

MATCOM

- **PLANNING AND CONTROLLING THE BUSINESS**
a learning element for staff of consumer cooperatives

international labour office, geneva

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by Urban Strand



MATCOM
Material and techniques for cooperatives management training

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In collaboration with cooperative organizations and training institutes in all regions of the world, MATCOM designs and produces material for the training of managers of cooperatives and assists in the preparation of adapted versions for use in various countries. MATCOM also provides support for improving the methodology of cooperative training and for the training of trainers.

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PLANNING AND CONTROLLING THE BUSINESS

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PREREQUISITES

To benefit from this MATCOM Learning Element, you should:

- be able to perform percentage calculations;
- have studied the MATCOM Element "Basic Economics of a Consumer Co-operative", or have the corresponding knowledge.

HOW TO LEARN

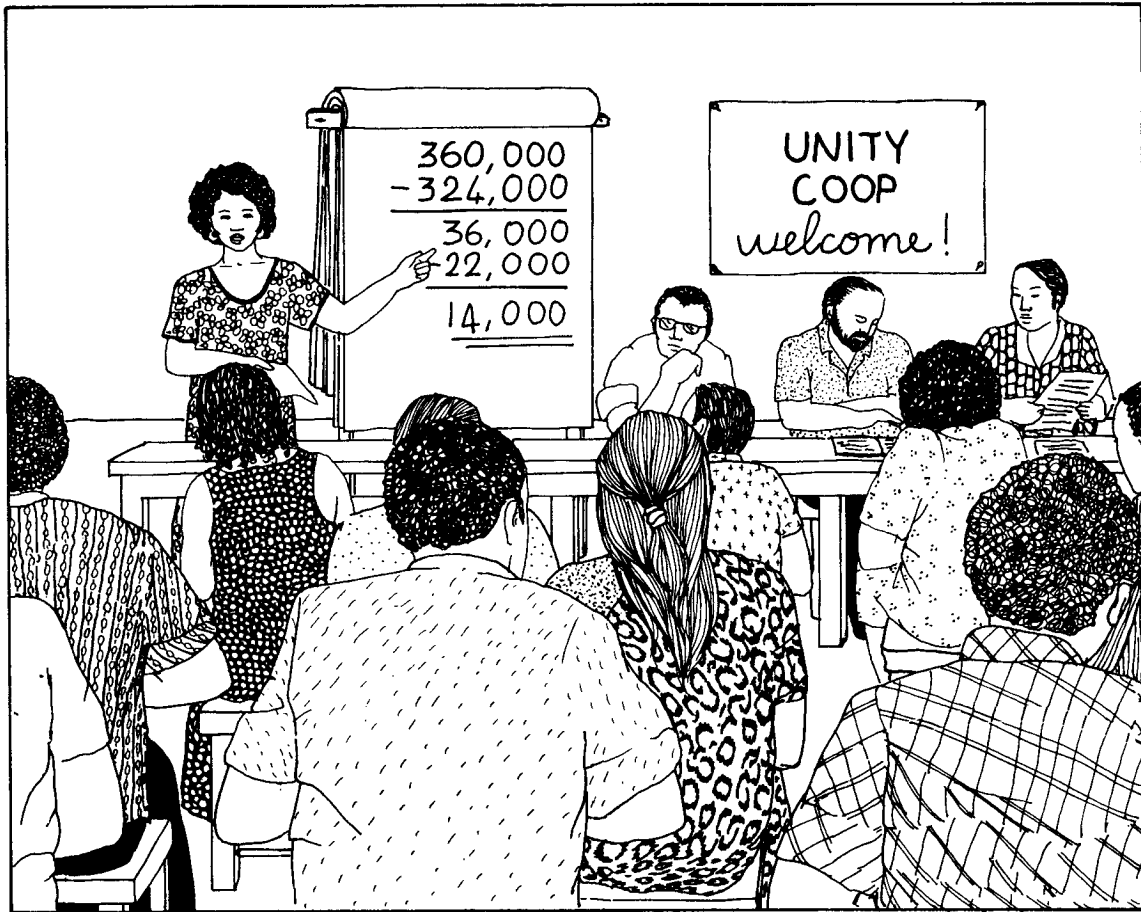
- Study the Element carefully.
- Give written answers to all the questions in the Element. This will help you not only to learn, but also to apply the knowledge in your work at a later stage.
- After studying the Element on your own, discuss it with your instructor and your colleagues, then take part in the practical exercises organised by your instructor.

TRAINER'S NOTES

are available for this Element. See the Trainer's Manual.

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INTRODUCTION



Mary is the treasurer of the Unity Consumer Co-operative Society. When she presented her report on the year's trading at the Annual General Meeting, the members were very pleased to learn that they had a net surplus of T\$14,000t

Sales	T\$	360,000
Cost of goods sold	-	324,000
Gross surplus		36,000
Cost of running the shop	-	22,000
Net surplus	T\$	14,000

**We use an imaginary currency here, because this booklet is used in various countries. We call it 'Training Dollars' and cents, T\$ and c.*

Were the members surprised by these figures? Well, they were interested in knowing the actual results, but they were not worried about them. Mary had promised them in advance that there would be a surplus, of roughly that size.

In some societies, the staff, committee and members have no idea at all what the final results will look like, until the accounts have actually been completed and presented. They spend a lot of time worrying whether there has been a surplus or a loss.

Do you know anything about the expected results for the shop you are working in? How could Mary know the results in advance?

If you think that she is very good at guessing or anything like that, you are completely wrong. She was able to forecast a surplus because, together with the secretary and the shop manager, she had calculated the result in advance. That is, she had estimated:

- how much they were going to sell in the shop
- how much the goods should cost them
- how much they would have to pay for running the shop

That is what she needed to plan for the year's trading ahead - the ESTIMATES showing the expected surplus.

But a plan alone is not enough. It is also necessary to check that everything is going as planned. And this must be done often, so that corrections can be made before any serious harm is done. Therefore Mary also:

- prepared monthly trading reports for the committee
- compared them with the estimates
- recommended any action needed to improve the results

This is what we mean by PLANNING AND CONTROLLING THE BUSINESS. By studying this MATCOM Element, you too can learn how to do this.

ESTIMATING THE SALES



Let us go back to October when Mary and Tony, the Shop Manager, were busy preparing the estimates for the following year.....

"How much are you going to sell in the shop next year?" asks Mary.

"We'll try to find out," answers Tony. "Sales so far this year have been T\$240,000. There are still almost three months to go. I think we can expect another T\$60,000. That means about T\$300,000 for the whole of this year."

"Will it be the same next year?"

? What could happen to make them sell more - or less - during the following year? Give some examples.

There are many reasons why sales may differ from one year to another, so it would be wrong if Mary just assumed that sales would also be T\$300,000 the following year.

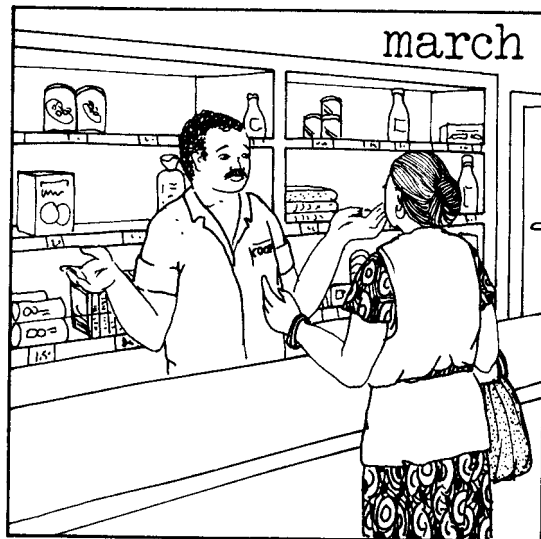
When trying to judge whether they will sell more or less the following year, Mary asks two questions:

- "Did anything out of the ordinary happen this year which made us sell more or less than usual?"
- "Is anything likely to affect next year's sales?"

This year

Looking back at what has happened so far this year, they remember some events which have made sales different from what they had expected.

"Last March sales were T\$10,000, half the normal amount," says Mary, looking into the sales records. Charlie, the Secretary, who is taking part in the planning, remembers why: "It was because of shortages. The rains made it extremely difficult for us and for the wholesalers to get supplies."

