










Improve Your Business: Handbook (ILO, 1986, 144 p.)

- ➔ **4. COSTING AND PRICING**
 - Costing**
 -  **(introduction...)**
 -  **Types of costs**
 -  **Costing one product**
 -  **Costing many products**
 - Pricing**
 -  **(introduction...)**
 -  **Costing and pricing**
 -  **Pricing for a manufacturer**
 -  **Pricing for a trader**
 -  **Pricing for a service operator**

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4. COSTING AND PRICING

Costing

Costing is the way you calculate how much each individual product or service costs you to produce and sell.

You need to know in detail what it costs to make a product, sell a product or provide a

service. Many small and even large businesses get into trouble because they do not know their costs.

If you *know your costs*, you are able to:

- **set your prices or give estimates and know if you are making a *profit*;**
- **find out which items are most *costly in* the running of your business, and if it is possible to reduce the costs;**
- **see what is the effect on your costs of any improvements you are planning and if your business can be more efficient.**

The information which you need for your costing comes from your bookkeeping system. You need documents such as payrolls, time-sheets and invoices. That is why your bookkeeping must be in good order before you can do your costing properly.

Before you calculate the cost of one product or one service job, you first have to know the *total* costs of running your business during one year. You also have to know the different types of costs which make up these total costs.

**KNOW YOUR COSTS
AND YOU CAN:**

SET PRICES

REDUCE COSTS

MAKE

IMPROVEMENTS

Types of costs

In any business there are two types of costs:

- **direct costs; and**
- **indirect costs.**

Direct costs + indirect costs = total costs.

DIRECT COSTS:

MATERIAL COSTS

LABOUR COSTS

INDIRECT COSTS:

BUILDINGS AND MACHINERY

POWER

SALARIES

OFFICE COSTS

SELLING COSTS

FINANCIAL COSTS

Direct costs are the costs of those items which become part of the products or services which you produce:

- raw materials and parts put into the product, known as *material costs*;
- wages and benefits (e.g. pensions, meal expenses) paid to the workers for the time they spend making the product, known as *labour costs*.

Indirect costs are the costs of all the other items which you need in running your business. They are also sometimes called *overheads* or *expenses*:

- the use of buildings, machines and equipment, their maintenance, repair and replacement;
- power, electricity and heating;
- salaries paid to everyone else not directly involved in making the product, including the owner's own salary;
- office costs (stationery, postage, telephone, etc.);
- selling costs other than salaries;
- financial costs (e.g. interest on your loan).

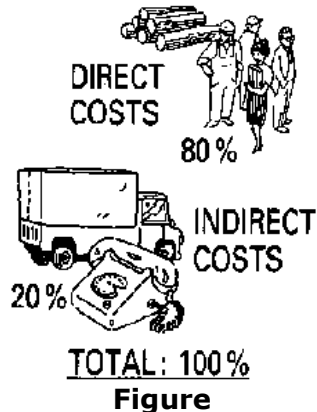
This basic breakdown of costs into direct and indirect applies to all types of businesses whether they are in retailing, wholesaling, manufacturing or providing a service (a garage, a restaurant, a lorry or a laundry). The only difference is that the raw material cost may be very small in some cases (e.g. a garage where the main cost is for the use of the labour of the mechanic).

When costing we sometimes talk about the *value added to a product*. Value added means the difference between the selling price and the total costs for one product.

Look at the following examples:

1. A manufacturer

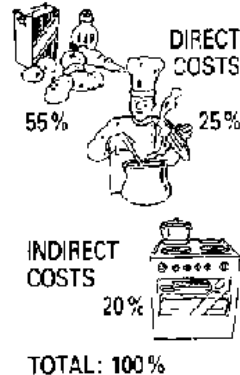
For a manufacturer, *direct costs* are the cost of raw materials and labour that go into the making of the products. Labour and raw materials are equal in amount and together they account for 80 per cent of total costs. The *indirect costs*, the office and transport to deliver the goods, account for 20 per cent of total costs.



2. A restaurant

For a service industry, *direct costs* are the costs of raw materials and labour that go directly into the services you give. In a restaurant the raw material costs are mostly

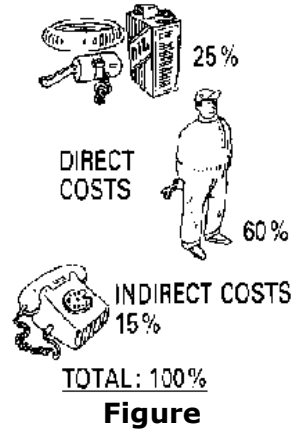
food, while the labour costs are less than half the food. Direct costs account for 80 per cent of total costs. The *indirect costs*, heating, rent and other costs such as the services of waiters, account for 20 per cent of total costs.



Figure

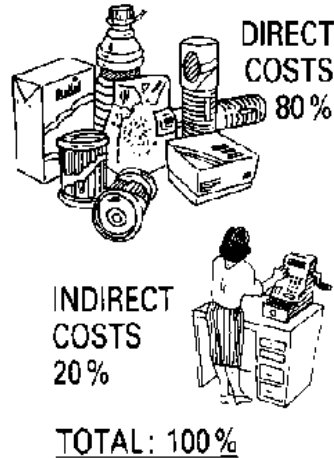
3. A garage

A garage is also a service industry. The *direct costs* are mostly the cost of labour, while the raw materials (parts) are less than half the cost of the labour. Direct costs account for 85 per cent of total costs. The *indirect costs*, the office and the sales representative, account for 15 per cent of total costs.



4. A shop

For a trader, *direct costs* are simply the amounts you pay to your suppliers for the goods which you bought from them, including the transport costs necessary to get the goods into your shop. *Indirect costs* are the costs of the shop rental, lighting, cleaning and decorating, the assistant's wages and so on.



Figure

When you know the total costs of your business and the breakdown of the total costs into direct and indirect costs, you can work out the cost of an individual product or service.

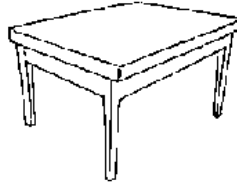
Costing one product

The cost of making any article or operating any service is made up of several different cost items. Costing is so very important to every manufacturer that in this section we show you first how to calculate the cost of one product.

Let us start with an example of a carpenter who makes wooden tables. We will calculate the cost of making one wooden table.

The costs of making this table are divided into direct costs and indirect costs.

DIRECT COSTS + INDIRECT COSTS = TOTAL COSTS OF ONE PRODUCT



Figure

HOW TO CALCULATE THE DIRECT COSTS

The direct costs are made up of two inputs: direct labour costs and direct raw material costs.

Direct labour costs

The direct labour costs for one table are easy to calculate.

1 You take the monthly wage bill for the factory for the production workers and the supervisor

Suppose the carpenter has five production workers and one supervisor. The monthly wages of a worker including social benefits are 1,750NU, while the monthly wages of the supervisor including social benefits are 3,000 NU. The total monthly wage bill is thus:

5 workers x 1,750 NU = 8,750 NU

plus:

1 supervisor x 3,000 NU = 3,000 NU

Total monthly wage bill = 11,750 NU

2. From the monthly wage bill, now calculate the total yearly wage bill

The total yearly wage bill for the carpenter is:

11.750NU x 12 months = 141.000NU

3. Calculate the total number of hours which will actually be worked during this year by the production workers

You can make an estimate of this by taking the figures from the accounts for last year.

