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Financial Management of a Small Handicraft Business

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# Financial Management of a Small Handicraft Business

Edward  
Millard



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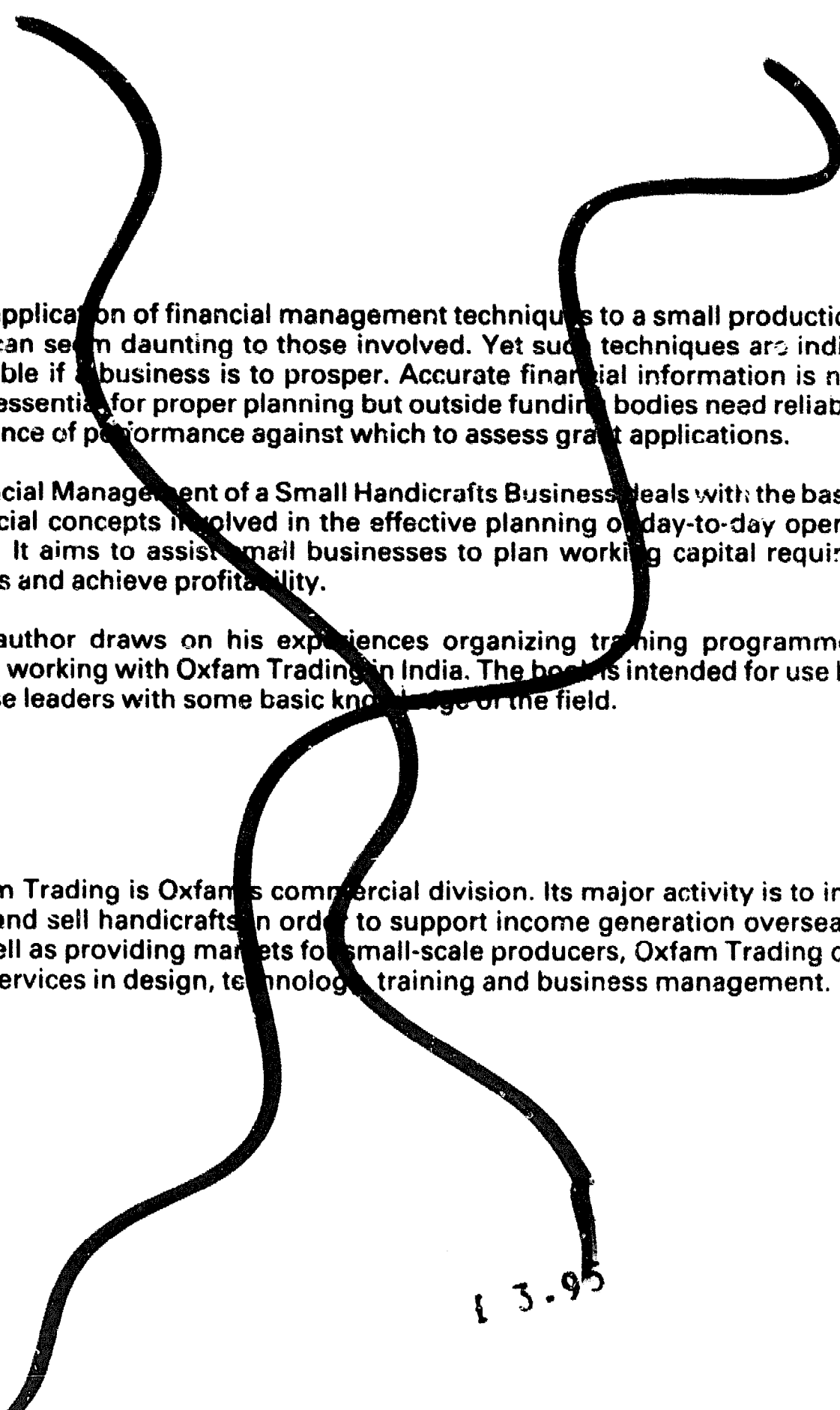
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The application of financial management techniques to a small production unit can seem daunting to those involved. Yet such techniques are indispensable if a business is to prosper. Accurate financial information is not only essential for proper planning but outside funding bodies need reliable evidence of performance against which to assess grant applications.

**Financial Management of a Small Handicrafts Business** deals with the basic financial concepts involved in the effective planning of day-to-day operations. It aims to assist small businesses to plan working capital requirements and achieve profitability.

The author draws on his experiences organizing training programmes while working with Oxfam Trading in India. The book is intended for use by course leaders with some basic knowledge of the field.

Oxfam Trading is Oxfam's commercial division. Its major activity is to import and sell handicrafts in order to support income generation overseas. As well as providing markets for small-scale producers, Oxfam Trading offers services in design, technology, training and business management.

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**To Panchu**

## **INTRODUCTION**

The origin of this pamphlet is a series of training programmes organized during my period in India as Oxfam Trading's representative. It looks at the basic approach to product costing and pricing, and the internal financial management of a small-scale production unit. The objective is to assist such units to achieve profitable production, to gather the financial information necessary for planning and decision making, and to meet their working capital requirements.

Some common financial management topics are omitted. For example, it is assumed that a small handicrafts production unit would not undertake significant capital expenditures, nor seek alternative investments. The concentration throughout is on day-to-day operations of a business with a social purpose.

The pamphlet is intended for use by course leaders who have a basic understanding of the subject matter. It is hoped that it might provide useful resource material for training sessions aimed at managers of small businesses.



# I. COST CALCULATIONS IN THE HANDICRAFTS INDUSTRY

The first thing a producer must know is — how much do the products cost to produce? Two types of costs are involved in production: *Direct costs* are those attributable specifically to the finished product; the main direct costs in handicrafts are labour and raw materials. *Indirect costs* (also called overheads) are all other costs incurred in the production unit, for example rent of workshop, administrative salaries, bank interest etc. Obviously all costs, both direct and indirect, have to be covered if a production unit is not going to make a loss. First, it is necessary to consider two questions: what are all the costs involved in production? And, how should the indirect costs be allowed for in the cost of each product?

## I.1. Production costs

### (i) Direct costs

There is usually little difficulty in ascertaining precisely the direct costs of a product, but some considerations to be borne in mind are not necessarily obvious.

**Materials:** It is a straightforward calculation to divide the cost of materials purchased by the number of products it can be used for, giving the unit cost. It should be remembered:

- to include *all* the materials — trimmings, thread adhesives, dyes etc.
- if *transport charges* are paid, these should normally be considered as part of the cost of the material
- there may be *wastage*; the cost of material purchased but unable to be used must be included. For example, if tanned leather has typically 15% wastage because of quality defects or non-usability of corner sections, then the material cost for each item must be surcharged by 15%.

**Labour:** It is normal in the handicrafts industry to pay piece-rate wages, the rate per piece being the unit labour cost. The calculation of the rate would be based on an average production time for the product multiplied by the remuneration per hour or day. It can sometimes be helpful to impose a production limit so that artisans do not rush the work in order to earn more but thereby produce an unacceptable quality. Where fixed daily wages are paid, there needs to be an accompanying productivity agreement, so that the unit labour cost remains constant. Production of any one item might involve a number of people doing different processes. A precise calculation must be made of the cost of all of them. If artisans are given paid leave, then this is a labour wastage, and an appropriate percentage addition must be added to the labour cost.

**Other direct costs:** If any machinery is employed in the production process, then the power source is a direct cost to the product. Often, there would be no other direct costs than labour and materials, but labelling and packaging would be one, if labels are used and a product is boxed for sale.

At this stage, we can produce the first half of an essential piece of paper, the product costing sheet (Figure 1).

**Figure 1. Fibre Mat Costing Sheet (Direct Costs)**

<b>Direct costs</b>	<b>Money unit</b>
<b>Material:</b>	
Fibre, 2.1 kg at 5 per kg (2 kg used; 0.1 kg wastage)	10.50
Dyes	1.75
Edging material	1.50
Thread	0.50
<b>Labour:</b>	
Fibre sorting and washing	1.00
Dyeing	2.50
Weaving	13.50
Edging and labelling	3.00
<b>Other direct costs</b>	
Fumigation	0.50
Printed label	0.25
<b>Total direct costs</b>	<u>35.00</u>

**(ii) Indirect costs**

In order to calculate the indirect costs, it is necessary to add up all the other costs incurred in the production unit. These will vary considerably according to the type of unit. Typical overheads might be:

- artisan provident, savings or pension scheme — employer contributions
- wages of administrative and supervisory personnel
- rent of buildings — workplace, office, etc.
- service and maintenance charges — electricity, telephone, etc.
- administrative expenses — stationery, postage
- interest on bank loan
- product development and design, for example, one person might be employed to develop new designs — the salary, and cost of materials used, are overheads
- depreciation of fixed assets — typewriter, furniture, machinery, etc.