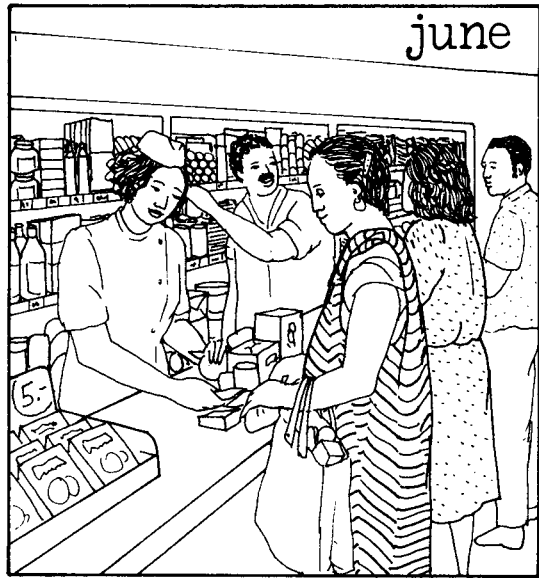


"May was a bad month, too," adds Tony. "That fire did so much damage that we had to close the shop for a week. We must have lost about T\$5,000 in sales."

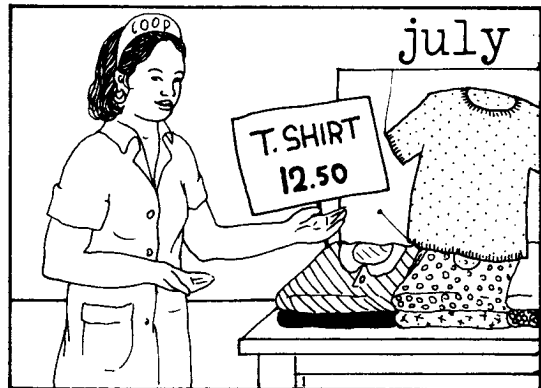


"But last June, when our members received their crop payments, we sold a lot, as usual."

"I know that," says Mary, "I had estimated the sales at T\$30,000 that month instead of the usual T\$20,000, but the harvest was so good that they received more money than usual and spent T\$40,000 in our shop."



"After that good month," Tony goes on, "we decided to start selling clothes in the shop. That made sales increase by about T\$2,000 a month from July."



How much would they have sold if it had not been for these unusual conditions? Let us work it out.

● The actual sales are T\$300,000	T\$ 300,000
● Without the shortages, sales would have been T\$10,000 more.	+ 10,000
● Had there been no fire, sales would have been T\$5,000 more	+ 5,000
● If the harvest had been a normal one, sales would have been T\$10,000 less.	- 10,000
● If they had sold clothes throughout the year, sales would have been higher by 6 x T\$2,000	+ 12,000
● So, in a normal year, sales would have been	T\$ 317,000

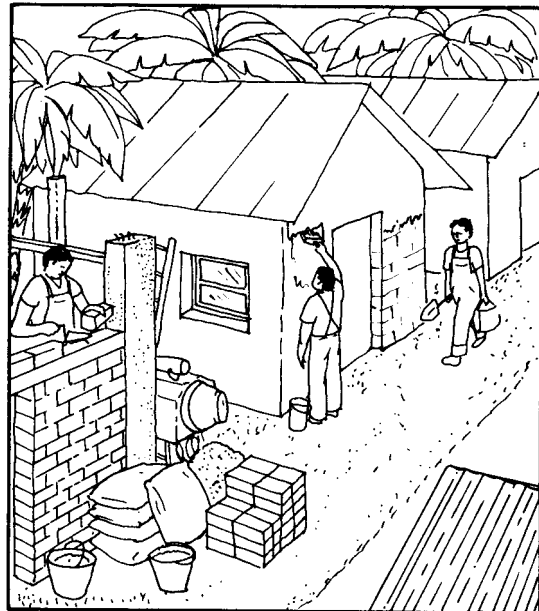
! Mary and her friends have tried to estimate the sales for a "normal" year. Why did they add, and not deduct, T\$12,000 for the clothes they sold during six months?

Next year

Now that they know what the "normal" sales would have been this year, our three friends can consider the changes which they know will take place next year.

"I think we have some new customers," says Mary. "More people are coming to live in this area. Twenty families are going to move into those new houses which are almost ready."

"If half of them do their shopping in our co-op, sales will increase by about T\$1,500 a month, since each of our customers spends an average of T\$150 here each month."



As you can see, it is useful to know how much the average customer spends. Here are various ways of finding out:

- Look up in the records how much was sold during a certain period and divide the total sales by the number of customers. For example, suppose that the sales in one month were T\$42,000 and there were about 300 different customers, each customer spent an average of

$$\frac{\text{T\$42,000}}{300} = \text{T\$140 a month.}$$

- Find the average income in the area and estimate how much of it could be spent on the goods available in the shop. For example, a worker's wages might be T\$500 a month, of which T\$150 could be spent in the shop.
- If you have friends who are typical customers, ask them how much they usually spend in the shop. Make sure you know them well so that they will not be offended by the questions, and so that you can be sure that they will answer truthfully.



How much does the average customer spend in a month in the shop where you work?

If there are other shops in the same area, it is good to know how their sales compare with yours. The Unity Co-operative is competing with a private shop. They both sell about the same amount. That is why Mary supposed that half of the newcomers would do their shopping in the co-operative.

It may be difficult to know how much rival shops are selling. If you cannot get the figures, you can at least get an idea by comparing the shops. Which of them has the largest stock of goods, the highest number of different commodities, the biggest or most frequent deliveries, and so on?



How much is your co-operative selling each month and how much are the other shops (if any) in the area selling?

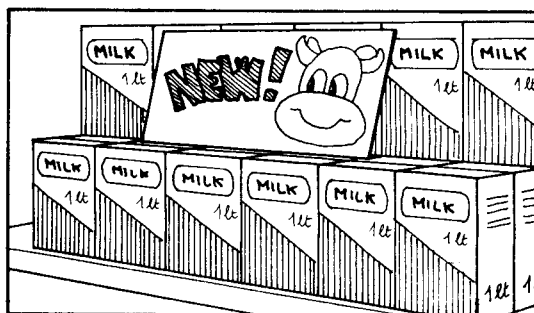
When estimating sales, it is also important to consider any changes in the neighbourhood. For instance, if a new shop is opened, some of your customers may go there and this will reduce your sales.

Tony has heard that Peter's Grocery Shop is going to be repaired and repainted. He is afraid that some cooperative customers might prefer it and do their shopping there.



"Don't worry," Charlie tells him. "Our shop is still in good condition. We're going to clear up the compound and complete the verandah. Members have asked for that and will like it. I don't think we'll lose any customers to Peter's."

"I've been talking to the manager of the new dairy," says Tony. "From next year we'll be selling milk and can expect to sell at least 50 litres a day which will increase the monthly sales by T\$2,500."



"What about the harvest?" asks Charlie, "don't you think it will be very good next year too? Then we could expect even higher sales."

But Mary disagrees. She says that their estimates should be based on the farmers getting normal payments only.



Do you agree with Mary? What will happen if they get a lower income from sales than estimated?

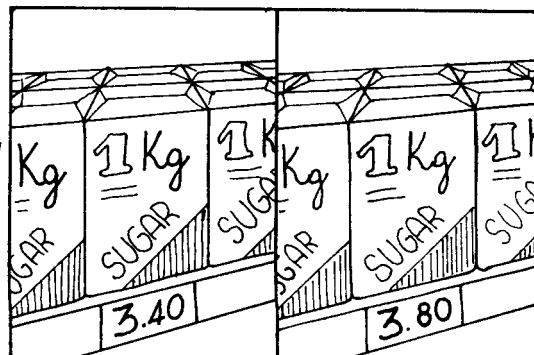
None of them are able to think of any more unusual events which might make them sell more or fewer goods during the coming year. So they continue their calculation of the expected sales:

- if this year had been a normal one, sales would have been T\$ 317,000
- the new customers in the area will probably increase sales by T\$1,500 a month from March to December, in other words, 10 x T\$1,500 + 15,000
- improvements to a competitor's shop will not reduce our sales, as the co-operative shop will also be improved. 0
- the sale of milk will increase the sales by T\$2,500 a month, 12 x T\$2,500 + 30,000
- the harvest is expected to be a normal one, as was assumed when we calculated the normal sales above (T\$317,000) 0
- Total expected sales next year T\$ 362,000

Price increases

"We must not forget price increases," says Mary. "Last January, for instance, one kilogram of sugar was T\$3.60. Now it is T\$3.80. And it is the same with most of the other goods. Prices are going up."

