Bought bottles	18,000		✓		✓		
Cash Outflow – The business is paying cash to pay for the bottles								
Cost (P&L) – The cost of the bottles appears as cost in P&L since this is a direct cost for the business								
11	Paid for transporting finished goods to the market	2,000		✓		✓		
Cash Outflow – The business is paying cash to pay for the bottles								
Cost (P&L) – The cost of the bottles appears as cost in P&L since this is a direct cost for the business								
12	Paid salary of salesman	6,000		✓		✓		
Cash Outflow – The business is paying cash to pay for the salaries of salesman								
Cost (P&L) – Salaries appears as cost in P&L since this is an indirect cost for the business								
13	Sold pickles - cash sales	1,20,000	✓		✓			
Cash Inflow – The business gets cash from customers on sale of pickles								
Revenue (P&L) – Selling of its product pickles is a revenue for the business and appears in P&L								
14	Paid for printing of marketing leaflets	300		✓		✓		
Cash Outflow – The business is paying cash to print marketing leaflets								
Cost (P&L) – The cost of printing the marketing leaflets appears as cost in P&L since this is an indirect cost for the business								
15	Bought labels for the bottles	3,000				✓		✓
Cost (P&L) – The cost of the labels for the bottles appears as a cost in P&L since this is a direct cost for the business								
Liability (Balance Sheet) – This is a credit transaction since the business will pay for this only in the next month. Therefore, the business owes money to the supplier of the labels and this appears as a liability in the Balance sheet								
16	Paid interest on the loan	3,000		✓		✓		
Cash Outflow – The business is paying the interest on the loan it has taken in cash								
Cost (P&L) – The interest cost appears as cost in P&L since this is an indirect cost for the business								
17	Calculated depreciation	2,250				✓	✓	
18	Sold pickles - credit sales	25,000			✓		✓	
Revenue (P&L) – Selling of its product pickles is a revenue for the business and appears in P&L								
Asset (Balance Sheet) - This is a credit transaction since the customer will pay for this later. Therefore, the customer owes money to the business and this appears as an asset in the Balance sheet of the business								



Show slide 44 and 45.

Tell the participants that for preparing the Financial Statements for 2015, we need to remember some more transactions. These will need to be 1) further calculated from the current period transactions given above and 2) taken from the previous period's Financial Statements.



Explain each item to the participants using the comments given below each item.

1) To be calculated from the current period's transaction (Slide 44)

No.	Items	Cash Flow	P&L	Balance Sheet	
				Assets	Liabilities
	To be calculated				
1	Cash – Closing balance	✓		✓	
2	Net profit / loss		✓		✓
3	Depreciation		✓	✓	
<p>Cost (P&L) – Depreciation appears as cost in P&L since this is a notional and an indirect cost for the business. The cost of the fixed assets which last for a long term are written down in parts as depreciation every period</p> <p>Assets (Balance sheet) – Since the fixed assets which is depreciated loses its value, the value of the fixed assets on the assets side of the Balance Sheet is reduced by the amount of depreciation charged as a cost in the P&L</p>					

2) From previous period's statements (Slide 45)

This needs to be written down from the previous periods Cash Flow Statement and Balance Sheet

No.	Items	Cash Flow	P&L	Balance Sheet	
				Assets	Liabilities
	Check the previous period's statements for				
3	Cash – Opening balance	✓			
4	Retained earnings				✓
5	Fixed asset value after depreciation			✓	
6	Accounts receivable – Opening balance			✓	
7	Accounts payable – Opening balance				✓

We have now seen the impact of the financial transactions on the different Financial Statements.



We will now ask the participants to write down the value of each item into the three categories of Financial Statements as shown below on slides 46–50 and summarized on slide 53.

No.	Business transaction		Cash Flow		P&L		Balance Sheet	
			In	Out	Revenue	Cost	Assets	Liabilities
1	Owners invested money in the business (equity)	10,000	10,000					10,000
2	Bought raw materials	85,000		85,000		85,000		
3	Received cash from customers for 2014 purchases	20,000	20,000				20,000	
4	Paid cash to settle accounts payable for 2014	3,000		3,000				3,000
5	Paid for transporting raw materials from the market	600		600		600		
6	Purchased fixed assets	10,000		10,000			10,000	
7	Owners repaid a part of the loan taken in 2014	10,000		10,000				10,000
8	Paid rent, electricity and water bills	3,000		3,000		3,000		
9	Paid production labour charges	12,000		12,000		12,000		
10	Bought bottles	18,000		18,000		18,000		
11	Paid for transporting finished goods to the market	2,000		2,000		2,000		
12	Paid salary of salesman	6,000		6,000		6,000		
13	Sold pickles - cash sales	1,30,000	1,30,000		1,30,000			
14	Paid for printing of marketing leaflets	300		300		300		
15	Bought labels for the bottles	3,000				3,000		3,000
16	Paid interest on the loan	3,000		3,000		3,000		
18	Sold pickles - credit sales	25,000			25,000		25,000	
	Total		1,60,000	1,52,900	1,55,000	1,35,150	52,750	0

We will now also write the values for the other transactions which are calculated from the above transactions or from previous periods Financial Statements.

This is shown on slides 51–52.



No.	Items	Cash Flow	P&L	Balance Sheet	
				Assets	Liabilities
	To be calculated				
1	Cash – Closing balance	12,300		12,300	
2	Net profit / loss		19,850		19,850
	Check the previous period's statements for				
3	Cash – Opening balance	5,200			
4	Retained earnings				20,400
5	Fixed asset value after depreciation			38,200	
6	Accounts receivable – Opening balance			30,000	
7	Accounts payable – Opening balance				3,000

Opening Balance Sheet

We will start the actual process of creating the Financial Statements mentioned above starting with the Opening Balance Sheet.

Ask the participants how will we prepare the Opening Balance sheet.

As mentioned before, the Opening Balance Sheet for Year 2 will be the Closing Balance Sheet for Year 1.



Show slide 54 to show them the following Opening Balance Sheet for 2015.

Premier Pickles		
Balance Sheet as on December 31, 2014		
Assets		
	Purchase value of fixed assets	40,000
	Total depreciation so far	-
	Depreciation during the year	1,800
	Depreciated value of fixed assets	38,200
	Cash balance	5,200
	Accounts receivable	30,000
	Total Assets	73,400
Liabilities		
	Accounts Payable	3,000
	Original loan amount	20,000

	Loan repaid till last period	-	
	Loan repaid during the period	-	
	Loan balance outstanding	20,000	
Owner's Equity			
	Original equity paid by owner	30,000	
	Retained Earning till last period	-	
	Net profit for the period	20,400	
	Total Retained Earnings	20,400	
	Total Liabilities		73,400

Now we will prepare the Cash Flow Statement for 2015 from slide 53.

Tell the participants to refer to the transactions entered into the three financial statement categories in the slide. Use the cash inflows and cash outflows from the table to create the following Cash Flow Statement.



Show slide 55–58.

Premier Pickles			
Cash Flow Statement for the period January 1 - December 31, 2015			
	<i>Opening balance</i>	5,200	5,200
Cash Inflow			
	Cash invested in the business by owners (equity)	10,000	
	Cash received against 2014 accounts receivable	20,000	
	Cash sales	1,30,000	
	Total inflow		1,60,000
Cash Outflow			
	Cash paid for raw materials	85,000	
	Cash paid to settle 2014 accounts payables	3,000	
	Cash paid towards outstanding loan	10,000	

| principal |

Cash paid toward rent, electricity and water bills	3,000
Cash paid to transport raw material from the market	600
Cash paid toward wages for production labour	12,000
Cash paid for bottles	18,000
Cash paid to transport finished goods	2,000
Cash paid toward salesman's salary	6,000
Cash paid for printing of marketing leaflets	300
Cash paid toward interest on loan taken	3,000
Cash paid to purchase fixed assets	10,000
Total outflow	1,52,900
Closing balance	12,300

Using this table, we can see that closing balance is 12,300 using the formula Opening cash balance + cash inflow – cash outflow.

Now let us prepare the P&L using slide 53.



Tell the participants to refer to the transactions entered into the three financial statement categories. Use the revenues and costs from the table to create the P&L statement as shown below.

Show the following on slide 60–63 once they have done the P&L statement on the board.

Premier Pickles	
Profit & Loss statement for the period January 1 to December 31, 2015	
Revenues	
Revenue from cash sales	1,30,000
Revenue from credit sales	25,000
Total revenue	1,55,000
Direct Costs	
Cost of raw materials	85,000

Cost of transporting
raw material from the
market

600

Cost of bottles	18,000	
Cost of labels for the bottles (to be paid)	3,000	
Cost of production labour	12,000	
Total Direct Costs (Revenue – Direct Costs)		1,18,600
Gross Profit		36,400
Indirect Costs		
Cost of transporting finished goods	2,000	
Cost of salesman (salary)	6,000	
Cost of rent, electricity and water	3,000	
Cost of printing marketing leaflets	300	
Interest paid on loan	3,000	
Depreciation	2,250	
Total Indirect Costs		16,550
Net Profit(Gross Profits – Indirect Costs)		19,850

Now, let us prepare the Closing balance sheet.

The Closing balance Sheet needs to be prepared sheet using the information from the opening balance sheet and from the slide 59, P&L and Cash Flow Statement. Slide 53 shows the transaction entered into the three financial statement categories. Use the transactions marked as assets and liabilities from the table to create the Closing Balance sheet.



Show the following Closing Balance Sheet on slides 65–67 and summarized on slide 68.

Premier Pickles		
Balance Sheet as on December 31, 2015		
Assets		
Purchase value of fixed assets	50,000	
Total depreciation so far	1,800	
Depreciation during the year	2,250	
Depreciated value of fixed assets	45,950	
Cash balance	12,300	
Accounts receivable	35,000	

Total Assets	93,250
--------------	--------

Liabilities		
Accounts Payable		3,000
Original loan amount		20,000
Loan repaid till last period		-
Loan repaid during the period		10,000
Loan balance outstanding		10,000
Owner's Equity		
Original equity paid by owner		40,000
Retained Earning till last period		20,400
Net profit for the period		19,850
Total Retained Earnings		40,250
Total Liabilities		93,250

What will you say at the end of this section?

Recall the discussion at the end of the last on challenges faced by the CRP-EPs in preparing statements on the field and steps to tackle them. Say that this is not an easy task and will need lots of practice. Not everyone may be able to do this quickly, so the CRP-EP will need to rely on each other.



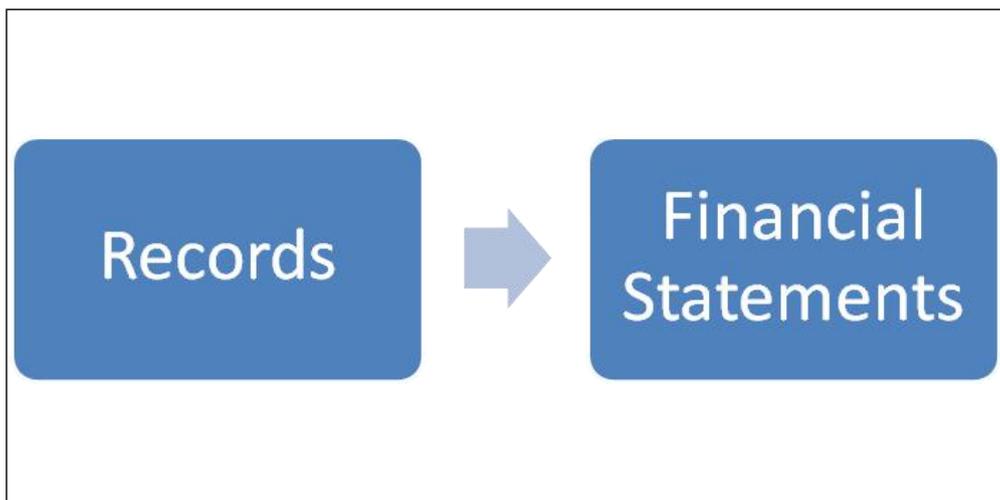
Discuss following key points on slide 69.

The following are the key steps involved in preparing financial statements.

1. Recording business transactions in the records (one-time, day-book, capital register, stock register)
2. Summarising transactions for a given period in the PT sheet (with necessary detailing product-wise and/or raw material-wise)
3. Identifying how each PT Sheet entry would impact which financial statement (done in section 1)
4. Calculating details of “also remember transactions”
5. Preparing opening balance sheet (when statements are being made for the first time in a business)
6. Preparing cash flow statement and P&L statement for the specified period
7. Preparing closing balance sheet as of the last date of the specified period

Section 4

Linking Records with Financial Statement



What will you say at the start of this section?

Ask participants to recount the process for preparation of the 3 Financial Statements. Further ask them to focus their answers on the process for both a new business as well as for an existing business.



Check if they have understood all the steps involved. The steps are revised in the first slide of this section. Show the key points on slide 82.