TO CALCULATE THE DIRECT LABOUR

COSTS OF ONE PRODUCT:

1 TAKE THE MONTHLY WAGE BILL FOR YOUR PRODUCTION WORKERS

2 CALCULATE THE YEARLY WAGE BILL

3 CALCULATE TOTAL HOURS WORKED

The total number of hours per year worked in the carpenter's workshop were:

47 weeks x 40 hr. x 5 workers = 9,400 hr.

4. Calculate the hourly labour cost as follows

Total yearly wage bill
Total number of hours worked in a year

4 CALCULATE THE HOURLY LABOUR COST

For the carpenter:

141,000 NU	= 15 NU per hr.
9,40 Chr	

5. Estimate the number of hours needed to make the table

5 ESTIMATE NUMBER OF HOURS NEEDED TO MAKE THE PRODUCT

In the carpenter's workshop this is:

Labour time taken 4.7 x No. of workers 2 = Total no. of hours 9.4

6. CALCULATE THE DIRECT LABOUR COSTS OF THE PRODUCT

6. Now calculate the direct labour costs for the table For our carpenter:

Total no. of hours 9.4 x Hourly labour rate 15 NU = Direct labour cost per table

Direct material costs

To calculate the direct material costs for one table, just add up the costs of all the materials and parts that are used in manufacturing. These costs must include the pieces wasted.

Total direct material costs for one table
--

Item	Quantity	Cost	Cost per table
Top	10m	15 per m	150
Frame	6 m	15 per m	90
Legs	4 m	10 per m	40
Glue	500 g	8 per kg	4
Paint	500 g	12 per kg	6
Total direct material costs per table:			290

DIRECT MATERIAL COSTS ARE ALL THE MATERIALS USED IN MANUFACTURING

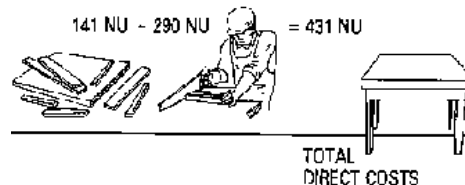
Total direct costs

The total direct costs for one table can now easily be calculated as follows:

Total direct labour costs for one table 141 NU

Total direct material costs for one table

Total direct cost for one table 431 NU



Figure

HOW TO CALCULATE THE INDIRECT COSTS

Carpenters have many expenses other than the direct costs of making tables. They must repair their workshops; maintain and service the machines; run an office; pay interest on loans; sell the tables; and deliver them. These are the *indirect costs*.

Part of these indirect costs have to be included in the cost of each table. To calculate the indirect costs for one table, you first have to make an estimate of the total indirect costs for this year.

You can estimate the total indirect costs in your business by finding the figures for all the indirect cost items from your last year's accounts and adding them up. Add on a percentage which you think will cover the increase in prices which will result from inflation, e.g. 10 per cent or 20 per cent. In the example below we use a rate of 20 per cent inflation, but later on you will find examples where other rates of inflation are used.

If you do not have last year's figures available, write down each item of indirect costs and try to estimate how much you will spend on each of these items. Try to remember how much you spent on each item last year. If you do not know how to calculate your indirect costs, work through the Costing section of the *Workbook*.

Assume that the figures for indirect costs in the carpenter's workshop were as follows, and that 20 per cent was added to cover inflation:

INDIRECT COSTS

ARE ALL THE COSTS OF BEING IN BUSINESS, SUCH AS:

- **RENT**
- **INSURANCE**
- **POWER**
- **TELEPHONE**
- **MACHINE MAINTENANCE**
- **SALARIES**
- **SELLING COSTS**
- **INTEREST ON LOAN**

Last year's figures	
Rent of building	12,000
Insurances of machines and stocks	2,000
Power and electricity	12,000
Telephone	3,400
Maintenance of machines	9,000
Salaries of office staff, cleaners and watchman	40,000
Selling costs	15,000
Interest on loan	5,000
Total indirect costs last year	98,400
+ 20 per cent of 98,400	19,600
= Total indirect costs this year	118.000

Once you have calculated an estimate for the total indirect cost, you can calculate the indirect cost per table. For a carpenter making only one product, like a table, this is

very easy. The indirect cost per table is simply the total indirect cost divided by the estimated number of tables to be made during this year.

In this example the carpenter expects to make 1,000 tables:

$$\frac{111,800 \text{ NU}}{1,000} = 111.8 \text{ NU}$$

$$\text{INDIRECT COSTS OF ONE PRODUCT} = \frac{\text{TOTAL INDIRECT COSTS}}{\text{ESTIMATED NUMBER OF PRODUCTS}}$$

HOW TO CALCULATE THE TOTAL COSTS

You can now calculate the total costs of making the table. This is shown below.

Total direct costs per table	431
+ Total indirect costs per table	118
= Total costs per table	549



Figure

We have calculated the cost of the table by supposing we shall make 1,000 tables. If the carpenter's sales for the year are very good and he sells 1,500 tables without increasing his indirect costs, then the indirect costs per table will be:

$$\frac{118,000}{1,500} = 79 \text{ NU}$$

The total costs of the table are now:

MORE TABLES

REDUCE COSTS PER TABLE

Direct costs per table	431
+ Indirect costs per table	79
= Total costs per table	510



MORE TABLE REDUCE COSTS PER TABLE

These costs are 39 NU less than when the carpenter made 1,000 tables. He can cut his selling price and still make a profit. By selling at a lower price he can have more customers.

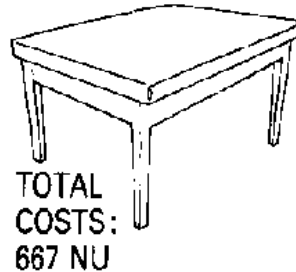
When the carpenter makes fewer tables in the year without reducing the indirect costs, the cost per table goes up. If he has a bad year and sells only 500 tables, the indirect

cost per table is:

$$\frac{118,000}{500} = 236 \text{ NU}$$

The total costs of one table are now:

Direct costs per table	431
+ Indirect costs portable	236
= Total costs portable	667



Figure

**FEWER TABLES
INCREASE COSTS PER TABLE**

This is 118 NU more than when the carpenter made 1,000 tables.

His cost price (i.e. cost per table) is too high. If he wants to sell his tables and still make some profit on them, his selling price will probably be so high that his customers will not be willing to pay. They will buy from his competitors who sell at a lower price.

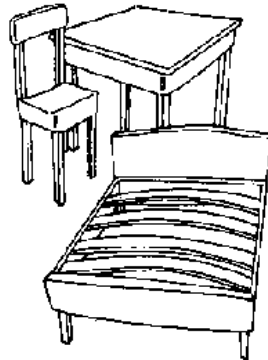
The more you can produce from the buildings, machines, offices and staff you have, the cheaper your product will be and the easier it will be to win business from your competitors.

Costing many products

The simple example given above showed how the cost of a single product is built up from the different cost items. It can be used where only one product is made, like sacks of flour, fertiliser, cement building blocks, jute sacks and standard water pumps.