"So, even if we sell the same quantity of goods next year, sales will increase, simply because prices will be higher,



January

October

How much will the value of sales increase next year because of higher prices? It is difficult to say. But it is possible to get an idea by looking at previous price changes.

Although the Government has tried to limit price increases, Mary knows that, for some years, the price of most goods has gone up by 5 to 10% each year. Most probably the same will happen next year.

It is now October, and prices are already about 5% higher than in January. Mary is therefore convinced that prices will generally be at least 5% higher next year, and advises them to increase the figure for the expected sales by that much:

- total expected sales next year, excluding price changes T\$ 362,000

- expected 5% price increase
$$\frac{5}{100} \times \text{T\$}362,000 = \text{T\$}18,100 \quad + \quad 18,000 \text{ (approximately)}$$

- Total expected sales next year, including price changes T\$ 380,000



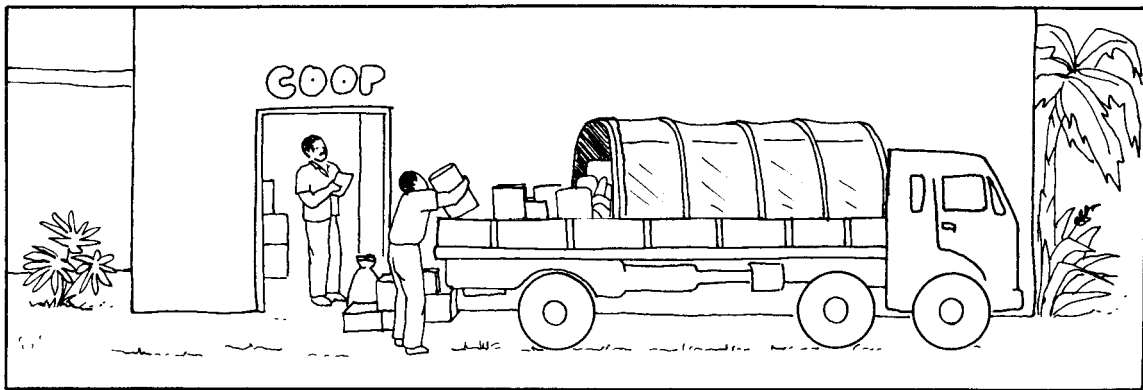
Mary knows that price increases have been between 5% and 10% in previous years. Why did she prefer to use the lower figure of 5% to estimate sales?

How much did prices increase in your _____ % shop last year?

What official information is there about previous price changes and those expected in the future?

ESTIMATING THE COST OF THE GOODS

Having estimated that they will sell goods for T\$380,000 during the coming year, the task of our three friends is now to find out how much the Society will have to pay for all these goods.



In theory it is very easy to calculate the cost of the goods. You just deduct the trade margin from the sales.

$$\begin{array}{r} \text{SALES} \\ - \text{TRADE MARGIN} \\ \hline = \text{COST FOR THE GOODS} \end{array}$$

Mary estimates that the average trade margin will be 10% of sales, in other words T\$38,000.

$$\frac{10}{100} \times \text{T\$380,000} = \text{T\$38,000}$$



Suppose that the average trade margin is 12%.
What is 12% of the sales?

Knowing the trade margin, it is easy to estimate the cost of the goods.

Sales	T\$	380,000
Trade margin	-	<u>38,000</u>
Cost of the goods	T\$	342,000

This calculation and the results presented by Mary at the Annual General Meeting (page 3) show that the trade margin is the same as the gross surplus. The trade margin in fact creates the gross surplus.

Sales	T\$	380,000
Cost of the goods	-	<u>342,000</u>
Gross surplus	T\$	38,000



What is the gross surplus if the trade margin is 12%?

Now, you probably have one important question to ask: Why did Mary estimate the average trade margin to be 10%, and not 12% or anything else? Let us see how she arrived at this figure.

Mark-up

At the Unity Co-operative they keep a Purchase Register. Both the selling price and the cost price of every purchase from the wholesaler is recorded in it.

Date	Particulars	Purchases		Mark-up
		Cost price	Selling price	
5.1	<i>Co-op Union</i>	6,340	7,120	780
6.1	<i>Breweries</i>	620	695	75
6.1	<i>Ali Bakery</i>	80	90	10
7.1	<i>Riwo Trading Co.</i>	242	275	33
<hr/>				
	<i>Total - January</i>	19,224	21,600	2,376

At the end of every month the recordings are totalled. For example, in January the purchases amounted to T\$19,224, at cost price. The total mark-up was T\$2,376, and the selling price of the same goods was T\$21,600.

Total at cost price	T\$	19,224
Mark-up	f	2,376
		<hr/>
Total at selling price	T\$	21,600

Trade margin

If every item were really sold at the expected selling price the trade margin would be the same as the mark-up, T\$2,376. It would be 11% of the sales.

$$\frac{\text{T\$2,376}}{\text{T\$21,600}} \times 100 = 11\%$$

Every month the percentage would be about the same, and this is not a coincidence, because the Committee has decided that they should aim at that margin. This means that a higher margin on some goods can compensate for a lower one on others.

Unfortunately, they are not likely to reach an average margin of 11%. Later, when goods have been sold, the margin earned - or gross surplus - will actually be a little lower.

This is because not all the goods will have been sold at the expected selling price. Sometimes it is necessary to reduce prices. Goods sometimes disappear without being paid for. There is leakage. In the Unity Co-operative, the total of price cuts and leakage is usually about 1% of sales. This has to be deducted from the expected trade margin in order to get a more realistic one.

11 %	-	1%	=	10%
EXPECTED MARGIN		LEAKAGE AND PRICE CUTS		REAL MARGIN (GROSS SURPLUS)

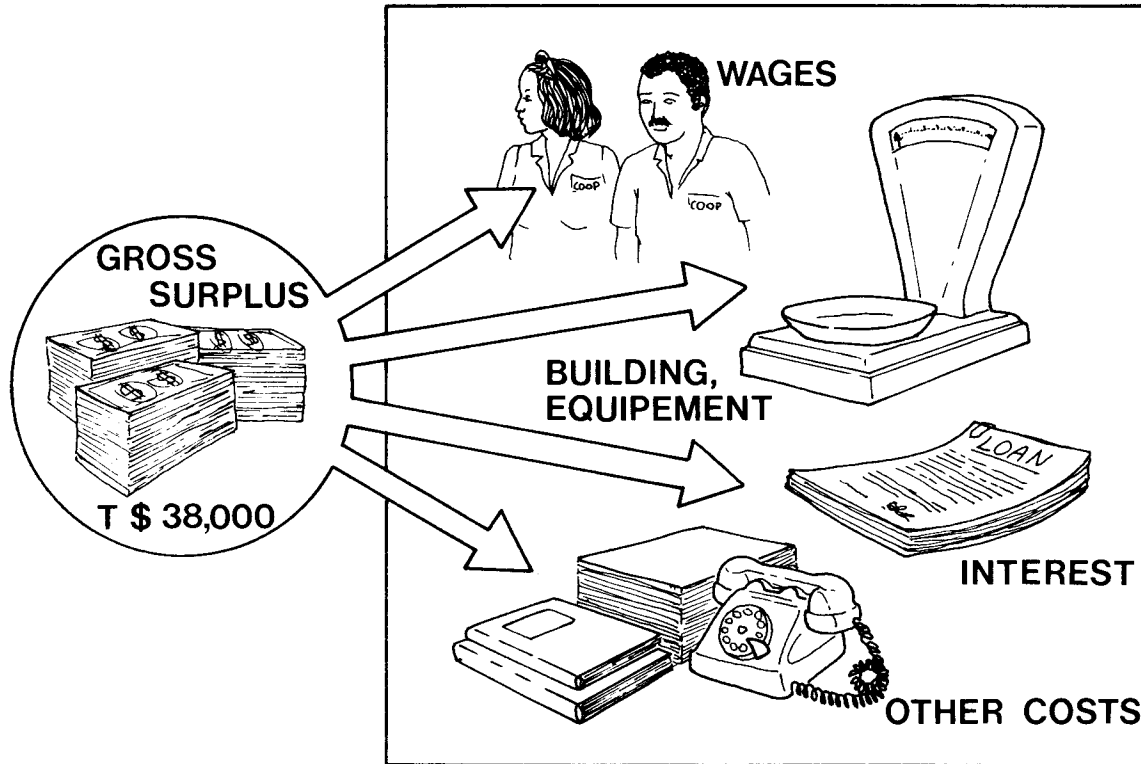
They have no intention of changing the mark-up in the Unity Co-operative. And there is no reason why leakage and price cuts should change much. Thus Mary can estimate that the trade margin will remain at 10% during the coming year.