How Will You Teach This Section?

Show slide 71.



It is important to remember how the information kept in the records in a business are used to prepare its Financial Statements.

Earlier we had linked the PT Sheet information to the Financial Statements. Now we will look at it the other way – How the entries for the Financial Statements will come from the PT Sheet and

“also remember transactions”.

Refer to following maps in slides 72–76. Go through each item and check if participants have understood the link properly.



Discuss the three maps.

Entry of PT Sheet information into P&L statement

The value of following PT Sheet items have to be entered in the P&L as the corresponding entry shown below.

P&L	
PT Sheet information	Entry in the P&L
Cash Sales	Revenue
Credit Sales	Revenue
Total cost of item/s sold	Direct Cost
Total amount paid to workers	Direct Cost
Total amount withdrawn by the owner(s) for personal use (Wages)	Direct Cost
Total Transportation cost	Direct/Indirect Cost
Other expenses incurred	Direct/Indirect Cost
Interest amount paid	Indirect Cost
Also remember transactions	Entry in the P&L
Depreciation – To be calculated	Indirect Cost
Net Profit – To be calculated	Revenue – Total costs

Entry of PT Sheet information into Cash Flow Statement

The value of following PT Sheet items have to be entered in the Cash Flow Statement as the corresponding entry shown below.

Cash Flow Statement	
PT Sheet information	Entry in the CF
Cash Sales	Cash inflow
Cash added to the business	Cash inflow
Amount paid by debtors	Cash inflow
Cash added to the business	Cash inflow
Sale of fixed asset	Cash inflow
Security deposit returned	Cash inflow
Loans taken in the period	Cash inflow
Raw material purchased in cash	Cash outflow
Amount withdrawn by the owner(s) for personal use	Cash outflow
Amount paid to workers	Cash outflow
Transportation cost	Cash outflow
Other expenses incurred	Cash outflow
Advance paid to suppliers	Cash outflow
Amount paid to suppliers	Cash outflow
Interest paid	Cash outflow
Loan amount repaid	Cash outflow

Purchase of fixed assets	Cash outflow
Security deposit paid	Cash outflow
Capital withdrawal by owner (in case an owner resigns)	Cash outflow
Also remember transactions	Entry into CF
Opening – Cash balance	From previous CF
Closing – Cash balance	Opening Cash balance + Cash inflow - Cash outflow

Entry of PT Sheet information into Balance sheet information

The value of following PT Sheet items have to be entered in the Balance Sheet as the corresponding entry shown below.

Balance sheet statement	
PT Sheet information	Entry in the Balance sheet
	Assets
Purchase of Fixed Assets	Added to Fixed Assets
Sale of Fixed Assets	Reduced from Fixed Assets
Security deposit paid	Added to Security deposit
Security deposit returned	Reduced from Security deposit
Inventory/Stock	Closing stock in stock register
	Liabilities
Loans taken	Added to Loans
Loan amount repaid	Reduced from Loans
	Owners Equity
Capital withdrawn	Reduced from Owners Equity in Opening –Balance Sheet
Also remember transactions	Entry in the Balance sheet
	Assets
Fixed asset value after depreciation	From previous period Balance sheet less current period depreciation plus any new fixed assets purchased less any fixed assets sold
Accounts receivable	Opening AR + Credit Sales – Amount received from Debtors
	Liabilities
Accounts payable	Opening AP + Credit Purchase – Amount paid to Suppliers
	Owners Equity
Retained earnings	From previous period Balance sheet

What will you say at the end of this section?



Repeat the key point slide i.e slide 77.

The seven steps should be reinforced.

Understanding Capital

Capital is the money needed to start and run businesses.

This module helps introduce the concept of capital to the participants.

Sections	Topics	Page Nos in this Manual	Slide Numbers
S1	Types of capital	100	3-9
S2	Fixed Capital	103	11-20
S3	Working Capital	108	22-33

Section 1

Types of Capital

This section introduces 'capital'. It helps teach the participants what capital is, its importance, and types. Participants may have some idea on what capital is.

How Will You Start This Section?



Ask the participants what do they think capital is.

They would know, for sure, that money is needed to start a business.



We can start the section from whatever ideas the participant have about money needed for starting and running businesses.



Recall the 4C+E framework.



Ask the participants what the 4 Cs where.



Show slide 3.

1. First C: Customers and Competition
2. Second C: Capabilities
3. Third C: Costs and Profits
4. Fourth C: Capital

We had understood these factors, along with a fifth factor, 'Environment of the business' are key to the viability of businesses.

Tell the participants that they will look at the 4th C in detail in this module.

How Will You Teach This Section?

Every business needs to invest money to set it up and to run it. This investment is called Capital.

Go to Slide 4.



Capital is the amount of money needed by the business. Businesses need money for two things.

1. To buy productive assets such as land, building, and machinery – This is called Fixed capital.
2. To run day to day operations such as buying materials, paying wages, paying salaries etc. – This is called Working capital.

Fixed capital is typically needed at the start of the business such as for buying machinery. But owner needs to continue to invest while the business is running such as for buying raw material. That is called **Working capital**.

Call the attention of the participants to Ramu's tea shop.



Ask the following questions.

- ☐ What are the things for which Ramu needed capital while setting up his shop?
- ☐ What are the things for which Ramu needs capital for running the shop on a day?



Discuss

- ☐ Fixed capital needed for setting up a tea shop
- ☐ Working capital needed for running a tea shop



Show slide 5.



Now that we have seen what fixed capital and working capital are, let us now see what are the factors that affect how much fixed and working capital of a business.

The amount of fixed and working capital needed for a business depends on the specific needs of that business.

But we can make a few rules of thumb for the three types of businesses in the next three slides. While these rules will hold most of the time, they may not hold for certain exceptional cases.

After discussing these rules, we will take a closer look at how we can calculate the amount of fixed and working capital needed.

We will start by looking at some thumb rules with respect to capital needed in the three types of

businesses – Production, Trading and Services.

Show slide 6.

- In production businesses, we usually make products by converting raw material using machines, equipment, land & building
1. If such a business uses heavy machines and equipment or a large building/space then the fixed capital requirement is high. But if simple and small machines are used then the fixed capital needed is small.
 2. If large quantities of raw materials are needed at any time then the working capital needs are high.
 3. If the business is able to collect revenues at the time of sale or as early as possible, it reduces the amount of working capital needed



Show slide 7.

- In trading businesses we usually buy products from one place and sell them in another place or in some case door-to-door.
1. If such a business uses simple and small equipment (e.g. a weighing balance in a grocery shop) then the fixed capital requirement is low.
 2. If large quantities of inventory is needed at any time then the working capital needs are high.
 3. If the business is able to collect revenues at the time of sale or as early as possible, it reduces the amount of working capital needed



Show slide 8.

- In service businesses we provide services to customers such as haircut, mobile repair, etc.
1. If such a business uses small equipment (e.g. a toolkit for repairing mobiles) then the fixed capital requirement is low to medium.
 2. Usually in service businesses, there is no need for a significant inventory. But often small amount is needed to have spare parts, repair material etc. hence some working capital may be needed.
 3. If the business is able to collect revenues the time of sale or as early as possible, it reduces the amount of working capital needed



Show slide 9.

- Now that we have defined thumb rules, let's systematically look at how to estimate the needs for fixed and working capital.
- To do so, we will revisit the concept of capabilities of a business from the 4C + E framework.
- We will also get help from the cash flow statements of a business and levels of inventory used by the business



How Will You Conclude This Section?

Ask the participants which of the two types of capital is more important.
Explain that both fixed and working capital are necessary for businesses.

Section 2

Fixed Capital

In the last section, we discussed capital – fixed capital and working capital. In the current section, we will go deeper into fixed capital. The objective is to help the participants understand fixed capital so that they would be able to estimate the fixed capital required for setting up different businesses.

How Will You Start This Section?

Ask the participants about their understanding on the early steps required in setting up a business.



Now that they have seen what fixed capital is, discuss the requirement of estimating the fixed capital needed for any business.



Is fixed capital the same for different businesses? What are the factors that affect the amount of fixed capital needed? Discuss.

Make a point that while different businesses need different amount of capital, the process used to find how much fixed capital is needed is common. Our focus here is to learn that process.



How Will You Teach This Section?

How do we estimate the fixed capital requirement of a business?

We know that fixed capital is the amount of money required to set up the business.

The amount of money required as fixed capital depends on a number of factors.

What are they?



Start with Slide 11.

The factors on which the amount of money required as fixed capital depends on many things such as the following.

- ☒ What kind of machinery and production facilities are required for the business?
- ☒ Will these things be enough for the business as it grows over the next two-three years? Or do we have to increase the machinery and production facilities?
- ☒ Can we rent the machinery? Or some of the machinery? If so, what will make more sense; buying or renting the machinery?



Recall 'capabilities of businesses.



Go to Slide 12.

We looked at capabilities of businesses as '4C+E'. They will help us identify how much fixed capital is needed.

Recall, the second 'C' in '4C=C' is 'capabilities'. Capabilities are about what businesses can do. What are the factors that determine what businesses can do? Skills, equipment, and time available with the entrepreneur determine what businesses can do.

Let us list these three factors here.

- ☒ Skills
- ☒ Equipment
- ☒ Time available

Of these three things, equipment is directly linked to capital. We cannot have the equipment to set up a business without paying for it.

Let us now see how equipment helps a business.



Ask the participants, how do equipment helps a business. Note down the points on the black board.



Go to Slide 13.

The slide has answer to the above question.

Equipment can help our business to make things quickly and easily. So they increase our capability.

Atta can be made out of wheat using different types of equipment. In the past, chakkies used human or animal power to make atta. Today, with electric chakkies, it is easier to make atta from the wheat. But an electric chakki may need higher investment. Moreover, electricity is needed to run it.

A business can either buy the equipment or rent it, if it is available on rent.

How do we decide whether to buy or hire the equipment? Ask the participants.



Go to Slide 14



In all cases, the option of renting (hiring) equipment may not be available. However, if such an option is available, one should consider it, especially in the early stages of a business.

So, one can think of renting an office space or shop, a vehicle, or a machine rather than buying them. Renting would be cheaper and therefore reduces the risk in the early stages of a business.

For buying equipment, the business incurs a lump sum cost.

On the other hand, if the equipment is hired, the rent is a recurring cost.

During the early stage of the business, it is often better to take on a recurring cost of renting rather than a lump sum cost of buying the equipment.

As the business becomes successful, it can buy the equipment. The business can buy either new or used equipment.

The decision to buy or rent equipment has significant effect on capital.

Show slide 15.



If we decide to buy the equipment, then we typically need to raise a lot of money. But we need to spend this money only once. Then we may not spend anything substantial till the equipment is damaged and we have to buy a new one.

On the other hand, if we decide to rent the equipment, we do not pay the bulk amount needed to buy it. Instead, we pay a rent every month or so; this becomes a recurring expense and would be part of our working capital.

Ask the participants what are the other things that can be part of fixed capital?



There can be several things that would need investment of money when we start a business. These include:

Deposits

Licences

Cost of training

What are deposits?

Go to Slide 16.



We need space to set up and run the business. It could be a shop or an office space. Usually we may have to give a safety deposit. This is possible when we hire (rent) an equipment also. We get back the deposit when we leave the space or return the equipment. However, such a deposit is also considered as fixed capital since we need to raise money for it only once. What are licences?



Go to Slide 17.

Businesses may require certain licences to start with. For example, in order to start a restaurant or a canteen, we require food licence. For starting a tailor shop, we may need a licence from the Panchayat.

Such licences are usually valid for a certain period. We need to pay the amount at the beginning. These amounts are part of fixed capital.

Licences are to be renewed after a stipulated period. When we pay for renewal of licences, that is also part of fixed capital.

How is cost of training part of fixed capital?



Go to Slide 18.

Businesses may require skills that we may not have. In such cases, training will be needed. It may be needed for ourselves as well as the staff we engage in business. For example, support someone who wants to start a business of repairing mobile phones. The person may have to attend training programmes on repairing different types of mobile phones.

The money spent on training is also part of the fixed capital.



We will now do a class exercise to understand fixed capital better.



Class Exercise: Slides 19 and 20

☒ Take two businesses. One is your own or the one that someone you know is running. The second is a new business idea.

☒ For both businesses:

1. Make a list of equipment needed
2. Estimate the price of each (new and second hand)
3. Which of these can be rented easily and at a reasonable cost?
Exclude these from the list
4. Make a separate list of the remaining ones (along with amounts) which the business will need to buy
5. Are there any deposits that you need to keep? If so, make a list

7. Do you need to attend any training for the business? What is the amount of money needed?
8. To get the total fixed capital, add amounts for the equipment that you will buy, deposits that you need to pay, licenses you need to get, and any money to be spent on training

How Will You Conclude This Section?

