



Start Your Business

Module 4: Money Flows

March 2023

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Zwolle, the Netherlands
March 2023

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Module overview

Objectives

- To learn to distinguish four main flows of money in your business
- To learn how to calculate your revenue
- To learn how to calculate your operating costs
- To learn how to calculate your profit
- To learn how to calculate your start-up costs
- To assess whether your business is viable or not

Materials

- Flipcharts and markers
- Figure with roadmap towards a successful business
- Picture of funnel leading to a Business Plan
- Diagram of shoe-making business
- Picture of the puzzle pieces

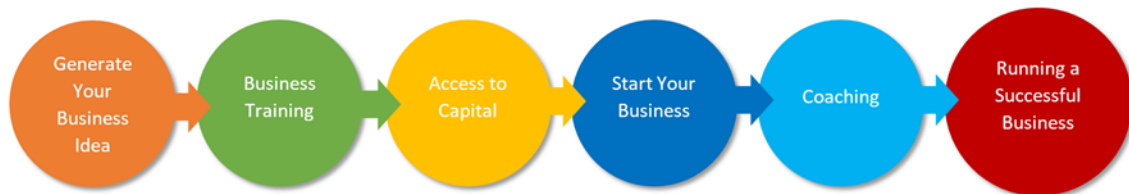
Duration

Element	Duration
Introduction	15 minutes
13. Making figures add up	60 minutes
14. Calculating your revenue	60 minutes
15. Operating costs	45 minutes
16. Calculating your fixed costs	60 minutes
17. Calculating your variable costs	120 minutes
18. Calculating your operating costs	30 minutes
19. Calculating your profit	45 minutes
20. Assessing the viability of your business	60 minutes
Closure	15 minutes
Total	8 hours and 30 minutes

Introduction

- Welcome the participants and make sure everybody feels at ease.
- Introduce the session of today to the participants and go through the objectives of this Module.
- Show them schedule of the day, including the breaks.
- Explain the ground rules of the training.
- Make sure that everybody understands how the current Module fits within the total picture of the Start Your Business training (show picture).
- Do a short recap of the main learning points of the previous module: Plan Out the Process.

Roadmap to a Successful Business



13. Making figures adding up

Introduction

Read and explain the theory 'Making figures adding up'. Make sure to have the diagram of the shoe-making business on the wall as well as the figure of the puzzle pieces.

Exercise



- In a plenary session, ask the students to identify the Revenue (R) puzzle piece in the diagram of the shoe-making business. They should identify the right-hand loop showing the sales of the product to the customers.
- Ask the group if they can identify Start-up costs (C) in the diagram of the shoe-making business. This is not an easy question since the Start-up costs are not directly shown in the diagram. The diagram shows a business that is already running, while Start-up costs are made before the business actually starts. However, a link can be made in the following way:
 - Wages: during the period of setting up the business (before you actually start) you need money to pay yourself. Those costs can be considered part of Start-up costs.
 - Equipment: before you start with your business you need to buy tools and equipment. These costs are part of Start-up costs.
 - Materials: even before you can start your business, you already need to purchase the first amount of materials to produce your product. These expenses are also Start-up costs.
 - Loans: usually you have to borrow money to be able to cover your Start-up costs (for example, buying an expensive machine). The amount of loan repayment thus reflects the costs that you made to set up the business.
- Ask the group if they can identify the Operating Costs (C) in the diagram. In fact, all the loops (except the right-hand loop) are operating costs. Remind the students that the payment of the business owner should be considered a cost (the Wages loop). It should not be paid from the Profit (P).
- Ask students to identify the Profit (P) in the diagram. $\text{Profit} = R - C$. In the diagram we can see that the Revenue is 10 coins. The Operating costs are 7 coins. So the Profit is 3 coins.
- Remind the students that when calculating these amounts, they always have to make sure to use the same time period (for example per month).

Reflection

Make sure that everybody in the group really understands the pieces of the puzzle and that they also know when these costs occur. Remind them that even though the costs of setting up the business occur before you start selling, they often do influence other costs later on in the process.



