SIYE

Start & improve your value chain enterprise

Start Your Value Chain Enterprise (SYE)

Manual III: Costing

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MODULE 1 - COSTING YOUR GOODS AND SERVICES

In *Manual One "Marketing Plan"* you have learned how to determine the prices for your goods/products or services. Another factor that you should consider is the cost of producing and selling your goods/products or services. This will help determine whether the prices you have set will make your business profitable.

1. What are costs?

Costs are all the money your business *spends to produce and sell your goods/products or services.* Costs for businesses can be broadly classified into two categories: ***Fixed Costs*** and ***Variable Costs.***

Fixed Costs remain ***constant*** even when production volume changes, sales volume changes or the amount of services being provided changes. ***Rent, loan payments and salaries for administrative workers*** are examples of Fixed Costs.

Fixed Costs can change sometimes. For example, your rent may increase. But reasons for the change are not related to the production or sales volume.

Variable Costs are those that ***fluctuate*** with production volume, sales volume, or the amount of services you provide. For example, ***raw materials, packaging, and wages of production workers*** are all Variable Costs.

ACTIVITY 13

Luka have listed some of the following costs that he will incur to produce tomatoes. Tick all the Variable Costs?

Costs (Inputs)		Costs (Services)	
Seeds	☐	Transport	☐
Fertilizer DAP	☐	Handling	☐
Fertilizer NPK	☐	Labour Costs	☐
Fertilizer Foliar	☐	Taxes	☐
Pesticides	☐	Transport	☐
Fungicides	☐	Handling	☐
Farm Manger	☐	Equipment (Water pump depreciation)	☐

The examples mentioned above are easy to classify. Others may be more ambiguous because they are not strictly fixed or strictly variable. For example, wages for sales staff may include *a fixed salary and a sales commission* that varies with sales volume. These costs should be broken up into separate fixed and variable elements. Only the sales commission would then be treated as Variable Cost.

Costing is the way you calculate the total costs of making or selling a good or providing a service.

Total Variable Costs + **Total Fixed Costs** = **Total Cost**

Costing helps your business to:

- Set prices
- Reduce and control costs
- Make better decisions about business
- Plan for the future

Costing for a Producer

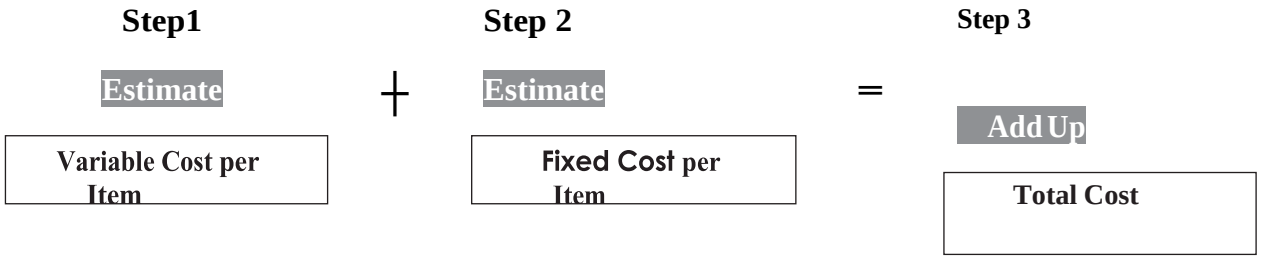
Producers follow the three steps below to calculate the total cost of each product. This is illustrated by using *Lukas tomato farm illustrated below* as an example.

LUKA'S COSTING FORM				
Item	**Unit**	**Quantity**	**Price per Unit (KES)**	**Total Amount (KES)**
Inputs				
Seeds	Grams	100	75	7,500
Fertilizer DAP	Kg	100	70	7,000
Fertilizer NPK	Kg			0
Fertilizer Foliar	Litres	3	365	1,095
Pesticides	Litres	1	500	500
Fungicides	Kg	1	1,000	1,000
Herbicides	Litres			
Packaging Materials	Pcs			2000
Sub-Total				**19,095**
Item	**Unit**	**Quantity**	**Price per Unit (KES)**	**Total Amount (KES)**
Labour				
Bush Clearance	Labour days			
Ploughing/digging	Labour days	10	300	3,000
Harrowing	Labour days	10	250	2,500
Fencing	Labour days			0
Raising beds	Labour days	5	400	2,000
Nursery preparation & Management	Labour days			0
Transplanting	Labour days	10	200	2,000
Chemical application	Labour days			0
Weeding	Labour days	10	300	3,000
Trellising	Labour days	10	200	2,000
Harvesting	Labour days	20	100	2,000
Packing	Labour days	5	400	2,000
Sub-Total (KES)				**18,500**

Total Direct Cost/ Cost of Sale (KES)				**37,595**
Indirect Costs (KES)				
Marketing Cost				
Transport				3000
Handling				2000
Market research				500
Taxes				200
Labor Costs				
Farm Manager				10000
Technical				5000
Administration				15000
Depreciation				
Depreciation (KES)				15,000
Total Indirect Cost (KES)				**35,700**
TOTAL COST (KES)				**73,295**
Total Output	Kg	1	10000	10000
Per Unit Cost (KES)				**7.3295**

2. Costing for an Input Supplier & Processors

Input suppliers follow the three steps below to calculate the total cost of each product. This is illustrated by using *Chumos Bio-fertilizer* as an example.