Estimate the trade margin in the shop where you work.

ESTIMATING THE COST OF RUNNING THE SHOP

If everything goes as planned, the Unity Co-operative will earn a gross surplus of T\$38,000 on the sale of goods next year. All the costs of running the shop will have to be paid for out of this amount.



Wages and other staff costs

Tony says, "Let's start with my wages. If you forget those, I'll leave and then you'll be in trouble."

The others laugh, but they agree to start with the wages, as these are their biggest cost.

Mary says, "Your pay as manager is T\$550 per month, and Sarah, the shop assistant, gets T\$400."

"Those are the wages this year," Charlie says, "but what about next year? Will they be the same?"

This is a difficult question. Usually, when the estimates are being prepared, no decision has yet been taken about any future wage increases.

The Committee of the Unity Co-operative has decided to keep in line with official wage rates. Since prices have already gone up by about 5%, our three friends think wages will go up even more than that. They allow for a wage increase of about 7%.

Shop Manager	550	+	40	=	T\$590
Shop Assistant	400	+	30	=	T\$430

Charlie suggests that this is too high. But Mary insists that it is better to set the estimate too high rather than too low.



Do you agree with Mary? What might happen if wages later increase by more than they had expected?

They estimate the total wages at T\$1,020 a month, which is T\$12,240 a year. On that amount they have to pay a tax of 2% and a pension contribution of 3%

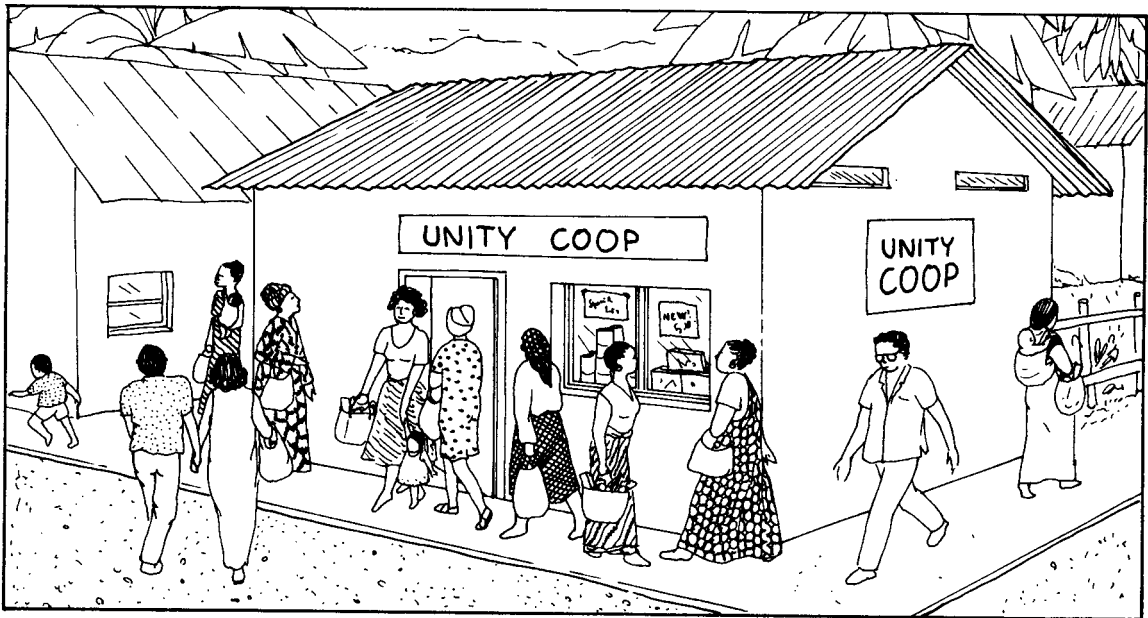
Wages	T\$ 12,240
Tax	245
Pension contribution	<u>365</u>
	T\$ 12,850

They estimate a further T\$1,200 for education and training and another T\$1,000 for payments to casual workers.

So the total staff costs amount to T\$15,050 in their estimates.

Costs connected with the shop building and its equipment

The shop building is owned by the society. So they do not have to pay any rent, but they do have to meet the full cost of maintaining the building. And three years ago they spent a lot of money building it.



The shop cost T\$20,000 to build. But how much is the "yearly cost" of the building? The T\$20,000 have to be "spread out" over a period of time in order to get a reasonable figure for the yearly cost.

<u>Total cost</u>	-	Yearly cost
Expected "lifetime" of the building		
<u>T\$20,000</u>	-	T\$1,000
20		

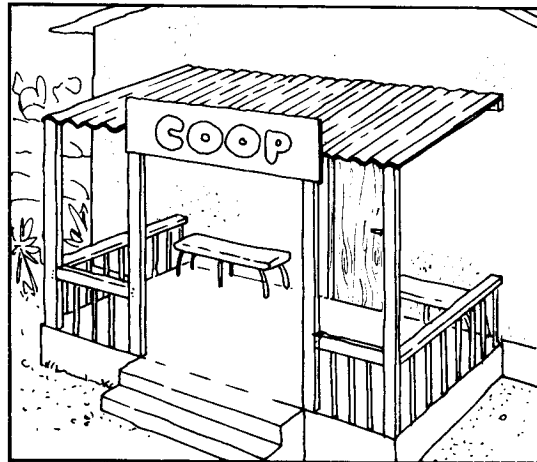
This is called DEPRECIATION COST. The Co-operative does not pay this each year, it is the calculated cost per year for having a building, and is included among the shop's other running costs.

The commonly used "lifetime" of a building in depreciation calculations is twenty years. However, for a building which will not last that long, a shorter lifetime should be used.

How much would the yearly depreciation cost of the building have been, if the Unity Co-operative had planned to use it for ten years and then build a better one?

If a building is still being used after the period of depreciation, there is no further depreciation cost involved in using it, just the cost of maintenance. But if a lot of money is spent on improving it, the new costs should be depreciated over another 20 years.

Mary says that the costs connected with the building will be increased next year, as they are going to add a verandah, at a cost of about T\$1,000. With the usual depreciation period of 20 years, the yearly depreciation cost will be T\$50.



The cost of any furniture, fixtures or equipment which are expected to last for at least five years is usually depreciated over a "lifetime" of five years. For the Unity Co-operative the original cost of these items was T\$8,000.

What was the yearly depreciation cost for furniture, fixtures and equipment in the Unity Co-operative?

Tony suggests that they should buy an adding machine. He has seen one which should be suitable. The price is T\$1,200. Depreciated over 5 years, the yearly cost would be T\$240. The others agree that the adding machine would be useful. "We will discuss the matter at the next committee meeting," says Mary. "In the meantime, we will include the cost in the estimates."

Finally, they estimate T\$500 for maintenance and minor repairs for the shop and the equipment.

The total costs connected with the shop building and its equipment now look like this in the estimates:

Depreciation cost of the building	T\$ 1,000
Depreciation cost of the new verandah	50
Depreciation cost of the equipment	1,600
Depreciation cost of a new adding machine	240
Maintenance and repairs	500
	<hr/>
Total	T\$ 3,390



What depreciation period do you use in your Society?

a) For buildings: _____ years

b) For furniture and equipment: _____ years

Note that costs for things which are expected to last for less than five years are not depreciated. Instead, the whole cost is included in the running costs for the year in which the payment is made.