Theory: Making figures adding up



During the GYB training we saw that there are many different money flows going on in a business. We looked at each of these money flows and we saw that they are directly related to the business decisions that we make. Most business decisions will affect several money flows at the same time. We also saw that in a successful business the money flows are balanced. Simply said: 'income' (the money coming in) must be more than 'expenditure' (the money going out) (see also the diagram of the shoe-making business).

During the previous sessions of the SYB training we collected very detailed information about our customers and our competitors, and we identified the things that we have to do to offer a 'better' product or service. We also estimated our potential market share as well as the required amount of money that needs to come into the business. We also tried to describe our business process and, based on that, we developed an Action Plan identifying activities and costs related to setting-up the business.

Considering the scope of our business and the costs related to setting up the business and keeping it running, the question is: will income be more than expenditure? In the diagram of the shoe-making business: will the money flow in the right hand loop be bigger than the money flows in the rest of the loops? In this Module we are going to calculate if our business makes a profit or a loss. Part of the information to make this calculation we already have; part still has to be collected.

Working through the finance of your business is like working on a puzzle where you have to get the pieces to fit together. It is quite likely that at the first time the pieces won't fit together; in that case you will have to adjust each of the pieces until they make a complete picture with no gaps.

Four parts of incoming and outgoing money

There are four main pieces of the puzzle – four things that will determine whether your business is likely to make money or not; whether your business is ‘viable’ or not.

1. Start-up costs (A): costs that you make at the start of your business. You need to invest money in tools, equipment, licenses, etc. (Set Up costs). But you also need some extra money during the first weeks after opening your business. During this time you probably won’t make profit, but you still need to cover some costs (Initial Operating costs).

2. Operating costs (C): the monthly costs of making your product or delivering your service. It is everything you spend, every month, simply to stay in business.

3. Revenue (R): this is the monthly income into your business from people paying you for your products or services.

4. Profit (P): the money you have left over after you received your revenue and paid all of your costs out of it. If this amount is negative, you are not making profit and you should change something in your business.



In the rest of this Module you will carefully look at each of these pieces of the puzzle for your own business idea. After calculating the money amounts for each of these components, you will be able to tell whether your business is viable or not. Important to mention here is that usually these costs are calculated on a monthly basis.

14. Calculating your revenue

Introduction

Read and explain the Theory 'Calculating your revenue'. Tell the students that in the following exercise they are going to calculate the expected Revenue (R) for their own business. For this they will have to look back at some of the previous exercises they did.



Exercise

- Give each student a paper and a pen.
- Ask students to get into groups of two.
- Tell students to turn to Exercise 9 of Module 2, and to look at the Market Share Calculation form. What did they define as their 'Basic unit of sale'? Let the students shortly discuss – in pairs – if the Basic unit of sale is clearly defined. Did they account for different products or services being offered? And did they clearly define the 'Basic unit of sale' for each of them?
- Let the students make a table with 4 columns. Label the columns: "Basic unit of sale", "Selling price", "Monthly sales" and "Monthly Revenue" (see the example of Revenue Calculation in the Annex).
- Let them list the 'Basic unit of sale' in the first column for each of the products or services offered.
- For each of their products or services, ask the students to fill in the expected selling price in the column (this information can be found in the Market Share Calculation form of Exercise 9 of Module 2).
- Let them now fill in their expected monthly sales (this information can be found in the last question of the Market Share Calculation form of Exercise 9 of Module 2).
- Finally, ask the students to multiply the Selling price by the Monthly sales to obtain their Monthly Revenue (R). Let them fill in the last column of the table.

Reflection

Most businesses offer different kinds of products or services. The more different products or services your business offers, the more elaborate your calculation will be. If you sell similar products with a slight price difference (for example: orange juice, apple juice, pineapple juice) you may consider to group these into one category and assign an average price to this category.

Theory: Calculating your revenue



Before we go ahead and calculate the different money flows in our business (the puzzle pieces), it is important to first introduce the concept of 'Basic unit of sale'. The Basic unit of sale – in short 'unit' – is likely to be one item of product (for instance a pack of biscuits, a kilogramme of fruit, or a shirt), or one average delivery of service (for example: one car wash, cleaning an average room, conducting a training session). If your business offers distinct products or services, then for each of these you would need to define your Business unit of sale.