Below is a Product Costing Form for a manufacturer or service operator.

Product Costing Form
(for a Processor)

Product

1. Variable Cost per Item

1.	2.	3.	4.
Input	**Cost of Purchase (KES)**	**Estimated Quantity per Item**	**Estimated Quantity per Item**
Estimated Variable Cost per Item (1)			

2. Fixed Cost per Item

Estimated total Fixed Cost per Season (2)	
Estimated total Variable Cost of the business per season	
Fixed Cost per Variable Cost (4) = (2)/(3)	
Estimated Fixed Cost per Item (5) = (4) x (1)	

3. TOTAL COST PER ITEM (6) = (1) + (5)……

You will need to make a separate Product Costing Form for each of your product. You will learn how to do each step and how to fill in the form.

Step 1: Estimate the Variable Cost per Item

To estimate the Variable Cost for each of your goods or services, follow these five steps:

1. List all your inputs that have costs which fluctuate with production volume or the amount of services provided in part 1 of the Product Costing Form, column 1,
2. Get the cost of purchase for each unit of input and write that cost in column 2,
3. Estimate the quantity of input needed to make one good or service and write that amount in column 3,
4. Calculate the cost of each input needed to make one good or service by multiplying the unit cost of each input (column 2) and the quantity of input you need to make one item (column 3); write that amount in column 4,
5. Calculate the Variable Cost per item by adding up all amounts in column 4. Write the result in the space for item (1),

Chumo Bio-fertilizer

Chumo's Bio-fertilizer is going to make two types of compost fertilizer, one with a moderate amount of nitrogen and packed in *20 kilograms* bags with the title *"Organic"* and the other with a high amount of nitrogen packed in *10 kilograms bags* with the title *"Super Organic"*. They filled out part 1 of the Product Costing Form for their Super Organic compost as follows:

Product Costing Form *(Chumo Bio-fertilizer)*

Here are some notes on how *Chumo biofertilizer* completed part 1 of the Product Costing Form:

1) Input

Chumo Bio-fertilizer lists the input with costs that vary depending on the production volume. The input includes waste vegetables, chicken manure, secondhand bags and the wages for production labour.

They also use herbs. The cost of herbs varies with the production volume. However, the herbs needed for a bag of Super Organic compost cost very little and it is difficult to calculate how much herb they need for one bag, so Chumo have decided that herbs are not a Variable Cost. On you can see how *Chumo Bio-fertilizers* include herbs in their Fixed Cost.

2) Cost of Purchase

In column 2, Chumo write down the amount they would need to pay for one unit of each input. They get this information by doing market research and asking different suppliers. For example, *Chumo bio-fertilizer* will use part-time labor for production. Chumo knows that they need to pay a part-time employee *KES 2400* per day for eight hours of work, so the hourly labour cost is *KES 300.*

3) Estimated quantity per item.

Chumo estimate that they will need 800 kilograms of waste vegetables and 120 kilograms of chicken manure for processing a batch of Super Organic compost. Each production batch will provide 400 kilograms of high nitrogen fertilizer. That makes 40 bags per batch.

He divides the amount of each input by the number of bags made from each production batch. In column 3, they write down how much of each input (20 kilograms of waste vegetable, 3.0 kilograms of chicken manure) that they need to make one bag.

For each batch of production, he will need three people working eight hours for one day. This means the need 24-man hours in total to make 40 bags (3 people x 8 hours x 1 day). Or it means they need 0.6 hours to make one bag of Super Organic compost.

4) Estimated Cost per Item

To calculate the cost of each input per item, Chumo multiply the cost of purchase of each input (column 2) by the quantity of each input needed to make one bag (column 3). In column 4, they write down the results of their calculations.

5) Estimated Variable Cost per Item

Chumo add up all the amounts in column 4 to get the Variable Cost for each bag of Super Organic compost, which is *KES 605*. They do the same for their Organic compost and calculate that the Variable Cost of each 20 kilograms Organic compost bag is *KES1000.*

Product: *Super Organic compost*

1. Variable Cost per Item

1.	2.	3.	4.
Input	**Cost of Purchase (KES)**	**Estimated Quantity per Item**	**Estimated Cost of Quantity per Item (KES)**
Waste vegetables	5/kg	20.0 kg	100
Chicken manure	100/kg	3.0kg	300
Second hand bags	25/bag	1 bag	25
Labour	300/hour	0.6 hours	180
Estimated Variable Cost per Item (1) = KES 605			

While the Variable Cost per month in your business will vary with production volume or the amount of service being provided, the Variable Cost per item will not change unless the market price of the raw materials you use changes.

When you have estimated the Variable Cost per item, you have completed step 1 of your costing.