Very few small-scale manufacturers make one product only, because the market is generally not bigenough.

A furniture-making firm will make tables of different sizes, chairs, beds, cupboards, school desks-whatever it can get orders for. The different products will take different quantities of material and different amounts of labour. The indirect costs cannot be divided in the way we have shown.



DIFFERENT PRODUCTS, DIFFERENT COSTS

HOW TO CALCULATE INDIRECT COSTS FOR DIFFERENT PRODUCTS

Assume that instead of making only tables, the carpenter makes also chairs and beds. He still employs five workers and one supervisor, and has the same amount of indirect costs for this year as in the above example.



$$47 \times 40 \times 5$$

workers = 9400 hr.

TOTAL HOURS WORKED

An easy way of calculating the indirect costs for each product is to show them as a cost per hour of direct labour.

You do this as follows:

1. Calculate the total number of hours which your employees in the workshop actually work during one year

You did this before.

Remember the carpenter's example:

Total no. of hours worked in the year:

47 weeks x 40 hr. x 5 workers = 9,400 hr.



118,000 NU

TOTAL INDIRECT COSTS

2. Divide the total indirect costs for this year by the total number of hours worked in a year

This gives you the indirect costs per hour worked.

In our example:

$$\frac{118,000 \text{ NU}}{9,400} = 12.55 \text{ NU/h}$$

TOTAL INDIRECT COSTS DIVIDED BY TOTAL HOURS WORKED GIVES INDIRECT COSTS PER HOUR OF DIRECT LABOUR:

$$\frac{118,000 \text{ NU}}{9,400} = 12.55 \text{ NU/h}$$

Once you know this figure, it is very easy to calculate the indirect costs for each and every product, as follows:

1. Calculate the total number of hours spent on making the product

For the table, this was two workers working for 4.7 hours = 9.4 hours.

2. Calculate the total indirect costs of making one product by multiplying the number of hours spent by the indirect costs per hour calculated above

In the example above, the indirect costs for one table are:

$$9.4 \text{ hours} \times 12.55 \text{ NU} = 118 \text{ NU}$$

**TO CALCULATE THE INDIRECT COSTS
OF EACH PRODUCT:**

1 CALCULATE TOTAL NUMBER OF HOURS SPENT ON MAKING THE PRODUCT


2 MULTIPLY NUMBER OF HOURS BY INDIRECT COSTS PER HOUR


With this information you can calculate the total cost of making the product.


In the example of the table:

Direct costs per table	431
+ Indirect costs per table	118
= Total costs per table	549

You can calculate the costs of the other products in the same way:

THE CHAIR		Direct material costs:	
-----------	--	------------------------	--

				
		4 legs of 1 m each @ 15 NU per m	60	
		One seat 1/2 m x 1/2 m @ 24 NU per sq. m	6	
		One back of 1/2 m x 1/2 m @ 24 NU persq. m	6	72
		Direct labour costs:		
		One worker takes 6 hours		
		6 hours x 15 NU per hour		90
		Total direct costs for one chair		162
		Indirect costs:		
		6 hours x 12.55		75
		Total costs for each chair		237

THE BED		Direct material costs:		
		Wood, total	460	
		Nails, 1/2 kg @ 50 NU per kg	25	485
		Direct labour costs:		
		Three workers take 6 hours = 24 hours		
		24 hours x 15 NU		360
		Total direct costs for one bed		845
		Indirect costs:		
		24 hours x 12.55		301

		Total costs for each bed		1,146
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Pricing

Pricing means deciding on the prices that you charge for your products or services.

In order to set prices you must know your costs. If you do not know your costs, you cannot know whether you are making a profit or a loss.

Many manufacturers, traders or service operators do not know their costs and think that they are less than they really are.

PRICING, DO IT RIGHT

Costing and pricing

Know your costs and you have a good basis for setting your prices. You can then compete with other manufacturers or operators and make a profit. Profit is needed to keep your business healthy. It will provide you with a reserve of money to see you through times when business is poor, to allow for unexpected events, to finance expansion or to repay loans.

Apart from knowing costs, there are many other factors that you have to take into account when setting your prices:

- **What are the prices of your *competitors* for the same products or services, or for similar products or services which people could buy instead of yours?**
- **How much are your customers prepared to pay and how much *can* they pay?**

- **How does the price of a new product or service compare with the prices of the products or services that you are already selling?**

You can sometimes tell when your pricing is wrong.

Prices may be too high if:

- **you do not reach your sales target;**
- **you lose some big orders;**
- **sales of some of your products are low as compared to other products;**
- **stocks pile up;**
- **you receive complaints from customers.**

WHEN SETTING YOUR PRICES, YOU MUST

- **KNOW YOUR COSTS**
- **CHECK COMPETITORS' PRICES**
- **FIND OUT WHAT CUSTOMERS WILL PAY**
- **COMPARE PRICES OF NEW GOODS WITH THOSE OF EXISTING GOODS**



HIGH PRICE: LOW SALES AND LOW PROFIT

Prices may be too low if:

- **there are more orders than you can fill;**
- **you run out of stocks all the time;**
- **sales are good but overall profits are low.**



LOW PRICE: HIGH SALES BUT LOW PROFIT



RIGHT PRICE: SALES RIGHT AND PROFITS RIGHT

Pricing for a manufacturer

In the section on costing we showed how to calculate the costs of one table. These costs are used to set the selling price for the table.

Remember that the price you charge must cover:

- your direct costs;
- your indirect costs; and
- a reasonable profit.

Manufacturers will usually add between 20 per cent and 30 per cent on to their costs as profit. Sometimes the percentage added on is called the *mark-up*. Let us assume that the carpenter adds 30 per cent on to his total costs to arrive at his selling price as follows:

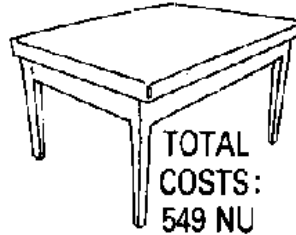
HOW TO PRICE

Total costs per table	549
+ Profit = 30 per cent x 549 NU	165
= Selling price	714

Note that the carpenter does not make 30 per cent profit on the sale. His profit on the sale is:

$$\frac{165\text{NU}}{714\text{NU}} \times 100 = 23\text{ per cent on sales}$$

This is his *profit margin*. We shall come back to this point later in the chapter, in the section on mark-ups and margins.



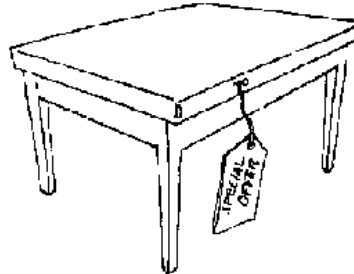
Figure

NOW ADD 20 PER CENT PROFIT

The price that we just calculated is the price at which the carpenter *wants to* sell his product; but it might not be the price he can *get*. This depends on what is actually happening in the market.