It is important to be clear and consistent when defining the Basic unit of sale, because in a business we often look at the price per unit and cost per unit (and profit per unit). In addition, when comparing our business to our competitors, we often also look at the Basic unit of sale. For example, we usually compare the selling price per unit. But sometimes we are also interested to know how much it costs the competition to make or deliver one unit of product or service.

Your Monthly Revenue(R) is calculated by multiplying the number of Basic units of sale that you expect to sell every month with the Price of that unit.



You may have already answered part of the above questions during the GYB training, but at this point it is time to really narrow down your customers. There is often a tendency to over-generalize the customer (for example: “the community”, “women” or “my neighborhood”). You need to be very specific in order to be able to say something useful about specific needs.

If you want to get better than your competitors you will have to understand your customer better than your opponent does. You will have to know what your customers see as a better product or service, and what is most important to them. For example: a short distance, a low price, a nice and helpful seller.

One way to find these things out is to talk to the people that would be your customers. One option is to wait until they have bought something from a competitor and just ask them something like: ‘That looks nice, where did you get it?’. You can then carry on wherever the conversation takes you. Try to keep it as natural as you can. Some good questions might be:

- What is a good product in your opinion?
- Why do you buy the product from this place?
- I’ve been thinking about selling/doing something like that myself and I was wondering how I also could do it, preferably in a way that is better – do you have any ideas on that?



15. Operating costs

Introduction

Read and explain the Theory 'Operating Costs'. The facilitator will need to make a flipchart with two columns: one for Fixed Costs and one for Variable Costs. The facilitator will also prepare small cards with examples of different types of costs, both fixed and variable (see Annexes).



Exercise

- Attach the flipchart to the wall.
- Read out the cards one by one and ask the students if these are Fixed costs or Variable costs. With each card ask the students why they think it is Fixed or Variable.
- After general consensus in the group, attach each card to the appropriate column on the flipchart.

Reflection

Make sure that the students understand the difference between 'costs of being' and 'costs of doing'. If students disagree about a certain cost type, let them discuss about it and let them justify their choice.

Theory: Operating costs



On the one hand, the costs of your business will vary according to the level of activity of your business. If you produce more products or services, you will need more materials and supplies, and so your monthly costs increase. On the other hand, even if your production dropped to nothing, you would still have the cost of paying your staff, your rent, your electricity and things like that. One way to think of this is to make a distinction between the 'Cost of being' – these are the costs that you make just to keep existing as a business, and the "Cost of doing" – these are the costs related to the work you do to serve your customers. In business language we call these two different types of costs: 'Fixed costs' and 'Variable costs'.

1. Fixed costs. These are also called the 'Costs of being'. These are costs that you make that do not change with the amount of work that you do. For example: monthly rent, electricity bill, internet subscription, and the like.

2. Variable costs. These are also called the 'Costs of doing'. These are costs that go up or down depending on the amount of work that you do. For example: the amount of raw materials and supplies will increase as your production level goes up.

Your total Operating Cost (C) is simply your Fixed costs added to your Variable costs.



16. Calculating your fixed costs

Introduction

Tell the students that they will now calculate the expected fixed costs of their business. Tell them that these are the ‘costs of being’.

Exercise

- Give each student a paper and a pen.
- Ask students to work in pairs.
- Tell the students that some fixed costs are charged on a monthly basis, while other costs are charged weekly, quarterly or even annually. As we saw before, the usual procedure is to calculate costs per month, so the students will be asked to calculate fixed costs per month.
- Ask students to make a table with 4 columns and label the columns: “Fixed cost item”, “Price, “Per” and “Monthly Cost” (see example of Fixed costs table in the Annex).
- Let the students – in pairs – discuss about the fixed costs that they will have to pay for their business. Tell them not to forget their own wages as a fixed cost. Let them list the fixed cost items in the first column of their table.
- For each of these Fixed cost items ask them to fill in the other columns of the table (“Price, “Per” and “Monthly Cost”) for their own business.
- Finally, let them add up the figures in last column in order to get the Total Monthly Fixed Costs of their business.



Reflection

Remind the students that the monthly fixed costs that they calculated is the amount that they will have to pay every month whether they produce something or not.