Step 2: Estimate the Fixed Cost per Item

To estimate the Fixed Cost per item for each of their goods/products or services, Chumo used part 2 of the Product Costing Form and follow these four steps:

1) Estimate the total Fixed Cost per month; write the amount in the space for item (2) on the Product Costing Form,
2) Estimate the total Variable Cost per month for your business; write the amount in the space for item (3) on the Product Costing Form,

3) Calculate the ratio between the total Fixed Cost per month and the total Variable Cost per month, then write the result in the space for item (4) on the Product Costing Form.

4) Calculate the Fixed Cost per item and then write the result in the space for item (5) on the Product Costing Form.

1. ***Estimate the Total Fixed Cost per Month***

Chumo Bio-fertilizer Fixed

Work out how much money your business is likely to spend for each item of Fixed Cost every month. Remember that you might be able to add Fixed Costs for items that you reuse and recycle, if you are able to do this to make your business more efficient. Chumo Bio-fertilizer filled out their Fixed Cost Form, as follows:

Here are some notes to help you fill out your ***Fixed Cost Form***.

- **Small Variable Costs which are considered Fixed Costs:** You should first estimate the total amount of the input that your business needs each month based on your estimation of production or sales volume and then multiply the total amount of the inputs needed per month by its unit cost.

  Herbs are a Fixed Cost for Chumo Bio-fertlizer. This is because a small amount of herbs is needed for each bag of compost, which makes the cost of herbs for each bag of compost difficult to calculate. Based on the sales volume estimation (see Sales Estimation in Manual One: Marketing Plan), Chumo estimate the amount of herbs they will use each month. To work out the cost of herbs each month, they multiply the cost of one kilogram by the amount of herbs needed each month.

- **Wages that do not vary with production volume:** Such costs are regarded as fixed. At *Chumo bio-fertilizer, the wages for Chumo, his assistant, the driver, the sales staff and the marketing staff* are fixed because they do not vary with production volume. Mary is directly involved in the production process but her salary will not vary with the volume produced.

To calculate the fixed wages each month, John and Mary look at their Staff Requirements and Costs (see *Chumo Bio-fertilizers* Staff Requirements and Costs) and add up all the fixed wages.

- **Costs that you do not pay every month:** Your business may have some costs that you do not pay every month, for example *insurance, licenses, tools and stationery*. For these costs, divide the cost by the number of months the item is used.

Chumo Bio-fertilizer pays KES 60,000 once a year for the National Environmental Management Assessment. So they calculate that their cost per month for the assessment is KES5000

$$\frac{\text{KES 60000}}{\text{12 Months}} = \text{KES5000}$$

Chumo Bio-fertilizers also pay **KES30000** once a year for the trade license for City Council license. So they calculate that their cost per month for the licenses is **KES 2500**.

Marketing expenses for the first year will be KES137000. So the marketing expense per month is **KES11400**

$$\frac{\text{KES 137000}}{\text{12 Months}} = \text{KES 11400}$$

1	2
Details	**Cost per Month (KES)**
Rent	2,00000
Electricity and water, including waste water	60,000
National Environmental Management Assessment fee	5,000
Trade and City Council licenses	5,000
Labour	385,000
Consumables including recycling and disposal	100,000
Depreciation	50,000
Transport	45,000
Maintenance and repairs	20,000
Herbs	15,000
Marketing expenses	11,400
Total Fixed Cost per Month	**896,400**

Depreciation: Depreciation is the loss in value of your business equipment, which is a cost to your business.

$$\frac{\text{Total Cost of Equipment}}{\text{No. of Years Expected to Use It}} = \text{Depreciation Cost}$$

Decide if your business will have equipment for which you should calculate depreciation. In general, only calculate depreciation for equipment which:

- Costs a lot of money
- Lasts for a long time

To estimate the life of the equipment, you can:

- Use your own experience.
- Ask the company that supplied or built the equipment.
- Ask other businesses using the same or similar equipment.

If you have more than one machine or other equipment, add up the depreciation per month for each piece of equipment to give you the total amount you need to include in your monthly Fixed Costs.

Chumo Bio-fertilizers heating machine will cost **KES 2,000,000** and they expect to use it for five years. Its depreciation costs per year are **KES 400,000**

$$\frac{\text{KES2, 000, 000}}{\text{5 years}} = \text{KES 400,000}$$

They also calculate depreciation cost per year for the mixing machine as KES 200,000.