Conclude the session by summarising the process of estimating the fixed capital requirement of a business,



Which involves understanding:

1. Capabilities of the business
2. Equipment needed by the business
3. Decision such as whether to buy or rent the equipment
4. Deposits and licenses needed by the business
5. Training needed for people involved in the business

Section 3

Working Capital

We discussed how to estimate the fixed capital required for setting up a business in the last section. In the current section, we will discuss working capital.

How Will You Start This Section?



Ask the participants what is the type of capital other than fixed capital.



Mention that while understanding how much fixed capital is needed is very important to set-up the business, Understanding working capital is equally important as it tells us how much money is needed to run the day-to-day activities of the business.

How Will You Teach This Section?



Ask the participants, how is working capital different from fixed capital.



Note down the points on the black board.



Go to Slide 22.

Working Capital is the money needed to run the day-to-day business activities such as:

- ☒ Purchasing materials
- ☒ Paying wages and salaries
- ☒ Paying rent

It does not include non-operational requirement of funds such as those for purchase of land, large machinery, etc.

Ask the participants, the name given for the money needed to buy land, machinery etc.



Working Capital is money required for the business to run its operations consistently and smoothly

It is necessary to estimate the working capital required to run a business. How do we estimate working capital?

Go to Slide 23.



- ☐ Businesses usually calculate working capital need for a reasonable period. This can be a week, month etc., depending on the nature of the business.
- ☐ However, in certain types of businesses, we may have to estimate it for every day. For example, in the case of a vegetable vending business.
- ☐ In seasonal businesses such as making and selling mango pickle, this period can be much longer such as a few months

In order to understand the method, we will calculate the working capital need for a month. But it is important to think what period is relevant for your business and then calculate for that period.

How to estimate the working capital requirement of a business?

Go to Slide 24.



What are the factors that affect the working capital of a business? Discuss.

Working Capital needed for a period depends mainly on four things:

1. How much inventory the business needs to keep
2. After taking into account the cash received as revenue, how much cash the business needs for taking care of direct and indirect costs (such as wages, rents, salaries, phone bills, electricity bill, and interest on loans)
3. Credit terms for customers
4. Credit terms for suppliers

Show slide 25.

We will use cash flow statement to calculate the working capital needed for a business. Cash flow statement helps us in this as it tells us where the money goes out and where it comes in.



Therefore, it is important to work out the cash flow statement first accurately to calculate the working capital requirement.

Inventories and capabilities are two factors that would influence the cash flows and therefore the working capital needs of a business. Hence, we have to understand the impact of these two on the cash flow first.

Let us start with revisiting the types of inventory in a business.



Recall types of inventory.



Ask the participants.



Write down the responses on the black board.

Types of inventory:



Slide 26.

- ☒ Raw Materials are those materials which are used to make products
- ☒ When Raw Materials are being worked upon but not yet converted into the final product, the materials are called Work-In-Progress (WIP)
- ☒ Once Raw Materials have been converted into Products which are in a form to be sold, these products are called Finished Goods.



Recall Types of Businesses.



List them on the black board.

Different business types have different types of inventories too.

To take a look at the inventory in three types of businesses,



Go to Slide 27.

- ☒ In most production businesses, all three types of inventory will usually be there.
- ☒ In a trading business, we buy and sell things. Even though the items we buy are already made and are ready to use, we still typically call them raw material and not finished goods.
- ☒ In a service business, there may be material used for providing services. For example, a puncture repair shop may have rubber patches. This is usually considered raw material.
- ☒ What impact do inventories have on working capital?



Go to Slide 28.

- ☒ If a production business can quickly make and sell things, then it can use cash received as revenue in one period to buy raw material for the next period. This will reduce the need for working capital for the next period.
- ☒ Similarly if a trading business can sell its stock quickly, it can use cash for the next period. So once again the working capital needed is less.
- ☒ Usually very little money is locked in inventory for a services business and hence it may not affect working capital much.

Now that we have seen the impact of inventories on working capital, let us see what capabilities mean for working capital. In the last section, we have seen how capabilities affect fixed capital. Ask the participants to recall how.

Capabilities impact working capital too.

Go to Slide 29.



- ☒ Let's look at equipment first. If we decide to rent the equipment, then every month the business needs to pay some amount as rent. This increases the working capital needed.
- ☒ Even if we buy equipment, we do not pay rent. However, we will need to spend some money on repairs, fuel etc. These are part of the working capital.

What are capabilities other than equipment?

Let the participants respond.



Capabilities includeskills.

Go to Slide 30.



- ☒ If the business owner does not have the appropriate skills, he/she may hire someone who has them.
- ☒ This will mean paying wages or salaries. This increases working capital needed. This is usually a very important factor for service businesses.

Capabilities also include the time spent.

- ☒ On its own, it has no direct involvement in working capital calculation. However, if more time is spent, usually more is the salary payment. This increases working capital needed.

What are the other things that impact the working capital requirement of businesses?



Show slide 31.

Working capital is the money needed to run the day to day activities of the business. Sometimes, a business may have unusually large cash outflows. Such outflows can be part of planned ones such as repayment of loans. They can be unplanned too as in the case of replacing an equipment which has suddenly stopped working.

If Ramu has to replace a damaged stove at his shop, or if a sewing machine has to be replaced at Sundari Garments, these are part of fixed capital, and not working capital.

In such cases, the amount of money needed in that particular period can go up significantly. However, then it becomes part of fixed capital, and not working capital. This means, not all the money needed for a period is part of working capital.

We will now do a class exercise to better understand the various aspects of capital we have seen in this module.



Show slide 32 and slide 33

- Take three businesses. One is a production business, the second is a trading business, and the third is a service business
- For each of the three businesses:
 1. Choose a meaningful period (for example, a day or a month etc.) to calculate working capital needs
 2. Decide how much inventory (and which type) the business needs to have during this period
 3. For the period, decide how much cash the business needs to take care of direct and indirect costs (including rent of the equipment)
- For each of the three businesses:
 1. What are the likely credit terms for customers and suppliers? How do they affect the working capital?
 2. Are there unusually large payments which may happen once in a while (such as annual payment of interest on the loan or the repayment of the loan)? If so, how are these likely to affect that period's working capital need?
- Present your answers along with justification to the class

How Will You Conclude This Section?



Make a point that there is no strict rule about how much time to consider while calculating working capital.

Businesses usually calculate working capital need for a reasonable period such as a month depending on the nature of the business.



Calculation of Working Capital

Working Capital is the money needed to run the day-to-day business activities such as:

- ☐ Purchasing materials
- ☐ Paying wages and salaries
- ☐ Paying rent

For running any business, it is important to calculate the working capital needed accurately. The current chapter helps the instructor in teaching the participants how to calculate working capital needed for businesses. The structure of the chapter is as shown below.

Sections	Topics	Page Nos in this Manual	Slide Numbers
1	Cash inflows and cash outflows	114	3-5
2	Calculating working capital – Step 1	116	7-8
3	Calculating working capital – Step 2	118	10
4	Calculating working capital – Step 3	120	12-13
5	Calculating working capital – Step 4	122	15-17
6	Exercise	124	19-20

Section 1

Cash Inflows and Cash Outflows



The working capital requirement of a business depends on its cash flows. A business has cash inflows and cash outflows. In this section, we first look at cash flows and then the working capital. But before that, start the module in the following way.

What will you say at the start of this section?



Ask the participants what is capital and two reasons why the business needs money.



Revise the following from the module 'Understanding Capital' shown on slide3.

We saw that capital is the total amount of money needed by the business:

1. To invest in Fixed Capital which is used to buy productive things (assets) such as machinery, Land and Buildings, Storage etc.
2. To invest in Working Capital which is used to run the day-to-day operations such as buying materials, paying wages, paying salaries, etc.

Emphasise the Key Point : Capital in business consists of Fixed Capital and Working Capital



Show slide 4.

The amount of working capital needed for a business depends on the specific needs of that business.

But we can make a few rules of thumb for the three types of businesses

1. If a business uses large quantities of raw material or inventory at any time then the working capital needs are high.
2. If a business is able to collect revenues in cash or as early as possible, it reduces the amount of working capital needed
3. If a business can delay payments for raw material and labor as late as possible then it reduces the amount of working capital needed.

Ask the participants whether they could name the most important factors that affect the working capital requirement of a business.



Mention that it is important to understand the cash flows in the business before we can estimate how much working capital is needed.



How Will You Teach This Section?

Ask the participants what they understood by cash flows.



Go to Slide 5.



In this section, we will use four steps to develop a formula for calculating the working capital needed for a month.

Will working capital requirement of a business be the same across months?

Not necessarily. There could be changes from month to month. However, for simplicity, we assume that the day-to-day things that happen in the current month are similar to those things that happened the previous month. For example, we will pay salaries in the current month just the same way we did last month.

From the previous month, we will list everything for which the business paid or received cash. These things are available from the previous month's cash flow statement.

How Will You Conclude This Section?

Mention that we calculate cash flows by listing out things for which the business paid cash and those for which it received cash. We do this for a month.



Section 2

Calculating Working Capital: Step 1

This section covers the first of the four steps outlined in this manual for calculating the working capital requirement of a business.

What will you say at the start of this section?



Ask the participants, what cash outflow and inflow are.

How Will You Teach This Section?

In the first step, we look at the cash flow of the previous month and list all operational activities for which business has paid cash.



Go to Slide 7.

Add all these amounts.

What we have is 'Cash outflow' for the previous month.

We assume that this is the 'Expected cash outflow' of the current month.

Similarly, we list all the operational activities for which the business received cash during the previous month.

Add all these amounts.

What we have is 'Cash inflow' for the previous month.

We assume that this is the 'Expected cash inflow' for the current month.

After this first step, we use the following formula to calculate the working capital requirement:

Working capital needed for this period = Expected cash outflow for this period – Expected cash inflow for this period.

$$\text{Working capital needed for this period} = \text{Expected cash outflow for this period} - \text{Expected cash inflow for this period}.$$

Class Exercise

Show Slide 8.

Consider two businesses: one your own and another one which you are studying. Calculate working capital needs for the current month.

Refer to the cash flow statement you have made for the last month. List how much cash was spent on operational activities such as:

1. Raw materials and transportation
2. Wages and salaries
3. Rents
4. Repairs
5. Phone, Electricity, Fuel, and Water
6. Interest on loans

List how much cash was received for operational activities.

Find the working capital need using the formula in the previous slide.



How Will You Conclude This Section?

Conclude the section by repeating the formula for calculating the working capital requirement of a business for a month.

Section 3

Calculating Working Capital: Step 2

In this section, we deal with the second of the four steps to arrive at the working capital requirement of a business.

What will you say at the start of this section?



Take the example of Ramu's tea shop. Does Ramu start a month's business with some money at his disposal from the previous day, which is the last day of the last month?

How Will You Teach This Section?



Show slide 10.



What did we do in the last section?

We calculated the working capital. This we did by first calculating the cash outflow and the cash inflow of the business during the month. The difference between the cash outflow and cash inflow is the working capital requirement.

But at the beginning of the month, a business might have some cash left over from the previous month. We consider this as our 'opening cash balance'.

Opening cash balance is the cash in hand which helps us reduce the amount of working capital we need for the current month.

Let's now make modifications to the formula as seen below.

**Working capital needed for this period = Expected cash outflow for this
Period – Expected cash inflow for this period – Opening cash balance for this period.**

How Will You Conclude This Section?

Conclude the section by repeating the concept of opening balance and the difference it makes to the formula for calculating the working capital.

Section 4

Calculating Working Capital: Step 3

In this section we consider the effect of credit on working capital calculations.

What will you say at the start of this section?

All businesses involve availing as well as giving credit. Credit transactions influence the working capital needs significantly.

How Will You Teach This Section?

Every business should have a credit policy. Such a policy would specify how much credit the business would allow. Some businesses allow their customers to pay for their purchases at a later point of time.



Go to Slides 12 and 13.

A shop keeper may allow a customer to buy products or services today and pay next month.

This means the amount becomes 'Accounts Receivable'. Sale has happened; the customer will pay later.

If the shop allows this as a matter of practice, this would mean that some customers who bought something last month may be paying up this month!

That means, such transactions can affect working capital requirement of the business.

If the payment for a sold item will be received only on a later date, we have to consider that while estimating working capital. Similarly, if the money for some items sold last month would be received this month, it also has to be considered.



Discuss: What is the impact of the above transactions on the working capital this month?

- ☒ When we collect 'Account Receivable' from last month, the business gets some cash for the current month.
- ☒ This reduces the working capital needed for the current month.

Working capital needed for this period = Expected cash outflow for this period –
Expected cash inflow for this period – Opening cash balance for this period – Last
period's accounts receivable to be collected in this period

How Will You Conclude This Section?

Ask participants about the impact of 'Accounts Receivable' on working capital.



Emphasise:

Collecting pending money from the customers as early as possible helps reduce the amount of working capital needed.



Section 5

Calculating Working Capital: Step 4

In the last section we have seen that credit policy has implications on the working capital requirement of a business. In this section, we examine the implications of credit policy on working capital in more detail.

