

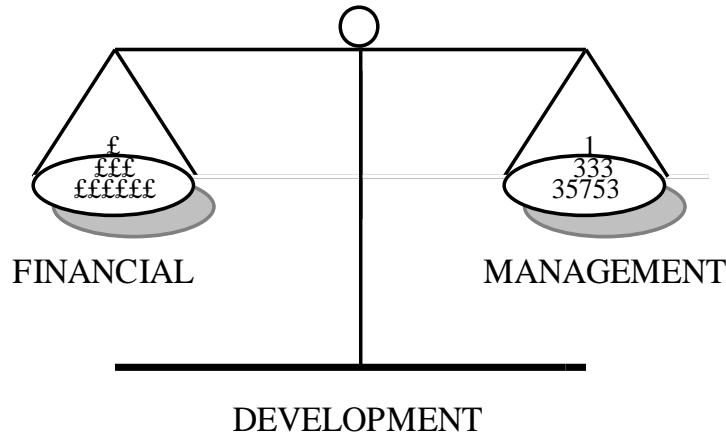
FINANCIAL MANAGEMENT DEVELOPMENT

Decision Making

Customer Management

NO 323

COST AS A BASIS FOR PRICE



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This is one of a series of documents produced by David A Palmer as a guide for managers on specific financial topics to assist informed discussion. Readers should take appropriate advice before acting upon any of the issues raised.

COST AS A BASIS FOR PRICE

IDENTIFY OBJECTIVES

It is stressed that this paper is written from a financial viewpoint. It seeks to provide assistance to suppliers who wish to consider their costs in order to arrive at tactical or strategic pricing decisions. It does not replace common sense. Time spent analysing costs to the last penny or achieving 99.9% precision in cost allocations is time wasted if price is set by the marketplace, by Government decree or by the need to obtain or retain a specific piece of business. In those circumstances cost minimisation rather than allocation is what is required. If the customer requires details of costs in order to justify the price then the customer will no doubt be prepared to pay for the extra administrative burden. Some customers prefer a cost plus pricing formula. Since this actively penalises efficiency, it is not normally recommended.

The paper sets out why cost identification is done, how it might be done and some of the potential uses of the information to assist decision making. In financial accounting costs are collected in a manner which is appropriate to the organisation's legal obligations. In management accounting the costs are identified in a way which provides maximum benefit with minimum transaction cost - or at least considers the potential benefit from the information when deciding whether to incur the cost of its collection. All information has a cost and it only gives rise to a benefit if it is used correctly to help decision making.

WHY IDENTIFY COSTS?

Financial Accounting requires certain analyses of costs: By type to disclose in the annual accounts (e.g. staff costs, hire costs, depreciation). By time of use to ensure that the accruals principle is followed (e.g. depreciation, accruals, and prepayments); By legal entity to ensure the published accounts are for the named organisation. These factors are normally considered when setting up accounting coding structures. They are essentially backward looking and control orientated. They answer the question: "Where have we spent the money?"

In Management Accounts it is often the case that further analysis is needed. In multi-product companies it is normal to add a coding identifying costs with particular products. This helps product costing with a view to decision making on pricing, resource allocation, launching new products and discontinuing existing products.

However, in most organisations substantial costs will be incurred which are not directly identifiable with any one product. Job Costing is fine where the activities and costs are one off but most products share in the benefit of corporate overhead and therefore their price in the market place should be set to recover their share of the costs. Thus cost allocations were devised to help identify all costs associated with products, product groups, customers, customer groups, legal and apparent corporate entities. In total they can be used for decisions about the future. They help answers questions such as "Why have we spent the money? Should we spend more? What should we spend it on? And what price should be charged?"

HOW TO IDENTIFY COSTS?

There are many categories of costs. Some which are particularly common are:

- | | |
|-------------------------|---|
| Fixed Costs - | Those which <u>do not vary</u> with activity |
| Variable Costs - | Those which <u>do vary</u> with activity |
| Direct Costs - | Those which <u>can be identified</u> with an activity |
| Indirect Costs - | Those which <u>cannot be</u> identified with an activity. |

In any analysis it is important to recognise that these classifications are not absolute:

In the long run all costs are Variable
In the short run all costs are Fixed
For the smallest unit of production all costs are Indirect
For the organisation as a whole all costs are Direct.

Thus Management Accounting's use of cost classification has to identify the time period or the unit to have a value which is usable for input to decision making.