To calculate the total depreciation cost per month for your business, divide the total depreciation cost per year of all the equipment by twelve months. *Chumo Bio-fertilizers* total depreciation cost per month is **KES50,000**:

$$\frac{(\text{KES 400,000} + \text{KES 200,000})}{\text{12 Months}} = \text{KES 50,000}$$

This is how to complete their depreciation form:

Depreciation Form			
Equipment	**Estimated Cost of Purchase (KES)**	**Estimated Life of the Equipment (Years)**	**Depreciation per Year (KES)**
Heating Machine	2,000,000	5	400,000
Mixing Machine	1,000,000	5	200,000
Total	3,000,000		600,000
Depreciation per Month			**50 000**

Now Chumo knows that their estimated total Fixed Cost per month is KES 896,400. They write this figure in the space for *item (2) in part 2 of the Product Costing Form for their Super Organic compost product.*

2. Estimate the Total Variable Cost of the Business each Month

The total Variable Cost of your business is all the Variable Costs that your business will have as a result of producing different goods or services. To calculate total Variable Cost per month for a good or service, *multiply its Variable Cost per item by the quantity your business will make in a month.*

In the sales estimation, Chumo sells an average of 2,000 bags of Super Organic compost and 2,400 bags of Organic compost each month. They calculate the total Variable Cost per month as follows:

Product	Quantity Produced Per Month (Bags)	Variable Cost Per Item (KES)	Total Variable Cost Per Item (KES)
Super Organic compost	2,000	605	1,210,000
Organic Compost	2,400	1000	2,400,000
		Total (KES)	**3,610,000**

Chumo Bio-fertilizers estimated total Variable Cost per month is written in the space for *(3) on the Product Costing Form.*

i) Calculate the Ratio between the Total Fixed Cost and the Total Variable Cost per Month

The total Fixed Cost per month is for the entire business and must be divided and shared by each good/product or service your business makes or sells. The Fixed Cost for one item depends on the Variable Cost of making that item. Therefore, to calculate the *Fixed Cost for one item, we first calculate the ratio of Fixed Cost to Variable Cost for the entire business.*

John and Mary must add a part of their total Fixed Cost of KES 896,400 to the cost for each Super Organic compost bag and each Organic compost bag. They divide the total Fixed Cost of **KES 896,400** by the **KES 3,610,000** total Variable Cost. They write the result (**0.25**) in the space for item (4) on the Product Costing Form.

ii) Calculate the Fixed Cost per Item

When we know the ratio of Fixed Cost to Variable Cost for the whole business, we can easily calculate the Fixed Cost per Item by multiplying the ratio by the Variable Cost of each *item*.

Chumo **multiply** the **KES 605** Variable Cost for a bag of Super Organic compost by the ratio of Fixed Cost to Variable Cost, which works out to be **0.25**. They come up with a Fixed Cost for each bag of KES 1510. They write that number in the space for item (5) on the Product Costing Form.

Product Costing Form		
Product: Super Organic Compost		
2. Fixed Cost Per Item		
Estimated total Fixed Cost per Month (2) in KES	896400	
Estimated total Variable Cost of the Business per Month (3) in KES	3610000	
Total Fixed Cost per Total Variable Cost (4) = (2)/(3)	0.25	
Estimated Fixed Cost per item (5) = (4) x (1) in KES		**151**

Chumo Bio-fertilizer is a multiple product manufacturer. For single product manufacturers or service providers the Fixed Cost per item is estimated by simply dividing the total Fixed Cost per month by the number of items that will be made each month.

“

While the Fixed Cost per month in your business will be constant, the Fixed Cost per item will vary with the production volume or the amount of services provided. The more items you make, the lower the Fixed Cost per item and therefore, the lower the cost is for your product.

Now that you have estimated the Fixed Cost per item, you have completed step 2 of your costing.

Step 3: Add up to get the Total Cost per Item

Upon completing **steps 1 and 2,** you are ready to work out the estimated total cost per item.

John and Mary have completed steps 1 and 2 for costing their bag of Super Organic compost. To do step 3, they add up the figures on the Product Costing Form as follows:

Step 1		**Step 2**		**Step 3**
Estimate		**Estimate**		**Add Up**
Variable Cost per Item	+	**Fixed Cost per item**	=	**Total Cost per Item**
KES 655		**KES 151**		**KES 756**

They follow the same three steps for costing their Organic compost. They use a separate Product Costing Form for Organic compost.

1	2	3	4	
Input	**Cost of Purchase (KES)**	**Estimated Quantity per Item**	**Estimated Cost per Item (KES)**	
Waste Vegetables	5/kg	40 kg	200	
Chicken Manure	100/kg	4 kg	400	
Second Hand Bags	40/bag	1 bag	40	
Labour	300/hour	1.20 hour	360	
Estimated Variable Costs per Item (1)				**KES 1000**
Estimated total Fixed Cost per month (2)			896,400	
Estimated total Variable Cost of the business per month			3,610,000	
Fixed Cost per Variable Cost (4) = (2)/(3)			0.25	
Estimated Fixed Cost per Item (5) = (4) x (1)				**KES 250**

MODULE 2 - FINANCIAL PLANNING

Normally during the first few months after a business begins operating, it is difficult to recover costs or to make a profit. It takes some time before money from sales starts to come in. During this time your business is *very vulnerable*, and you must keep a careful eye on the financial situation.

When you start your new business, these two things are very important.

- Do not run out of cash
- Make sure that the operation you have created will eventually become profitable

1. What is Financial Planning?

Follow these four steps to plan and monitor the financial situation of your business:

1. Make a Profit Plan
2. Make a Cash Flow Plan
3. Compare the financial records with both plans every month
4. Take action if anything is not going according to plan

2. Make a Profit Plan

SALES - COSTS = PROFIT

Profit is the amount of *money left* after you have subtracted all the costs of your business from its total sales. So, before making *a Profit Plan*, you must make both *a Sales Plan* and *a Cost Plan* for your business.

