

Absorption Costing

A Brief Overview

By Richard Fergusson
The Printsum Partnership
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The problem

At the risk of pointing out the obvious, the fundamental problem confronting every print company is how much to charge!

The conventional way is to fix an hourly rate for each person and machine, work out how long the job will take, add in the paper cost, stick on a markup, and call it a price. But that begs two questions – how to set those hourly rates, and how much markup? And just as importantly how do we ensure we have really covered the costs?

The solution

In an environment such as printing where each job is bespoke, a methodology called **absorption costing** is widely used. There are alternative methods (e.g. marginal costing), but they tend to be very much riskier and are not usually recommended in the printing industry except in very specific circumstances.

As its name implies, absorption costing is a method of absorbing all the overhead costs into

what we charge for a job – including costs not directly associated with that job. This is done by loading the hourly rate and the price charged for externals such as paper.

How to start

The first task in setting this up is to categorize the costs. You can start by making a list of estimated totals for every item of expenditure which your company makes in the average year. It will include a wide variety of things such as paper, ink, rent, rates, heating, pension scheme, wages, loan repayments, depreciation, company cars, etc. Your accountant will probably have this information at his fingertips.

Categories of cost

Next we need to divide those costs into three categories: **direct internal** Costs, **direct external** Costs, and **indirect** Costs. In this context 'direct' means that it is a cost incurred directly in the production of a job. I.e. if you didn't have that job you wouldn't have incurred the expense. 'Indirect' means everything else. 'External' means goods and services you have to buy from outside, and 'Internal' means costs that form part of your fixed overhead.

Your **direct internals** should be further subdivided into subsections, one for each person or machine.

Divide and rule

When dividing your costs into the three categories, some items can be copied in their entirety, while others have to be subdivided and split between different sheets.

For example, a secretary's wages are all indirect (he/she does not work directly on a job), and a press operator's wages are all direct (his/her time is directly chargeable to the customer).

On the other hand, rent, for example, is more complicated. As a proportion of your building is taken up for the 'direct' staff (operators, typesetters, etc) and 'direct' machinery (presses, cutter, plate-making equipment, etc.), so the same proportion of the total rent should be allocated to Direct Internal Costs, spreading it over the costs of plant and employees, in proportion to the space taken.

The justification for this is that if you didn't have (say) that press, you wouldn't need that floor-space, so theoretically you could let it out to someone else or move to smaller premises. So each person or machine will probably accrue part of that rent.

Other items such as heating, lighting etc. can also be partly allocated in this way. The balance, in each case, should be put under **indirect costs**.

So, to re-cap, **direct external** costs will be paper, board, ink, comb binders, etc., and also all outwork. **Direct internal** costs will be all the costs you have been able to assign to your machines, presses and directly chargeable personnel, and **indirect** costs are all those things which you can't assign to an individual 'direct' person or machine, plus the residual portion of those things which you can only partly assign.

The hourly rate

You should now have yearly totals, with one figure for **indirects**, one for **direct externals**, and one for each **direct internal** (machines and employees). Divide these by 12 to arrive at average monthly totals.

For each machine you should then divide the monthly rate by the number of hours you estimate you can charge it out to your customers in the average month. Do the same for each of your each of your directly chargeable employees. Be realistic about this – if your employee works a 7 hour day 5 days a week it's tempting to estimate 150 chargeable hours a month, but in reality the figure is seldom much more than 100 (there has to be space for being human!).

Allow for the estimated time that your press will stand idle. (It never does? Bravo!) Perhaps here is a good place to point out that any estimated overtime wages will have been included in the

direct internals already, so the employees' hours will include estimated overtime hours.

So now we have an hourly rate for each **direct internal**.

Absorbing the indirects

OK - we are nearly there. If we add the **direct externals** and all the **direct Internals** we arrive at a monthly **total direct** figure.

If we divide the **indirect** figure by the **total direct** we have the fraction that has to be added to each of our **direct** costs to cover our **indirects**!

There – that wasn't too bad, was it?

A typical value for this would be around 0.3, which is 30%. If it is wildly different from this, you may well have made a mistake.

Now we can add that mark-up to the hourly rate for each direct internal to arrive at the true break-even figure. Now every time that employee's time is charged out to the customer they are not merely covering their own costs, but contributing to the indirect costs.

We also have to remember to mark up our paper and other **direct externals** by the same percentage – after all it is part of our turnover, so it has to bear its share of the **indirects**.

Fine tuning

Many printers don't like marking up paper and other **direct external** costs such as outwork by so much, but if you use a lower percentage you will have to make it up on the rest of the **direct** costs. The figures only work if you remember that you have to account for all the **indirect** costs somewhere.

The results of this operation can be surprising, and even a little alarming. Whatever the result, don't make any immediate changes to your pricing. Check your figures with your accountant perhaps. Don't forget that your business has run and is still running OK without this information! It's not that we don't trust the methodology; it's just that fine tuning can take a little time and needs to be tempered with experience.

The result?

Now when we use the newly calculated hourly rates for estimating, and we mark-up the paper appropriately, we know that the total figure for each job is as close as possible to the break-even figure. So any percentage you add on bottom is actually profit! With that information negotiation with the customer is much easier.

You can see exactly when to take a job and when to walk away. And that's important. 