- **If tables of similar quality are selling at between 730 NU and 780 NU, he is in a good position. He can even raise his price to between 730 and 750 NU and be sure of selling his tables at a good profit.**
- **If tables of similar quality are selling at prices between 680 NU and 730 NU, he is still not in trouble. The price of 714 NU which he calculated is about right. His tables will sell with a bit of active marketing.**
- **But if the market prices are between 580 NU and 680 NU he finds himself in trouble. He will have to lower his price in order to sell. If he is unable to sell his tables for more than 580 NU, he seriously has to try to lower his costs. Although he still makes a profit of 31 NU on each table, this is not enough to keep his business healthy.**

In many industries where you know that competition is severe, you cannot add 30 per cent for profit. You might try adding 20 per cent to your costs and see if your product sells. If you know your costs, you know what you are doing.



Figure

ACTIVE MARKETING HELPS TO SELL

Pricing for a trader

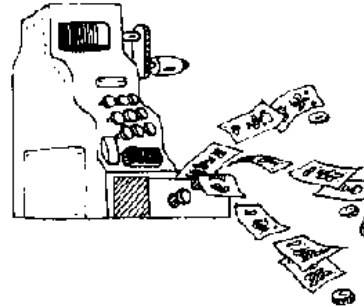
For the trader, pricing is more important than costing. The prices you charge determine the quantity you will sell and therefore how much money will come into your business.

The money which comes in from sales must do three things:

- **cover the *direct costs*, i.e. the cost prices of all the goods, including transport costs;**
- **cover the *indirect costs*, i.e. the costs of running the shop such as wages, rent, insurance, electricity and telephone; and**

- **provide a reasonable *profit*.**

When fixing the selling price of an individual article, you must remember that the money you receive from the sale of that article still has to do these three things.



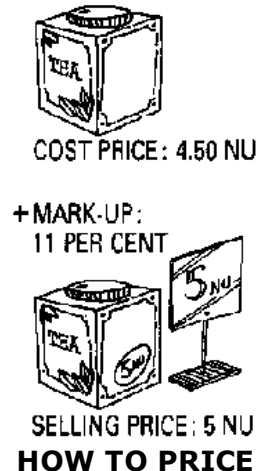
Figure



Figure

If you buy a packet of tea for 4.50 NU and sell it at 4.50 NU you collect enough to buy a new packet of tea-but you will not have any money to cover the costs of running the shop. You will not make any profit.

Retailers have to add a little to the prices of the goods they buy before they sell them to customers. This is called adding a *mark-up* to the goods. By doing this they will collect some extra money which will go towards the other costs, i.e. the costs of running the shop and some profit.



4.50 Cost + 0.50 11 per cent mark-up on cost price = 5.00 Selling price

Trade margins

All retail business owners add a mark-up in order to make a profit. In other words, they need a trade margin to cover their costs.

This trade margin is usually stated as a percentage of the selling price. In our example, the retailer has decided that she wants a trade margin of 10 per cent on the tea:

$$\frac{0.50}{5.00} \times 100 = 10 \text{ percent}$$

Note: In order to obtain a *trade margin of 10 per cent* on the selling price of tea, she has to add a *mark-up of 11 per cent* on to the cost price of the tea. You will read more about this later.

The question for the retailer is how high the margins on her different goods should be. How do you know that the margins on your products are high enough to cover your indirect costs and in addition give you profit?

To answer this question, first look at the last year's results for your business. Make a summary of your sales and costs over the last year as follows:

**TRADE MARGIN
IS A PERCENTAGE OF THE SELLING PRICE**

**MARK-UP
IS A PERCENTAGE OF THE COST PRICE**

Example: Trading of grocer's shop during 1984

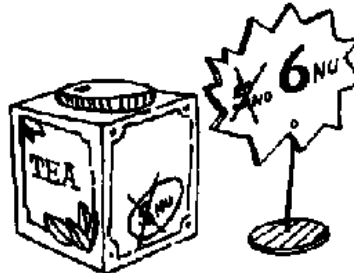
Sales	480,000
+ Direct costs	408,000
Contribution	72,000

= Gross profit	72,000
+ Indirect costs	52,000
= Net profit	20,000

From this summary you can calculate your average trade margin as follows:

$$\frac{\text{Sales} - \text{Direct costs}}{\text{Sales}} \times 100 = \text{Average trade margin}$$

$$\frac{480,000 - 408,000}{480,000} \times 100 = 15 \text{ percent average trade margin}$$



INCREASE YOUR MARGIN BY INCREASING YOUR PRICES



OR DECREASING YOUR COSTS

If you think this margin gives you enough profit you can try the same margin again during the coming year. But ask yourself if you are able to achieve this margin in your business. Look back at last year's results. Try to think whether you will be able to obtain the same margin again or if the margin can be higher.

If you are not satisfied with last year's results, you should then try to aim at a higher margin for the next year. You can do two things to achieve this:

- **increase your prices; or**
- **decrease your costs.**

Once you have decided on your average margin, you should then try to *achieve* it. This is not easy, because you will not be able to get the average margin on all your goods. On some goods you will be able to get higher margins than the average, while on others you will not be able to get as much as the average.

Try to fix the margins on your different goods in such a way that your total sales will give you approximately your average trade margin. There is no easy way to ensure that you will eventually achieve your estimated average margin. Your business ability can guide you.

After six months make another summary of your trading and find out if your average trade margin was too low. If you think so, you can consider buying more of the luxury-type goods on which you can charge a higher trade margin. Maybe you can increase the margins on some of the goods that you already sell.

If your average trade margin was the same or even higher than your estimate but your sales were low, you might try to lower the margins on some of your goods in order to increase sales.

MARK-UPS AND MARGINS

Once you have decided on the margins for your different goods, you must now ask yourself the following question: By how much should I *mark* up the cost price of the product to get the *margin* which I want when I sell the product?



HIGH-MARGIN PRODUCTS

SOME HIGH, SOME LOW-TOGETHER THEY GIVE YOU THE AVERAGE



LOW-MARGIN PRODUCTS

We have already seen an example of this: A retailer added a mark-up of 11 per cent on the cost price of her tea to get a trade margin of 10 per cent on its selling price.

The question is now: How does the retailer know that an 11 per cent mark-up will give her a 10 per cent margin?

It is possible to calculate the different mark-ups for each and every margin, but this is a difficult exercise. Therefore we have made things easier by giving you a chart on the next page, in which you can find the markup for each margin from 1 per cent to 50 per cent. The margins are given in the first column, the corresponding mark-ups in the second column. For example, a margin of 26 per cent corresponds to a mark-up of 35 percent, and a margin of 12 percent corresponds to a mark-up of 13.5 per cent.