2.1 Sales Plan

A Sales Plan shows the sales your business is likely to have each month. When planning your marketing (see Part IV), you have estimated the price you will charge for your good or service and the sale volumes of your good or service per month. Now you should use that information to make a Sales Plan.

A Sales Plan for Chumo Bio Fertilizer was made as follows:

Chumo Bio-fertilizer started business in April, but it will take two months to set up the factory before it is ready to make the product available to sell to customers. They will start selling their product in June. Therefore, John decided to plan from June to December. The selling price and the sales volume of each product were taken from the Marketing Plan. They worked out the sales value of each product in a month by multiplying the sales price by the sales volume for that month. They, then, added up the sales value of the two products to get the total sales of the business.

	SALES PLAN								
	Details	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
Organic	Sales price (KES)	900	900	900	900	900	900	900	
	Sales volume	480	720	800	1,000	1,200	1,400	1,400	7,000
	Sales value (KES) (1)	**432000**	**648000**	**720000**	**900000**	**1080000**	**1260000**	**1260000**	**6300000**
Super Organic	Sales price (KES)	800	800	800	800	800	800	800	
	Sales volume	1,600	2,000	400	600	680	800	920	7,000
	Sales value (KES) (2)	**1280000**	**1600000**	**320000**	**480000**	**544000**	**640000**	**736000**	**5600000**
-Direct	Sales price (KES)	1438	1438	1438	1438	1438	1438	1438	
	Sales volume	600	800	1,000	1,200	1,400	1,600	1,800	8,400
Organic	**Sales value (KES) (3)**	**862800**	**1150400**	**1438000**	**1725600**	**2013200**	**2300800**	**2588400**	**12079200**
-Retail	Sales price (KES)	13	13	13	13	13	13	13	
	Sales volume	2,000	2,400	400	600	800	1,000	1,200	8,400
Organic	**Sales value (KES) (4)**	**2600000**	**3120000**	**520000**	**780000**	**1040000**	**1300000**	**1560000**	**10920000**
	Total Sales Value (KES) (5) =(1) + (2) + (3) + (4)	**5174800**	**6518400**	**2998000**	**3885600**	**4677200**	**5500800**	**6144400**	**34899200**

2.2 Cost Plan

A Cost Plan shows the costs your business is likely to have each month. To make such a plan you need the Variable Cost per item and the total Fixed Cost per month of your business which can be obtained when you do costing for a good or service. In addition, you also need to know the quantity of good or service your business will produce or provide per month. This can be obtained from the Sales Plan.

"The production volume may be the same as the estimated sales volume if you are a service operator or if your business does not keep stock of finished goods. But you may have reasons, such as cost effectiveness, for making the production volume different from the sales volume."

Chumo Bio Fertilizer

Chumo decides to produce as much as he can sell, so the production volume will be the same as the sales volume. He fills in the *"Production volume"* rows in his Cost Plan.

John then reviewed his costing and found the following information:

- The Variable Cost for one Super Organic compost bag is KES 605.
- The Variable Cost for one Organic compost bag is KES 1000.
- The total Fixed Cost of the business per month is KES 896,400.

The Cost Plan for *Chumo Bio-fertilizer* is on the next page.

Cost Plan									
Product	**Details**	**June**	**July**	**Aug.**	**Sept.**	**Oct.**	**Nov.**	**Dec.**	**Total**
Supper Organic Compost	Production volume (1)	2,080	2,720	1,200	1,600	1,880	2,200	2,320	14000
	Variable Cost per item (KES) (2)	605	605	605	605	605	605	605	4235
	Total Variable Cost (KES) (3) = (1) * (2)	**1258400**	**1645600**	**726000**	**968000**	**1137400**	**1331000**	**1403600**	**8470000**
Organic Compost	Production volume (4)	2,600	3,200	1,400	1,800	2,200	2,600	3,000	16,800
	Variable Cost per item (KES) (5)	1000	1000	1000	1000	1000	1000	1000	8000
	Total Variable Cost (KES) (6) = (4) * (5)	**2600000**	**3200000**	**1400000**	**1800000**	**2200000**	**2600000**	**3000000**	**16,800,000**
	Total Variable Cost of the business (KES) (7) = (3) + (6)	**3858400**	**4845600**	**2126000**	**2768000**	**3337400**	**3931000**	**4403600**	**25270000**
	Total Fixed Cost (KES) (8)	**896400**	**896400**	**896400**	**896400**	**896400**	**896400**	**896400**	**6274800**
	Total cost (KES) (9) = (7) + (8)	**4754800**	**5742000**	**3022400**	**3667400**	**4233800**	**4827400**	**5300000**	**31544800**

2.3 Profit Plan

A **Profit Plan** shows the profit your business is likely to have each month.
Follow these steps:

1. Get the information from your Sales Plan and Cost Plan
2. Put the information in the Profit Plan form
3. Do the calculations on the Profit Plan form to find the likely gross and net profit for your business in the first year