Taking the four types of cost and combining their use in cost structures can be summarised as follows:

Direct and Variable

The cost of fish in a packet of fish fingers. Easy to identify and most costing systems have no difficulty with their costs. Problems only arise where prices of inputs fluctuate e.g. oil when current cost may be more appropriate (see below).

Direct and Fixed

Factory Rent when considered as part of the product costs. The normal approach is to allocate the total cost on the basis of volume. This can sometime cause problems when used as a base for price.

A factory with rent of £100,000 normally makes £10,000 units i.e. each unit has a "cost" of £10 to be included in its cost structure. In a year which is poor for sales it only makes 5,000 units. Some costing systems would suggest doubling the "cost" for rent. Some would disguise the problem by having an over/under allocation.

It is appropriate to allocate fixed costs across products to which they relate. However, care should always be taken regarding deviations from the anticipated level of volume.

Indirect And Fixed

Head Office costs are frequently allocated to productive units. For some decisions this can be counter productive. It is often better to set a higher contribution level rather than trying to get units to "cover the total or fully allocated" cost. All too often the cost allocation allows the cost incurring department to overspend without penalty, since costs are allocated to someone else. Frequently it is used to stimulate pressure for cost reduction by the receiving unit.

Since all costs have to be recovered in the price it is important to include an element for fixed, indirect costs. However, this needs to be used carefully as inefficiency may lead to overpricing.

Indirect And Variable

These are frequently seen at productive unit level. A typical example is a Head Office charge to cover Research activity which is based on sales. Such charges are meaningless to the operating manager and, because they are variable, they can often be lost in variable costs and thereby result in sub-optimal management decisions regarding the short term.

If the cost is validly variable with sales, then it is probably capable of being identified as Direct, otherwise it is best treated as fixed, since its value does not depend on volume as such but upon the financial health of the organisation. Care must be taken with such items as advertising and the costs of failed bids. Short term decisions can exclude them; longer term pricing needs to include them.

Allocation Methods

Where costs are not directly identifiable with a particular unit, it is normal to allocate them on some reasonable basis. In many cases this is straightforward - a machine with a cost of £20,000 with a working life of four years will have a depreciation cost of £5,000 per year. If 5,000 units are processed per year, each will be allocated a cost of £1.

What if 20,000 units are processed over year 1; or 2,000 units? What if the machine lasts six years or three years? Frequently cost allocation has to be a matter of judgement and that means errors will be made since the future is uncertain.

The most common cost allocation bases are

Time	(Depreciation, Management Overhead)
Units	(Processing costs)
Head Count	(Personnel costs)
Floorspace	(Administration costs)

Activity based costing has been designed as a development of T & M studies to help organisations consider the value added and the cost of their activities. This involves considering the cost drivers for each individual cost and allocating on that basis. It may be weight or size of units that drives cost rather than unit numbers. This can lead to overly complex systems.

For an allocation system to work properly it is important that:

- It is reasonable
- It is simple
- It is understood by users.

In particular managers should be encouraged to use the results constructively, rather than criticising the bases used. For pricing it is important that the basic assumptions regarding volume are stated.

HISTORIC CURRENT OR FUTURE?

The cost of computer processing halves each year whilst capacity doubles. In other industries price based on depreciation of old assets dramatically understates the true costs as it ignores replacement cost. In other industries part-products are designed on the assumption that by the time they are developed, the remainder of the product will have been invented.

Using costs as a basis for price involves considering the available data - "What did it cost?" comparing it with the potential data - "What would it cost?" and estimating "What will it cost?"

Frequently a decision has to be made as to who bears the cost/gains from changes in prices. Some competitors may allow for hoped for cost savings, others will price to recover past over expansion or existing inefficiency. The market place is unlikely to reward those who make the most costly mistakes.

THE DANGERS OF AVERAGES

Marginal Costing is an excellent basis for price negotiations. Unfortunately most businesses are unable to identify the real marginal cost. They are forced therefore to use averages - frequently called standard cost, long run marginal cost, fully allocated cost etc. Each of these has a place but it must always be remembered that the use of average costs for pricing will always give the wrong basis for the marginal decision.

There are only two states of the world with regard to fixed costs. Either there is spare capacity or there is not. If there is, the marginal cost is zero; if there is not then the next unit will require a step change in the fixed cost.

Using Averages is appropriate for large volumes - when most fixed costs can be assumed to be variable, the larger the step function (or the cost), the more dangerous the use of averages.

COSTS AS A FLOOR

The information provided by cost analysis helps set a floor for the price. The lowest conceivable price for a product will be variable cost. No producer will go below variable cost. Note this includes the negative cost, i.e. benefit, of customer goodwill. Thus a loss leader is perfectly feasible - but not for long as a stand alone product.