What will you say at the start of this section?

All businesses involve availing as well as giving credit. Credit transactions influence the working capital needs significantly.

How Will You Teach This Section?



Use Slides 15–16 for this section.

A business gives credit; it also gets credit.

When a shop sells a product to a customer and the payment is to be received at a later point of time, the business is giving credit.

On the other hand, a business may get credit while buying raw materials or products for sales.

When a business buys raw materials or products from its suppliers and pays at a later date, we call it 'Supplier Credit'. The amount is 'Accounts Payable' for the business.

Let us examine the impact of 'Supplier Credit' on the working capital of a business.

In this case, the business is the 'customer'. Whose customer? The business is its supplier's customer. A supplier may allow its customer (the business that is buying things from the supplier) to pay for their purchases later.

- ☒ For example, a tea shop owner buys milk this month from the milk supplier and is allowed to pay for it next month. For the tea shop, this amount is 'Accounts Payable'.
- ☒ This also means that for the tea shop owner to run the business this month, he has to pay for the milk that he had bought last month!



Discuss: What is the impact of this on working capital required this month?

How Will You Conclude This Section?

Ask the participants to recap the key concepts in working capital calculations:



- ☒ Working capital is the money required to run the business
- ☒ It is calculated for a period – usually a month
- ☒ It depends on :
 1. Inventory needed for the period
 2. Direct and indirect cost for the period
 3. Credit terms with suppliers
 4. Credit terms with customers

Discuss the entire Working Capital calculation components with students.

Mention

Working capital needed for this period = Expected cash outflow for this period – Expected cash inflow for this period – Opening cash balance for this period – Last period's accounts receivable to be collected in this period + Last period's accounts payable to be paid in this period

Conclude this section by saying that by delaying payments to the suppliers, we can reduce the need for working capital in that period. But it increases the working capital needed during the next period.

Show key points on slide 17.



Section 6

End of Day Exercise

What will you say at the start of this section?



Tell the participants that they will now use the 4 steps they have studied in this module to calculate the working capital of a business enterprise.

How Will You Teach This Section?



Show slide 19 and 20 to discuss the exercise.

Ramu's Tasty Tea shop is set-up on a highway. The man (Ramu) who owns the shop also works in the shop

He makes tea, coffee, and snacks and sells them to travelers on the highway. In the night on the last day of April he wants to calculate the working capital need for May.

He looks at the data from the cash flow statement of April.



Ask the participants to help him calculate the working capital need for May. Make sure you carefully select those day-to-day activities which are operational activities for the business.

Calculate the working capital need for May.

Transactions in April	Rs.
Collected last month's accounts receivable	1,500
Paid helper's salary in cash	2,500
Bought raw material on credit	5,000
Paid last month's credit to the supplier	4,800

Paid rent for May in advance	1,500
Paid water bill	500
Bought a new stove to replace the old one	7,500
Sold tea and snacks for cash	16,500
Closing balance	2,800

Lent money from his own pokcet to a friend	1,000
Bought raw material for cash	2,000
Paid for repairs in cash	200

How Will You Conclude This Section?

We will conclude this module by asking the participants to revise the 4 steps to calculate working capital once again.



Managing Capital

In this chapter, we look at 'capital' in detail. We will look into the management of fixed as well as working capital.

The chapter is divided into three sections.

Sections	Topics	Page Nos in this Manual	Slide Numbers
1	Sources of capital	127	3-9
2	Managing fixed capital	130	11-16
3	Managing working capital	133	18-22

Section 1

Sources of Capital

Show slide 3 and revise the following about capital covered in the previous sections.



Ask what capital is and the two reasons why it is needed



Capital is the total amount of money that a business needs. Any business would need money to set it up as well as to run it regularly.

A business therefore, needs money for the following.

1. To invest in Fixed Capital which is used to buy productive things (assets) such as machinery, land and buildings, storage etc.
2. To invest in Working Capital which is used to run the day-to-day operations such as buying materials, paying wages, paying salaries, etc.

Capital in business consists of Fixed Capital and Working Capital.

How Will You Start This Section?

Recap: Capital, Fixed Capital and Working Capital.



Ask participants to explain the difference between Fixed Capital and Working Capital.



Explain that two aspects are important in managing capital.

- ☒ Understand how much fixed capital and working capital are needed for a business.
- ☒ Understand where this capital will come from.



This section will focus on these.

How Will You Teach This Section?



Ask the participants, where capital can come from.



Note down their responses on the black board.



Go to Slide 4.

The owners of a business have two options for raising capital.

- ☑ They can invest their own money. This is called 'Equity'.
- ☑ They can borrow money from others. This is called 'Loan'.

For their equity investment, owners get a share in the profits of the business.

In the case of loans, the business has to pay interest.

A business can raise capital through 'Equity' or 'Loans'.

For Equity, the owners get a share of the business's profits.

Those who lend money to a business will get 'interest'.

A business can use both: Equity and Loans.



Go to Slide 5.

A business can use a combination of equity and loans for raising capital. But how can we decide how much equity to put in? Or how much loan to take?



Ask the participants these questions. Let a number of participants respond.

There is no rule about how much capital should come from equity and how much from loans.

The choice depends on two factors.

- ☑ How easy it is to raise capital through equity or through loans
- ☑ How costly it is to raise capital through equity or through loans

Let us first look into the ease and cost of taking loans.



Go to Slide 6.

- ☒ Banks often have schemes to provide loans to small businesses. They require a business plan to approve the loan (we will see how business plan is made in another module)

- ☒ The banks also often require some security or collateral to safeguard the loan. Owner's land or property can be used for this purpose. Such secured loans are cheaper than the unsecured ones
- ☒ Banks do not usually give loans easily for working capital but it is relatively easier to get a loan for fixed capital.

Now let us look into the cost of capital.

Show slide 7.



- ☒ There is always some cost in getting Capital for a business
- ☒ In case of loans, it is simply the interest to be paid
- ☒ In case of equity:
 1. The owner who is giving money has some expectation about the returns. This expectation will have to be fulfilled by the business and hence that's the cost of equity
 2. This cost is often the opportunity cost for the owner

Cost of capital has direct implications for the viability of the business. A business is viable only if its profits are more than its cost of capital.

Show slide 8.



If the business has taken a loan and if it does not generate enough money to pay the interest on the loan, then it is not viable.

Similarly, if the owner has invested own money and the business does not generate more profits than the opportunity cost of the investment, it is not viable.

For a business to be financially viable, profits should be more than the cost of capital.

How Will You Conclude This Section?

Summarise the key points on slide 9



- ☒ A business can raise capital it needs by getting owners to invest their own money (Equity) or by borrowing from others (Loans) or by using a combination of the two
- ☒ Cost of loan is the interest paid and the cost of equity is the expectations of returns the investor has
- ☒ A business would be financially viable only if its profits are more than the Cost of Capital

Conclude the section by reiterating the following points.

- ☒ A business owner must be clear about how much capital is raised from which source.
- ☒ She should also be clear about the cost of capital.

These two are very important to understand under which conditions the business will become viable.



Section 2

Managing Fixed Capital

Fixed capital is the money needed for procuring the assets for setting up a business.

How Will You Start This Section?



Recall the link between business viability and cost of capital.



Say that managing capital requires keeping an eye on the future of the business as well as keeping an eye on the day to day aspects of the business.

How Will You Teach This Section?

Let us first look at managing fixed capital.



Go to Slide 11.

Most of the fixed capital in a business is typically needed while starting the business. However, in some cases, the business may need to find fixed capital even when the business is already running.

For example, a business may need to buy a new machine after the old one has suddenly stopped working.

If the owner is putting her money then she should be ready to put money not just at the start of the business but also as and when needed.

Similar is the case with loan too. If the business is taking loan for fixed capital, it may be in the beginning and also as and when needed.

Managing Equity



(Slide 12)

Managing capital is not only about getting adequate capital as and when needed. We have to consider a few important factors.

When someone invests in a business in the form of equity, she or he would expect some return periodically as long as they continue as an investor.

What does this mean for the business?

For the business, this means that it has to periodically give part of its profits to the investor.

Deciding how much profits to give and when to give is an important aspect of managing fixed capital.

How much profit to give back and when?

(Slide 13)



It makes sense to invest most of the profits earned back into the business. Better still, if one could invest all of the profit back into the business.

It is important to do this, as it could ensure smooth running of the business in the second year. If we do not invest back into the business, we may not have any surplus money if things go wrong in the second year.

In addition, if we are the investors of a business, we may have to invest more money in case the business needs it. If we set aside the profits earned in the first year for such investment, we would not have the additional burden of bringing in more funds. We may also have to shut business if things do not go well.

Therefore, reinvesting the profits earned back into the business, during early years, is a step to reduce risks.

Why do you think it is a good idea to invest the first year's profits back into the business?

How much profits to give back and when?

(Slide 14)



A business should set aside enough amount so that it can run for at least three months even if it is losing money. We can call the money set aside thus 'safety fund'.

Owners should keep in mind the working capital requirement of the business.

If profits are much more than the safety fund, then the owners can take them as dividends or bonus. But we should be careful if the losses are consistent. We should think of ways to improve business as we will see in another module.

Now let us look at loans.

Show slide 15.



If a business has taken a loan, it has to manage it carefully. This involves planning for two things:

- ☐ Periodic interest payment; this is mostly every month.
- ☐ Repayment of the loan amount.

A part of the profits of the business should be kept aside regularly to make the above payments. A business owner should think about these two cash outflows before taking a loan. If the business is not doing well, such outflows can make things even worse.

How Will You Conclude This Section?



Summarise the section using slide 16.

- ☒ Managing fixed capital involves planning to raise money not just at the start of the business but also while running the business as and when needed
- ☒ If fixed capital is raised through equity, the business should keep sufficient profits aside as 'safety fund' before giving the profits to the owners
- ☒ If loan is used to raise fixed capital then the business should always have sufficient funds to make interest payments. It must also plan to repay the loan



Conclude the session by making the following point:



A business owner should decide on a judicious mix of equity which is owner's money and loan which is someone else's money so that fixed capital can be managed well.

Section 3

Managing Working Capital

In this section, we look into the management of working capital.

How Will You Start This Section?

Ask a participant to define working capital.



A business owner should try to minimise the capital locked in as working capital. At the same time, there should be adequate amount available for the business.

It is a balancing act and that is the focus of this section.

How Will You Teach This Section?

It is important for a business to keep its working capital needs as low as possible.



Ask the participants, 'why?'



Why should a business keep its working capital needs as low as possible?

Go to Slide 18.



The reason is, if a business can keep its working capital needs low, valuable money can be used as fixed capital for buying necessary equipment and machinery for the business.

At the same time, one should ensure that there is no shortage of working capital. It is necessary to ensure that the operations run smoothly.

Managing working capital

Go to Slide 19.



An important consideration is to keep the right inventory.

Working capital needs can be minimised by keeping just enough inventory so that not much money is locked in it.

Sometimes this means stocking fewer items but doing it more often. Buying more often, however, may result in higher transportation cost.

Sometimes there is seasonality in the business. In such cases, the business should carefully plan when the inventory needs will be high and when it can be low.

Another important consideration is to reduce processing time.



Show slide 20.

Working capital needs can be minimised by reducing processing time

1. This is especially true for production businesses. This can be done by using better equipment.
2. It can also be done by training staff so that their skills improve.
3. Sometimes, there can be a different and a more efficient way of producing things or providing service. The business owners should think about these improvements

A third way to reduce working capital is to have better credit periods.



Show slide 21.

Working capital needs can be minimised by

1. Conducting better negotiations with suppliers to get longer credit period (that means pay for the raw material as late as possible)
2. Offering shorter credit period to the customers (that means get them to pay on the spot or as early as possible)

How Will You Conclude This Section?



Summarise the key points on slide 22.

Working capital needs can be minimised by

- ☑ Keeping just enough inventory
- ☑ Reducing processing time
- ☑ Negotiating better credit terms with
 - o Suppliers
 - o Customers



Conclude the section by stating that well-managed credit policies are vital for well-managed working capital.

Breakeven Analysis

Ask the participants what they understand by the term 'Breakeven'.



Tell them it means that something is just about to be successful ie. it is a point where something is neither successful nor a failure.

This module introduces the concept of breakeven in business to the participants in six sections. The following table summarises the sections and the topics covered.