The plan must show that your business should expect to make enough profit to allow for something to go wrong. For example:

- Your sales might be lower than you expect
- A machine might break down

Below is the completed Profit Plan that John made for *Chumo Bio-fertilizer:*

Profit Plan								
Details	**June**	**July**	**Aug.**	**Sept.**	**Oct.**	**Nov.**	**Dec.**	**Total**
Total Sales (1) in KES	5174800	6518400	2998000	3885600	4677200	5500800	6144400	34899200
Total Variable Cost (2) in KES	3858400	4845600	2126000	2768000	3337400	3931000	4403600	25270000
Gross Profit (3) = (1) - (2) in KES	1316400	1672800	872000	1117600	1339800	1569800	1740800	9629200
Total Fixed Cost (4) in KES	896400	896400	896400	896400	896400	896400	896400	6274800
Net Profit (5) = (3) – (4) in KES	420000	776400	(244)	221200	443400	673400	844400	3354400

Net profit is negative in August. This is shown by writing the figures within brackets, which means that *Chumo Bio-fertilizer will* show a loss during this month. Because of the low sales in August, the gross profit will not cover the Fixed Cost.

ACTIVITY 14

Now follow the same steps to make your own Sales Plan, Cost Plan and Profit Plan for the first year of your business *in sections 7.1, 7.2 and 7.3 in the Business Plan booklet*.

2.4 Cash Flow Plan

A Cash Flow Plan is a forecast of *how much cash you expect to come into and go out of your business each month*. The Cash Flow Plan helps you to make sure that your business does not run out of cash at any time. There are many reasons that your business may run out of cash for example:

- You have to build a factory or buy equipment and raw materials before you sell anything. *This means that cash goes out before cash comes in,*
- If you give credit to your customers, you do not get paid immediately.

The Cash Flow Plan shows that at the end of **May**, *Chumo Bio-fertilizer* will have negative cash flow.
This means the business will run out of money. The cash level will be very low in other months. It is not safe to operate a new business with such a low level of cash.

John is thinking about getting a soft loan of KES300, 000 from his friends in May and paying it back from June. If he can do that, the form below shows how *Chumo Bio-fertilizer* Cash Flow Plan will look like.

Cash Flow Plan									
Details	**April**	**May**	**June**	**July**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**
1.Cash at the beginning of the Month (KES)	**4720000**	**575000**	**230000**	**616400**	**1292200**	**1239200**	**1511800**	**2026600**	**2751400**
2.Cash from cash sales (KES)			5174800	6518400	2998000	3885600	4677200	5500800	6144400
3.Cash from credit sales (KES)									
4.Other cash in (KES)		300000							
5.Total cash in (KES)	**0**	**300000**	**5174800**	**6518400**	**2998000**	**3885600**	**4677200**	**5500800**	**6144400**
6. Purchase of Goods (KES)			3858400	4845600	2126000	2768000	3337400	3931000	4403600
7. Salaries (KES)	385000	385000	385000						
8.Purchase of equipment (KES)	3000000								
9.Loan repayment (KES)			100000	100000	100000				
10.Other payments (KES)	760000	260000	445000	512000	440000	460000	440000	460000	440000
11.Total Cash Out (KES)	**4145000**	**645000**	**4788400**	**5842600**	**3051000**	**3613000**	**4162400**	**4776000**	**5228600**
12.Cash at Month End	**575000**	**230000**	**616400**	**1292200**	**1239200**	**1511800**	**2026600**	**2751400**	**3667200**

ACTIVITY 15

Now follow the same steps to fill in *section 7.4: 'Cash Flow Plan' in your Business Plan booklet.*

SUMMARY

In Module II, you have learned:

When you start your business, you should make sure that you have enough money so you do not run out of cash before your business begins to generate income. That is the reason that you have to plan ahead so that your business not only makes a profit but has sufficient cash to operate.

During first few months, your new business is very vulnerable, so you must properly prepare your financing. To plan and monitor the financial situation of your business, you should:

- Make a Profit Plan
- Make a Cash Flow Plan

Compare the actual business with both plans every month after the operation has begun. Take action if anything is not going according to plan.

- Profit is the amount of money left after you have subtracted all the costs of your business from its total sales. So, before making a Profit Plan, you must make both a Sales Plan and a Cost Plan for your business.
- A Cash Flow Plan is a forecast which shows you how much cash you expect to come into your business and how much cash you expect to go out of your business each month. The Cash Flow Plan helps you to make sure that your business does not run out of cash at any time.

MODULE 3 - REQUIRED STARTUP CAPITAL

It is necessary that you know how much start-up capital you need and where you will get it before you start setting up your business. You will need start-up capital for:

- Capital investments.
- Working capital

1.What Capital Investments Do You Need?

A capital investment is the purchase of an asset for the business that is expensive and lasts for a long time. The capital investment needed can be divided into the following two categories:

- Business premises
- Equipment

1.1 Business Premises

The size and location of business premises depends on the type of business.