It is because it is feasible for variable cost to be very low, or even negative that published prices can vary so much. A stock clearout results in cheap prices. Assuming a normal situation the cost floor will be the cost of production plus a reasonable overhead plus a charge for capital. These figures change over time and with circumstances but provide an indication. In the short term the variable cost (marginal cost) is the floor. In the longer term it will be the fully allocated cost. Whether a reasonable profit (or compensation for risk) is added is a subjective judgement. Certainly pricing merely to recover cost is unlikely to yield a long term future.

VALUE AS A CEILING

To the customer the production cost is (or should be) irrelevant. What matters is the value of the goods or service. This value is possibly unique to each individual customer. An emergency purchase or a desire for first class treatment may result in a higher value. The provision of a first class railway seat is not dramatically more costly to the carrier; but it is charged at a higher price because the customer values privacy.

Knowing the value of the service being provided assists in price setting. It sets a logical ceiling on the price that the customer is prepared to pay. In most cases it is the opportunity cost of buying from a competitor. If there is no competitor the value is the opportunity cost of the loss or replacement of the service. Short term this may be extremely high. Long term customer goodwill suggests a price mechanism based on distress purchasing may be hard to maintain. A reasonable guide is the lower of:
(a) the price the customer would have to pay to obtain the service elsewhere (including self-provision) and (b) the benefit obtained.

THE MARKETPLACE

In any realistic scenario the market is not perfect. Demand and Supply are never in balance. The interaction of the four "P's": PRODUCT PLACE PRICE PROMOTION will vary over time and with different circumstances.

There is a need to consider administrative benefits of national pricing and the use of selective discounts - for volume, for the avoidance of costs or complexity, or to retain or create goodwill. The latter really being "marketing costs avoided".

The marketplace will decide on price in both the long and the short term. In the short term the fifth "P" - PEOPLE may well be the main determinant of price.

Rev. DAVID A. PALMER BA (Financial Control) FCA CTA MCIPD

David is an experienced financial professional who has devoted his skills to management training in practical understanding and utilisation of financial information. A Graduate, Chartered Accountant, and Associate of the Institute of Taxation, he is also a Member of the Chartered Institute of Personnel and Development and has been an Ordained as a Deacon in the Catholic Church.

He has worked as a Financial Controller and Company Secretary in the Finance industry and as a Director of Finance and Administration in the Computer Services industry. Since 1990 he has conducted management development programmes for over forty major organisations including Arla Foods, Blue Circle, BP, CSC Computer Sciences, Conoco, Ernst & Young, Lloyds Bowmaker, Royal Mail, Unilever and Zeneca. He also runs programmes for the Leadership Foundation and the management teams at a number of Universities. International training experience includes work in Belgium and Holland for CSC, in Denmark, Kenya and the Czech Republic for Unilever, in Holland and the US for Zeneca, in Dubai for Al Atheer, in Bahrain and Saudi Arabia for Cable & Wireless.

He specialises in programmes in financial management for both tactical and strategic decision making. In addition he has run courses in acquisition evaluation (The Economist, Eversheds, Blue Circle and Hays Chemicals) and in post-acquisition management (Unilever). All training is specifically tailored to the needs of the organisation with the emphasis on practical applications to enhance profitability and cashflow. He has developed material for delivery by in-house personnel (Royal Mail, Lloyds Bowmaker and Conoco), computer based training packages (The Post Office, Unilever and BP), and post course reinforcement self-study workbooks (CSC and Zeneca). He has also produced a training video on Cashflow Management.

He is a prolific writer of case studies, role plays and course material. He has also published articles on the financial justification of training, financial evaluation of IT investment proposals, the use of Activity Based Costing and Customer Profitability statements, commercial considerations for consultants, the need for taxation awareness training for general managers, evangelisation and Christian business ethics.

Many of his generic documents are freely available on his website:
FinancialManagementDevelopment.com including papers on Charity Management.

In addition to his Diaconal work in the Church, he has held a number of voluntary positions including University, College and School Governor, Hospice Treasurer and Trustee of various charitable institutions. He continues to provide ad hoc commercial advice to several other charitable organisations. He has been married for over 35 years and has one daughter and three granddaughters.

This series of papers is designed to help managers by providing a basic understanding of key financial concepts to assist them in their work. It is provided at no cost since this knowledge is a Gift from God and thus to be shared (Matthew 10:8).