Interest

"We owe the bank T\$30,000," says Charlie, "and we have to pay them 6% interest."

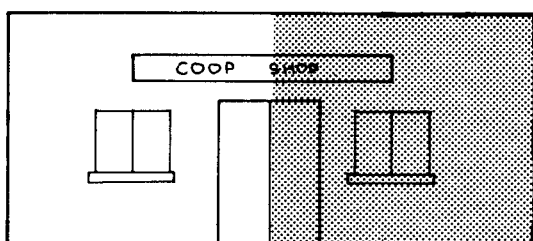
$$\frac{6}{100} \times T\$30,000 = T\$1,800$$

Yes, without the bank loan the Co-operative would not have been able to begin trading. They had to accept the cost of the loan. So T\$1,800 is included in their estimates.

What about the repayment of the loan? Is an instalment of the loan included in the running costs, too?

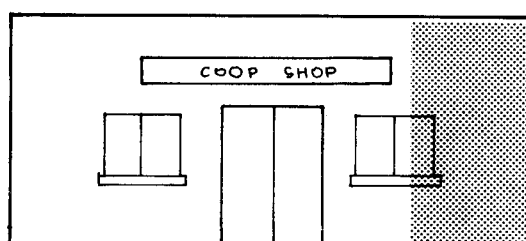
No, when repaying the loan, nothing in the shop changes. The equipment and goods are the same. But the real ownership is taken over by the Society. The borrowed money is replaced by their own money. For example:

this shop cost T\$40,000



the members own T\$20,000
T\$20,000 is on loan from the bank

T\$10,000 is repaid to the bank.



the members now own T\$20,000 + T\$10,000
T\$10,000 is on loan from the bank

Before a loan can be repaid, the members must build up the capital of their co-operative. If they earn a surplus in the shop, they can use part of it to build up their own capital reserves. Members can help by increasing their share capital.



What would happen to a co-operative, if it were forced to repay a loan without being able to replace it with money they have earned on the business?

Other costs

"Wages, depreciation of the building and interest on the loan are the principal costs of running the shop," says Charlie, looking at their estimates so far, "but there are still many more minor items of expenditure."

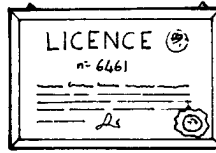
To make it easy to remember them all, Mary has gone through the accounts and the vouchers and has prepared a list of the various costs, noting how much they spent last year and how much so far this year.

<u>Costs</u>	<u>Last year</u>	Jan - Sept. <u>This year</u>	<u>Next year</u>
Business licence	T\$ 100	120	
Insurance premium	300	300	
Bank charges	30	20	
Postage	45	40	
Telephone	120	100	
Electricity	400	420	
Water	180	160	
Stationery	420	380	
Price tags	250	200	
Posters	80	70	
Wrapping materials	275	240	
Cleaning materials	250	260	
Travel	80	120	
Entertainment	200	60	
Sundries	220	250	
Total	T\$ 2,950	2,740	

Knowing what has been spent in the past, our three friends can estimate how much they are likely to spend during the coming year. As you read the next two pages, write down the figures in the last column of Mary's table (above) and then add them up.

"The business licence was increased to T\$120 this year," says Mary. "This will probably not be increased again."

Business licence T\$120



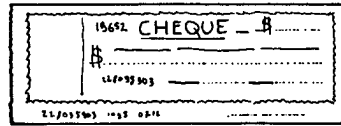
"The insurance agent advised us to increase the insurance value. And there will be a general increase in the premiums. The new premium will be about T\$360."

Insurance premium T\$360



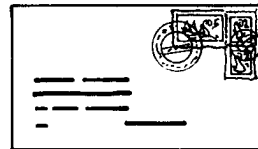
"Bank charges for statements and cheques are a very minor cost. We paid T\$30 last year and will probably pay about the same this year. They will probably be a little higher next year."

Bank charges T\$40



"Last year we spent T\$45 on postage. This year we have already spent almost the same amount, although there are three months left. Increase the figure to T\$60."

Postage T\$60



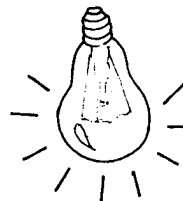
"Telephone charges are also going up. They will be about T\$140 this year. Let's add another T\$20 for next year."

Telephone T\$160



"Electricity prices are rising steadily. We paid T\$100 for a three-month period last year and this year it is T\$140 for the same period. I suggest T\$160 a quarter, which is T\$640 a year."

Electricity T\$640



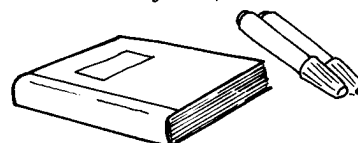
"The water rates are also increasing, but not all that much. They will be about T\$210 this year and probably a little more next year."

Water T\$230



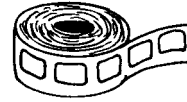
"We shall need more stationery since we plan to sell more next year."

Stationery T\$600



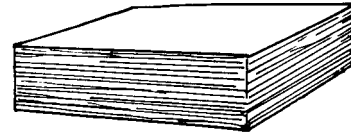
"I have ordered enough price tags for this year. In all we shall pay T\$260 this year. Since we are increasing the stock, we shall have to pay more next year."

Price tags T\$300



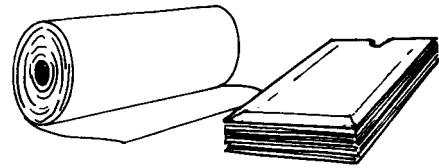
"I would like to use more posters in the shop next year. They help to inform members about special offers."

Posters T\$100



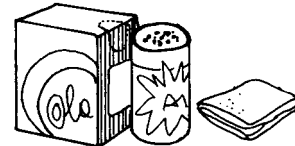
"Paper bags are becoming rather expensive. The Committee has now decided that we should charge for them. Therefore the cost of wrapping material will be low."

Wrapping materials T\$25



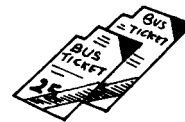
"We'll be spending about T\$300 on soap, scouring powder, floorcloths and so on this year. It will be more next year."

Cleaning materials T\$325



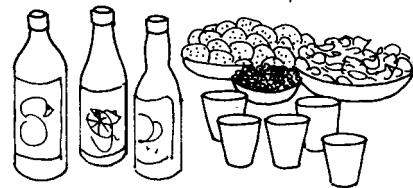
"If I can plan purchases better next year, I won't have to travel to town so often to pick up extra goods between normal deliveries," says Tony. "T\$100 should be enough."

Travelling T\$100



"Last year we entertained the members on the anniversary of the opening of the shop. Entertainment has been cut back this year and will probably also be next year."

Entertainment T\$100



"Even if we try to include everything in the estimates, we are bound to forget some costs," says Charlie. "We must add about T\$500 for various small costs." (These are usually called SUNDRIES.)

Sundries T\$500



Fill in the total of "Other costs" in the table on page 23.

COMPLETING THE ESTIMATES

"We have estimated how much we are going to earn from sales next year and all the costs of running the shop," says Mary. "This means we have all the information we need to complete the estimates. Let's see whether there will be any money left or not. This is what we expect will happen":

① We will earn a gross surplus:

Sales	T\$	380,000 (pages 3 to 12)
Cost of goods sold		<u>342,000 (pages 13 to 16)</u>
Gross surplus	T\$	38,000

② The gross surplus has to cover the cost of running the shop:

Wages and other staff costs	T\$	15,050 (pages 17 to 18)
Building and equipment		3,390 (pages 19 to 21)
Interest		1,800 (page 22)
Other costs		<u>3,660 (pages 23 to 25)</u>
Cost of running the shop	T\$	23,900

All these amounts, except for the last total, have been calculated on the previous pages. Check that you can remember how it was done. Read the pages again if necessary.

③ The estimates are completed by calculating the net surplus:

Gross surplus	T\$	38,000
Cost of running the shop		<u>- 23,900</u>
Net surplus	T\$	14,100

"If everything goes according to plan, the Co-operative will earn a net surplus of about T\$14,000," Charlie concludes. "Will that be enough?"