An existing production unit would make reference to its previous year's accounts in order to estimate current year overheads, allowing for any additional expenses planned and price increases. A new business must make estimates of what overhead expenses it will incur. When the exercise is completed, a figure will be arrived at for its total indirect costs.

A number of social production units will run special programmes for the benefit of artisans. Provision of a creche, a medical scheme, or a training programme

would be examples. Generally speaking, it is unrealistic to include these in the production overheads. Costing provides the basis for pricing, and if costs are included which have no direct relationship to the production activity, then there would be little hope of achieving a competitive price. For this reason, it is preferable to keep a quite separate account for artisan benefit schemes, and it seems reasonable to seek grant assistance if possible to run them. There are many examples of well-meaning enterprises who have tried to fund welfare schemes out of profits but have not generated sufficient profits to meet the cost. Because of inadequate accounting systems, they have often been unable to separate their different costs, and have failed to identify where their difficulties lie, and whether production itself is profitable.

It is assumed here that the production activity will have the objective of at least breaking even. Businesses with a social purpose might be able to attract funding to cover certain overheads, or might have the services of people, or use of buildings, free of cost — for example, a volunteer designer. Ultimately, though, a production unit has to stand on its own two feet. If it cannot cover its production costs by sales revenue, it is not a viable income-generation programme. It would then either close down or become dependent on perpetual subsidy from a charitably-minded agency. Agencies are much more likely to fund specific social programmes running alongside a viable production activity.

## **I.2. Overhead apportionment**

### **(i) Fixed and variable costs**

All direct costs of production are *variable costs*, because obviously the total expenditure incurred varies according to which product, and how much, is being produced. The same is true of some indirect costs. For example, the supplier of one raw material might demand cash on delivery, necessitating the provision of a bank loan, while others might give 30 days credit. Supervisory staff may be employed for some production processes but not for others. Large baskets might require transportation from a producer's home to the collection centre, which other products might not. It is helpful if a business can distinguish these *variable costs* from *fixed overheads*, which will not change whatever the production activity: such things as the rent of the workshop, the telephone bill etc.

The purpose of the costing exercise is to obtain as accurate a record as possible of how much products cost to produce. This is for the purpose of not only pricing, but also monitoring the efficiency of production, gaining knowledge of the different profitability of products, and making decisions about what to produce.

Variable overheads should be allocated to the cost of the product in just the same way as direct costs, by identifying as closely as possible the relationship between quantity of production and expenditure incurred, to yield a unit variable overhead cost (Figure 3).

### **(ii) Overhead absorption rate**

It is the apportionment of the fixed overheads which gives most difficulty. Here the objective is to treat as part of the cost of the product all of the other expenditure incurred in the production unit, although this has no direct relation to the product itself. The method used is the calculation of what is called an

overhead absorption rate:

$$\text{Overhead absorption rate} = \frac{\text{Fixed overhead cost}}{\text{Level of production activity}}$$

Whilst this is the same basis as the calculation of direct and variable indirect costs, there are two difficulties:

**Production level:** The recovery of all fixed costs is critically dependent on attaining the estimated production level. If this falls below estimate, the fixed costs would clearly not be covered. There is no solution to this difficulty, which is more acute for a new business without sales experience. The only possible approach is to make the best estimates of what will be produced over the accounting period for which the fixed costs are identified, and to keep a careful watch on results. In a small handicrafts unit, fixed overheads are generally low. Indeed, there can be no better advice for a new enterprise than to keep them absolutely as low as possible.

**Individual product apportionment:** It is unrealistic to apportion the same amount of overhead to each product, regardless of its variable cost. Therefore a suitable basis has to be found for individual apportionment. In the handicrafts industry, this is probably the number of labour hours taken in the production of each item. Thus the estimated level of production activity in the total period would be expressed in terms of labour hours, and the formula above would yield the overhead absorption rate. This rate would then be multiplied by the number of hours taken to make each item to give the individual product fixed overhead apportionment (Figure 2).

**Figure 2. Apportionment of Fixed Overheads to Fibre Mat**

	Money unit	Hours
Estimated fixed overheads in financial year	20,000	
Estimated variable production costs	125,000	
Estimated labour cost	80,000	
Labour rate per hour	5	
Labour hours in estimated production		16,000
Overhead absorption rate =		
Fixed overhead cost		
Level of production activity (labour hours)		
	$= \frac{20,000}{16,000} = 1.25$	
No. of labour hours to produce fibre mat		4
Fixed overhead apportionment =	$4 \times 1.25 = 5$	

The advantage of this method is that it does not matter which products are produced. As long as overall production reaches the estimated level, the fixed

costs will be covered.

### **I.3. Selling and distribution costs**

Income-generation occurs only when there is sales revenue, a consideration obvious enough, but nevertheless often overlooked by agencies which fund production units without undertaking a market feasibility study. In order to achieve sales, costs will be incurred. These will depend on what the selling method is. There may be promotional leaflets or catalogues, travel expenses to visit customers or sell in the marketplace, a commission payable to a sales agent etc. When selling overseas, there will certainly be further costs: cartage to port, additional packaging, documentation, customs clearance, perhaps levies, certainly extra running around.

Selling and distribution costs are part of the overheads of a production unit. They may be variable, for example, a sales commission, or fixed, such as the bus fare to the weekly bazaar. The important thing to remember is to calculate them and include them in the costings analysis in the same way as other overheads. Very often small businesses overlook them, because they have not evolved a selling strategy, and then find they cannot afford to incur the expenditure necessary for marketing. The onus to sell products is on the production unit; it should not wait for people to visit, but rather go out and find the customers, confident that there is some margin in the costing for doing so.

At this stage the costing sheet might be looking like this (Figure 3):

	Money unit
<b>Direct costs</b>	
As per Figure 1	35.00
<b>Variable overheads</b>	
Employment of porters and casual labour	2.00
<b>Fixed overheads</b>	
Apportionment as per Figure 2	5.00
<b>Distribution and selling costs</b>	
Apportionment of transport costs	<u>0.50</u>
<b>Total cost</b>	<u>42.50</u>

### **I.4. Ways to reduce costs**

The objective of a social production unit is to maximize the earnings of the artisans. This emphasises the need to seek all possible means to keep other costs

to a minimum. A number of possibilities might exist, and should be considered.

**(i) Materials**

Prices of raw materials tend to fluctuate according to the season. Cost might be saved by buying up stock at times of low prices and storing it. Price will also normally vary according to quantity purchased; again, bulk purchase might be beneficial.

Production units usually appreciate these factors, but sometimes lack the capital to finance stocks of materials. It should be checked whether this difficulty could not be overcome by taking a bank loan, which might be worthwhile, even at a high interest rate (Figure 4).

**Figure 4. Decision Making on Bulk Purchase of Materials**

**Problem:** Fibre costs 6 money units per kg for 9 months of the year, but for 3 months the price drops to 4.5. Production requires 200 kg per month. Storage is not available, and would have to be rented at 0.05 money units per kg per month. Moreover, the production unit is short of capital, and would have to borrow money at the rate of 2% per month. At present, it buys its requirement month by month. Should it instead buy up all the fibre at the lower price and store it for the rest of the year?

**Solution:** N.B. Ignore the 3 months when material is anyway bought at the lower price.

**1. Present monthly cost of material for 9 months**

Purchase price:

$$9 \times 200 \times 6 = 10,800$$

**2. Monthly cost of material for 9 months on bulk purchase basis  
(assume purchase during last month of low price)**

Purchase price:

$$9 \times 200 \times 4.5 = 8,100$$

Storage: Reducing per month by 450  
200 kg, from 1800 kg  
in first month

Interest: 8100 money units loan 808  
required payed back  
evenly over 9 months

$$\text{Total cost} = 9,358$$

Therefore it is preferable to purchase in bulk when the price is low if loan finance can be obtained.

One further consideration regarding materials is whether wastage can be either used to make other small items, or alternatively sold. This option would not normally be available in fibre or grass products, but might well be in leatherware or woodwork.

If full allowance for the material has already been made in the costing of products for which it is principally used, then other small items could be made from the wastage at zero material cost.

## **(ii) Organization of work**

The method by which production is organized should be carefully examined for efficiency. In some handicrafts production units artisans make the complete article; in others, a part only. Where division of labour applies, the artisan does not have the benefit of seeing the finished product but total output might be greater. The major objective being to generate income for the producers, there is rarely justification for producing in an inefficient way unless as part of a training programme.