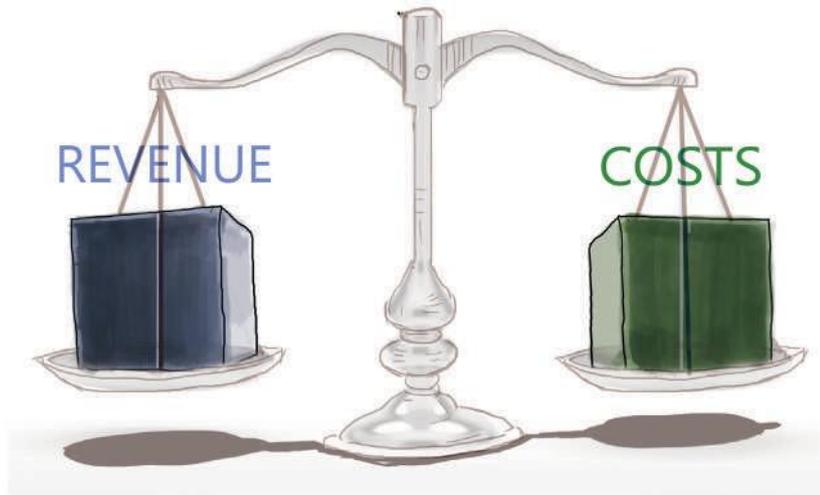
The first and second column shows the order of the sections and topic covered in each section. The next column shows page numbers corresponding to each section in this chapter. The corresponding slide Numbers in the Classroom Teaching Aid are shown against each section. The pages in the Participant Handbook that have material linked to the topic are also shown.

Sections	Topics	Page Nos in this Manual	Slide Numbers
1	Breakeven Point	136	3
2	A different way to look at the costs - Fixed and Variable Costs	138	5-13
3	Calculating breakeven for single product business	142	15-21
4	Calculating breakeven for businesses with more than one product	147	23-26
5	Calculating breakeven for service businesses	150	28-32
6	Exercise	154	34-35

Now let us move on to the first section- "Breakeven Point"

Section 1

Breakeven Point



What will you say at the start of this section?

When we plan to set-up a business, we must know under what condition the business will become successful. Breakeven point is an important tool to understand that condition.

How Will You Teach This Section?



Show slide 3.



In the module ' Introduction to Business', we have seen that the viability of a business ie. whether the business will become successful or not depends on the business making consistent and adequate profits.

Viability of a business depends on making adequate profits consistently. If a business is not making profits, it will eventually close down. Making profits should become a basic characteristic of the business. Some businesses may start making profits but then lose out because they fail to make it consistently.

We saw in the module 'Introduction to Financial Statements' that profits can be increased in the following ways.

1. Increasing the revenue

Revenue can be increased by:

- Increasing the price
- Increasing the volume of sales

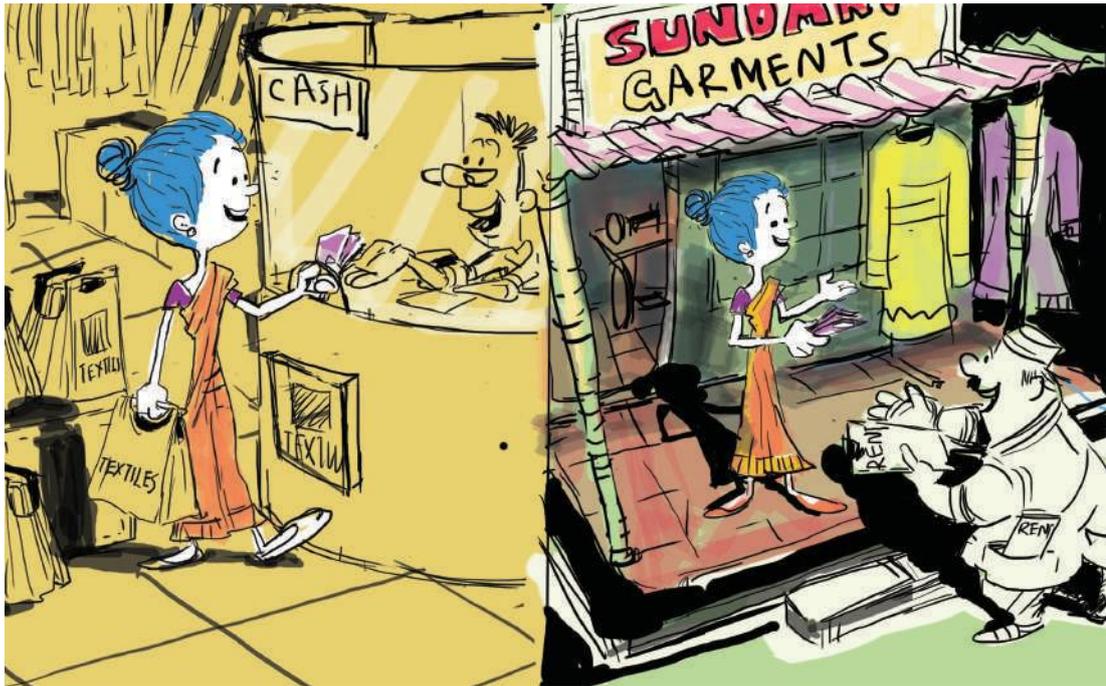
2. Reducing the cost of production and cost of selling

What will you say at the end of this section?

We will now look more closely at various aspects of revenue and costs necessary for the business to become successful and reach the breakeven point.

Section 2

A different way to look at the costs – Fixed and Variable Costs



This section focuses on the cost side of profits necessary for a better understanding of breakeven analysis of a business.

What will you say at the start of this section?

Business does not have much control over revenue as they are based on customers' behavior. But every business has a lot of control over costs and hence must understand the nature of its costs. That is our focus in this section.

How Will You Teach This Section?



Show slide 5.

On the revenue side, we have seen that increasing price of a product might help to increase the profits.

Whether the price can be increased will depend on a number of factors. We need to look at the market situation. What are the prices at which competitors sell their products?



The relationship between demand, the competitors and product price would be addressed in the Sales & Marketing module.

In the rest of this module, we will focus on understanding the other aspects of profits such as costs and volume. We will examine the relationship between Costs, Sales Volume and Profits and see how we can increase profits through control of costs and increasing the volumes.

Show slide 6.

In business, we need to look at the same costs from two different ways. Each way tells us something different. One way of looking at costs is as direct and indirect costs. We saw this in the module, 'Introduction to Financial Statements'. We saw how this helps us prepare Profit and Loss Accounts and understand profitability of businesses.

Another way to look at costs is as fixed costs and variable costs. We will be using this in the rest of the module to determine the breakeven point of a business.

Show slide 7.

Tell the participants that we will use the example of Maya's fruit business to understand what fixed and variable costs are.

Maya is a young woman who runs a small business of selling bananas. She buys bananas from the whole sale market and sells on retail from a store that she has taken on rent.

Tell the participants we will assume that Maya's fruit shop only has bananas to begin with.

She pays a monthly rent of Rs 500. She takes a monthly salary of Rs 2000 for herself. There are no other costs in the business.

She has been buying bananas at Re 1 per piece and selling at Rs 2.

If she buys and sells 3000 bananas a month,

Ask the participants to make a P&L statement for Maya's business.

Ask 1–2 participants to work it out on the board.

Now ask them to prepare P&L statement, if Maya buys and sells 4000 bananas instead of 3000.

Ask 1–2 participants to work it out on the board.



After the participants have done this, show the following on slide 8.



When Maya bought and sold 3000 bananas. What would be her profit for the month?

Revenue from selling 3000 bananas at Rs 2 per banana : Rs 6000

Rent for the shop	: Rs 500
Salary paid to Maya	: Rs 2000

Cost of raw materials (3000 bananas bought at Re 1 per piece) : Rs 3000

Total costs : Rs 5500

Profit : Rs 500

Maya has thus made a profit of Rs 500 in March. This came from the total sales of Rs 6000 that the shop made. The total costs incurred amounted to Rs 5500. Maya was not happy; she was not earning enough. So, she wants to increase her profit. So, she increased the number of bananas that she bought in April to 4000; she has been able to sell all of them at Rs 2 per piece. The shop's revenue went up to Rs 8000. Let's help her work out the profit that she has made and see whether it was adequate for her.

Revenue from selling 4000 bananas at Rs 2 per banana : Rs 8000

Rent for the shop	: Rs 500
Salary paid to Maya	: Rs 2000

Cost of raw materials (4000 bananas bought at Re 1 per piece) : Rs 4000

Total costs : Rs 6500

Profit : Rs 1500

We see that the profit has gone up by Rs 1000 to reach Rs 1500.



Show slide 9.

Ask the participants to note that the rent as well as salary for the two months remained the same. What does this mean? When Maya increased her business volume and generated more profits, the amount paid on rent and salary did not change. Thus, there are costs that do not change when the sales volume changes; these are called **fixed costs**.



Show slide 10.

Fixed costs are costs that do not vary according to the sales volume; the business incurs these even when there are no sales.

Examples of fixed costs are rent, monthly salaries, interest payment on loans

As fixed costs remain unchanged irrespective of the sales volume or whether there has been any

business at all, it is a good idea to keep the fixed costs as low as possible. Otherwise the business will suffer when the sales volume is low.



Show slide 11.

Now, ask the participants to note that when Maya bought 1000 more bananas in the second month, her cost of raw materials went up by Rs 1000, from Rs 3000 to Rs 4000. Thus, we see that the raw material cost changes as sales volume changes; such costs are called variable costs.

Show slide 12.

Variable costs are costs that vary proportionately as sales volume changes.

Examples of variable costs are raw materials, labour at piece rate, sales commission

In the examples provided, you may note that monthly salaries are part of fixed costs while labour cost at piece rate is a variable cost. Can you provide the reason for this?

This is because salaries do not change proportionately as sales volume changes while labour cost at piece rate does.

As we have already seen, variable costs change proportionately when sales volume changes. Therefore, it is important to know how much variable cost the business would incur for producing or selling a particular number of units. In other words, we have to know the **Unit Variable Cost**. We find the unit variable cost or variable cost per unit by dividing the total variable cost by sales volume. In Maya's fruit business, the variable cost per unit of banana is Re 1.

Variable Costs per unit & Viability

Show slide 13.

If the variable cost per unit of a product or service is more than its selling price, the product or service would never be viable for the business. If the variable cost per unit is more than the selling price, then the business has only one of the following two ways forward.

- ☒ Reduce the variable cost
- ☒ Increase the selling price

Emphasize the following key point on the slide–

If the variable cost per unit is higher than the selling price, the business can never be viable.

What will you say at the end of this section?

Fixed and variable costs determine how much volume we must sell to succeed in a business.



Section 3

Calculating breakeven for single product business



What will you say at the start of this section?

Seldom a business sells only one product or one service. But to learn the concept of breakeven, it is useful to think of a business which sells only one product. We will try to understand how to calculate breakeven point now. But before that we will look at what happens if a business does not sell enough volumes.

How Will You Teach This Section?

Sales volume & viability

Tell the participants we will go back to the example of Maya's fruit business. Suppose, Maya is able to buy only 1000 bananas a month. What would be her monthly profit?



Ask the participants to calculate this.



Then show the following after they are done.



Show slide 15.

Revenue from selling 1000 bananas at Rs 2 per banana	: Rs 2000
Rent for the shop	: Rs 500
Salary paid to Maya	: Rs 2000
Cost of raw materials (1000 bananas bought at Re 1 per piece)	: Rs 1000
Total costs	: Rs 3500
Profit	: Rs (-1500)

Explain that Maya has made a loss of Rs 1500 here. She has sold the bananas at Rs 2 per piece while her variable cost per unit was Re 1 only. This means that she incurred a loss even when the variable cost per unit was lower than the selling price.

Why? Because, the business needs to sell enough volumes to make profit, even when the selling price is higher than the variable cost as shown in the keypoint.

Show slide 16.



Now that we have seen different scenarios where a business makes profit and where the business does not make profits, let us understand what a breakeven point is.

Breakeven point is defined as a special condition in which the business neither makes profit nor loss. This is a very important concept that helps in assessing the viability of a business.

In order to understand the concept, let us begin with the simple equation:

$$\text{Profit} = \text{Revenue} - \text{Costs}$$

As stated above, at the breakeven point, there is no profit or loss. Therefore, the profit in the above equation becomes zero.

$$0 = \text{Revenue} - \text{Costs}$$

We can re-write the above equation as follows:

$$\text{Revenue} = \text{Costs}$$

Definition:

Breakeven point is defined as the point at which the business neither makes profit nor it incurs loss

Show slide 17 and 18.



As break even condition is Revenue = Costs, we can say the following:

$$\text{Revenue} = \text{FC} + \text{VC}$$

This means, at breakeven point, the revenue is equal to the sum of Fixed Costs and Variable Costs.

This looks simple when we consider Maya's business because she handles only a single product – bananas. The logic stands for businesses handling multiple products too. Let us see how to use the above equation for businesses handling multiple products in the next section.

We will now use example of Maya's business once again to understand breakeven point for the business or the point at which the business just makes a profit.

Maya still pays a monthly rent of Rs 500 and gets herself a salary of Rs 2000 per month. Given

these, what is the minimum volume of bananas that she should sell to make a profit?

Revenue	5000
Rent	500
Salary	2000
Raw materials	2500
Profit	0

We can see from the table that when Maya sells 2500 bananas her business reaches breakeven point. That is the point when there is no profit or loss. From here onwards, every additional banana that she sells, she would make a profit.