17. Calculating your variable costs

Introduction

Read and explain the Theory 'Calculating your variable costs'. Tell students that now we will look at the second component of the Operating Costs (C): the variable costs, also called 'the costs of doing'. Tell them that this is one of the most difficult exercises of the training, but that we will take our time for it. Tell them to ask for assistance whenever needed.

Exercise

- Give each student a paper and a pen.
- Ask students to work in pairs.
- Explain to the students that in order to calculate the variable costs we are going to first calculate how much it costs us to make one 'unit'. This unit should be same as the Basic unit of sale that we defined earlier on.
- Tell the students to turn to Exercise 14 of this Module and look at the Basic units of sale that they identified in the list. Tell them that for each of these units they are now going to calculate the cost of making this unit (excluding the fixed costs).
- Let the students make a table with 4 columns, labelling the columns: "Variable Cost item", "Price", "Units of sale covered" and "Cost per unit of sale". Tell the students that they will follow the procedure as described in the Theory part. For each of their products/services they will fill in a similar table (See Annex).
- Let them start with the first (it may be the only) product/service that their business provides. Let them start by filling in the Variable Cost item column. These are the items being used up in the production of the product or service.
- Let them now fill in the price of each item in the second column. If they are not sure about the exact price, let them make an estimation.
- Then, let them list how many units of production or service can be produced with each ingredient. Fill this in in the column "Units of sale covered".
- Now, let the students divide the price of the Variable Cost item (column 2) by the number of Units of sale covered (column 3). This will give them the Variable cost per unit (column 4) (of that Variable Cost item). Let students add up the right hand column to get the total Variable Cost per unit.
- Tell students that they should repeat this process for each of the other products or services their business provides. Let them use a different table for each product or service.
- Finally, tell the students that they have now calculated the Variable Cost per unit of product or service. As mentioned before, in business we are often interested in figures per month. If we want to calculate the Variable Costs per month then we have to multiply the Variable Cost per unit with the number of Monthly sales. This last figure can be found in Exercise 14 in the Revenue calculation table in the "Monthly sales" column.
- Tell students that for each of the products or services that their business will produce, they have to multiply the Variable Cost per unit with the number in the "Monthly sales" column, in order to get the monthly Variable Cost per unit.



- Tell the students that in order to get the Total Monthly Variable Cost, they have to add up the monthly Variable Costs of all the products or services of their business.

Reflection

Reflect back on the exercise and make sure that students understand the process they followed. Make sure that they also know why they calculated all these figures.



Theory: Calculating your variable costs



Calculating variable costs is not always easy. Therefore here follows a step-by-step procedure of how to do this:

1. Choose your product or service (basic unit of sale). For example: one pair of shoes. You will calculate the variable cost per unit.
2. Make a list of all the items and materials that are used up in the production of that product or service. For example: leather, thread and glue. Sometimes you pay your staff per unit that they make. In this case this would also be a variable cost, because with each extra unit, the staff costs go up.
3. List the price of each ingredient used up in the production or delivery of the service. For example: 1 m² of leather = \$ 100, 1 bottle of glue = \$ 15, 1 spool of thread = \$ 10.
4. List how many units of production or service can be produced with each ingredient. For example: 1 m² of leather = 5 pair of shoes, 1 bottle of glue = 30 pair of shoes, 1 spool of thread = 50 pair of shoes.
5. Now you can calculate the cost of each ingredient or item used up in one unit of product or service, by dividing the cost of the ingredient by the number of units produced or services delivered.

Example

- Cost of leather per unit: $\$ 100/5 = \$ 20$
- Cost of glue per unit: $\$ 15/30 = \$ 0,50$
- Cost of thread: per unit: $\$ 10/50 = \$ 0,20$

Total variable cost per unit \$ 20,70

This means that each pair of shoes has a variable cost of \$20,70. So if your fixed costs have been covered, than each extra pair of shoes will cost you \$ 20,70.

Suppose that your business also produces leather belts, then you will have to do a similar calculation for these belts.

18. Calculating your operating costs

Introduction

Remind students that the total Operating Cost (C) is simply the Fixed costs added to the Variable costs. Show them the picture of the puzzle and point to the puzzle piece of the Operating Cost (C).



