



Costing and Pricing

Objectives

At the end of this session, the participants will be able to:

- 1) Calculate the costs of their products or services
- 2) Identify and apply different ways of pricing

Participants

- 12 to 30

Time

- 180 minutes

Resources

- Flip-charts and markers
- Case study 'Catherine's Dresses'
- Handout "Calculating Costs and Prices"

Flow

- 3) If some participants have not ready the case study 'Catherine's Dresses'. Ask one participant to read it aloud.
- 4) Ask a volunteer to suggest what is the cost of each dress which Catherine makes, and elicit, by reference to other participants if necessary, the following summary of the costs:

Category	Item	Cost (USD\$)
Materials	• Cloth, lining, thread, buttons, zips: Cost of 50 dresses	425.00
	Material Cost of 1 dress = 425/50	8.50
Labour	• Catherine makes 1 dress from 2 to 6 p.m, that is 2 dresses in 1 working day. • She works 25 days per month, that makes 50 dresses per month (2 x 25 days) • She needs a 'salary' of \$100 per month for her living expenses; \$100 Labour per month, divided by 50 dresses per month, equals labour cost per dress of \$2.00	
	Labour cost per dress	2.00
Supplies	• Needles, Machine oil, chalk Cost for 6 months = \$42, equals costs of \$7 per month (\$42/6) Supplies of \$7 per month divided by 50 dresses made per month equals costs of supplies per dress = \$0.14	
	Supply cost per dress	0.14
Total cost per dress		10.64

- 5) (Do not introduce any other concepts such as fixed or variable costs or depreciation at this stage)
- 6) Ensure that all participants fully understand the way in which this cost has been calculated.

- 7) Ask other participants to comment on the figures which Catherine has produced as a basis for costing her dresses; elicit criticisms and questions such as the following:
- a) By allowing for 25 working days per month, and 8 working hours per day, she has allowed no time for selling, for buying material, or other ancillary tasks which are essential if she is to run a business.
 - b) There is no allowance for wastage of material, for maintenance of the machine beyond the supplies she has allowed for, or for transport expenses in buying material or delivering the dresses.
 - c) Ask participants what would happen if Catherine had to rent the sewing machine for \$25 per month.
 - d) Elicit the suggestion that the cost per dress made would increase by \$0.50 (\$25 per month divided by 50 dresses made per month).
 - e) We know that Catherine did not rent the machine but bought it for \$600. Is that not a cost? What happens if the machine breaks down after the ten years it is supposed to last? Introduce the concept of depreciation as a way of ensuring that enough money is available for replacing equipment.
 - i) The machine cost \$600.
 - ii) It will last 10 years; at the end of 10 years the machine will be worth almost nothing.
 - iii) Every year its value decreased \$60 (\$600 divided by 10 years).
 - iv) Every month it decreased by \$5 (\$60 divided by 12 months).
 - f) Ensure that all participants understand this, by asking what would happen if every month for ten years Catherine puts \$5 in a savings account. Elicit the suggestions that she would have saved \$600 (plus interest) at the end of 10 years, which would enable her to buy a new machine when the old one is worn out.
 - g) Stress the doubtful value of depreciation as a way of ensuring that enough money is available for replacing equipment, particularly in times of inflation and when technology is changing. It is nevertheless necessary to make some allowance for the cost of using equipment. The \$5 per month or \$60 per year is a cost, in the same way as renting a machine would have been a cost.
- 8) Ask participants to remember how the cost of making one dress was put together. Elicit that the cost of a product is composed of three elements:
- a) Raw materials: (in Catherine's case the material, buttons, zips)
 - b) Direct labour: this is the cost of all labour that is directly involved in the production of the product (in Catherine's case her own wage)
 - c) Overheads: these are all the other costs which cannot easily be allocated to each item that is produced, like rent, electricity, water, transport, sales costs, (e.g. posters for sales promotion), administration costs, indirect labour (e.g. the salary of the manager, of a secretary, accountant, store-keeper and the like), and the costs of interest on loans and depreciation, (in Catherine's case the supplies and the depreciation)
- 9) Ask participants to suggest what is basically different about the cost of materials from the other costs; elicit the suggestion that the cost of materials varies directly with the numbers of dresses which are made, whereas Catherine will have to earn \$100 per month however many dresses she makes, the machine will depreciate at the same rate and the supplies are likely to cost more or less the same..
- 10) Show how costs can therefore be roughly divided into 'fixed costs', which remain the same whatever the level of production is, and 'variable costs', which vary directly with the amount of goods produced.
- a) The variable costs of a business are raw materials and wages for workers who are paid on 'piece work' basis, that is according to how much they produce.
 - b) Some overheads may be variable (e.g. the costs of maintenance of a machine may depend on how frequently the machine is used).
 - c) The fixed costs of a business are most of the overheads and also the direct labour, if wages are paid on a regular basis (like Catherine's own wage).