ACTIVITY 16

Rate which factors are important or not for your choice of business premises by ticking in the appropriate column below; add more factors if needed.

Factor	Important	Not Important
Size of Premises		
Possibility to Expand		
Specific Layout to Suit the Business		

When you know what sort of premises you require, you need to decide if you should:

- Build the premises
- Buy the premises
- Rent the premises
- Run the business from your home

Building or buying your own property can be the best option if your business has special requirements for the building or the location of the building. However, this option will require a lot of capital and it often takes a long time.

Renting the business premises needs less capital than building or buying. It is also more flexible because it is easier to change the location of your business if you are renting. But it is not as secure as owning your own property.

Running your business from home is obviously the cheapest option. It can be a good way to start until your business is successful. *However, separating business issues from family issues can be difficult if you are working from home.*

ACTIVITY 17

Decide what premises you need for your business.

I will

- ☐ Build our own premises
- ☐ Buy premises
- ☐ Rent premises
- ☐ Run business from home

Because:

.....

.....

.....

“

If your decision is different now from what you wrote down in the “**Place” section of the Marketing Plan in your Business Plan booklet,** go back to that section and change the location. If the altered location has new cost implications, go back to the Fixed Cost Form and adjust the figures accordingly.

1.2 Equipment

Buying equipment may require a large capital investment when you start up the business. Instead of buying equipment, you can sometimes lease it for a specific time period. You would make monthly payments for the duration of the lease. You should compare the cost and benefits of asset loans that may be needed to buy the equipment and leases.

If you decide to lease equipment, you will not have to add the cost of new equipment onto the amount of initial capital required, but you must add the lease payments to your calculations for working capital.

2.What Working Capital Do You Need?

Working capital is the money you need to pay for the expenses generated when your business starts production.

Some businesses will need enough working capital to cover all costs for a few months or even a year or more. You must estimate how long it will take before your business will receive sufficient revenues to cover your on-going expenses. Plan to keep a bit more working capital than you think you need.

You will need working capital to cover:

- Stocks of raw materials and finished products
- Promotional activities
- Salaries
- Rent
- Insurance
- Loan or lease payments
- Other costs

Lolwe poultry enterprise calculated its working capital as follows:

Lolwe Poultry Enterprise

Lolwe poultry enterprise startup cost and working capital has been estimated as shown below

A new poultry unit to be constructed

The feeders and drinkers adhere to desired technical ratios →

Wages for one cycle with one employee

Provisions made for 50% Chance of treatment. →

Other costs like stationery and consumables etc. →

Required Start-Up

Stat up Capital for one Cycle 500 CHICKEN **(Unit: KES)**

Investments

Business premises

• Construction or a poultry house	100,000
• Purchase of 50 Feeders	30000
• Purchase of drinkers 40 pieces	20,000
• Brooding Jikos (5 pieces)	7500
TOTAL INVESTMENT COST	**157,500**

2. Working Capital		
Day old chicks	50,000	
Feeds (8 kg for 4 months)	120,000	
Salaries (for 4 Months)	16000	
Vaccinations	3000	
Medicines (Antibiotics& Coccids)	0	
Brooding cost	4650	
Other costs	1500	
Total Working Capital		**195,150**
TOTAL STARTUP CAPITAL		**380,930**

CHUMO BIO-FERTILIZER

Chumo also estimated how much start-up capital they needed to start their business. They plan to start their business in April and think that it will take two months before sales fully cover their monthly expenses. This is their estimation:

Required Startup Capital

For a period: Two months (April and May)	**Unit: KES**
1) **Investments**	
i) Business premises	
• Construction or purchase of a building	0
• Conversion or reconstruction of business premises	0
ii) Equipment	
• Machinery and tools	2,800,000
• Furniture Fittings	200000
Total Investment Capital	**3,000,000**
2) Working Capital	
i) Stock of raw materials or finished goods	0
ii) Trade and City Council licenses	60000
iii) Marketing expenses	20000
iv) Salaries (KES 385000 x 2 months)	770000
v) Rent	800000
vi) National Environmental Management Assessment fees	60000
vii) Electricity and water	20000
viii) Contingency for emergency (30% of working capital as normal standard)	500000
Total Working Capital	**2,230,000**
TOTAL START-UP CAPITAL	**5,230,000**

ACTIVITY 18

Turn to section 8: "Required start-up capital" in your own Business Plan booklet to calculate the amount of capital you will need for the initial investment and for working capital.

SUMMARY

In Module III, you have learned:

- **Start-up capital** is the money you need to start your business. You will need capital for:
  - Capital investment.
  - Working capital
- A **capital investment** is an asset that you have purchased for the business that is expensive and will be used by the business for a long period of time. The purchase or rental/lease of both the business premises and the equipment are necessary investments for most businesses.
- Depending on your requirements and your available start-up capital, you can decide to build, buy or rent the premises or you might be able to operate the business from your home.
- You normally operate your business for some time before sufficient money comes in from sales to cover your expenses. When your business starts, you need money to buy materials, to pay salaries, for rent and electricity etc.
- **Working capital** is the money you need to pay for these expenses.
  - You will need working capital to cover:
  - Stock of raw materials and finished products
  - Promotion
  - Salaries
  - Rent
  - Insurance
  - Loan or lease payments
  - Other costs
- You must calculate how much working capital you need. The amount depends on how long it will take before money starts coming in from sales and how much stock you need.