Exercise

- Give each student a paper and a pen.
- Tell the students to turn back to the last point of Exercise 16 and write down the Total Monthly Fixed Costs.
- Tell the students to turn back to the last point of Exercise 17 and write down the Total Monthly Variable Costs.
- Now ask the students to add up the Total Monthly Fixed Costs and the Total Monthly Variable Costs to get the **Total Monthly Operating Costs (C)**.

Reflection

Remind the students that the Total Monthly Operating Costs (C) which they just calculated, were calculated for a specific amount of products or services produced every month. Suppose that production increases, then the Fixed costs remain the same, but the Variable costs will increase.

19. Calculating your profit

Introduction

Read and explain the Theory 'Calculating your profit'. Tell the students that we are now going to calculate the expected monthly Profit of their business. Remind the students that profit is not equal to their salary. The salary is already included in the Operating Costs (C).

Exercise



- Give each student a paper and a pen.
- Tell the students to turn to Exercise 14 and to copy from there the calculated monthly Revenue (R) and write the number down.
- Tell the students to turn to Exercise 18 and copy from there the calculated monthly Operating Costs (C) and write the number down.
- Now tell the students to subtract the monthly Operating Costs (C) from the monthly Revenue (R). This will give them their monthly Profit (P).
- Ask students with a positive Profit (P) to lift their hands. Tell the students that this is a good sign but that they still have to see if this Profit is high enough to cover some important additional costs.
- Ask students with a negative Profit (P) to lift their hands. Tell the students that this doesn't mean that they can't continue with their business. But it is important to see if they can lower their Operating Costs (C) or increase their Revenue (R).

Reflection

Do a small recap about what has been done so far in this Module, using the figure of the puzzle pieces. Tell the students that at continuation they are going to look at the last piece of the puzzle which is Start-up costs (A).

Theory: Calculating your profit



Now that we have calculated the monthly Revenue (R) and the monthly Operating Cost (C), we can calculate our monthly Profit (P) (see also the puzzle pieces). This will tell us if our business is actually 'viable'.

Your monthly Profit (P) is nothing else than your monthly Revenue (R) minus your monthly Operating Cost (C) ($P=R-C$).

If this figure is a positive figure, than that is a good sign. However, it is not enough for the Profit to be positive. You have to reserve some money for loan repayments, savings and investments. Further on in this training we will see how much you have to reserve for this.

If the Profit is negative, than you need to look at how you can reduce your Operating Costs (C) or increase your Revenue (R).



20. Assessing the viability of your business

Introduction

Read and explain the Theory 'Assessing the viability of your business'. Tell the students that most beginning business owners will have to take up a loan. In this session the students are going to see whether their expected Profit (P) is enough to make the monthly loan repayments.



Exercise

- Give each student a paper and a pen.
- Ask students to make groups of two.
- Ask the students to turn to Exercise 12 and copy from there the calculated Set-up costs and write the number down.
- Ask the students to turn to Exercise 18 and copy from there the calculated monthly Operating Costs (C) and write the number down.
- Ask the students – in pairs – to discuss about how long they think it will take before they can pay all their bills from their sales revenue and will reach breakeven? This may depend on the type of business that they have. Once they have agreed on this let them write down this period (in months). This number is called the Time to start up (T).
- Ask students to multiply the monthly Operating Costs (C) by the Time to start up (T) to obtain the Initial Operating Costs.
- Let students calculate their Start-up costs by adding up the Set-up costs and the Initial Operating costs.
- Suppose that the students would need to take up a loan to cover the Start-up costs. Considering the required loan size and the prevailing interest rates and payback periods of banks: what would be an acceptable monthly loan repayment? Let students discuss this question and agree on a monthly loan repayment for their required loan. (For facilitators: this is not easy to assess. Optionally, the facilitator could prepare beforehand a table with prevailing monthly loan repayments dependent on different loan sizes).
- Finally, let students compare their calculated monthly Profit (P) with the monthly loan repayment. Is the monthly Profit (P) bigger than the monthly loan repayment? In that case the business is viable. If the Profit (P) is lower than the monthly loan repayment than the business is not viable.

Reflection

Once again turn to the figure of the puzzle pieces and tell students that they have calculated the money flows of all four pieces. For some of them, the puzzle pieces fit perfectly and all the amounts add up just nicely. However, for other students the puzzle may still not fit, and some adjustments are needed. Tell the students that in the last Module they will look at different ways of how to make figures add up (make the puzzle pieces fit). Once they have managed to balance the business, they are ready to develop their Business Plan.