What do you think? Is a net surplus necessary?



What is a net surplus needed for?

Mary thinks that a net surplus of T\$14,000 will be sufficient.

"25% of the net surplus will go to the Reserve Fund, as required by the law," she says. "That is T\$3,500. This will help us to develop the business."

"By buying shares, the members have contributed some T\$30,000. If the Committee suggests that we are to pay a 3% interest on shares, we'll be paying out T\$900," says Charlie.

Tony makes some calculations. "That leaves T\$9,600," he says, "which could be paid as a bonus to the members. It will enable us to give every member a 2.5% bonus on purchases."

"People are pleased to get a bonus," Tony adds. "But it is a nuisance for us to calculate and pay out. Now that our estimates show a surplus, wouldn't it be better to reduce the prices instead of paying a bonus afterwards?"



What do you think? Is it better to:

- reduce prices, or
- plan for a surplus, which will be returned to the members as a bonus?

Mary does not agree. "What will happen if there is a poor harvest and the farmers cannot afford to spend much in the shop? Or if there is another general shortage of commodities like sugar, cooking oil and flour?"

"In our estimates, we have assumed that things like that are not going to happen," she says, "but what if they do?.... Sales will be much less than T\$380,000."

?

What would be the gross surplus, if sales are T\$250,000 and the trade margin 10%?

If the costs of running the shop remain the same, there will still be a net surplus of T\$1,100. (Check that you get the same result!)

But what would happen if they reduced prices by having a trade margin of only 7%?

● Sales T\$380,000

	x	T\$380,000	=	T\$26,600
100				
Gross surplus			T\$	26,600
Cost of running the shop			-	23,900
Net surplus				<u>T\$ 2,700</u>

● Sales T\$250,000

	x	T\$250,000	=	T\$17,500
100				
Gross surplus			T\$	17,500
Cost of running the shop			-	23,900
<u>Loss</u>				<u>T\$ 6,400</u>

The situation would be even worse if they thought that they could afford more expenses.

From this we can see that it is advisable to estimate for a net surplus. If all goes well, it will be of benefit to the members, some of it may be returned to them as a bonus. If this is impossible due to unexpected difficulties, there will be no bonus, but a loss can probably still be avoided.

● AIM AT A NET SURPLUS OF 3 TO 4% OF SALES ●

So Mary is right. Their estimated net surplus of T\$14,000 is needed, and it is sufficient. It is almost 4% of the sales.

$$\frac{\text{T\$14,000}}{\text{T\$380,000}} \times 100 = 3.7\%$$

What should be done if the estimated net surplus is too small?

If this happens when you are preparing estimates for your society, you have to examine your estimates carefully. Look for ways of improving the net surplus:

- can the sales be increased?
- can the trade margin be increased?
- can the costs of running the shop be reduced?

You may find it necessary to increase the prices or reduce the number of employees to avoid the risk of a loss.

PREPARING MONTHLY ESTIMATES

They were satisfied with their efforts for the Unity Co-operative Society, so Charlie called a committee meeting....

Mary has presented the estimate to the other members of the Committee and everybody thinks that they have done a good job and the estimates are approved without change.



"We will tell the members about this at the next general meeting," says the Chairman. "Then it will be our responsibility to follow up the estimates. If anything goes wrong we must act immediately to put it right. So, every month we must compare the estimates with the actual figures in the trading report."

Mary and Tony are asked to prepare estimates for every month. This is necessary since they are going to compare the estimates with the monthly trading reports. The easiest way to do that would be to divide the estimates for the whole year into twelve equal parts. But before doing so they put aside those costs and sales which will occur in one month only.



Why is it not enough to estimate the total figures for a whole year?

Mary and Tony start to divide the sales. They expect them to be about the same every month except May and June, when farmers usually buy extra goods after receiving their crop payments. In March and October there are national festivals and people celebrate by spending a little more than usual.

They estimate the extra sales during these months at:

- March	T\$ 4,000
- May	15,000
- June	8,000
- October	5,000
	<hr/>
Total extra sales	T\$ 32,000

From the estimated yearly sales of **T\$380,000** there remain T\$348,000 to be divided equally between the twelve months. That is T\$29,000 a month.

Thus the sales in January will be T\$29,000, in February T\$29,000 also, in March T\$29,000 + T\$4,000 = T\$33,000 and so on.

?

State the estimated sales for the following months:

March	T\$ _____	May	T\$ _____
June	T\$ _____	October	T\$ _____
December	T\$ _____		

The cost of the goods sold each month will be 90% of the estimated sales, since the trade margin is 10%. In an ordinary month it will be T\$26,100.

$$\frac{90}{100} \times T\$29,000 = T\$26,100$$

?

How much is the estimated cost of the goods sold in May?

They then come to the costs of running the shop. First on the list are the wages and other staff costs, T\$15,050.

"The wages will be the same every month," says Mary. "We don't know when the education and training schemes will begin, but that doesn't matter. We've decided to put T\$100 a month into an education fund, which will be used for course fees and other training costs."

"The extra staff are mainly needed in May and June, when we have our peak sales," says Tony. "Let's say we spend T\$300 in May and T\$100 in June. The remaining T\$600 can be divided equally between the twelve months."

After they have taken away T\$300 for May and T\$100 for June, there remain T\$14,650 to be divided between twelve months. That is about T\$1,220 a month.



How much were the total staff costs for May and June?

Depreciation of the shop building and equipment is a calculated cost which is distributed equally over twelve months. Maintenance and repairs will be carried out throughout the year, but they do not know exactly how and when. So they decide that all the building and equipment costs should be divided equally between the twelve monthly estimates.

T\$3,390 - T\$282.50 (approx. T\$285 a month)
12

Interest is paid twice a year, in June and December. It will be T\$900 for each of those two months.

Finally, we have the other costs.

"We know for sure that we'll have to pay T\$120 for the trading licence in January and T\$360 for the insurance in October," says Tony.

"We're likely to pay for all the other items of expenditure throughout the year," says Mary. "It is difficult to know exactly when, so I suggest that we assume that we're going to pay out about the same amount every month," she adds.

Of the total estimated amount for "other costs", T\$120 is allocated to January and T\$360 to October. The remaining T\$3,180 are divided into twelve - that is T\$265 a month.

Mary and Tony had now decided how all the amounts in their estimates for the coming year were to be divided between the different months. They can now put the facts together and prepare a BUDGET for any month.

For a month like February, when there were no extra costs or sales, the budget would look like this:

<u>February</u>	
Sales	T\$ 29,000
Cost of goods sold	- 26,100
	<hr/>
Gross surplus	2,900
Cost of running the shop:	
Wages and staff costs	- 1,220
Building and equipment	- 285
Interest	0
Other costs	- 265
	<hr/>
Net surplus	T\$ 1,130



For which other months can the above estimates be used?

In June, for instance, there are some extra costs and sales
Therefore, the June estimates will look different:

<u>June</u>			
Sales	29,000+8,000	T\$	37,000
Cost of goods sold (90%)			<u>33,300</u>
Gross surplus			3,700
Cost of running the shop:			
Wages and staff costs	1,220+100	-	1,320
Building and equipment		-	285
Interest	0+900	-	900
Other costs		-	<u>265</u>
Net surplus		T\$	930



Prepare the estimates for January and October.

Sales	T\$	_____	_____
Cost of goods sold	-	_____	- _____
Gross surplus		_____	_____
Cost of running the shop:			
Wages and staff costs	-	_____	- _____
Building and equipment	-	_____	- _____
Interest	-	_____	- _____
Other costs	-	_____	- _____
Net surplus	T\$	_____	_____

On the next page you will find a form for the monthly estimates. Such a form will give a good idea of what is expected to happen during the following year. It will also help you to avoid errors in your monthly estimates, since you can check that the total agrees with the estimates for the whole year. However, "round figures" should be used in the form, and this is the reason why the totals sometimes differ a little from the original figures.