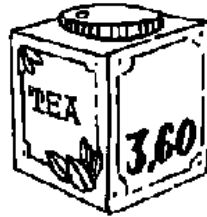
Example

The grocer's shop has decided to sell its tea with a margin of 17 per cent. The cost price of one packet of tea is 3 NU. Look at the chart. The *mark-up* corresponding to a margin of 17 per cent is 20 per cent. We can now calculate the selling price of the packet of tea as follows:

$$\begin{array}{rcl}
 3 \text{ NU} & + 20 \text{ per cent of } 3 \text{ NU} & = 3.60 \text{ NU} \\
 \text{Cost price} & \text{Mark-up} & \text{Selling price}
 \end{array}$$

HOW TO CALCULATE THE SELLING PRICE OF A PRODUCT:

1 DECIDE ON ITS MARGIN: 17 PER CENT



Figure

2 FIND THE MARK-UP FROM THE CHART ON THE NEXT PAGE: 20 PER CENT

3 ADD THE MARK-UP TO THE COST PRICE TO GET THE SELLING PRICE 3 NU + 20 PER CENT = 3.60 NU

Whenever you want to calculate the selling price of a product, you can do so if:

- **you know its cost price; and**
- **you have decided on its margin.**

HANDY MARGIN CHART

MARGIN	MARK-UP
1	1.01
2	2.05
3	3.1
4	4.2
5	5.3
6	6.4

7	7.5
8	8.6
9	10.0
10	11.0
11	12.5
12	13.5
13	15.0
14	16.5
15	17.5
16	19.0
17	20.5

MARGIN	MARK-UP
18	22.0
19	23.5
20	25.0
21	26.5
22	28.0
23	30.0
24	31.5
25	33.5
26	35.0

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27	37.0
28	39.0
29	41.0
30	43.0
31	45.0
32	47.0
33	49.5
34	51.5

MARGIN	MARK-UP
35	54.0
36	56.5
37	59.0
38	61.5
39	64.0
40	66.5
41	69.5
42	72.5
43	75.5
44	78.5
45	81.5
46	85.0

47	88.5
48	92.5
49	96.0
50	100.0

Pricing for a service operator

Service businesses such as restaurants, garages, dry cleaners, travel agencies or transport operators do not produce or sell products that you can see or touch. They offer people a service in exchange for money. This can be through the use of a machine (dry cleaning) or the work of a skilled worker (a mechanic in a garage).

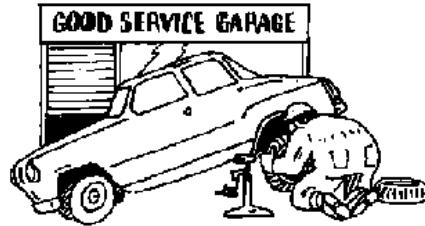
In service businesses *direct costs* are the costs of using that machine or that worker.

***Indirect costs* are all the other costs that you have to pay for running the business, e.g. rent, administration expenses, office costs, insurance, telephone and so on.**

The money that you get for your services should be high enough to cover:

- **the direct costs;**
- **the indirect costs; and**
- **a reasonable profit.**

The price for a service is usually calculated on an hourly basis. This is called the *rate per service hour*. It is built up as follows:



REPLACEMENT OF TYRE: 10 NU

COVERS DIRECT COSTS, INDIRECT COSTS AND A PROFIT

Rate per service hour = Direct costs per hour + Charge for gross profit per hour

The charge for gross profit per hour is added to cover the indirect costs plus a profit.

EXAMPLE

The rate per service hour for the Good Service Garage would be as follows.

Direct costs per service hour

The direct costs per hour are easy to calculate. In the Good Service Garage, the direct costs are the wages (including social benefits) of the workers. You can calculate the labour cost per hour as follows:

1. Estimate the total number of hours for which your workers will get paid during the next year. The easiest way to do this is to look at the past year's

HOW TO CALCULATE YOUR DIRECT COSTS PER SERVICE HOUR

1 ESTIMATE THE NUMBER OF HOURS TO BE WORKED NEXT YEAR figures. Last year, Good Service employed five workers. The total number of paid hours in the past year was:

5 workers x 40 hours a week 47 weeks a year = 9,400 5 hours

Good Service estimates that the total number of paid hours for next year will be the same as in the past year.

2. Estimate the total wage bill for the next year by looking into your wages book for the past year.

The total monthly wages, including benefits, in Good Service were:



2 ESTIMATE THE TOTAL WAGE BILL FOR NEXT YEAR

Five workers x 1.000NU	= 5,000
+ One supervisor x 1,500 NU	= 1,500
= Total monthly wage bill	6,500
Total yearly wage bill is	

Total yearly wage bill is	
6,500 NU months x 12	= 78,000 NU

From the above you estimate your next year's total wage bill. Let us assume that the total wage bill for next year will be the same as the figure for the past year.

3. Divide the total wage bill for next year by the total number of hours to be worked next year (9,400 hours). This gives you the direct costs per hour:

$$\frac{78,000 \text{ NU}}{9,400} = 8.30 \text{ NU per hour}$$

3 DIVIDE THE TOTAL WAGE BILL BY THE NUMBERS OF HOURS WORKED

Charge for gross profit per service hour

To determine the hourly gross profit charge, it is necessary that you know:

- how much your total indirect costs will be for the next year;
- how much net profit you want to make in your business.

The easiest way to get some ideas about this is to make an estimate of your sales and costs for the coming year.

Good Service's sales and costs estimates for next year are:

Revenues from repairs	270,000
- Direct costs (wages)	78,000
= Gross profit	192,000
= Indirect costs	172,000

= Net profit	20,000
--------------	--------

To obtain the amount of gross profit it is necessary to recover a part of it during each hour worked. The hourly charge for recovery of gross profit is thus:

$$\frac{\text{Gross profit next year}}{\text{Total hours to be worked in the next year}} = \text{Hourly charge for gross profit}$$

For Good Service this is:

$$\frac{192000\text{N}\pounds}{9400} = 20\text{N}\pounds$$

We can now calculate the *rate per service hour* by adding up the direct costs per hour and the charge for gross profit per hour as follows:

HOW TO CALCULATE YOUR HOURLY CHARGE FOR GROSS PROFIT

▼
ESTIMATE YOUR GROSS PROFIT FOR THE NEXT YEAR

▼
DIVIDE THIS BY THE TOTAL NUMBER OF HOURS TO BE WORKED NEXT YEAR

Direct costs (labour)	
per service hour	8.30
+ Charge for gross profit	
per service hour	20
= Total rate per service hour	
for next year	28.30

NOTE TO COSTING AND PRICING

We suggest that in all the examples of this section you take note of the following idea and try to apply it in your calculations.

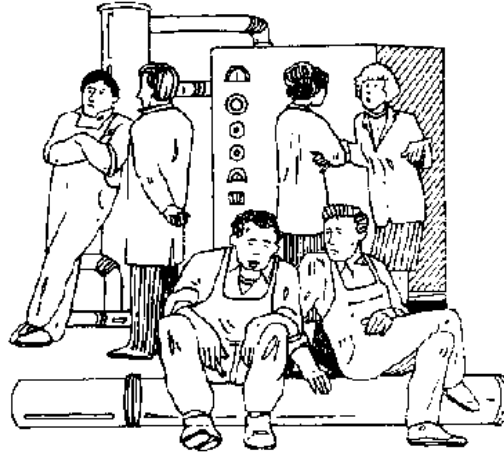
In all our calculations we assumed that the workers are actually employed on work during the whole of their paid working hours. Unfortunately, in a real-life situation, this is rarely true. At times, you may have no work for your workers to do because you have no orders.

There will also be times when they may sit around or waste time before they start the next job. Out of every 100 *paid* working hours you will probably only be able to *employ your* workers on actual work for 70 or 80 hours. This affects your calculations of direct labour costs and indirect costs per hour.