The work location should be examined. Often, handicrafts work is done in the home, and it may be that communal working is impracticable. However, the relative advantages of each should be looked at financially. There may be good reason to place financial considerations below social ones, but at least production units should always know the cost of doing so. They might even be able to attract funding to cover the identified additional cost of operating inefficiently for worthwhile social reasons. It could work either way. It might be more expensive to run on a home industry basis because of transport costs for distributing and collecting materials and finished products; yet this could be necessary in order not to disrupt the other activities of the artisans. By contrast, it might be more expensive to build a communal work area; yet this might serve as a centre for education, awareness-building, medical care etc, which could not be built into the enterprise if the artisans worked at home.

It is often true that small handicrafts units do not run in the most efficient way, and that there is scope for cost saving if analysis of the costs and work patterns is undertaken. Whilst the motivation for production might not be profit-orientated, nevertheless the production activity must be controlled as in any business, precisely in order to enable it to fulfil the income-generation objective. Human concern and the business mentality need not be incompatible.

It might finally be possible to complete the costing sheet on the basis of different levels of production (Figure 5).

**Figure 5. Fibre Mat Costing Sheet According to Production Level**

	Per piece	Money unit	
		Per 100 pcs	Per 1000 pcs
<b>Direct costs</b>			
As per Figure 1	35.00	35.00	35.00
Material saving		(1.00)	(2.50)
Labour surcharge (overtime)			0.50
<b>Variable overheads</b>			
As per Figure 3	2.00	2.00	2.00
<b>Fixed overheads</b>			
Apportionment as per Figure 2	5.00	5.00	5.00
<b>Distribution &amp; selling costs</b>			
Apportionment of transport costs	0.50	0.50	0.50
Saving on bulk orders		(0.20)	(0.30)
<b>Total cost</b>	<u>42.50</u>	<u>41.30</u>	<u>40.20</u>
<b>Less sale of waste fibre</b>	<u>(0.10)</u>	<u>(0.10)</u>	<u>(0.10)</u>
<b>Final production cost</b>	<u>42.40</u>	<u>41.20</u>	<u>40.10</u>



## **II. PRICING**

If costing is a fairly precise science, pricing is much less so. This is because the price obtainable for a product is that which the market is prepared to pay. It is of absolutely no use to complain to a customer that a product costs a certain amount to produce, if the customer perceives its value as less than that, and is not prepared to pay more.

This is not to devalue the costing exercise, which is a fundamental requirement for a production unit, and its relationship to pricing will be looked at. Nevertheless, it is necessary to separate the concept of cost from that of value. Price will ultimately be governed by the value of the product, not its cost. Where cost exceeds value, profitable selling cannot take place.

### **II.1. Value in the market**

#### **(i) Market knowledge**

Value is related to cost, in so far as different production units in the same locality producing the same item will have similar costs, and sell the product at similar prices. Hence the market accepts that a particular product will be sold within a certain price range. Where selling overseas, the producer might well experience competition from handicrafts which are being produced in other countries at lower cost; this is a fundamental problem with exporting.

Value is also related very closely to utility, and in this respect handicrafts find themselves in competition with non-handicraft items. The introduction of machines, and synthetic fibres, have brought down production costs world wide, although the process has been balanced by much higher wages rates in industrialised economies. Thus handicrafts are caught in a dilemma: their own production costs are rising all the time, yet machine-made products serving a similar purpose are decreasing their value.

This trend is not reversible, so that in the long term market forces will reduce the scale of the handicrafts industry to well below what it is now. The immediate concern, though, is to maximize earning opportunities in the industry as it is at present. The point to consider is not the negative one about long-term trends, but the relevance of market forces in price determination. This is why it is useful to pause to consider the factors other than cost which determine price.

In order to analyze these effectively, it is absolutely necessary to refer to the market in which the product is being offered for sale. Two things need to be known:

- what level of acceptability will the products have in that market? Do people there want this type of item?
- which other products in competition with them are available in that market?

From answers to these can begin an understanding of the value of the products in the target market, and hence the price they will attract. It is quite normal that the same product will have a different value in different markets. For example, a heavily decorated woven basket produced only in one rural locality might fetch a low price in the local market because it is perceived only as a utility item, and

many other similarly useful baskets are available. In the capital city, or overseas, it might be appreciated as an unusual and beautiful product, and accorded a high value for its decorative aspect. By contrast, many products may not be saleable outside of the production locality because other areas have access to similar products, or products performing the same function, at a lower price.

### **(ii) Increasing the value**

Utility to the consumer, and competition from other products, are not the only factors influencing the market's perception of value. It is encouraging to note that while competition pushes prices down, other factors can push them up. Essentially, these can well be summed up under the heading *presentation*, and include labelling, packaging, display and promotion.

Production units should always look for opportunities to increase the value of their products. Often a small additional cost — an attractively printed label, eye-catching packaging — can increase value by a greater amount than the cost. Overseas markets are particularly responsive to packaging. There are examples of products sold in Europe and America — such as cosmetics — where the packaging increases the value by many more times than its cost. Handicrafts producers can take advantage of this fact. For example, packaging spices or soap in small baskets, themselves costing very little, might immediately give the product acceptability in the gift market, as opposed to the self-purchase utility market, and thereby increase its value significantly.

Attractive display of products — in a bazaar, a shop, or a sales catalogue — can increase a product's value. Generally, the more sophisticated the market into which a business is selling, the more scope there might be for increasing value through presentation. Metropolitan consumers will have less knowledge than local ones about production costs, and more interest in how a product looks in its place of sale.

### **(iii) The artisan's income**

One of the major difficulties faced by artisans the world over is lack of access to a market. The reality of their life is not how to turn market characteristics to their advantage, but how to survive on a hand to mouth basis. Lacking capital and knowledge about how to sell their products, they are often exploited by the local trader because of their desperate need for cash.

Organization of social production units can make a significant impact on an individual artisan's life. Aside from the important social benefits obtainable through participation in an income-generation activity, the artisan might derive vital financial advantages:

- access to credit at fair rates, or supplies of raw material of which the cost is offset against the remuneration for production, offer an alternative to a bank loan or to the money lender, at high rates of interest
- the possibility of regular work can remove the need to take a day off each week to sell what has been produced in the local market
- instead of depending on the local trader, the artisan can move one step forward in the distribution chain, selling through the unit to perhaps the same customer as the trader. The profit margin saved by removing a link from the distribution

chain should to some extent be translated into higher prices for the artisan.

The unit cannot obtain higher prices than the value accorded to the products by the market in which it sells. For the artisans, though, this would represent a new market opportunity, through which the products would gain for them an increased value.

## II.2. Costs and pricing

Consideration of market forces in price determination implies, first, that the business has access to such information, and, second, that there is a potential to raise prices to levels higher than the cost analysis would suggest. Both implications are often unrealistic for small handicrafts production units, who are therefore thrown back to costing as the basis of pricing.

From Figure 5, the total cost of the fibre mat was calculated to be 42.40, with small reductions on large volume production. To this, the production unit would add a modest profit margin to allow for accumulation of working capital and to cover contingencies. If we assume that to be 10%, the selling price of fibre mats would be:

- Per piece, 46.64 money units (probably rounded to 46.50)
- Per 100 pcs, 45.32 money units (probably rounded to 45.25)
- Per 1000 pcs, 44.11 money units (probably rounded to 44.00)

This approach to pricing is called *full cost pricing*, or *cost plus pricing*, and it is the most commonly used method in the handicrafts industry, albeit often based on an inexact analysis of costs. It has two limitations. One is the lack of reference to market forces, as outlined. The other is the lack of distinction between fixed and variable costs.

## II.3. Contribution analysis

The problem can be expressed in this way. Suppose a buyer came along and offered to buy 1000 mats, but insisted on a 10% discount on the price of 44.00. A quick calculation could suggest that the business should turn down the order. Total production cost is 40.10, and a 10% discount would mean a selling price of 40.00. It would seem that a loss would be made by executing the order.

Or would it? The answer depends on whether there is spare production capacity. If there is, the business should accept the order, because in fact it is going to make not a profit, but a *contribution to overheads*. Where production capacity is available, a business should accept any order from which the revenue exceeds the variable costs of production, because it is thereby gaining income which will go towards meeting its fixed overheads (Figure 6).