Explain using the following table what happens when she sells one additional banana.

Revenue	5002
Rent	500
Salary	2000
Raw materials	2501
Profit	1

Rent and salary (FC) remain the same, raw material cost goes up by Re1 and revenue goes up by Rs 2, allowing Maya to make Re 1 as profit.



Ask the participants to solve the following exercise on slide 19.

What will Maya's breakeven point be if:

- She buys bananas for Rs. 1 each and sells them for Rs. 2 each
- She rents a shop for Rs. 500 a month
- She increases her salary to Rs. 3000 per month
- There are no other costs in the business



Explain the following after they've worked it out.

Revenue	7000
Rent	500
Salary	3000
Raw materials	3500
Profit	0

$$\text{Revenue} = \text{FC} + \text{VC}$$

$$2 * (\text{Volume sold}) = 3500 + 1 * (\text{Volume sold})$$

$$\text{Volume sold} = 3500 / (2-1)$$

We can see from the table that only when Maya sells 3500 bananas her business reaches breakeven point. Thus, because the fixed cost (salary) of the business has gone up by 1000, the business needs to sell 1000 more bananas to achieve breakeven.

Ask the participants to solve the following exercises on slides 17 and 18 if some of the participants are having difficulties in solving the above one.

Exercise 2.

Show slide 20.

How many bananas should Maya sell to make a monthly profit of Rs 2000, if

- ☒ She buys bananas for Rs 1 each and sells them at Rs 2 each
- ☒ She rents a shop at a rent of Rs 500 per month
- ☒ She increases her salary to Rs 3000 per month
- ☒ There are no other costs in the business

Explain the following after they've worked it out.

Revenue	11000
Rent	500 (Fixed Cost)
Salary	3000 (Fixed Cost)
Raw materials	5500 (Variable Cost)
Profit	2000

We can see from the table that only when Maya sells 5500 bananas her business makes a profit of 2000.

$$\begin{aligned} \text{Profit} &= \text{Revenue} - \text{Cost} = \text{Revenue} - (\text{VC} + \text{FC}) \\ &= (\text{Price} * \text{volume}) - (\text{unit VC} * \text{Volume}) - \text{FC} \\ \text{Therefore, } 2000 &= (2 * \text{volume}) - (1 * \text{volume}) - 3500 \\ \text{Therefore, } 2000 &= \text{volume} - 3500 \\ \text{Implied volume} &= 5500 \end{aligned}$$

Exercise 3.

Show slide 21.

- ☒ Maya can sell bananas at Rs 2 each
- ☒ Rent for the shop is Rs 500 per month
- ☒ She pays herself a salary of Rs 3000 per month
- ☒ She thinks she can sell 4500 bananas in a month
- ☒ What should be her maximum cost of purchasing one banana if she wants to make a monthly profit of Rs 1000?

Explain the following after they've worked it out.

Revenue	9000
Rent	500
Salary	3000



Raw materials	4500
Profit	1000

We can see from the table that only when Maya sells 4500 bananas her business makes a profit of 1000.

Profit = Revenue - Cost = Revenue - (VC + FC)

Profit = (Price * volume) - (unit VC * Volume) - FC

Therefore, 1000 = (2 * 4500) - (Unit VC * 4500) - 3500

Therefore, 1000 = 9000 - 3500 - (Unit VC * 4500)

Implying Unit VC * 4500 = 9000 - 3500 - 1000

Or, VC = 4500 / 4500 = 1

What will you say at the end of this section?

Breakeven analysis helps us answer a question about how much volume the business needs to sell if fixed and variable costs of the business are known.

Section 4

Calculating breakeven for businesses with more than one product



What will you say at the start of this section?

Most businesses fall into this category where they sell more than one product. We will use the concept of breakeven we learnt for a single product business and apply it to the more common case of businesses with multiple products.

How Will You Teach This Section?

Let us once again use the example of Maya's business to learn about breakeven for businesses with more than one product.

Show slides 23–25.



Maya wants to expand her business. She now buys and sells apples along with bananas. She buys bananas at Re 1 each and sells at Rs 2 each. She buys apples at Rs 4 each and sells at Rs 5 each.

Let us assume that she sells A number of apples and B number of bananas. Her revenue now comes from selling apples as well as bananas. Therefore, we can write the following equation.

$$\text{Revenues} = 5A + 2B$$

Maya's fixed costs have not changed whatsoever. They remain the same- Monthly rent of Rs 500 and salary of Rs 2000. Therefore,

$$\text{FC} = 500 + 2000$$

$$\text{i.e., FC} = 2500$$

Maya's variable costs are from buying apples and bananas. We have assumed that she buys A number of apples and B number of bananas.

Therefore, the variable costs

$$\text{VC} = 4A + 1B$$

The total costs are given by

$$\text{Costs} = \text{FC} + \text{VC}$$

$$\text{Costs} = 2500 + 4A + 1B$$

We know that at breakeven point, Revenues = FC + VC

Therefore,

$$5A + 2B = 2500 + 4A + 1B \text{ which}$$

$$\text{simplifies to } A + B = 2500$$

This is an important equation. What does it tell us?

It tells us that any combination of number of apples (A) and number of bananas (B) that add to 2500 is a breakeven point.

This applies in this specific example, given the assumptions of costs and revenues made.



Show slide 26.

In a business with multiple products the equation for breakeven point gives the correct answer for different possibilities. In such cases, it is better to discuss breakeven point in terms of revenue (rather than volume) needed to reach the breakeven. So, we should use the breakeven condition that we have seen earlier:

Breakeven point is when the total Revenue = Total (FC + VC) for a business across its different products



Use the following example to explain what the above means.

Considering the formula, we arrived at for Maya's apple and banana business, given above, let us see how the formula for breakeven works. In the following table, we have assumed that Maya buys and sells 1000 apples and 1500 oranges. Remember, the formula was

$$A + B = 2500$$

Here, 1000 apples and 1500 bananas were bought and sold, thus the total number of fruits handled were 2500. In the table, we have included the Fixed Costs of rent and salary, which do not change according to the change in sales volumes; we have also included the Variable Costs, which change in proportion to the volume of products bought and sold

	Numbers	Selling Price	Revenue
Revenue from apples	1000	5	5000
Revenue from bananas	1500	2	3000
Total Revenue	2500		8000
Rent			500
Salary			2000
Total Fixed Costs			2500
Cost of apples	1000	4	4000
Cost of bananas	1500	1	1500
Total Variable Costs			5500
Total Costs (FC + VC)			8000

The Total Revenue from the table is Rs 8000; so is the Total Costs (FC + VC). This means the business is operating at the breakeven level. Now let us change the number of apples and bananas in such a way that the total volume of fruits handled remains 2500. We can see that in every combination of apples and oranges when they add up to 2500, the business operates at breakeven point.

Number of Apples	1000	1500	2000
Number of bananas	1500	1000	500
Total Numbers Sold	2500	2500	2500
Total Revenue	8000	9500	11000
Total Costs	8000	9500	11000
Profits	0	0	0

Table shows the scenario when Maya buys and sells 1000 apples and 1500 bananas; 1500 apples and 1000 bananas, and 2000 apples and 500 bananas. Even though the Total Revenue and Total Costs vary according to the volume of each fruit handled, the business continued to operate at the breakeven level.

What will you say at the end of this section?

In the above example of Maya selling apples and bananas, when Maya sells more number of apples and bananas than the numbers calculated in the breakeven point, then her business makes a profit, as Revenues will be more than the total costs.

There is no unique combination of sales volumes of products that decides the breakeven point for a multi-product business. So instead we should look at revenues to understand the breakeven point for businesses with multiple products.

For multiple product businesses

Section 5

Calculating breakeven for service and production businesses

What will you say at the start of this section?



Show slide 28.

The breakeven analysis we saw so far, can be applied naturally to production and trading businesses where we sell multiple products

But in a service business, we do not sell products but instead sell services such as mending punctures, providing haircuts, etc.

In such case, the concept of breakeven is still relevant but we have to use it slightly differently.

Many of the micro enterprises that we deal with in our day to day work are those offering services. Be it a tailoring shop, a beauty parlor, a cycle repair shop, or a catering unit, service units also have to address the issues of business volumes, costs and profits.

How Will You Teach This Section?



Show slide 29.

In service business where we provide only one service, we can define a unit and then use the formula as seen in this example:

1. The owner of a puncture shop knows that customers come to get the puncture mended
2. He knows the fixed and variable costs of mending punctures
3. He knows the price a customer pays for mending a puncture
4. Using the breakeven formula, he can then calculate how many customers he must service to break-even



Ask the participants the following question:

If the shop is mending punctures as well as doing other repair work how can the owner use breakeven?



Show slide 30.

Sometimes a service business may offer more than one service (for example, a beauty parlour will offer a haircut and a facial)

- In such case, it is better to discuss breakeven point in terms of revenue (rather than volume) needed to reach the breakeven
- So we should use the breakeven condition we saw earlier:
- Revenues = FC + VC

Show slide 31.



For example, take the case of Namita's Beauty parlour. Namita knows that a customer comes to cut her hair. She knows the cost of a hair cut and she knows the price she will charge the customer. Using the formula, she can then calculate how many customers she must service to break-even.

Exercise for calculating breakeven for multiple product business

The following exercise can be given to the participant, if needed, to apply the concept of breakeven in a multiple product business.



Namita runs a beauty parlor. She operates the shop at a rented facility for which she pays a rent of Rs 500 per month. In addition, she has to pay Rs 250 as a lump sum payment for using electricity and water. A CRP-EP helped her to work out the costs of the common services that she offers at the shop and set the price for the different services. She does not take a monthly salary; instead, the CRP-EP had added a wage component to the price that they set for the common services.

The most common service that she gets to provide is hair cutting. For this, Namita uses shampoo, conditioner, cloth worth Rs 15 and she takes a wage of Rs 10. She charges Rs 30 per haircut.

Now, let us try to calculate the breakeven level for Namita's beauty parlor. Let us assume that Namita offers only a single service of cutting hair.

Similar to the example of Maya's business, we can compute the costs as below.

$$\text{Fixed Costs (FC)} = 500 + 250 = 750$$

$$\text{Variable Costs (VC) per unit} = 15 + 10 = 25$$

If we use the formula for breakeven,

$$\text{Revenue} = \text{FC} + \text{VC}$$

Let the number of haircuts that Namita does in a month be 'N', then,

$$30N = 750 + 25N$$

$$\text{Therefore, } 5N = 750$$

$$N = 750/5$$

$$N = 150$$

This means that Namita has to do 150 haircuts a month to reach the breakeven volume.

The calculation is summarised in the following table.

Revenue	150	30	4500
Fixed Cost			750
Variable Costs	150	25	3750
Total Costs			4500

Suppose Namita provides another service of giving facial. Now we have a business with more than one service. How can we estimate the breakeven point now? We can use a same method through which we estimated the breakeven volume of Maya's business when she started selling apples and bananas.

The second most common service that Namita offers at the beauty parlor is giving facial. For this, he keeps a small lot of facial material sets at her shop. The stock usually is sufficient for a month. The facial material set costs Rs 430 each. The CRP-EP advised Namita to take a margin of Rs 20 on each set and suggested a service charge of Rs 25 for the facial. The MEC suggested that he may charge Rs 475 per tyre change.

Let us see how the costs of Namita's beauty parlour now are.

Fixed Costs (FC), which remain the same irrespective of the number of services that he offers at the shop, are as below:

$$\text{Fixed Costs (FC)} = 500 + 250 = 750$$

$$\text{Variable Costs (VC) per unit of hair cutting} = 25$$

$$\text{Variable Costs (VC) per unit of facial} = 430 + 25 = 455$$

$$\text{Revenue from haircut} = 30$$

$$\text{Revenue from facial (per unit)} = 475$$

Just like in the previous example with only haircuts, let us assume that Namita does N number of haircuts a month. Let us also assume that Namita does 'P' number of facials a month. Now let us try to write down the equation for breakeven level of the business.

The equation for breakeven,

$$\text{Revenue} = \text{FC} + \text{VC}$$

$$30N + 475P = 750 + \text{VC for haircut} + \text{VC for facial}$$

$$30N + 475P = 750 + 25N + 455P$$

$$5N + 20P = 750$$

Dividing the above equation by '5', we get,

$$N + 4P = 150$$

$$\text{Or, } N = 150 - 4P$$

Suppose, Namita does 10 facials in a month. This is the value of 'P' in the above equation. Therefore, in order to reach the breakeven level, how many haircuts does Namita have to do?

$$\text{We have, } P = 10$$

$$\text{And } N = 150 - 4P$$

$$\text{Therefore, here, } N = 150 - 4 \times 10$$

$$\text{i.e., } N = 150 - 40 = 110$$

If she does facials ten times a month, Namita has to cut hair 110 times to reach breakeven level. If we summarise these in a table form,

Revenue from haircuts	110	30	3300
Revenue from facials	10	475	4750
Total revenue			8050
Fixed Costs			750
Variable cost for haircuts	110	25	2750
Variable cost for facials	10	455	4550
Total Costs			8050

The number of haircuts to be done keeps changing according to the number of facials that Namita does in a month. The following table provides the breakeven level for three combinations of facials and haircuts.