ESTIMATES FOR THE YEAR _____

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Sales	29,000	29,000	33,000	29,000	44,000	37,000	29,000	29,000	29,000	34,000	29,000	29,000	380,000
- Cost of goods sold	26,100	26,100	29,700	26,100	39,600	33,300	26,100	26,100	26,100	30,600	26,100	26,100	342,000
= Gross surplus	2,900	2,900	3,300	2,900	4,400	3,700	2,900	2,900	2,900	3,400	2,900	2,900	38,000
Cost of running the shop:													
- Wages and staff costs	1,220	1,220	1,220	1,220	1,520	1,320	1,220	1,220	1,220	1,220	1,220	1,220	15,040
- Building and equipment	285	285	285	285	285	285	285	285	285	285	285	285	3,420
- Interest	0	0	0	0	0	900	0	0	0	0	0	900	1,800
- Other costs	385	265	265	265	265	265	265	265	265	625	265	265	3,660
= Net surplus	1,010	1,130	1,530	1,130	2,330	930	1,130	1,130	1,130	1,270	1,130	230	14,080

FOLLOWING UP THE ESTIMATES

A few months later, at the beginning of February, Mary and Charlie are preparing the first trading report of the year. It looks very much the same as the estimates, but now they find out the actual sales and costs. They can see whether these are different from the ones estimated.

TRADING REPORT FOR <i>January</i>			
	Estimated	Actual	Difference
Sales	29,000		
- Cost of goods sold	- 26,100		
= Gross surplus	2,900		
Cost of running the shop:			
- Wages and staff costs	- 1,220		
- Building and equipment	- 285		
- Interest	0		
- Other costs	- 385		
= Net surplus	1,010		

"Now we will fill in the real figures," says Mary. "We can find them in our accounts."

They look at the working ledger. From the Sales Account they learn that the total sales in January amount to T\$28,352.

"That is T\$648 less than we estimated," says Charlie.

	Estimated	Actual	Difference
Sales	29,000	28,352	-648

"That was the first line of the trading report, the next one is the cost of goods sold," says Mary.

The goods sold during January were already in the shop at the beginning of the month, or they must have been purchased during the month. Through a stock-taking Mary had learnt that the stock value on January 1st was T\$24,888 at selling price. She knew that they have an average trade margin of 117, (compare page 15). That is T\$2,738 which amount she deducts to get the opening stock at cost price, T\$22,150. The total purchases during the month amounted to T\$24,340 at cost price. That she can find either in the Purchase Register or in the Ledger.

Opening stock	T\$ 22,150
Purchases	+ 24,340
<hr/>	
Total value of goods brought into the shop	T\$ 46,490

Not all these goods were sold during January, some remained in stock at the end of the month. In the Stock Control Register Mary can see that the stock on January 31st is worth T\$23,506 at selling price. (She could also have organised a new stock-taking to find the stock value.) She deducts the 1170 trade margin to get the closing stock at cost price, T\$20,920. Mary is now able to calculate the cost of the goods which have left the shop.

Goods brought in	T\$ 46,490
Closing stock	- 20,920
<hr/>	
Cost of goods sold	T\$ 25,570

"Yes, this is actually the cost of all the goods which left the shop in January," says Mary, "not only what we sold but also what was spoiled or taken away without payment, in other words, the leakage."

(This method of calculating the cost of goods sold requires proper records of all changes in the stock value and regular stock-takings. You may learn more about these in the MATCOM Elements "Stock Control Records" and Stock-taking.)

"Now we know the actual cost of the goods," says Charlie. "So we can calculate the actual gross surplus. And we can see how much it differs from the T\$2,900 we estimated."

TRADING REPORT FOR <i>January</i>			
	Esti- mated	Actual	Diffe- rence
Sales	29,000	28,352	-648
- Cost of goods sold	-26,100	-25,570	+530
= Gross surplus	2,900	2,782	-118

"It doesn't look too good," says Mary. "We have a gross surplus of T\$2,782, which is T\$118 less than we estimated."

The drop in gross surplus is mainly because they have sold less than estimated. But it is also because they have not reached the estimated trade margin of 10%.

A trade margin of 10% would have given them a gross surplus of T\$2,835.20.

$$\frac{10}{100} \times \text{T\$}28,352 = \text{T\$}2,835.20$$

The trade margin they reached is only 9.8%.

$$\frac{\text{T\$}2,782}{\text{T\$}28,352} \times 100 = 9.8\%$$



Explain why the actual trade margin may differ from the one estimated. Read pages 13 to 15 again if you find it difficult to explain.

Mary and Charlie continue to fill in the costs of running the shop.

According to the Wages Account, T\$1,210 was paid as wages, tax and pension contributions. On top of that, T\$100 was reserved for training. That made the total for wages and staff costs T\$1,310, which is T\$90 more than estimated.

The main building and equipment costs are to cover depreciation which has been calculated in advance at T\$2,890 a year. That is about T\$241 a month. Then they can see from the Property Account that T\$180 was spent on repairs during January. Total costs were therefore T\$241 + T\$180 = T\$421.

No interest was paid in January. It was due in June and December only.

Finally, according to the "Other costs" Account they spent T\$428 on various minor expenses.

Now they are able to complete the trading report and calculate the net surplus.

TRADING REPORT FOR <i>January</i>			
	Estimated	Actual	Difference
Sales	29,000	28,352	- 648
- Cost of goods sold	-26,100	-25,570	+530
= Gross surplus	2,900	2,782	- 118
Cost of running the shop:			
- Wages and staff costs	- 1,220	- 1,310	- 90
- Building and equipment	- 285	- 421	-136
- Interest	0	0	0
- Other costs	- 385	- 428	- 43
= Net surplus	1,010	623	-387

"We have a net surplus of only T\$623," says Mary. "It is T\$387 less than we estimated. It will be unfortunate if the same also happens in the remaining months".

Mary is right. Although they have a surplus, they should be alarmed at its small size compared with the one in the estimates. They should try to find the reasons for the difference. Then they can find out what action should be taken to improve the result.

Tony, who knows better than the others what has happened in the shop, helps them.

"Sales were normal, except for the milk," he says. "We were supposed to start selling it from the 1st of January but we were delayed almost a week. Then it took some time before the customers got used to buying milk in our shop. Without these milk problems we would have sold more than we had estimated."



"I also think the drop in the trade margin is due to milk problems," he adds. "We didn't sell as much as expected during the first two weeks - I had ordered a little too much. Some packets were spoilt and had to be thrown away. That made the leakage increase, as you can see in the Stock Control Register."

(Did you mention leakage in your answer to the question on page 38?)

"That explains the lower gross surplus," says Mary. "These milk problems seem to be over now, so we can expect a higher gross surplus again next month. What about the higher **costs** of running the shop?"

First, what were the reasons for the higher staff costs being T\$90 more than estimated?

"Well, we know why that is," says Charlie. "It had been decided not to increase wages until July. This meant wage costs would be lower than we estimated, so I thought that we could afford to take on a temporary part-time assistant."

"It's a pity I wasn't there when this was discussed by the committee," says Mary. "I would have advised you not to hire anybody. The wage increases will come later than we had expected but the saving will not be sufficient to pay for the extra assistant. And what will happen in July when the increases come? We certainly won't be able to afford three employees."

"I agree it was a mistake," says Charlie. "We will not be able to give her any more work when her present contract expires."

"We estimated T\$500 for maintenance of the building and equipment for the whole year. We have already spent T\$180 in the first month." Mary is worried.

"That was because we had to spend so much on repairing the set of scales, which was accidentally broken," Tony explains. "I don't think we shall exceed the T\$500 by very much. We will be very careful with further expenses."

Finally, they see that other costs also exceeded the estimated amount. The difference is small, however, and can be explained by the purchase of a large quantity of stationery, which is supposed to last several months.

A month later it is time to prepare a new trading report:

TRADING REPORT FOR		<i>February</i>	
	Estimated	Actual	Difference
Sales	29,000	29,500	+ 500
- Cost of goods sold	- 26,100	- 26,525	- 425
= Gross surplus	2,900	2,975	+ 75
Cost of running the shop:			
- Wages and staff costs	- 1,220	- 1,310	- 90
- Building and equipment	- 285	- 250	+ 35
- Interest	0	0	0
- Other costs	- 265	- 220	+ 45
= Net surplus	1,130	1,195	+ 65

They note that this month's sales and gross surplus were slightly more than had been estimated.