Theory: Assessing the viability of your business



In the previous Module, as part of your Action plan in Exercise 12, you calculated your **Set-up costs**. These are costs that you make before you actually start running your business, and include things such as equipment, licenses, buildings, trainings, etc. If you don't have the money to pay for these costs, then you may have to borrow money, for example from a bank or a microfinance institution.

Besides needing money to pay for these Set-up costs, you may also need upfront money to cover your operating costs during the first weeks or months of your business. This is because usually it takes some time before you make enough money from your sales to cover your operating costs. So you may also need to borrow money to pay for these **Initial Operating costs**.

The Set-up costs plus the Initial Operating costs together are called the **Start-up costs**.

Most beginning small business owners don't have enough money saved up to pay for the Start-up costs, and therefore have to take up a loan. The size of the loan thus will depend on the size of the Start-up costs (Set-up costs + Initial Operating Costs).

Your Initial Operating Costs will depend on the period of time needed to earn enough money to cover your operating costs. At the very start of your business some money may come in from sales, but this may not be enough to cover all of your operating costs. For example: if you have a bakery store, in the beginning your sales (and revenue) may be quite low because you don't have enough customers yet. However, during that same period you already will have to pay for rent, electricity, water, etc. So in the beginning your income will not be enough to pay for these costs, and you may have to borrow money to cover them.

As a starting business owner you have to ask yourself: after how many months do you expect your sales to be at the desired level (which you projected beforehand)? If this is after two months, then your Initial Operating Costs will be 2 times your monthly Operating Costs (C). So generally speaking the following applies:

Initial Operating Costs = Monthly Operating Costs (C) x Time to start up (T)
With T measured in months.

Finally, your monthly Profit (P) has to be large enough to at least pay back your monthly loan repayments. If you don't know yet how much these loan repayments will be, as a rule of thumb you can use the following formula:

Profit (P) > Start-up costs (A) / 4

Closure

Evaluation

Discuss the lesson with the students. What went well, what could have gone better, and what have they learned?

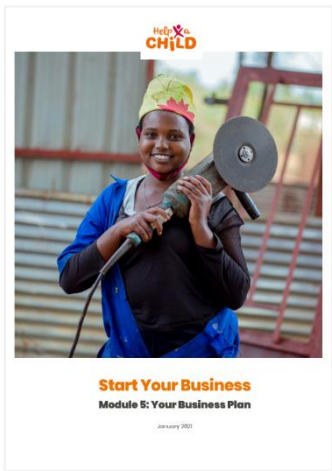
Annexes

On the next pages, you find the annexes for this module:

- Revenue (R) calculation (example)
- Example fixed and variable costs
- Fixed costs calculation (example)
- Variable costs calculation table

Follow-up

This is the end of module 4 of the 'Start Your Business' training. Continue with module 5: 'Your Business Plan'.



Annex: Revenue (R) calculation (example)

Basic unit of sale	Selling price	Monthly sales	Monthly Revenue ®
1 T-shirt	\$ 20	50	\$ 1,000
1 Pair of trousers	\$ 75	20	\$ 1,500
1 Jacket	\$ 100	5	\$ 500
...			
Total			\$ 3,000

Annex: Example fixed and variable costs

Fixed Costs	Variable Costs
Monthly rent	Chicken feed in a chicken farm
Business license costs	Oranges in a juice selling business
Water & Electricity	Petrol costs for a Pizza delivery business
Staff wages	Fertilizer in a farming business
Advertisement costs	Waste costs
Insurance costs	Packaging costs
Bank loan repayment	Sales commission



Annex: Fixed costs calculation (example)

Fixed Cost item	Price	Per (time unit)	Monthly Cost
Rent	\$ 300	month	\$ 300
Water	\$ 180	quarterly	\$ 60
Electricity	\$ 100	month	\$ 100
Business license	\$ 600	year	\$ 50
Total			\$ 510

Annex: Variable cost calculation table

Product/service:			
Variable Cost Item	Price	Units of sale covered	Cost per unit of sale
Variable cost per unit			