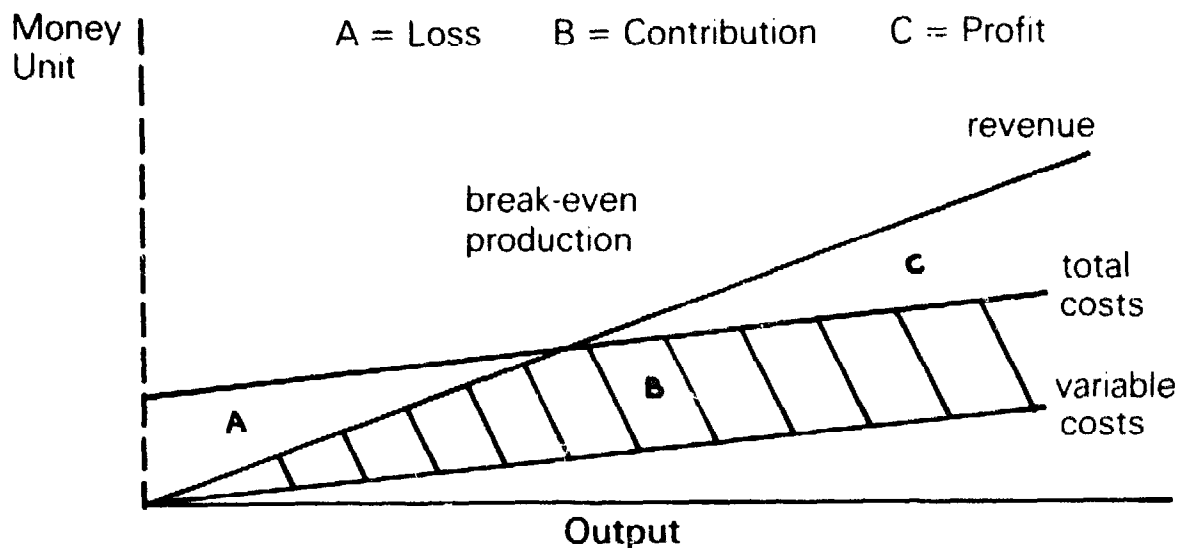
**Figure 6. Contribution Analysis of Sale of 1000 Fibre Mats**

	Money unit
Unit selling price of mat	40.00
Direct and variable indirect costs of one mat (as per Figure 5)	<u>35.10</u>
Unit contribution	<u>4.90</u>
Total contribution to overheads on sale of 1000 mats	<u>4,900</u>

Of course, it cannot operate in this way all the year round; its fixed overheads must be covered eventually. But in a lean period, keeping the distinction between variable and fixed costs in mind can assist in decision making about whether to offer discounts, reduce prices, or give a commission to a sales representative. *Contribution* — which is revenue less variable costs — should be distinguished from *profit* — which is revenue less variable and fixed costs. A business breaks even where the contribution equals the fixed costs.

Contribution analysis can be represented diagrammatically, to reveal the break-even level of production of either a single product or the whole production unit. It shows the costs and revenues at different levels of production.

**Figure 7. Break Even Production Level**



It is admittedly of limited usefulness in the handicrafts industry, because fixed costs are usually small. But it serves to emphasise that flexibility is an important element in pricing. An over-rigid application of a cost plus pricing policy might lead to under-achievement of sales, through disregarding opportunities for occasional special offers or discounts which will maximize employment potential without detriment to financial performance. If a particular product is a hot seller and yields sufficient return to cover all the fixed costs, then the other products in the range could be priced on the basis of covering the variable costs of producing them. Or, if a price is reduced to just above variable production costs, and a large

increase in sales results, the overall contribution to overheads might be greater, as well of course as the employment benefit.

A standard mark-up is not necessarily the most helpful approach to pricing. It is usually worthwhile to experiment with price changes to test the relationship between price and demand.

Accurate costing is not just a basis for pricing individual products, but it can also provide the information necessary for deciding on the most advantageous type of product range development.

### III. THE CONCEPT OF WORKING CAPITAL

#### III.1. Defining working capital

The balance sheet of a business shows its overall financial position at a particular point in time. Specifically, it records three things:

**Assets:** what the business owns, and has value

**Liabilities:** what it owes to other parties

**Capital:** the value of the proprietor's stake.

##### (i) Assets and liabilities

A separation is made in the balance sheet between those assets and liabilities which are part of the permanent structure of the business, and those which rather represent its day to day operations.

**Assets:** Fixed assets, deemed to be retained in ownership for a long period — e.g. land, buildings, machinery, equipment, vehicles — are separated from other assets which are owned for short-term purposes, such as stock.

**Liabilities:** Long-term liabilities, i.e. those not needing to be paid for perhaps one year or more, and the capital of the business, are separated from short-term liabilities, i.e. those needing to be paid in, say, 3–6 months, but definitely less than one year.

Working capital is concerned only with short-term assets and liabilities, called *current assets* and *current liabilities*. By current assets is meant assets which can be converted into cash in the short-term future. Similarly, current liabilities are liabilities which must be paid in cash in the short-term future. Working capital can be defined as the net difference between the current assets and current liabilities.

The term working capital is sometimes used erroneously as a synonym for cash. It does mean cash, but it means more than that. From the above, it follows that it means the difference between cash on hand, plus assets which can be converted quickly into cash, and liabilities which must be settled quickly in cash.

##### (ii) Components of working capital

Consider the balance sheet of a handicrafts production unit (Figure 8). It can be seen that the components of working capital are as follows:

###### **Assets:**

Cash — on hand and in the bank

Debtors — (also called accounts receivable) — money owed to the business

Stock — of raw materials and partly and fully finished products

###### **Liabilities:**

Deferred wages — money due to people within the business

Creditors — money owed to outside parties

Advance payments — money received in advance for products still to be supplied

Overdraft or loan — money borrowed from the bank, due for repayment in the short term.

**Figure 8. Fibre Mat Society — Balance Sheet at 30 September 1986**

**Assets**

**Current assets**

Cash		5,000	
Debtors		45,000	
<b>Stock:</b> raw materials	4,000		
work in progress	6,000		
finished goods	<u>30,000</u>	40,000	90,000
<b>Fixed assets (at cost less depreciation)</b>			
Vehicle		21,600	
Tools & equipment		<u>3,400</u>	<u>25,000</u>
		<b>Total assets</b>	<u>115,000</u>

**Liabilities**

**Current liabilities**

Wages		6,600	
Creditors: raw materials	13,200		
indirect supplies	2,700	15,900	
Advance payments received		12,500	
Bank overdraft		<u>35,000</u>	70,000

**Long-term liabilities**

Loan from voluntary agency			15,000
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**Share capital and reserves**

			<u>30,000</u>
	<b>Total liabilities</b>		<u>115,000</u>

Working capital takes account of all current assets and liabilities, not just the cash. It is not concerned with fixed assets or long-term liabilities because these are not held with a view to conversion into cash.

**III.2. The role of working capital**

A business will incur expenditure in undertaking production before recovering this — plus, it will hope, a surplus representing profit — in sales revenue. Overhead expenses also have to be paid. Working capital is the finance available to a business to meet its day to day operational costs in pursuit of profitable activity.

**(i) Cash**

Wages, supplies of materials and other items, money owed to the bank; all these must be paid eventually in cash. Neither suppliers nor the bank manager are going

to accept a delivery of stock as an alternative. Cash is needed for settling liabilities when these become due.

Whilst it may feel comforting to have lots of cash, a business exists in order to produce and sell profitably. It needs sufficient cash to meet its immediate obligations, but no more. Profits ensue from investment of cash in other assets: the stock which will be sold, materials and tools to produce it, providing credit to customers who will buy it.

Keeping cash in a tin or non-interest paying bank accounts bears a cost. Investment in the operations of a profitable enterprise will yield a return, which, expressed as a percentage, is known as the return on capital employed. If available cash is surplus to internal requirements, it can be invested outside for whatever interest rate is available. Cash can pay off interest-bearing liabilities. The cost of cash sitting still is equivalent to the interest paid on borrowing or the interest lost by not investing it.

### **(ii) Debtors**

In most businesses, it is necessary to sell on credit in order to obtain sales. Obviously, debtors are not such an attractive asset as cash; they can perhaps be fairly described as a necessary evil. In the first place, there is a time delay before the cash is received, and this bears a cost equivalent to that of idle cash. Second, there is a risk factor; some debtors might not pay. Most businesses suffer the occasional bad debt.

Normally, a business balances the cost of debtors by itself taking credit from its suppliers. It is clearly helpful if the amount of debtors does not exceed the amount of creditors. Where it does, there is a net cost in financing trade credit.