Did they achieve the estimated trade margin of 10%? Show your calculations.

Wages were still too high, because the temporary employee's contract had not yet expired. But other running costs were low. And the net surplus was T\$65 higher than expected.

Mary suggests that they should prepare another trading report in order to show what has happened - the overall result - from the beginning of the year:

TRADING REPORT FOR <i>the period Jan - Feb.</i>			
	Estimated	Actual	Difference
Sales	58,000	57,852	- 148
- Cost of goods sold	- 52,200	- 52,095	+ 105
= Gross surplus	5,800	5,757	- 43
Cost of running the shop:			
- Wages and staff costs	- 2,440	- 2,620	- 180
- Building and equipment	- 570	- 671	- 101
- Interest	0	0	0
- Other costs	- 650	- 648	+ 2
= Net surplus	2,140	1,818	- 322

From this report they can see that the trading results so far this year are still not as good as they had hoped, due to the bad results in January. But as they have already managed to improve things in February, they can be confident about the future.

In this way, by checking the progress each month and taking action when necessary, the Committee has given proper guidance to the co-operative.



Explain why it is advisable to prepare trading reports both for each month and for the period from the beginning of the year.

SUMMARY

In this MATCOM Element we have followed a team of Co-operative leaders at work, planning their Society's trading. We have seen how seriously they take their responsibilities and how carefully they plan operations in order to achieve a good result for their retail shop, for the benefit of the members.

We have seen that, on the whole, "Planning and Controlling the Business" means three things:

- planning the sales
- planning the costs
- and then, following up and checking that the business is going according to plan.

The success of your own Co-operative Society will very much depend on your ability to prepare realistic plans and control operations adequately.

The "Check lists" on the following pages sum up all the important steps in this work. Study the check lists now, to confirm that you remember and fully understand the whole process.

You may also want to use the check lists later on in your practical work.

How to estimate the SALES

CHECKLIST 1

- ① First, estimate the sales for the present year:
Sales so far this year
+ Expected sales during the remaining months
= Sales during the present year
- ② Have any exceptional - abnormal - events or changes affected the sales this year? If so, adjust the figure.
- ③ Do you know about any changes which will take place next year? Adjust the figure with regard to changes in
 - the shop and the stock range
 - rival shops
 - the circle of customers.
- ④ Adjust the sales figure to allow for the expected general price increase.
- ⑤ In this way you will arrive at a figure for the expected sales for next year.

A WARNING !

Do not overestimate the sales !
If you do so, and fail to reach the estimated sales figure, your gross surplus will be lower than expected and you may run into problems.

How to estimate the COSTS

CHECKLIST 2

①

Estimate the cost of the goods :

Estimated sales next year
= Trade margin
= Cost of the goods

Note! The trade margin will be less than the mark-up due to price cuts and leakage.

②

Estimate wages and other staff costs :

Present wages
+ Expected increases
= Wages next year
+ Taxes and pension contributions
+ Other staff costs
= Total staff costs next year

③

Estimate the building and equipment costs:

Rent or depreciation cost of the building
+ Depreciation cost of the equipment
+ Maintenance and repairs
+ Purchase of equipment lasting less than five years
= Total cost of the building and the equipment next year.

Depreciate the total cost of the buildings over a 20-year period, - or a shorter one, if the building is not expected to last that long.

Depreciate the total cost of equipment, furniture, etc., over a 5-year period.

④

Estimate the interest costs :

Calculate the agreed interest to be paid on loans. (Do not include instalments on loans among the costs.)

⑤

Estimate other costs :

Make a detailed list of other costs during last year and the present year.

Consider the changes which are likely to occur and prepare a list of the expected costs next year.

A WARNING !

Do not underestimate the costs !
If you do so, and fail to keep the costs below the estimated level, you may not achieve a net surplus.

How to FOLLOW UP the estimates

CHECKLIST 3

①

Prepare a trading report at the end of each month.

②

Compare the actual figures for sales and costs with the estimated ones. Note any differences.

③

Investigate the reasons for the differences.

④

Judge whether a difference is likely to affect the result for the whole year.

⑤

Take action immediately if a difference is likely to lower the expected net surplus for the year.

CHECK-OUT

To prove to yourself that you have fully understood this Element, you should now go through the following questions.

Mark what you think is the right answer to each question. If you have problems with a particular question, go back and read the corresponding chapter again.

Your teacher will later check your answers.



- 1 When estimating the sales, it is advisable to
 - a expect that they will remain the same as during the previous year;
 - b check the previous year's sales and then consider how they are likely to change;
 - c ignore the previous year's sales since the situation is likely to be completely different.

- 2 Sales estimates must be realistic. If they are set too high and cannot be achieved
 - a the costs will increase;
 - b the gross surplus will be higher than expected;
 - c the gross surplus will be lower than expected.

- 3 If you expect the prices in general to increase by at least 7% from one year to another, it is advisable to estimate the coming year's sales to increase by:
 - a 7%
 - b 10%
 - c 15%

- 4 What is the cost of the goods if the trade margin is 9% and the sales are T\$30,000?
 - a T\$2,700
 - b T\$27,300
 - c T\$33,333

- 5 Which statement is true?
 - a The trade margin is always the same as the mark-up.
 - b The trade margin is reduced by price cuts.
 - c The trade margin is increased by leakage.

- 6 The largest running cost of a shop is usually
- a the wages;
 - b depreciation;
 - c interest.
- 7 Depreciation means
- a a building is worn out;
 - b the instalment on a loan;
 - c a cost which is spread over a number of years.
- 8 The cost of a building
- a will affect the estimates for the year of construction only;
 - b will affect the estimates over several years;
 - c will not affect any estimate.
- 9 If costs are estimated too low
- a the co-operative will overspend, which might mean a loss;
 - b money will be saved;
 - c the net surplus will increase.
- 10 The estimates will show
- a the real net surplus for the coming year;
 - b the expected net surplus, provided nothing unusual happens;
 - c the highest possible net surplus, which could be achieved with a bit of luck.
- 11 The main reason for preparing monthly estimates and following them up in trading reports is:
- a to be able to inform the management committee;
 - b to be able to see if immediate action is needed in order to improve the results;
 - c to be able to prepare more correct estimates for the coming year.

COMPLEMENTARY EXERCISES

To complete your studies of this topic you should take part in some of the following exercises which will be organised by your teacher.



Group Discussions

Discuss some of the following questions, first in groups, then present your conclusions to the other groups for critical examination.

1 Estimating the sales

- a Estimate the sales of a co-operative shop for the following year, knowing that:

sales from January to September this year were T\$250,000.

last March and April it was extremely difficult to get supplies. Therefore the sales were about T\$10,000 a month lower than expected.

sales in October and November this year are expected to be about the same as in an average month, while December is normally $\frac{1}{3}$ higher.

from May next year the stock range will be extended to include hardware and clothes. The manager expects to sell T\$10,000's worth of these goods every month.

a general price increase of at least 4% is expected.

- b Estimate the possible total sales in the area for next year and discuss whether the estimates in (a) are realistic or not.

Background information:

About 300 families live in the area around the shop. There are hardly any other people who could become customers of the shop. An average family will buy groceries worth about T\$40 a week, clothes worth about T\$250 a year and other goods, which are sold in the shop, worth about T\$350 a year. There is a privately owned shop in the same area. It is about the same size, and already deals in clothes and hardware.

(The expected general price increase of 4% is included in the above figures.)

2 Estimating the running costs

Study the estimated running costs of the Unity Co-operative on pages 17 to 25. The total running costs are estimated at T\$23,900. Suppose you are obliged to reduce them to T\$22,000.

- a Discuss and suggest how the reductions could be done.
- b Discuss whether the shop or the members are likely to suffer in any way from the cost reductions you suggest.

3 Improving the results

- a Discuss and suggest various means of improving the net surplus of a retail shop in general.
- b Which costs are often too high in the co-operative shops in your area? Discuss and work out a plan and a checklist to control and reduce these costs.

Practical Group Assignment

- 4 Prepare the estimates for the coming three months either for the shop you are working in or for a shop selected by your trainer.

If possible you should also prepare trading reports at the end of each month. Compare them with the estimates and suggest any action which needs to be taken.