Number of facials	10	20	15
Number of haircuts	110	70	90
Total Revenue	8050	11600	9825
Total Fixed Costs	750	750	750
Variable Costs for facials	4550	9100	6825
Variable costs for haircuts	2750	1750	2250
Total Costs	8050	11600	9825

Show slide 32.



Similarly, for a production business, we can define a unit and then use the formula. Taking the example of Leena's pickle, Leena knows the price at which she can sell the pickle bottles.

She also knows the cost of raw materials in making the pickle and other variable and fixed costs involved.

Using the formula, she can then calculate how many bottles she must sell to break-even.

Ask the participants how they can apply this to a soap business.



What will you say at the end of this section?

From this, we can understand that there is not much difference between breakeven for a single or multiple product business. The formula remains the same: Revenue = Fixed Cost + Variable Cost

Section 6

Exercise

What will you say at the start of this section?



Now that we have understood the concept of breakeven, ask the participants to do the following exercise on the field from slide 31.

How Will You Teach This Section?



From your businesses select 2–3 businesses which have 3–4 main products or services. Find out the following:

1. Fixed Costs of the business for a year
2. The variable costs in the business
3. Calculate the minimum revenue needed to breakeven
4. Using the above data, analyze the viability of the business.

If the business is not viable give recommendations for actions.

What will you say at the end of this section?

By keeping fixed costs of a business as low as possible, we can achieve breakeven much more easily.



Finish by revising the following key points on slide 32.

Key Points

- ☒ Fixed Costs (FC) are those costs that do not change when the sales volume changes
- ☒ Variable Costs (VC) change proportionately with sales volume
- ☒ For understanding the viability of a business, we analyse the relationship between Fixed Costs, Variable Costs, Price, and Sales Volume
- ☒ Breakeven is given by the equation $\text{Revenue} = \text{FC} + \text{VC}$

Identifying and Evaluating Feasible Business Opportunities

As CRP-EP's, tell the participants that they will come across various business opportunities on the field. They will need to learn how to identify and evaluate the right business opportunities from among those. This module will help them eliminate opportunities that are not relevant, list common relevant opportunities as well as uncommon yet context specific opportunities.

This module introduces how to identify and evaluate such feasible business opportunities to the participants in three sections. The following table summarises the sections and the topics covered.

The first and second column shows the order of the sections and topic covered in each section. The next column shows page numbers corresponding to each section in this chapter. The corresponding slide Numbers in the Classroom Teaching Aid are shown against each section. The pages in the Participant Handbook that have material linked to the topic are also shown.

Sections	Topics	Page Nos in this Manual	Slide Numbers
1	Understanding feasibility of business opportunities	156	3-7
2	Factors contributing to business opportunities	159	9-17
3	Checklists for evaluation opportunities	163	19-25

Now let us move on to the first section, which is 'Understanding feasibility of business opportunities'

Section 1

Understanding feasibility of business



opportunities

What will you say at the start of this section?

Businesses have to be viable for them to benefit the entrepreneur on a continuous basis. But as an entrepreneur, you have to know beforehand whether the business is viable or not. CRP-EPs need to know the likelihood of viability of a business to help the entrepreneur.

CRP-EPs also need to know which are the feasible business opportunities so as to be able to advise potential entrepreneurs.

How Will You Teach This Section?

Let us now take a closer look at what exactly is meant by viability and feasibility and the difference between the two.



Show slide 3 and explain the following.

A viable business is one where the entrepreneur earns profit from the business higher than her opportunity cost on a continuous basis. The two important points here are that profits should be

higher than opportunity cost and secondly that this has to happen continuously and not just once or twice.

Feasible business opportunities are a set of businesses likely to be viable in a given location (block / district). Here, the important point is the location and the viable businesses possible in this location.

We will refer to viability with reference to a business idea of an entrepreneur and to feasibility to a set of such businesses in a given location.

Explain to the participants that a feasible business in a location need not be a viable business for all entrepreneurs.

Now that we have understood the difference between viability and feasibility, let us see why we need to identify feasible business opportunities.

Show slide 4.



We have seen that a feasible business opportunity may not be a viable business idea for every entrepreneur. But, without knowing what is a feasible business opportunity, we will not be able to establish the viability of the idea for an individual entrepreneur.

Therefore, it is important to have a list of feasible business opportunities for a given location.

We will look at the 4C + E framework to understand the feasibility of business opportunities better.

Ask the participants to recollect what 4C+E is briefly



from Introduction to Business module.



Then show slide 5 and explain the 4C+E briefly.

Now tell them that we will look at how each of these 4C's and E affect the feasibility of business opportunities.

Show slides 6 and 7.



Feasible business opportunities may exist if in the given location:

- There are unmet needs of potential customers inside that location
- There is a possibility of catering to needs of customers who are from outside that location

Unmet needs indicate that there is a possibility for a new business to come up in this location and satisfy these needs of potential customers.

- Capabilities required to conduct a business activity are available

Availability of capabilities such as skills, equipment etc. make it possible for a new business to conduct business activity in the location

- There is a possibility that the **cost & profit** of the business will allow a person to earn desired sum of money over a period of time

If a new business in the location is able to make enough profits to allow a person to earn desired sum of money over a period of time, then such business opportunities are feasible in that location.

- The given location has potential for sufficient availability of capital to operate a business (good bank coverage, low interest rates, etc.)

Just like capabilities, availability of capital to operate a business makes it possible for a new business to conduct business activity in the location

- The environment for the business is favourable

What will you say at the end of this section?



We have already learnt how to use the 4C+E framework for an individual business idea in the previous modules.

In this module, we will be learning to use the framework for a given location, independent of individuals.

This is just a high level understanding. For this module, we have to do and show.

Section 2

Factors contributing to business opportunities

What will you say at the start of this section?

In the previous section, we saw what feasible business opportunities are and how the 4C's and E affect feasibility. Let us now see how to identify business opportunities.

How Will You Teach This Section?

Show slide 9.



There are 2 things to examine for identifying business opportunities:

1. Specific factors related to a location or area
2. Checklist of questions that will help shape choices of business

Tell the participants that both of these when used together will help them identify a good list of potential businesses to choose from.

In the rest of this section, we will see what these are.

Let us first look at the specific factors related to a location or area

Show slide 10



These factors, which help in identifying business opportunities, are specific to that location (block or district).

Thus, each location (block or district) has its own unique set of factors that differentiate it from other locations. The challenge lies in identifying these factors.

Some of these factors are:

- Population factors

Factors related to the population in the location. These could be factors such as age, gender and culture of the people in that location. This is because the needs, tastes and preferences of people in the location depend on these factors.

- Local commodities/products

Factors related to the commodities/products grown or produced in that area.

- Tourist attractions

Factors related to tourist spots or attractions in the location

- Local artisanal skills

Factors related to artisanal skills of people in the location such as making handicrafts and other products.

- Projects and schemes

Factors related to projects and schemes of government and other organizations in that location

Let us now look at each one of these in more detail starting with population factors.



Show slide 11.

Demographics of a location or how the population of a place is structured looks at how the population is divided into different groups based on various factors.

These are:

- Male-female distribution
- Age-wise split
- Working/non-working split
- Literacy level
- Nature of activity or occupation
- Size of household
- Caste or language or religion
- Income level

The different groups based on each of these factors have different needs, tastes and preferences that can be met only by different kinds of business opportunities.

For example, a location with more female population will have scope for starting more female oriented business opportunities such as ladies beauty parlor, saree stores etc.



Ask the participants to give some more examples of business opportunities that come to their mind when they consider such population factors.

Let us now look at factors related to local commodities/products.



Show slide 12.

The location may have commodities or products available abundantly that could generate large number of businesses.

These can be the following types of businesses:

- Tree/forest products (honey, fruits, vegetables, etc.)
- Grains

- Spices

Ask the participants to give some more examples of business opportunities that come to their mind when they consider such local commodities or products.



Let us now look at factors related to tourist attractions.

Show slide 13.



The location may have attractions that bring people from outside in large numbers. Such attractions will already be or has potential to become spots where different businesses thrive.

- Historic value (palace, forts, caves)
- Religious value (temples, mosques)
- Scenery (lake, waterfalls, gardens, hills)
- Wildlife (reserve forest/safari tours)
- Picnic (boating, playground)
- Marketplace (mandis, haat, bazaar)
- Special food items (dal-baati, litti-chokha, etc.)

Ask the participants to give some more examples of business opportunities that come to their mind when they consider such tourist attractions.



Let us now look at factors related to local artisanal skills.

Show slide 14.



The location may have artisanal skills and products

- Basket weaving
- Pottery / clay toys
- Wooden toys
- Clothes / shawls
- Bangles / jewellery
- Chaddar / dari / rajai
- Medicinal products

Ask the participants to give some more examples of business opportunities that come to their mind when they consider such local skills.



Let us now look at factors related to **Projects and schemes**.



Show slide 15.

Often there are projects and government schemes/initiatives that are announced which can lead to potential business opportunities

- Swachh Bharat Mission
- Construction of road, bridge, dam, buildings, houses, etc.
- Setup of new schools and hospitals
- Supply of nutrition to mothers and children



Ask the participants to give some more examples of business opportunities that come to their mind when they consider such projects and schemes.



Show slide 16.



Tell the participants that we will do a group exercise that will combine the use of all the factors we have seen so far in the previous slides.

1. They will start by selecting a Block. For the Block they select, they have to identify which all of the factors will be relevant and why?
2. For each of these factors they select, they have to make a list of potential businesses.
3. They have to provide a basis for why you picked those businesses

What will you say at the end of this section?



Conclude by revising the following key points on slide 17.

There are specific factors related to a location that can provide clues to identifying business opportunities such as:

- Population factors

- Local commodities/products
- Tourist attractions
- Local artisanal skills
- Projects and schemes

These form the basis for identifying a certain basket of businesses within a location that one can use to further evaluate opportunities

Section 3

Checklist for Evaluating Opportunities

What will you say at the start of this section?

Show slide 19.



By using the specific factors seen in the previous section, we have a list of potential businesses (from the class exercise or from CRP-EP on the field) that we now have to evaluate the feasibility of.

We will do this by applying the 4C+E framework. We will now look at a checklist of questions in this section that should be asked for assessing feasibility using this.

How Will You Teach This Section?

Show slide 20.



Let us start by looking at the questions related to the first C – Customers and Competition for assessing feasibility of the business opportunities.

Customers and Competition

- Does this location have a product/service that is in high demand? Will it sell?
- Is there a need that is not being addressed by the competition?
- Can a good quality product be sold in this location?
- Would potential customers in this location be willing to pay for the product/service?
- Can the right price for this product/service be determined for this location?
- Can a new business offer better customer experience than what is currently available?

If the answer to the above questions is yes, a business that is offering such product/service is feasible in this location based on Customers and Competition.

Let us now look at the questions related to Capabilities for assessing feasibility of the business

opportunities.



Show slide 21.

Capabilities

- Are skills easily available in this location?
- Is the skill needed to run this business easy to learn?
- Are there enough people available in this location who can be trained to help run the business?
- Does the business require any equipment or machinery?
- Is the equipment or machinery easily available in the location? Or does it need to be brought in from outside the area? Can it be brought easily?

If the answer to the above questions is yes, a business that is offering such product/service is feasible in this location based on Capability.

Let us now look at the questions related to Cost & Profit for assessing feasibility of the business opportunities.



Show slide 22.

Cost-Profit

- Will it be possible to earn the desired profit in the location?
- Is there opportunity to generate enough revenue to earn desired profit?
- Is it possible to start and run a business at a lower cost than existing businesses in this location?

If the answer to the above questions is yes, a business that is offering such product/service is feasible in this location based on Cost and Profit.

Let us now look at the questions related to Capital for assessing feasibility of the business opportunities.



Show slide 23.

Capital

- What is the level of working capital required to run a business in this location? Can this be met?
- Do businesses here run on cash or credit? If so, will it be possible to run business on cash/credit? (depending on previous answer)
- Are loans easily available in the location?
- Are there banks or SHG's or Moneylenders in this area? Are these easily accessible?
- Can adequate capital be raised at a reasonable cost to start a business?

If the answer to the above questions is yes, a business that is offering such product/service is feasible in this location based on Capital.

Let us now look at the questions related to Capabilities for assessing feasibility of the business

opportunities.

Show slide 24.