In a buyer's market, customers will sometimes demand that items are supplied on a consignment basis. This is much less favourable to a business than a definite sale on credit, because of the additional risk that a percentage of the goods might be returned. Sometimes goods returned are not in perfect condition either, and have to be sold at a reduced price. No effort should be spared to minimize the amount that is sold on consignment.

### **(iii) Stock**

The stock levels required by a business will tend to depend on its sales policy. If it sells to the consumer directly, it will need to hold higher stocks than for wholesale or export trade. Again, wholesaling to the domestic market requires a higher stockholding than exporting, where production usually commences only against firm orders. A business holds stocks primarily for the purpose of obtaining sales. An order can be lost if stocks are not available for immediate delivery. Stocks can be needed to overcome seasonality of trade, where peak demand exceeds production capacity and can be met only by stocking up beforehand. Raw materials sometimes need to be stock-piled because they are only available at certain times of the year. This can be true especially of plant fibres.

Stock might also be held with a view to increasing profitability. Materials might be cheaper at certain times of the year, or if bought in bulk (see Figure 4). A price increase might be known to be in the pipeline. It is sometimes possible — though unusual in handicrafts — to obtain efficiencies in large production runs beyond orders on hand.



Holding stock bears the same cost to a business as holding cash, or financing debtors; but probably others, besides. There might be storage charges, and insurance premiums. Moreover, holding stock risks obsolescence, whereby it loses value as customer taste changes. There could be a risk of damage, perhaps by climatic conditions — moisture might cause concern to the Fibre Mat Society — or maybe infestation.

Producing stock just because there are no orders on hand, and because the artisans need to be kept busy, could be an expensive undertaking. The objective of stock management is to hold enough to maximize sales, but no more.

#### **(iv) Creditors**

To delay the payment of its bills means that the business can use the cash to finance assets. If creditors do not levy an interest charge, or offer discounts for prompt settlement, then it is definitely worthwhile to use their money for as long as possible.

However, delaying payments can have an unfavourable result. A business might find difficulty in obtaining its supplies if it gains a reputation as a slow payer. It might have its credit facility removed altogether, forcing it to purchase in cash. Judgement about how much credit to take, and for what period, must take account of the effects on supplies essential to production and hence to profitability.

Deferring payment of wages might also be inexpedient, as well as causing hardship to the artisans and staff. Skilled people might leave as a result.

#### **(v) External borrowing**

A small new enterprise, or one with a poor profitability performance, might find it difficult, or even impossible, to borrow money externally. It would be obliged to survive on those financial resources it could generate internally. Even if a business does not have an overdraft facility, or access to loan finance, this will inevitably bear an interest cost. Internally-generated finance is a preferable option, and sometimes the only one.

However, in recent years, many social production units have been able to obtain very cheap, or even free, external finance. There are two sources: government, introducing schemes to stimulate employment-generation in the small-scale sector; and voluntary agencies, giving interest-free loans for the same purpose. Where such external finance is available, it clearly makes sense to take maximum advantage.

Moreover, it would be quite wrong to discourage the idea of external borrowing in general. Significant growth — necessitating higher levels of stocks and debtors, and probably promotional costs — or the purchase of fixed assets, would usually require the use of external funds. If the rate of interest paid by an enterprise is less than its return on capital employed, then borrowing is worthwhile.

### **III.3. Performance measurement**

#### **(i) Ratio analysis**

The working capital position of an enterprise can be interpreted from a balance sheet by a method known as ratio analysis.

In Figure 8 the current assets of Fibre Mat Society total 90,000. Current liabilities are 70,000. These figures may be expressed as a ratio:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} = \frac{90,000}{70,000} = 1.29:1$$

The current ratio gives an initial measure of what is called the liquidity of a business. This means the extent to which its current liabilities are covered by cash, or assets able to be converted quickly into cash. It is clear that a current ratio of less than 1:1 — meaning that current liabilities exceeded current assets — would be extremely dangerous. Generally, it can be said that an enterprise needs a current ratio of 1.5:1 minimum, and better 2:1. It would appear that the Society has a liquidity problem.

A second working capital ratio looks at the situation a little more critically. This is the quick ratio, or acid test, in which stocks are omitted from the current assets.

$$\text{Acid test} = \frac{\text{Current assets} - \text{stock}}{\text{Current liabilities}} = \frac{50,000}{70,000} = 0.71:1$$

This ratio assumes that if an enterprise had to raise cash very quickly to meet liabilities, it would be able to convert debtors more quickly than stock. The usefulness of the ratio rather depends on the validity of this assumption. For comfort, the acid test should yield a ration of 1:1. The poor ratio of Fibre Mat Society confirms a disturbing situation.

## **(ii) Limitations of ratios**

Like all financial statements, ratios have to be evaluated with care. In the first place, the balance sheet describes the situation at one point in time only, here 30 September 1986. Stocks might be high because the Society is building them up for the peak selling season. A figure which might be unacceptable at one time of year could be less worrying at another.

Apart from the question of seasonality, some standards are required by which to evaluate the situation. The most informative measures are the past financial statements of the business. In comparing what has happened between two balance sheets, it is possible to see if the present situation represents an improvement or a deterioration in performance.

The major shortfall of ratios is that they say nothing about the quality of assets held. Is the stock good, will its value hold, can it be sold quickly? Or does the high figure of finished goods suggest dead stock, overvalued in the books? Are the debtors safe, will they all pay, and when? Further information is also required about the liabilities: What is the Society's overdraft ceiling? How much time will the creditors allow?

In other words, liquidity ratio analysis might signal whether there seems to be a working capital difficulty: but it is only the starting point for looking more closely at the component parts of working capital, for bringing judgement to bear on the true nature and extent of the problem, and for identifying what should be done to improve things.

### III.4. Profits

#### (i) Profit and loss account

In Figure 9 the profit and loss account — otherwise called the income statement — of Fibre Mat Society reveals an enterprise which is trading at a small profit.

**Figure 9. Fibre Mat Society — Profit and Loss Account, Year Ended 30 September 1986**

Sales			140,000
Less cost of goods sold:			
Opening stock	20,000		
Direct production costs:			
Labour	79,200		
Materials & other	<u>52,800</u>	<u>132,000</u>	
		152,000	
Closing stock		<u>40,000</u>	<u>112,000</u>
		<b>Gross Profit</b>	<b>28,000</b>
<b>Overheads:</b>			
Rent of workshop	8,400		
Packing & distribution	2,000		
Vehicle maintenance	5,800		
Bank interest	5,550		
Depreciation:			
van	2,400		
tools	<u>850</u>	<u>3,250</u>	<u>25,000</u>
		<b>Net trading profit</b>	<b><u>3,000</u></b>

This gives us some further information with which to evaluate performance, especially when viewed in connection with the balance sheet (Figure 8). First, it is apparent that stocks have increased by 100% during the year. This could well mean a build-up of slow-moving stock.

Without past figures, it is impossible to see sales trends, which might explain a rise in stocks; one would also want to know if any change in sales policy has been made which might necessitate higher stock-holding.

Second, we can now see debtor and stock figures in relation to sales. This allows for further ratio analysis to be made. The rate at which debtors are settling their accounts may be calculated by the debtors turnover ratio:

$$\text{Debtors turnover} = \frac{\text{Sales}}{\text{Debtors}} = \frac{140,000}{45,000} = 3.11$$

This is then expressed in terms of average collection period of debts by dividing the ratio into 365:

$$\text{Average collection period} = \frac{365}{3.11} = 117 \text{ days}$$

This would be a very unsatisfactory state of affairs and an indication of bad debtor management. It might actually be worse than it appears. If a proportion of the sales were for cash then the sales on credit would be less than 140,000 and the average collection period correspondingly larger. The ratio tends to confirm the earlier conclusion about stock. Most likely this Society has a product range of declining appeal. Not only are stocks building up in the Society, but also they are not being sold easily by the customers, hence payments are being delayed.

The usual measure of stock movement is the stock turnover ratio:

$$\text{Stock turnover} = \frac{\text{Cost of sales}}{\text{Stock}} = \frac{112,000}{40,000} = 2.8$$

As with the debtors turnover ratio, this can be expressed in a more meaningful way as a number of days stock held:

$$\text{Days stock held} = \frac{365}{2.8} = 130 \text{ days}$$

Had we made the calculation using the beginning of year stock figure or the average — i.e. 30,000 — clearly the turnover ratio would look healthier.