A simple way in which you can allow for this in your calculations is to multiply your estimate of the total number of hours worked by a factor which you think, from your experience, corresponds to the actual percentage of work which your workers do for you. For example, if you estimate that your workers actually work for 70 hours out of every 100 paid working hours, then the factor will be 0.7 (70 per cent).

In the example of the garage given above, you should multiply as follows:

$$**9,400 hours x 0.7 = 6,580 hr.**$$



AT TIMES THERE IS NO WORK

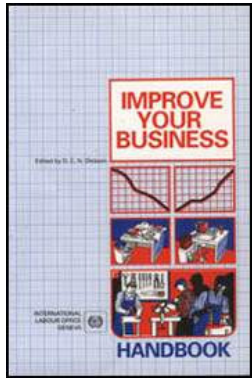
Note that if you use this figure, it will give you a higher rate for the direct labour costs per hour and the indirect costs per hour. These rates are more correct but note that they are *higher*.

If you adopt this idea and apply the method, it will mean that the prices you charge for your products must, in turn, be higher if you want to get back enough money to pay for the times where there is just no work being done.



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 **Improve Your Business: Handbook (ILO, 1986, 144 p.)**



- ➔ **5. MARKETING**
 - (introduction...)**
 - Choosing the goods to be made and sold**
 - (introduction...)**
 - Finding out what customers want**
 - Few or many different goods?**
 - Promotion and advertising**
 - Distributing**
 - (introduction...)**
 - Deciding how to distribute your goods**
 - Managing sales representatives**
 - Sales records**
 - (introduction...)**
 - Reasons for falling sales**
 - Payment and credit**
 - (introduction...)**
 - Discounts**
 - Good invoicing**

Improve Your Business: Handbook (ILO, 1986, 144 p.)

5. MARKETING

Marketing is getting people to want your goods, selling them, delivering them to the buyers and getting paid for them.

Marketing means being active in every way which will help to increase sales. It is not enough to sit and wait for orders.

This is what you have to do:

- **find out what customers want; next;**
- **choose the products or services you can offer to satisfy their wants;**
- **price and sell them;**
- **promote and advertise them;**
- **place them in the market and distribute them; and;**
- **make a profit at the end of the whole process.**



FIND OUT WHAT THE CUSTOMERS WANT



PRODUCE, PRICE, PROMOTE AND PLACE THE PRODUCT



MAKE A PROFIT

Choosing the goods to be made and sold

Choosing the goods to be made and sold means:

- **deciding on the designs;**
- **deciding on the quality;**
- **deciding on the quantities you think you can sell.**

People like something a little different from what their friends have-but not too different! People change their ideas slowly and like things which they know and have grown up with. If you make something too different, only a few people will buy it.

Think about the product you are going to make and sell. Try to imagine what the customers would like the product to be.

Finding out what customers want

In the section on " Buying and selling " we said that business people must know their customers. They must find the right answers to many questions such as:

- **Whom am I trying to sell to?**
- **What kind of designs, colours, sizes and so on do they like?**
- **Where are the customers-in the capital city, in the provinces, in smaller towns or in the country?**
- **When do they buy-all the year round, in winter, in summer, at holiday times?**
- **How many do they want, can they afford them and can I sell them?**

Finding the answers to these questions and others is called *market research*. You may find out many facts from:



Figure

WHAT KIND OF PRODUCT DO MY CUSTOMERS WANT?

- **WHICH DESIGNS?**
- **WHICH PRICES?**
- **WHICH SIZES?**
- **WHICH QUALITY?**



1 Your own order books



2 Your sales representatives



3 Wholesalers and retailers you sell to

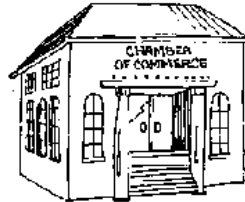


4 Customers who use your goods



5

5 Other manufacturers' catalogues

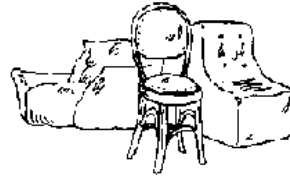


6

6 The Chamber of Commerce

Few or many different goods?

One mistake some manufacturers make is to try to sell to everyone. They make too many different sorts of goods, or too many sizes or models of the same goods. It is sometimes difficult to decide what to make. If you are a tailor, should you make only men's white shirts, which you do very well, or should you make sports shirts or women's blouses or dresses...?

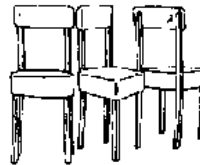


Figure

**WIDE CHOICE-
HIGH
PRODUCTION COST**

The more different goods or models you make, the more your customers have to choose from *but the* more it will cost you to make each article. This is because you will buy your different materials in smaller quantities; this will cost more and you will not be able to organise your production so well. Your competitors who make only one or two goods in large quantities can sell cheaper than you can.

If you are sure your product is good but it does not sell well, you should put more effort into your marketing. Do not try to make more different items but try to sell what you already make!



Figure

LESS CHOICE- LOW PRODUCTION COST

Promotion and advertising

Promotion includes every way you influence people so that they will buy your goods.

Advertising is telling people what you have to sell so that they want to buy your goods more than they do those of your competitors.

What you are selling, whom you are selling to and where customers live will decide what sort of advertising you use and what media you use. Media in advertising are the means used to tell people about your goods, except word of mouth.

Media include newspapers, magazines, radio, television, cinemas and posters.

If your goods are sold to very many people throughout the whole country you can use radio, local < newspapers, signboards on main roads, posters on buildings, or even television if you can afford it and your sales are big enough.

Industrial and trade customers are special. They use your goods to earn their living. They want to know how your goods will help their businesses and they want hard facts, not promises. To reach them you must advertise in trade journals and through well-prepared catalogues.



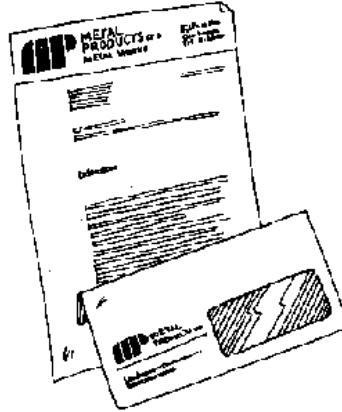
MEDIA YOU CAN USE TO ADVERTISE YOUR GOODS

Where you want to promote your products to a few special customers, send special letters to each one personally. At the beginning of a new year you could even send calendars, diaries, pencils or notepads as gifts with the name of your business printed on them.

The owners of businesses, bankers and top managers will read personal letters while they throw away a circular letter. Make sure your letters are on the best kind of paper with an impressive letter-head and very well typed. If your typist is not good enough to do this, use a typing agency. This is the way to promote a good image of your business.

Retailers can display promotional material in their shops, on the counter and in the window. This is called point-of-sale advertising. It may be a cut-out cardboard figure or an eye-catching poster showing particular goods.

Ask new customers how they first heard of your product or service. You will then get a good idea of how well your name is known and how your business is thought of in the market.