- d) If participants have started their own businesses or if you have used the Enterprise Experience, ask them to suggest what are the fixed and variable costs for these businesses. Discuss issues such as their own labour and wages paid to others, and show that except for casual labour which is recruited for specific tasks and paid day by day, most labour costs, including, in particular, that of the owners themselves, can be regarded as fixed.
- 11) Ask participants to repeat the calculation of costs for Catherine's dresses, but this time with more realistic figures. Let everyone decide what 'realistic' means; 2 or 8 hours for selling the dresses every month, 10 or 15 per cent wastage, and so on. The cost of depreciation will have to be included. The cost of transport has to be guessed. Ask them also to divide the costs into fixed and variable costs.
- Allow participants about 20 minutes for this task.
 - Compare and discuss the different results. Encourage discussion about the costing of the products or services they produce in their own businesses or in their Enterprise Experience businesses.
 - Ask participants what price Catherine should charge. Elicit the suggestion that she should add some percentage or profit margin, say 5 to 15 per cent to the final costs of the dresses. This is called 'cost plus' pricing, and is a very common pricing method when there is no direct competition with which to compare prices.
 - Ask participants in what other way Catherine could estimate a reasonable price for her dresses. Elicit the suggestions that she could compare her dresses with those of other tailors, find out what others charge and then, taking into account the costs and the quality of her dresses, fix the price below, above or at the same level as the competitive dresses.
- 12) Ask participants what Catherine should do if she finds the comparable dresses are apparently being offered to Mrs Grace's boutique at \$10.50. Elicit the suggestion that she should closely examine the variable costs (for example, the quality of the material and the amount of material used per dress). Her fixed costs (that is, her own salary and the supplies) are already very low, and remember that her costs of \$10.64 that Catherine calculated (see step 2 of this session guide) do not include transport, maintenance or depreciation.
- Ask participants to suggest ways in which Catherine might be able to reduce her costs, and thus to meet the competitive price. Their suggestions should include:
 - using less raw material by cutting more economically
 - redesigning the dresses to use less material or to save cutting or stitching time
 - buying material from less expensive suppliers, or in larger quantities to get quantity discounts (BUT, it is vital to avoid tying up money in stocks of material which may never be used)
 - by producing (*and* selling) more than 50 dresses per month, for the same wage, and thus spreading the fixed costs over more dresses, so that the fixed cost per dress will be lower.
- 13) Ask participants to estimate the cost reduction Catherine would achieve by producing 55 or 60 dresses per month, instead of 50. Elicit the answers as follows, and ensure that *all* participants understand the principle:
- Fixed Costs - \$107: @ 50 dresses, fixed cost per dress = \$2.14
 - @ 55 dresses, fixed cost per dress = approx. \$1.95, reduction = 19 cents
 - @ 60 dresses, fixed cost per dress = approx. \$1.78, reduction = 36 cents
- 14) Stress that the best way to meet lower priced competition is often not to cut costs, which often leads to lower quality, but to increase quality, even if this slightly increases costs, so that customers are willing to pay more for your products; refer back to the sessions on marketing, and ask participants for suggestions as to how a tailor such as Catherine might improve her dresses and obtain higher prices. Elicit ideas such as:
- improve the designs
 - offer a wider range of colours and sizes
 - label the dresses, and build a quality 'image'
 - provide protective and attractive packaging.
- 15) Ask what she should do if it appears that competitors are pricing similar dresses at \$11 or more. Some participants may suggest that she should still charge as little as possible in order to get the order.

- a) Elicit through discussion that a low price is not necessarily more competitive because it may be associated with low quality. Catherine should charge 'what the market will bear', and should use her costs only as a 'floor' beneath which she should not allow her prices to fall since she will otherwise be losing money and would be better occupied working for even a very low wage, or doing nothing at all.
- b) If time allows, it may be useful to ask participants to calculate Catherine's costs again, with different figures and additional costs such as rent and electricity, or including an employee and increased production'

Case Study: Catherine's Dresses

Catherine was good at dress design and cutting and she started her business with one sewing machine which she bought with \$600 which she had received when she took early retirement from her job. She had bought the best machine she could find, and her friends told her that such a machine would last at least ten years of hard use. She also had a small pension and she reckoned that she could survive if she could earn \$100 a month from her tailoring business.

She made a sample of her latest design and took it to Mrs Grace's boutique where many such products were sold. Mrs Grace was very impressed with the design and quality and said that she hoped she would be able to sell lots of such dresses to her customers. She asked Catherine what price she wanted to charge. Catherine realised that she had not decided on a price so she made an excuse and said she would come back tomorrow with a quotation.

When she got home she wondered what she should do; she knew that she had spent \$425 on cloth and other materials such as lining, buttons, zips and thread and that this was enough for 50 dresses but beyond this she had no idea. She had also spend \$42 on needles, machine oil and chalk, which she thought would last for six months, and since she worked from home she had no other expenses.

Catherine thought that she could think better about the problem of pricing while she was working so she decided to make another dress. She was used to working 8 hours a day for 25 days a month and it was 2pm when she started. By 6pm she had cut and sewn and completely finished the dress, but she still had no idea what price she should ask Mrs Grace to pay.

Assignment

- What is the cost of each dress that Catherine makes?
- What price should she charge for each dress?
- Does she need more information and if so, what?

Documentation

Costs

Every entrepreneur needs to know what the costs of her products or services are. By knowing your costs you have a basis on which to decide your sales price and your pricing policy. Only by knowing your costs are you able to calculate whether each product is making a profit or a loss.

The cost of a product is composed of different elements:

- Raw materials
- Labour, or better: Direct Labour.

This is the cost of all labour that is directly involved in the production of the product.

- Overheads.

These are all the other costs which cannot easily be allocated to each item that is produced like rent, electricity, water, transport, sales costs (e.g. posters for sales promotion), administration costs, indirect labour (e.g. the salary of the manager, secretary, accountant, store keeper and the like), and the costs of interest on any loans and depreciation of equipment.

The costs of a business can be divided into the following categories:

- Variable costs

These are all the costs that vary with the amount of goods produced (raw materials, e.g. cloth for a tailor, feed for a poultry business, food for a restaurant, petrol for a taxi, wages paid according to work done.)

- Fixed costs

These are all the costs that remain the same whether a business produces one item or one hundred. (Most of the overheads, and also the direct labour, if it is paid on a daily or a weekly basis and the numbers employed do not change directly according to the amount produced.)

Some cost items are 'semi-variable', in that they may not double or halve if production doubles or halves, but they do change. Every entrepreneur must examine how the costs of the business vary according to production, and use the information to calculate costs and thus to set prices.