Creditors may be looked at in the same way as debtors. The amount of credit the Society is taking from its suppliers can be calculated by the ratio:

$$\frac{\text{Purchases}}{\text{Creditors}} = \frac{69,000}{15,900} = 4.34 = 84 \text{ days credit}$$

This ratio includes all supplies, including items charged to overheads. It could be separated between suppliers of raw materials and indirect items, as the figure for creditors is broken down in the balance sheet. Credit taken from raw material suppliers would be:

$$\frac{13,200}{52,800} \times 365 = 90 \text{ days}$$

and from suppliers of items charged to overheads would be

$$\frac{2,700}{16,200} \times 365 = 60 \text{ days.}$$

It is possible that suppliers would not be content to allow this situation to continue. Even without past statements for identification of trends by comparative ratio analysis over two or more years, it is likely that Fibre Mat Society is heading for difficult times.

## **(ii) Profitability and liquidity**

The problem is essentially this: although the Society is trading profitably at present, its cash is tied up in excessively high levels of debtors and stocks. The conversion of assets into cash is unacceptably slow.

The management of working capital seeks to obtain the right level of liquidity. A business with insufficient liquidity, if unable to delay payments or borrow externally, could face technical insolvency. This is a situation where sufficient assets exist to meet liabilities, but they cannot be converted quickly enough into cash. It is different from legal insolvency, a state in which assets are actually

insufficient to meet liabilities.

Conversely, an over liquid enterprise is guilty of idleness: keeping too high a level of cash and other liquid assets, rather than investing them in strategies for growth.

Consider the current position. The Society has 5,000 in cash, the most liquid asset. It has short-term cash payment obligations of 22,500 creditors and deferred wages, even discounting its bank overdraft. How can it meet these obligations unless stocks and debtors are turned quickly into cash?

It is in the first instance for the purpose of ensuring adequate liquidity to meet operational needs that working capital management is a fundamental part of the financial control of an enterprise.

### **(iii) The effect of liquidity difficulties**

Profit and cash are separate concepts, and the evidence of one does not automatically imply the existence of the other. Yet, it is evident that a shortage of liquidity can affect profitability adversely.

First, it might necessitate borrowing externally in order to finance current assets. Profit is reduced by the amount of interest paid, by 5,550 in the case of Fibre Mat Society. In its estimate of overheads (Figure 2) the Society had apparently made very little allowance for bank interest.

Second, it might result in lost sales, because the expenditure necessary to finance production could not be met.

Third, the value of assets might undergo a reduction: some stock might become obsolescent, some debtors might go bad.

Fourth, it might oblige an enterprise to make short-term decisions which are not in its long-term interests.

Faced with a liquidity problem, and lack of access to external funds, a business has perhaps four courses of action open to it:

- **Dispose of assets.** Disposal of fixed assets, part of the permanent capital structure of the enterprise, might seriously impair operational capacity. The Society could sell its van; but leasing, or using public transport, might be more expensive. If stocks are sold off quickly, an amount less than their true value might be realised.

Debtors might be reduced, but to call cash in urgently might necessitate offering generous discounts. Imposing an excessively tight credit policy might alienate customers.

No asset should ever be left idle. There might be scope for leasing out under-utilised assets. If Fibre Mat Society only uses its van four days a week, maybe it could be hired out the other three.

- **Increase selling prices.** This is fine if the market will accept it; if not, sales income is likely to decrease.
- **Cut operating costs.** If scope for efficiencies exist, then this is fine. What must be avoided is a reduction in quality of raw materials purchased, or cutting corners in production, which would reduce the quality of the finished products.
- **Defer payments.** In other words, increase liabilities, and hold on to the cash. Some additional credit might be available, but suppliers might be disaffected,

causing future difficulties in obtaining supplies.

It is true that the objective of a social production unit would differ from that of a normal enterprise in that it is not profit-maximizing. It might be satisfied to realise a very small profit, or simply to break even, in order to achieve the basic aim of employment generation. Nevertheless, even such a unit wants to earn as much as possible so that it can either invest for growth, enabling further employment, or increase distributions in the form of wages or bonuses. Whatever the type of enterprise, or its corporate strategy, it should seek to run its affairs in the most efficient and profitable manner. Profit — or minimization of loss in a subsidised unit — is always the means to achieve the objective of a business, whether that objective is that the proprietors make a personal profit or that some social benefit results.

The concept of working capital is ultimately related to that of profit. Profit is the objective of operations; working capital is the means to undertake operations. It is vital to keep this perspective in view, because whilst working capital may be concerned with only short-term assets and liabilities, an enterprise's liquidity position will influence its profit performance. This is the second fundamental purpose of working capital management.

## **IV. FINANCIAL PLANNING AND DECISION MAKING**

### **IV. 1. Management Accounting**

A business has a legal responsibility to present each year an audited set of accounts. Such statements are known as its financial accounts. Management accounts serve a completely different purpose. These are financial statements produced for use inside the business. Their objective is to provide the information necessary to manage the business effectively.

Managerial requirements are threefold:

#### **(i) Planning**

Planning is the process of setting overall objectives — the strategic plan — and then determining what actions and resources will be required to achieve these — the operating plan. Operational planning involves deciding what to produce, how to cost and price the production, how to provide and allocate the resources necessary to keep the business running.

Making projections about the performance of the enterprise becomes easier with experience. How does a new business start to estimate the results it will achieve? The difficulty, and possible inaccuracy, does not invalidate the undertaking. A business must have an operating plan, an agreed set of objectives and targets. Without this, it is very difficult to know whether performance is good or bad, or to decide whether changes need to be made. An operating plan, expressed in financial terms, is called a budget.

Imposing the discipline of stopping to reflect on what is likely to happen increases the chances that everything material will be thought of. A business might be caught unawares justifiably by what is unforeseeable — a typhoon might destroy the workshed; a new tourist market might open up — but it shouldn't be taken by surprise by what is foreseeable with a little thought — the roof might need repairing; an adult education class might be starting.

Budgets give everybody something to work towards. People are motivated to perform more effectively if they understand clearly what is expected of them.

#### **(ii) Monitoring**

This is the process of comparing plans with actual performance. Assumptions made in projections can be wrong. It is vital to monitor what actually happens in day to day operations. Businesses cannot survive on fine plans which don't actually come to fruition.

Management accounting information must be timely. It is for each business to decide exactly what information it needs at what time. In a periodic statement for internal use, the budget is set down against actual performance, and the variance shown (Figure 10).

**Figure 10. Fibre Mat Society Monthly Statement of Profit & Loss**

	Actual	Budget	Variance
Sales	10,500	12,000	(1,500)
Cost of goods sold	<u>8,200</u>	<u>9,200</u>	<u>1,000</u>
Gross profit	2,300	2,800	(500)
Overheads	<u>2,100</u>	<u>1,750</u>	(350)

Note: adverse variances are shown in brackets

The budget provides the yardstick against which to measure performance. Where the variance is significant, questions must be asked, and answered in the next stage of planning.

The involvement of the artisans in discussing performance is a valuable educational element, and can bring out new ideas.

### **(iii) Control**

Where performance is unsatisfactory, it is the task of management to take corrective action, and to ensure awareness of responsibilities among everybody. Clearly, adverse variances indicate the need to look in further detail at what has gone wrong. A distinction needs to be made between variances which are controllable and those which are not. For example, if the cost of raw materials is above budget, it might be because the price went up unexpectedly — a non-controllable factor — or because the artisans were careless in using it — a controllable factor, necessitating action.

The process of planning, monitoring and control must be followed by one of re-planning in the light of actual performance and new realistic targets. Indeed, the whole procedure is a continuous one. Successful management depends on the careful interpretation of current financial information, so that both difficulties and opportunities can be understood quickly and responded to in time.

The limitations of financial information in a social production unit need to be recognized. It says nothing about the quality of the enterprise, its employment policy, the special benefit to the community. As well as financial statements, a unit would want to produce projections and reports which deal with the non-quantitative aspects of its activities, analyzing the impact on people's lives of the income-generation opportunity. The social objectives must always inform the planning, and be given full account in monitoring performance. To argue for proper financial management is not to undermine the social purpose of the enterprise. On the contrary, it aims to strengthen this, by guarding against financial difficulties which might threaten its effectiveness.

## **IV.2. Planning for working capital requirements**

Determining the working capital requirements is part of the operational planning of a business. It is concerned with the effect of target operations on the enterprise's liquidity.



It is not possible to generalize about what level of working capital a business requires. This depends on the type of business, its size, sales policy, the trade norms, seasonality, interest rates and other factors. What the minimum cash balance should be, how much trade credit should be given and can be taken, whether stocks should be high or low: these are questions for each individual business. The important thing is that it does ask these questions, and then manages its affairs with regard to the answers.