Figure

A BUSINESS LETTER NEEDS:

- **A NEAT HEADING**
- **CLEAR INFORMATION**
- **GOOD TYPING**

Distributing

Distributing means getting goods from the manufacturers to the final customers. It includes buying and reselling goods by wholesalers and retailers and the transport used to move them at each stage.

How you sell and distribute your products depends on:

- what the products are;
- who the customers are;
- where the customers are;
- how many customers or people you hope to sell to;
- how much they buy.



This can be seen very clearly in the table below.

What	Who	Where	Point of sale	Number of points	Sold by

Cheap clothes	Poorer people	Whole country	Stores, shops, markets, etc.	Very many	Salesmen, owner to big store buyers
Dear leather goods	Wealthy people, tourists	Capital city, tourist towns	Department stores, hotels, boutiques	Very few	Direct by owner
Chocolates and sweets	Everyone, especially children	Mostly towns	Shops, markets, street sellers	Very many	Salesmen, wholesalers, retailers
Kitchenware	Middle-income households	Mostly towns	Department and hardware stores	Not so many	Salesmen, owner (big orders)
Metal windows	Builders	Mostly big towns	Wholesalers, builders	Not so many	Owner, salesman, catalogue
Special tools and dies	Engineering and plastic industry, etc.	Capital, few big towns	Manufacturer's factory	Very few	Owner, technical staff
Standard tables and chairs	Government, schools, institutes	Mostly big towns	Buyer's office, government or local officials	Very few	Owner

You can see that there are different ways and places for selling goods. If you are selling to the Government, you will have to go through the usual procedures. In some countries, goods for the general public go from the manufacturer to a wholesaler, to another wholesaler, and then in smaller lots to retailers or market sellers.

Four or five lots of people may handle the goods, each taking a profit, before they reach the buyer if he or she lives in the country. This puts up the price of the goods to the

people who want them. You will sell fewer goods this way. You must find the best sales channels for your goods.

Deciding how to distribute your goods

Very few small manufacturers can employ many sales representatives to visit customers, if they are selling all over the country.

Wholesalers can do the job for you by buying bigger quantities of goods and breaking them down into smaller lots to sell to retailers or to other customers. They can do the selling for you.

DIFFERENT WAYS OF DISTRIBUTION

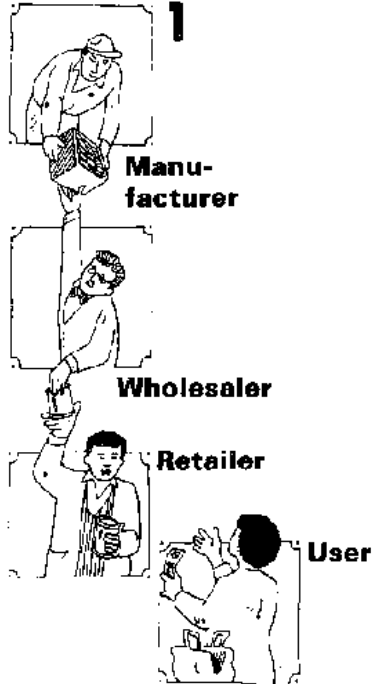


Figure Long Channel

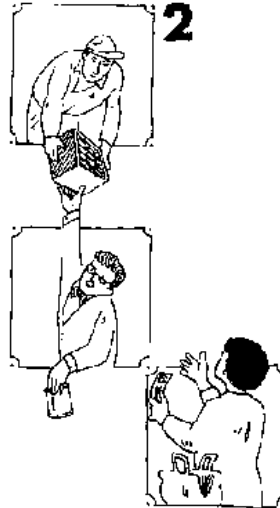


Figure Medium Channel



Figure Short Channel

Wholesalers sell many different goods and may also sell the goods of your competitors. They will not always push your goods as hard as your own sales representatives do and they will only buy at a cut price, i.e. with a discount.

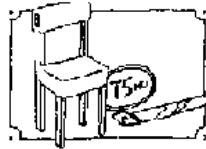
Wholesalers must not only make a profit to cover their costs but they must, if they are selling to retailers, allow them discount in order that they should have a profit.

If you sell to retailers you may make more profit but, if there are many retailers in different parts of the country, you may have problems of visiting them and of transporting the goods to them. Selling direct to retailers, if there are many, means that you must employ one or more sales representatives, even if you do some selling yourself.

In deciding what is the best means to use to sell and distribute your goods, you have to think about:

- 1. *The cost of selling*- will the cost of sales representatives' salaries and expenses be recovered by higher selling prices than a wholesaler might give you?**
- 2. *Selling the goods* -will sales representatives push your goods better than a wholesaler will? Can they sell enough -more than a wholesaler-to cover their costs and make a bigger profit?**
- 3. *Storage*-goods for sale in distant parts of the country may be stored locally. Is it better to use a wholesaler or set up your own store in the region?**
- 4. *Delivery* - to deliver goods to other regions, is it better to have your own transport, hire lorries, use a common carrier or, for small parcels, use the mail?**

THE LONGER THE CHANNEL, THE HIGHER THE SELLING PRICE



Cost price



**Manufactur-
er's
selling price**

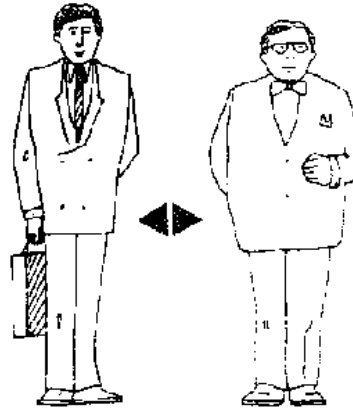


**Whole-
saler's
selling price**



**Retailer's
selling price**

Figure



Figure

COMPARE SELLING THROUGH YOUR OWN SALES REPRESENTATIVES OR THROUGH A WHOLESALER

- 1 WHAT IS THE COST OF EACH?**
- 2 HOW WELL DOES EACH PROMOTE YOUR PRODUCT?**
- 3 HOW WIDELY CAN EACH COVER THE COUNTRY?**
- 4 HOW QUICK IS EACH FOR DELIVERY OF YOUR PRODUCT?**

Managing sales representatives

All the people in the business, including you, are sales representatives for the business.

The letters you write, the way they are typed, the way the telephone is answered, how quickly you answer letters, what you do about complaints-these add up to giving people outside (people who may buy from you) a picture of a well-run business with a

good owner and staff or a poorly run business with a bad owner and staff.

The sales representatives you employ to sell your goods also give people an idea about the kind of business you have. Selling can be a lonely and tiring job. Sales representatives' time may be wasted by people who do not keep appointments. Customers may even go out without leaving a message or keep them waiting for an hour or more. Some people do not think they must be polite to salespeople and are very rude. Yet sales representatives must be well dressed, polite and patient, they must never lose their temper and they must know about the goods they are trying to sell. They are ambassadors for the business and the company will be judged by how they act.



MAKE YOUR CHOICE

YOUR SALES PEOPLE ARE YOUR BUSINESS REPRESENTATIVES

Sales representatives must fit in with the sort of customers they visit. It is no good

sending a rough person, however good at his work, to visit educated people. However, sales representatives visiting artisans and small traders must be simple people, able to talk to them in their own words. They must also know the jobs which the small traders do and how to use the product they are selling.