MODULE 4 –TYPES & SOURCES OF STARTUP CAPITAL

When you have estimated how much start-up capital you need for your business, the next question is where to get that capital?

The most important types of start-up capital are:

- Owner's equity
- Loans

1. Owner's Equity

The equity or the contribution from owners to start the business is the private money that is put into the business. An entrepreneur's savings can be a possible source of owner's equity. Entrepreneurs can use targeted savings accounts to accumulate some or all of the funds they will need to start their business. Savings that an entrepreneur does not want to invest in the business could serve as cash collateral for a loan.

The owner's equity is called risk capital, because the owners are risking their own money on the business. Whatever form of business you start, you will have to invest some of your own money.

If you do not have enough money yourself, you can consider finding a partner or partners who are interested in investing in the business. You should not allow the partner to own more than half of the business. If you own less than 50 percent, you will forfeit the right to make decisions for the business.

2. Loans

You will have to repay the amount borrowed and you will probably have to pay interest charges and/or fees. You can pay the loan back either in instalments or all at once, depending on the agreement with the lender.

If you borrow money from a lending institution, you usually will have to comply with two major requirements:

- The institution will want to see *a viable and clear Business Plan with a business idea* that is *believable and feasible*. An unclear Business Plan will leave a bad impression and make it difficult for the lending officer to grant loan.

- The lending institution will probably also need some kind of collateral to make sure that you repay your loan. If you cannot repay the loan, the lending institution has the right to take possession of the collateral instead. Machines and other equipment in your business can sometimes be used as collateral. If you do not own any of these, you may also use your land or home. This is a big risk, which must be thought through very carefully.

ACTIVITY 19

Use this form to help you decide what you can offer as collateral for the finance institutions:

Type of Collateral	Check if Applicable to You	Details
Fixed deposit		
Land and buildings		
Shares and bonds		
Business assets *(e.g. machines and vehicles)*		
Personal guarantees		

Here are a number of different sources you can access when you are applying for a loan to start your business.

Banks: Several banks have specialized departments for giving loans to small businesses. To obtain loans from banks you need a viable business idea presented in a well thought out Business Plan and some kind of collateral.

Government Credit schemes: Many governments have lending programmes to help entrepreneurs who want to start small businesses. You may not need collateral for these government loans, but the requirements for your Business Plan are just as strict as with the banks.

Microfinance Institutions: These financial service providers focus on the low-income market and exist in many legal forms sometimes; as banks, regulated non-bank financial institutions and unregulated non-profit organizations. They have more flexible collateral and documentation requirements than mainstream banks, but loan amounts are relatively small, especially for first-time borrowers. They rarely offer start-up business loans, but may make capital available to an entrepreneur through other loan products based on the entrepreneur's household cash flow.

Membership Based Associations: To be able to borrow from these associations, you will need to be a member and to buy shares. You will also be required to have money deposited in an association savings account.

Other Sources: You might be able to get a loan from your family or friends. But remember that if your business fails and you have difficulty in paying back loans, then relationships can suffer. You can also take loans from private moneylenders. But these loans usually have extremely high interest rates.

There are different types of loans that entrepreneurs can access from the different sources. For example, start-up loans, asset loans, housing loans, consumption loans, emergency loan and supplier credit. Entrepreneurs should try to find information about such loans and from where they can access it best.

Sources of Start- Up Capital	**Unit: KES**
1. Required start-up capital	**5,230,000**
2. Sources of start-up capital:	
• Owner's equity	4,230,000
• Other Sources (Soft loan from Mary's mother)	1,000,000
3.Total (*Must be the same amount as the required startup capital*)	**5,230,000**
4. Collateral (if applying for a loan) …….....	……....

ACTIVITY 20

When you have identified the sources of start-up capital, ***fill in section 9.1: "Sources of start-up capital" in the Business Plan booklet***.

If you decide to borrow money as one of your sources of start-up capital, you should plan your repayment schedule and write it in ***section 9.2: "Loan Repayment Schedule" in the Business Plan booklet.***

SUMMARY

In Module IV, you have learned:

- You should have all the start-up capital necessary for both the initial investment and the working capital. The most important types of start-up capital are:
    - Owner's equity
    - Loans
- Your owner's equity is your own money that you put into the business. The ***equity is called risk capital***, because you, as the owner, risk your money on the business.
- If you do not have enough money to invest in the business, you might consider finding a partner (s) who is interested in owning part of it. *But you should not let the partner buy more than half of the business*, because you will then forfeit the right to make the decisions for your business.
- You may get a loan for the start-up capital. You would have to pay interest on a loan in addition to the principal. You can pay the loan back either in instalments or all at one time.
- There are different sources of business loans available from:
    - Banks
    - Government credit schemes
    - Microfinance institutions
    - Membership based association
    - Other sources

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