**(i) Setting targets**

At a meeting of its management committee Fibre Mat Society decides that its target sales for 1986–7 will be 150,000. This would represent only a modest increase, but market conditions seem difficult at present. Nobody is showing much interest in the range, and customers are taking longer than usual to settle their dues. In the circumstances, everyone would be happy if sales could just push ahead a little bit, so that the Society's good record of employment in the needy local community could be maintained. It was estimated that 14,000 sales per month would be achieved in October, November and December and 12,000 per month for the rest of the financial year.

Some further decisions are made at the meeting. In response to recent difficulties in obtaining raw material supplies, the maximum credit period taken will henceforth be 60 days, as it will remain for other suppliers. Artisans will be paid immediately, as they always used to be before money got tight. No new fixed assets will be purchased. It was assumed that stock and debtors would remain as at present in cash terms; a small decrease relative to sales. Overhead costs should not increase in the coming year because of improved efficiencies.

Having set its targets the Society invites its accountant to look at the financial implications, and report back.

**(ii) Working capital budget**

The means to express a plan in financial terms is a budget. Realizing that the Society's worsening liquidity situation can only be aggravated by its decision to make payments more quickly, the accountant first establishes a working capital budget. The objective is to find out whether sufficient funds will be — or can be — made available to carry out operations at the target level.

A working capital budget is not concerned with profitability projections. If Fibre Mat Society manufactures a mat in August at a cost of 40 and sells it for 46 in September on three months' credit it has made a profit of 6. However, it will receive the revenue only in December, although it bore the cost in August. A working capital budget looks at the effect of having to wait before that revenue is received.

It would normally be drawn up in the form of a monthly cash flow projection. In order to ascertain the outflows and inflows in each month, the proposed expenditure and income is calculated in terms of when the cash will be paid out or received.

**Expenditure:****Production costs:**

- if stock held remains constant, production at the level of cost of sales will be required. The Society's mark-up on direct costs is assumed to be 25%, so that new stock must be produced to the value of 120,000. Seasonal sales fluctuations imply that production costs will be 11,200 October to December, and 9,600 January to September. According to the 1985-6 profit and loss account, 60% of these costs are labour, and 40% materials and other direct costs. The monthly labour cost will be 6,720 October to December and 5,760 January to September. The monthly raw materials cost will be 4,480 October to December and 3,840 January to September.
- Material costs will be paid two months after taking delivery, but artisans will be paid the same month as production.
- At the start of the year, the artisans are owed 6,600 and raw material suppliers 13,200. The artisans must be paid in October; repayment of the debt to the suppliers will be spread equally between the first two months.

**Other expenses:**

- Indirect costs will be incurred at the rate of 1,350 per month, payable two months later.
- At the start of the year 2,700 credit is outstanding and must be settled in the first two months, 1,350 per month.

**Income:**

- Sales will be 14,000 per month October to December and 12,000 per month January to September. Because debtors are taking 117 days to pay, the cash will be received only in the fourth month after sales.
- 12,500 must be deducted from sales revenue because the cash has already been received as advance payments for some small export orders. Assuming the goods to be produced and supplied in October the effect will be to reduce February's cash inflow.
- At the start of the year debtors total 45,000. As the balance sheet does not show the age of the debt, it will be assumed that this will come in at the end of each month as follows: 16,000 in October, 8,000 in November, 9,000 in December and 12,000 in January.

In this way, the operating targets of the business are translated into cash movement terms. Cash flows relating to the previous financial year's transactions must be included. Those relating to the current year's transactions, but which would not be paid or received until the following year, would not be included.

Depreciation is not included in a cash flow projection, because it is not a cash expense. Bank interest is not included here because the objective is to point up the financing requirement, on which the amount of bank interest would depend. It is a fairly simple exercise to add the bank interest calculation in at the end when the overall picture emerges.

### **(iii) Cash flow tabulation**

The cash projections are now tabulated month by month, adding in the opening cash balance, which is calculated as cash on hand minus overdraft (Figure 11).

It can be seen that, at target operational level, the Society's total financing requirement would increase to over 55,000, although it would not require this amount throughout the year.

Even if the bank were willing to meet this requirement, the additional interest charge would be considerable. Assuming a rate of 18%, and an overdraft level rounded to 47,000 for eight months and 57,000 for four months, in order to allow for interest payments as well, the interest expense for the year would be 9,050, an increase of 3,500 on 1985-6. Yet gross profit would increase by only 2,000, with a 20% profit margin on an additional 10,000 sales. Hence, despite an increase in sales at the normal profit margin, profitability would actually decrease.

It is unlikely that the bank would in fact extend its overdraft facility in the light of present trends, even were it to have a policy of trying to help small employment-generating units. It would probably look for evidence that the Society was addressing its mounting liquidity problem by seeking to generate cash internally.

## **IV.3. Releasing cash from other assets**

### **(i) Reducing debtors and stocks**

The Society's liquidity problem is due above all to the amount of cash blocked by excessively high levels of debtors and stocks. Consider the effect if the Society brought down its average collection period for accounts receivable from the present 117 days to 60 days. Average debtors would be reduced to 1/6 of sales, at 1986-7 target, 25,000. The difference of 20,000 from the present level would be released as cash. Addressing this problem alone would avoid the need for any further overdraft facility, as the bank manager is likely to point out.

A similar effect would come from a faster turnover of stock. If average stockholding in the coming year could be reduced to a quarter of cost of goods sold without affecting sales, then stock would be 30,000. In other words a further 10,000 could come off the overdraft by increasing stock turnover to 4 times.

The Society's accountant reports back to the management committee that the present targets could not be financed without eroding profitability. The new target figures of debtors and stock are suggested, and agreed. However, it is estimated that some costs will be incurred in collecting old debts and that a few might need writing off. Further, some stock is obsolescent, and should be sold off at a discount. After further discussion, it is decided that existing debtors could be persuaded to settle within two months but that 2,000 should be written off as debt collection and bad debt costs; and that 10,000 stock will be sold at cost price in November, thereafter keeping stock at 30,000: all other targets to remain the same. The accountant is requested to draw up new projections for comparative purposes.

Cash flow estimates would differ from the original projection as follows:

**Figure 11. Fibre Mat Society — Cash Flow Projection 1986-7**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>Cash out-flow</b>												
Labour	13,320	6,720	6,720	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760
Raw materials	6,660	6,660	4,480	4,480	4,480	3,840	3,840	3,840	3,840	3,840	3,840	3,840
Overheads	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350
<b>Total outflow</b>	<b>21,330</b>	<b>14,730</b>	<b>12,550</b>	<b>11,590</b>	<b>11,590</b>	<b>10,950</b>	<b>10,950</b>	<b>10,950</b>	<b>10,950</b>	<b>10,950</b>	<b>10,950</b>	<b>10,950</b>
<b>Cash inflow</b>												
Accounts receivable	16,000	8,000	9,000	12,000	1,500	14,000	14,000	12,000	12,000	12,000	12,000	12,000
<b>Net cash flow</b>	<b>(5,330)</b>	<b>(6,730)</b>	<b>(3,550)</b>	<b>410</b>	<b>(10,090)</b>	<b>3,050</b>	<b>3,050</b>	<b>1,050</b>	<b>1,050</b>	<b>1,050</b>	<b>1,050</b>	<b>1,050</b>
Opening cash balance	(30,000)	(35,330)	(42,060)	(45,610)	(45,200)	(55,290)	(52,240)	(49,190)	(48,140)	(47,090)	(46,040)	(44,990)
Closing cash balance	(35,330)	(42,060)	(45,610)	(45,200)	(55,290)	(52,240)	(49,190)	(48,140)	(47,090)	(46,040)	(44,990)	(43,940)

**Figure 12. Fibre Mat Society — Cash Flow Prediction 1986-7 — Revised**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>Cash out-flow</b>												
Labour	10,920	4,320	6,720	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760
Raw materials	5,060	5,060	4,480	4,480	4,480	3,840	3,840	3,840	3,840	3,840	3,840	3,840
Overheads	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350
<b>Total outflow</b>	<b>17,330</b>	<b>10,730</b>	<b>12,550</b>	<b>11,590</b>	<b>11,590</b>	<b>10,950</b>	<b>10,950</b>	<b>10,950</b>	<b>10,950</b>	<b>10,950</b>	<b>10,950</b>	<b>10,950</b>
<b>Cash inflow</b>												
Accounts receivable	21,500	21,500	1,500	14,000	1,400	12,000	12,000	12,000	12,000	12,000	12,000	12,000
<b>Net cash flow</b>	<b>4,170</b>	<b>10,770</b>	<b>(11,050)</b>	<b>2,410</b>	<b>2,410</b>	<b>1,050</b>	<b>1,050</b>	<b>1,050</b>	<b>1,050</b>	<b>1,050</b>	<b>1,050</b>	<b>1,050</b>
Opening cash balance	(30,000)	(25,830)	(15,060)	(26,110)	(23,700)	(21,290)	(20,240)	(19,190)	(18,140)	(17,090)	(16,040)	(14,990)
Closing cash balance	(25,830)	(15,060)	(26,110)	(23,700)	(21,290)	(20,240)	(19,190)	(18,140)	(17,090)	(16,040)	(14,990)	(13,940)

**Expenditure:****Production costs:**

- with constant sales, the reduction in stock implies that less new stock will be manufactured. This will be 8,000 at cost, of which 60% is labour — 4,800 — and 40% materials and other direct costs — 3,200. It will be assumed that this reduction will be spread over two months to minimize hardship to the artisans.