Train your sales representatives in your products, especially if they are technical (machines, tools, electrical goods, fertilisers, medicines and so on). Make sure that they have the education and technical knowledge to be able to talk to technical people. Many small manufacturers, farmers, builders and other people using technical products come to trust a sales representative who can give them good advice, not only on the goods he is selling, but about their businesses. They will see him or her when they will not see other representatives and they will buy the goods - *your* goods.

One important way in which you can help your sales representatives - and win more orders - is to make sure that all letters, enquiries, reports and complaints from customers are dealt with at once.

If there is an enquiry or a complaint which you cannot answer at once, because you must study it or get more information, send a letter or even a postcard saying that you have received it and will reply as soon as you have the information.

KNOWLEDGE OF YOUR PRODUCT HELPS YOUR SALES REPRESENTATIVE TO SELL



Figure

Remember - your sales representative is the person who has to go back and see the customer, and the customer will be angry with him or her if you do not reply. Quick replies and politeness will build your representative up and build your business up in the eyes of customers.

Sales records

Good sales records are very important. The more different goods or products you sell, the more important sales records are.

From good sales records you can find out:

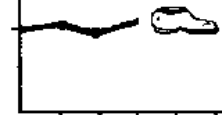
- **whether your sales are rising, falling or about the same from month to month or year to year;**
- **which goods or products are selling well, which are selling badly, which have sales that are going up or going down;**

- **in what regions the sales are best, worst or merely average;**
- **which designs or models customers like best;**
- **how your sales representatives are doing;**
- **how new products are selling;**
- **if older products are losing sales.**

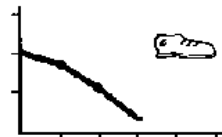
By having this information easily to hand you can watch your sales. If you see sales going down, you must find out why.



Rising sales



Steady sales



Falling sales

WATCH YOUR SALES

Reasons for falling sales

This can be due to different causes:

- **one of your competitors may be making a special drive for sales;**
- **your products may be going out of date;**
- **you may have a bad sales representative;**
- **customers may be unhappy with your quality (too many faulty goods), your deliveries (late, not in the right quantities) or your service.**

Often when manufacturers make many different sorts or models of products, only 10 per cent of them sell well and make a profit. The other 90 per cent make little profit and may even make losses.

Good sales records make it possible to see changes in sales, to find out why they are happening and, if they are bad, to do something to make them better before it is too late.



IF THIS HAPPENS
TO YOU—
FIND OUT WHY AND
DO SOMETHING
ABOUT IT

Figure

Good accounts mean that you can see what sales figures mean in terms of money, so that you can see on which products you are making a profit and on which a loss.

Payment and credit

It is no good selling your goods or services if you do not get paid for them or if your customers take so long to pay that you have to borrow money and pay interest to finance your materials and the wages of your employees.

***Accounts receivable* is the name given by accountants for the money owed on goods or services which have been invoiced but not yet paid for.**

Most small retail shops sell for cash and refuse to give credit. They know that if they begin, some people will never pay them.

You must have clear rules for payment - make sure your customers know them - and stick to them. Then there can be no misunderstanding. (We know that big and important customers like governments will sometimes break your rules, and you

cannot refuse them.)

Have your rules clearly printed on quotations and invoices and well displayed in your shop. You can help to speed up payments by offering discounts to those who pay quickly and making the slow payers pay something extra (a penalty). These may be:

- **discounts - 2 1/2 per cent off for cash or payment within 15 days (see below);**
- **penalties - 2 per cent interest per calendar month to be charged after 30 days from the date when payment is due.**

Try to look ahead. If you must give a big credit, check the customer's record for payments. Your bank can help you. If the person is known as a very bad payer, it may be better to refuse the order. If he or she is someone important who can help you get other orders, you may even have to lose money. You must decide.



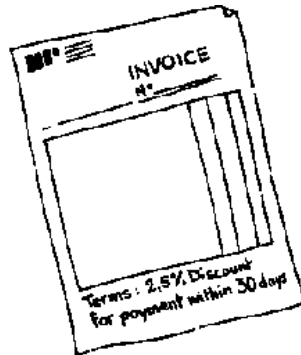
HAVE CLEAR RULES FOR PAYMENT AND MAKE SURE YOUR CUSTOMERS KNOW THEM

Discounts

Do not forget that your prices must allow for discounts to people who buy big quantities - government contracts, wholesalers and trade customers such as other manufacturers. It is often also trade practice to give a discount (e.g. 2½ per cent) for cash payments which are made within 30 days. This helps to increase the inflow of cash. *Remember:* think out what your discounts can be and what reduction in price you can give to get a big order.

You can also help yourself by sending out your invoices as quickly as possible after the dispatch of the goods - with the goods if you can or by the next post.

DISCOUNTS FOR QUICK PAYMENTS HELP TO GET CASH IN FAST



Figure

Good invoicing

You can only get your invoices out quickly if you have good records so that information can be quickly and easily put on the invoices.

You should also make sure that your invoices give exact details of what customers are paying for, so that they cannot delay payment by disputing the invoice.

Look at these two invoices:

1

INVOICE

DESCRIPTION	ITEM	TOTAL
Repairs to house, tax included		1,195
	TAX	
	TOTAL	1,195

2

INVOICE

DESCRIPTION	ITEM	TOTAL
Removed cast iron gutters and drain pipe, replaced with PVC.		
Removed 2 pane glass and replaced.		
Removed and replaced skirting in living-room.		
<u>Material</u> : PVC gutters and pipe :	325	325
2 pane glass, 100x600 cm, per piece :	110	220
Wood 10x1,5 cm, 21m per m	10	210
<u>Labour</u> : 10 hours, per hr.	40	400
		1,155
Tax -labour only at 10%	TAX	40
	TOTAL	1,195

Figure

If your customer wants to dispute the first invoice, it can waste a lot of time. If the work was done on word of mouth only, you may have to cut the price you ask. In the second invoice, each item is clearly stated. If there are any questions, you can check each item with your customer.

You do not want to take a customer to court. It will surely cost you money. You can buy printed forms with reminders that payments are due. One type has three parts. They can be sent out every 14 days. In each one the wording is tougher. But in the end, you must decide if it is worth taking a non-payer to court.

TO GET YOUR MONEY, BE:

1 STRONG BUT POLITE

6th April 1986

Dear Mr. Slow,

In checking our ledgers we notice that your account for 40,000 NU has remained unpaid for over two months. Me would be grateful to have your cheque in full payment by return of post.

Yours sincerely,

A. Manufacturer



2 THEN, THOUGH

20th April 1986

Dear Sir,

In spite of our earlier letter to you, there has been no cheque from you yet, in settlement of your outstanding balance. Please send your cheque immediately upon receipt of this letter, and telephone me to confirm that your cheque is in the post.

Yours faithfully,

A. Manufacturer



3 THEN, EVEN MORE I TOUGH

4th May 1986

Sir,

In spite of two reminders to you, your outstanding balance still remains unpaid. Unless the amount is settled within seven days of the date on this letter, we will be obliged to initiate legal action for recovery of the debt.

Yours faithfully,



A. Manufacturer



Improve Your Business: Handbook (ILO, 1986, 144 p.)