Environment

- Are there any licenses or permissions required to conduct the business? Are such permissions easily available?
- Are there environmental factors that will affect the businesses? Are these factors favorable to the business or if unfavorable, can they be countered by the business easily?
- Are there social / cultural factors that will affect the businesses? Are these factors favorable to the business or if unfavorable, can they be countered by the business easily?
- Are there political factors that will affect the businesses? Are these factors favorable to the business or if unfavorable, can they be countered by the business easily?

If the answer to the above questions is yes, a business that is offering such product/service is feasible in this location based on Capital.

What will you say at the end of this section?

Using the 4C+E framework to evaluate potential businesses as we have seen above helps in highlighting how one business might provide a better opportunity than the other.

This will help the CRP-EP in:

- Advising potential entrepreneurs regarding viable business ideas
- Preparing a sound business plan

How to Provide Consulting Services

In the modules we have seen so far, we have seen various business concepts and tools necessary for a CRP-EP to help the entrepreneur run a business. We will now look at how the CRP-EP needs to provide service using what he has learnt so far.

This module introduces how the participants can provide consulting services in eight sections. The following table summarises the sections and the topics covered.



Show Slide 2 which covers the different sections in this module.

The first and second column shows the order of the sections and topics covered in each section. The next column shows page numbers corresponding to each section in this chapter. The corresponding slide Numbers in the Classroom Teaching Aid are shown against each section. The pages in the Participant Handbook that have material linked to the topic are also shown.

Sections	Topics	Page Nos in this Manual	Slide Numbers
1	What is consulting?	166	3-4
2	Expectations and requirements	167	6
3	Value creation for the client	169	8
4	Building trust with client	170	10
5	Service offerings to focus on	171	12-15
6	Pricing for your services	172	17-19
7	Keeping the relationship going	174	21

Now let us move on to the first section – “What is consulting?”

Section 1 What is consulting?



What will you say at the start of this section?

Ask the participants what services they can offer to entrepreneurs as a CRP-EP.



Summarize this by saying their main service would be to handhold and give advice to the entrepreneur with respect to their business. Say that this is what consulting is about.

How Will You Teach This Section?

Show slide 3.



Consulting can be defined as the process of giving advice so that the desired goal is achieved.

Sometimes the advice may be for the desired goal itself. For example, a CRP-EP might give advice to increase the profits of the business. This itself might be the desired goal.

Therefore, a CRP-EP is someone who provides consulting services or a consultant.

A consultant can be defined as a professional who provides expert advice.

Since a CRP-EP is a Microenterprise Consultant, you need to be an expert in the running of

microenterprises so that you can give an expert advice. You cannot give advice on how to improve the business without being an expert on business.



Before showing slide 4, explain to the participants that a client is a person who takes the advice from the consultant. In the case of a CRP-EP, the client is usually the entrepreneur.



Show slide 4.

As mentioned before, a client relies on the consultant's advice. He/she will continue to rely on you only when you are good and effective, and gives correct advice.

Thus consulting is about always doing the right thing for your client.

The "right" thing sometimes may not be the right thing for you. That's where the strength of the relationship is tested.



Provide an example of such a situation.



For example, a CRP-EP might have his own business which might be a competitor to the client's business for which he is offering advice. Such advice might benefit the client but might in turn reduce the customers coming to the CRP-EPs own business. But despite this, the CRP-EP still need to give the right advice to the client.

Key point: An effective consultant knows what is right for the client and does only that

What will you say at the end of this section?



Ask participants why they as CRP-Eps are referred to as consultant.

If they are not able to answer accurately, repeat the above section again.

Section 2

Expectations and requirements

What will you say at the start of this section?

We have seen that the CRP-EPs role as a consultant is to give advice.

The client therefore has expectations from the consultant since she takes the consultant's advice. We will see the nature of these expectations and requirements from a consultant in this section.

How Will You Teach This Section?

Show slide 6.



Client expresses his/her requirements but seldom expresses his expectations.

Ensure that the participants understand the difference between requirements and expectations



A requirement is explicitly requested from the consultant by the client whereas an expectation is expected from the consultant by the client but might not be explicitly stated.

For example, a client might require that you help find a supplier for purchasing packaging material for his business while the client might expect that you will help reduce the costs of the business eventually.



Thus client's expectations are deeper and broader than the "requirements". They are the client's unstated vision of the future and your role in it!

Ask the participants "what is a key difference between client's requirements and expectations?"



Explain once again if participants are not clear.



What will you say at the end of this section?

Now that we have seen what is the nature of expectations and requirements from a consultant by the client.

Section 3

Value creation for the Client



What will you say at the start of this section?

In this section, we will see what comes out of meeting the expectations and requirements of the client.

How Will You Teach This Section?



Show slide 8.

A good or an effective consultant not only fulfils the client's requirements but also gauges the expectations.

Very often the client feels that the consultant has provided "value" when a consultant anticipates the need and behaves accordingly without being told to do so.

Thus, value creation happens only when the consultant goes beyond the requirements explicitly stated by the client. The consultant should go on to do what is necessary, after carefully understanding what is necessary to improve the business.



Emphasize the following key point.

It is not easy to gauge client's expectations. It takes time. But when it happens, the relationship is a successful one.

What will you say at the end of this section?

We have now seen when value is created for the client. But before doing this, the consultant needs to build trust with the client. We will see this in the next section.

Section 4

Building trust with the client

What will you say at the start of this section?

In this section, we will see how we can build the trust with the client necessary to create value for the client and achieve the desired goals for the client.

How Will You Teach This Section?

Show slide 10.



During the initial days, the consultant must actively work on gaining the client's trust.

Ask the participants how they would gain their client's trust.



Explain the following after listening to a few participants.



It is built by doing one or more of these:

- Giving consistent results
- Doing a little bit more than what is required
- Charging a reasonable price

One wrong action can destroy the trust completely

What will you say at the end of this section?

Emphasize the key point on the slide.

It takes a lot to build the trust but it can be destroyed very easily



Section 5

Service offerings to focus on



What will you say at the start of this section?

In this section, we will see the actual services that can be offered by the CRP-EP to clients.

How Will You Teach This Section?



Ask the participants to list out the services that they can offer to the client on the board.



Show slide 12 and ensure that none of the following have been missed.

An MEC can offer many services:

1. Identify or validate business opportunity
2. Getting funding
3. Preparing business/project plan
4. Helping procure equipment
5. Negotiating with customers and suppliers

6. Become sales agent

7. Setting-up accounting process
8. Making progress reports
9. Doing accounting
10. Making product fliers and posters

Now let's briefly look at each one of these.

Show slides 13–14.



- **Identify or validate business opportunity** – You can suggest a good business idea or check if his/her idea is sound
- **Getting funding** – You can help the client get capital for the business. You can help him approach a bank or a government scheme. Sometimes you can also link him with private investors
- **Preparing business/project plan** – You can assess the business idea and prepare a detailed business plan or project plan which the client can use to approach a bank for capital
- **Helping procure equipment** – With your experience, you may be able to locate a good supplier of equipment for the client
- **Negotiating with customers and suppliers** – You can help client with negotiations with his customers and/or suppliers
- **Become sales agent** – You can offer to sell for a commission
- **Making product fliers and posters** – You can prepare product posters or exhibition pamphlets for the client's business
- **Setting-up accounting process** – You can create a simple and effective accounting process and filing system for the client
- **Making progress reports** – You can help create progress report which the bank or funder often asks
- **Doing accounting** – You can take the previous point further by offering to do the accounts for the business

What will you say at the end of this section?

Tell the participants that they needn't limit their services to these and that any service for the business should be offered by them if they are capable of it.



Section 6

Pricing your services



What will you say at the start of this section?

Now that we have seen the different services that can be offered to clients, let us see how to price these services.

How Will You Teach This Section?



Show slide 17.

All clients are cost-conscious

This is the most important thing to remember when pricing the services offered by you as a consultant. This means that clients don't want to pay if they possibly can and when they do pay, they expect much more in return.



This is true of all customers as you might have observed customers bargaining at a shop or market. The client being your customer is also just doing exactly that for the service which is offered by you.



Tell the students this does not mean that you don't charge the clients but only that you find ways to charge what is reasonable based on the situation.

Pricing at the start of consultancy

When you are just starting your consultancy, you may have to set low pricing to attract the customers.

This is similar to a shop offering products as samples or at a lower price around the time the shop is set up.



This allows the clients to see how good your service is. If the clients are happy, they might even tell other clients about it and help you to get more clients.

Treat this as an initial investment where you gain some customers and experience.

Pricing once established

Once you are established, you can then think of charging more.

In addition to the enterprises or entrepreneurs who will be your main clients, you can also work with the following:

(Show slide 18)

- SRLM (State Rural Livelihood Missions) - Trainer for entrepreneurs, surveys to identify businesses etc.
- Banks and Financial Institution - plan preparation, checks, loan repayment monitoring etc.
- RSETI - (Training)
- The community organization network of SHG-Village Organization (VO)-Cluster Level Federation (CLF) - Manage a collective business of the network, identify entrepreneurs, business opportunities etc.



Show slide 19.



But ask the participants to remember that even when you are established, it is not easy to charge more – The clients are always reluctant!

Therefore, you might have to often use methods to make it easier for the customers to pay for your service by offering different terms/strategy of payment.

Some of these are:

- Deferred payment until after the results
- Partial payment up-front and remaining after the success
- Refund/discount in case of unfavourable outcome



Emphasize the following key point.

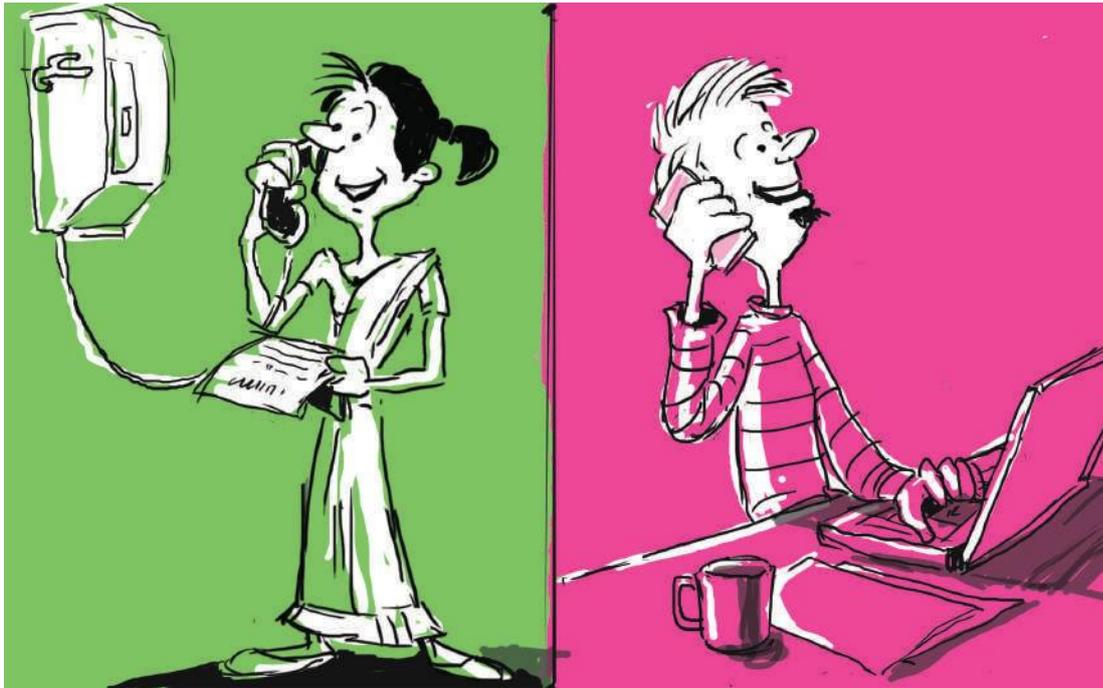
One strategy may not work with all clients. You have to try and make the right choice.

What will you say at the end of this section?

Thus, it is important to alter pricing of your service based on the overall situation. You cannot have one constant price from the start for your services.

Section 7

Keeping relationship going



What will you say at the start of this section?

Even after you have established yourself as a consultant and have acquired many clients, there are still things you must do to improve your consulting business.

How Will You Teach This Section?

These are:

(Show slide 21)



You must make efforts to stay in touch with a client even when you are not doing any work for him/her. A casual meeting or a phone call once a month will help you keep the relationship alive

But if nothing happens for a month or two, don't push!

Remember that it is about doing the right thing for the client.

Doing nothing is often better than doing the wrong thing as this might make the client unhappy and make him influence others around.

What will you say at the end of this section?



Revise following points in the module – What is consulting, Expectations vs requirements, ways to gain trust of client, different service offerings of a CRP-EP, Pricing at start vs once established consultancy, how to keep up relationship with clients



Ajeevika
National Rural Livelihoods Mission



Government of India

Kudumbashree-National Resource Organization

III Floor, Carmel Towers, Cotton Hill, Vazhuthacaud
Thiruvananthapuram, Kerala-695 014
Tel: 0471 2335714, keralanro@gmail.com
www.keralanro.org