**Income:**

- Sales revenue will be received in the second month after sales instead of the fourth.
- Opening debtors would now pay as follows: 21,500 in October, 21,500 in November.

The new cash flow projection is shown in Figure 12.

Instead of increasing its financing requirement by more than 50%, the Society can now reduce it by nearly the same amount. The interest expense, based on average month end figures of borrowing, adding 500 per month to allow for interest, would be in round figures 3,550. Comparative profit and loss projections could now be made (Figure 13).

**Figure 13. Fibre Mat Society — Projected Profit & Loss Account, Year Ended 30 September 1987**

	Original projection		Revised projection	
Sales		150,000		150,000
Less cost of goods sold				
Opening stock		40,000		40,000
Direct production costs				
Labour	72,000		67,200	
Materials and other	<u>48,000</u>	<u>120,000</u>	<u>44,800</u>	<u>112,000</u>
		160,000		152,000
Closing stock	<u>40,000</u>	<u>120,000</u>	<u>30,000</u>	<u>122,000</u>
Gross profit		30,000		28,000
Overheads				
Rent of workshop		8,400		8,400
Packing & distribution		2,000		2,000
Vehicle maintenance		5,800		5,800
Bank interest		9,050		3,550
Depreciation		3,250		3,250
Debt collection		—		<u>2,000</u>
		<u>28,500</u>		<u>25,000</u>
Net trading profit		1,500		3,000

Although in the revised projection gross profit would be reduced by 2,000 because of selling 10,000 stock at cost, and 2,000 sales revenue would be written off, still the Society would make more profit, because of reducing interest by more than the amount of lost revenue. It would also be considerably more free of pressure of debt.

#### **IV.4. Working capital decisions**

Effective financial management will increase the range of opportunities open to an enterprise to pursue its strategic plan. A liquidity problem, apart from being expensive, reduces options, and diverts the attention of management away from a longer-term perspective.

There are commonly three working capital issues on which a business would need to make a decision

- whether to offer discounts to debtors for prompt settlement of accounts
- whether to dispose of slow-moving stocks at reduced prices, and by how much to reduce them
- whether to purchase by cash or on credit, allowing for discounts which might be on offer.

##### **(i) Debtor management**

Slow settlement by customers can be a particularly difficult problem for a handicrafts production unit. A significant percentage of the costs of production are labour costs, so that the level of outside purchases is very much smaller than the level of sales. If both are on credit, it would not be possible to come anywhere near to balancing the amounts of credit taken and given. Assuming the artisans are paid on time, the working capital requirement is all the greater. The deferred wages and creditors of Fibre Mat Society total only 50% of debtors at 30 September 1986.

Where demand is buoyant, it is easier for a business to take a tougher line on credit. Perhaps references can be taken on potential customers from other of their suppliers or their bank. Placing products on consignment can be refused more easily if definite sales are easy to obtain elsewhere.

Whether or not to offer incentives, i.e. discounts, to customers will depend partly on the norms of the trade, perhaps partly on the supplier's liquidity, but above all on whether or not it is to the supplier's advantage.

Fibre Mat Society is considering offering a discount to all its debtors for immediate settlement. It wants to calculate what discount it could offer, on the assumptions that all debtors paid up and that, without a discount, the debtor pattern would remain as estimated for the cash flow projection.

In order to make financial decisions, income and/or expenditure streams should be projected for each alternative, and the most favourable one selected. In Figure 14 the costs of lost sales revenue and interest are compared, with the Society borrowing at 18%.

**Figure 14. Fibre Mat Society — Effect on Income from Introducing a Discount**

(i) Interest cost of servicing current debtors:

Month beginning	Outstanding	Interest rate	Interest cost
October	45,000	1.5%	675
November	29,000	1.5%	435
December	21,000	1.5%	315
January	12,000	1.5%	180
			<u>1,605</u>

(ii) Interest cost as percentage of sales:

$$\frac{1,605}{45,000} = 3.57\%$$

Therefore the Society would be better off introducing a discount of up to 3.5% if it brought immediate payment. Above this rate, the lost sales revenue would exceed the cost of financing the time delay in receipt.

If alternatively, the Society was considering a discount policy for the future, it would assume that accounts receivable would be collected after 60 days. Two months borrowing costs the Society 3%. Therefore, it would be advantageous to introduce a discount of up to 2.5% for cash on delivery.

**(ii) Stock management**

As with debtors, the standard financial statements of an enterprise do not reveal the age, or quality of stocks. These would normally be recorded in the balance sheet at their historical cost; this might or might not bear close relation to their current value. The reason for recording stocks at cost, or value, whichever is the lower, and certainly not at selling price, is that they cannot realise the higher sales value until they are actually sold. If, recorded at cost, stocks are clearly overvalued, then they should be written down in the books at year end so that the accounts reflect more accurately their true value.

A business must avoid at all costs making decisions based on the illusion of unrealised profits. For example, if stock is obsolescent, it should be reduced in price in order to sell as quickly as possible. The price at which to sell is the best price obtainable in the market, irrespective of production costs. A reduced selling price does not mean a loss of profit; the profit had never been made. Much better release the cash for producing something that can be sold profitably.

Slow-moving stocks are identified by sales analysis, as indeed are fast-moving products. Monitoring sales performance and keeping a close contact with the market is the best way to decide what stocks to produce, and what to clear at what price.

It is worth repeating that the purpose of holding stocks is to achieve sales. Fibre Mat Society's accountant demonstrated that liquidity — and profitability — were improved by a higher stock turnover. This is certainly true as long as stocks are not

reduced below the level needed to obtain target sales. In that case, sales might decline, and with them profits. There might be lots of cash, but the Society doesn't sell cash; it sells products. Stock turnover can be improved in two ways: reducing stocks is one; increasing sales is the other. This is often a subject of dispute between the marketing person in an enterprise — who wants high stocks for maximum sales — and the accountant — who recommends low stocks for healthy turnover. If there is not a liquidity problem; and the stock is not obsolescent, the marketing person is right.

**(iii) Cash and credit**

If discounts are offered by suppliers, then, by implication, to purchase from them on credit bears an interest cost. Fibre Mat Society enquires about purchasing fans for its workshop. The cost would be 10,000. Terms are 30 days nett, but there is a 2% discount for cash on delivery. The Society would have to borrow this at 18%. In Figure 15 the Society calculates the best decision.

**Figure 15. Fibre Mat Society — Purchasing by Cash or on Credit**

(i) If purchases by cash, cost =	9,800
+ interest $9,800 \times 1.5\%$	147
	9,947

Nett cost = 10,000

therefore it is more advantageous to take the discount and pay cash.

(ii) The reason can be seen in another way by calculating the interest rate being charged by the supplier. The fans cost 9,800. The supplier offers 30 days credit and charges 200 for this credit. This is equivalent to an interest rate of  $\frac{200}{980} \times 12 = 24.5\%$ . Therefore it is cheaper for the Society to borrow from the bank at 18%.

(iii) Were the supplier alternatively offering 60 days credit, then the interest rate equivalent would be  $\frac{200}{9,800} \times 6 = 12.25\%$ . In this case, it would be more advantageous to the Society to accept nett terms and use the supplier's credit because it is cheaper than the bank's.

The advantage or disadvantage of giving or taking discounts can always be calculated in this way against a specific credit period option.



## **CONCLUSION**

The introduction of financial analysis into the management of a social production unit can seem a forbidding step. The first stage towards its incorporation must be the perception of its usefulness. If external finance is sought, a funding agency or bank will insist on seeing financial statements and projections, probably over a period of a few years. It is hoped that the description of analytical techniques given in this pamphlet would assist in serving not only that purpose but also the management of money during operational activity. A constant clear picture of where a business stands financially is essential for the well-being of the artisans whom it is set up to serve.