

Calculating the return on training investment

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Key learning points

How can activity costing help you?

- It provides the basis for a training activity business case.
- It will aid you in making decisions about the most profitable training activities.
- It demonstrates that you are 'business literate' and so improves your credibility.

So what will you learn?

- The basic way to cost an activity.
- The way to apply that costing method to a variety of activities.
- The way to use the approach to make financial decisions.

Training and profitability

Training contributes to the profitability of a company. A demonstration of the financial contribution of training is probably the greatest asset a trainer has in gaining support for training activities. One of the difficulties many trainers, and indeed HR professionals, have is making an economic case for investment in people. What is worse, the finance function, which could be the trainer's ally in this, seems to regard people as a *cost*, not an *asset*, so it has few approaches that help.

Professional trainers believe that training is a means to improve productivity. Training is therefore an investment, not a cost.

Investments should earn a return. Undoubtedly you will be asked to justify the spend on training. Below is an approach to help you calculate the return on training investment.

The approach used is activity costing. There are others, such as cost-benefit analysis.

Training – the reason to do it

Companies implement policies, processes and activities because they serve the business interest. That is perhaps an over-simplified statement, but it is true. What companies have found difficult is to equate HR policies, processes and activities to the bottom line. Yet, repeatedly, the annual reports of companies say people are the most important resource.

The challenge 'Can you demonstrate that this training course will improve profit?' is not usually applied to other things. Does company car ownership contribute to the bottom line? Does the health insurance contribute to the bottom line? Well, yes, they do. They are accepted as a requirement for attracting and retaining staff, but are HR departments asked to prove it? Assumptions about accepted practice are often not clarified and rarely justified.

The HR contribution to profit

The Sheffield Effectiveness Programme has shown that job



satisfaction and organisation commitment each explained 5 per cent of the variation in profit between companies. Supervisory support, autonomy, training and concern for employee welfare together accounted for 10 per cent of the variation. They also showed that strategy accounted for 2 per cent, quality less than 1 per cent and R&D (research and development) 6 per cent.

Overall the HR contribution was 30 per cent of the variation in profit between companies and the obvious, must-do things (strategy, quality, R&D), contributed only 9 per cent.

Further, there is other research that has confirmed these findings. Bodies such as the CIPD (Chartered Institute of Personnel and Development) and CMI (Chartered Management Institute) publish information regularly that supports these findings. Quoting studies to an executive manager is not likely to have much effect, but at least it give us the confidence that we are not in the wishing game.

Cost of poor selection

It can take six months to a year before it is clear that the selection was wrong. To the cost of replacement must be added the loss of opportunity of having the correct person. Crudely this is:

Cost of recruitment and training for the second person is as above = £21,495

Cost of the first recruitment = £8,333

Loss of opportunity cost, poor performance (say 25% effective for six months) = £9,375

Opportunity costs, two months' salary job unfilled (60 x £25,000/217) = £6,912

Cost of training and support time from other workers = £2,000

Cost of poor selection = £48,115

To this can be added the cost of having disaffected co-workers due to carrying a poor performer. The cost therefore of very thorough recruitment processes and training managers in selection is justified by avoiding one instance of poor selection.

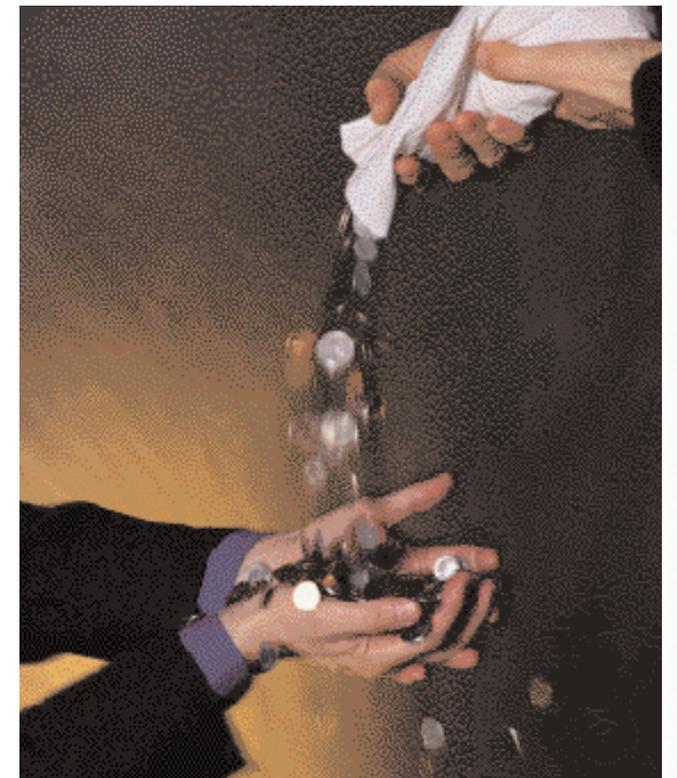
Conclusion

Training can be shown as a direct contribution to the bottom line if the original needs analysis is valid and the training directly addresses the employee need. The investment in sound selection processes both for recruitment and for advancement contributes directly to the bottom line. Training is a crucial element in this.

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Authors

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Tips and points

- Initially this financial analysis can be very difficult. Talk to your local friendly finance person to see what analysis they have done on productivity. Use the information they have on overheads and so on.
- Always use the language your finance people use. It varies from company to company.
- Enlist the help of one of the energetic high fliers from finance or a business function to check out what you have done and to gain insight on how to present this information.
- Look at the courses you are presently running and use this methodology to validate them for yourself by demonstrating performance improvement before trying the approach on new courses.
- Always ensure the calculations are correct before making any claims for your training.
- Watch out for the imponderables or other factors that can impact on productivity, and even if you can't include them make it clear that you have recognised them.

Activity costing

This is one of the most straightforward ways of calculating costs and includes the following elements:

- time;
- materials cost;
- direct expenses.

Time: This is simply the time spent by each person involved in the activity; however, the cost of the time is most accurately calculated by using the person's *overhead recovery rate* – that is the cost of employing that person, not just the person's salary. This rate is normally available from the finance department of an organisation.

As a rule of thumb, the rate is typically three times the salary.

To estimate this rate, use the employee's contracted hours in the following calculation:
 Salary x 3, e.g.
 £25,000 (salary) x 3 = £75,000
 No. of annual working days = 217 (217 days is derived from 365 (year) – 104 (weekends) – 25 (holiday) – 9 (bank holidays) – 10 days' sickness and other non-productive days)

That equates to £75,000 divided by 217 = £345.62 per day
 Per week £345.62 x 5 days = £1,728.11 per week
 Divide by daily hours e.g. 7.5 = £46 per hour

This can give some staggering costs for routine matters.

For example, consider a meeting lasting 1 hour 30 minutes involving four people: three technicians at the rate above and one team leader at £55.30 per hour (£30,000 salary):
 4.5 x £46 = £207
 1.5 x £55.30 = £82.95
 Total time cost = £289.95 (plus the cost of the time spent setting up the meeting in people's diaries)

Materials cost: This includes such items as room hire, consumables and equipment hire/amortisation. Space costs the company real money. This is not always recognised. Just because there is space allocated in a company, it does not come free.
Direct expenses: Includes travel and subsistence.

Reality handling

Let's go back to the basic question that trainers or developers are asked: 'Does putting in a competency based set of processes or running a set of courses contribute to the bottom line?' Let's be clear. We are dealing with a change of performance on the part of an individual or a whole raft of individuals. If the company knows how the individual is contributing to the bottom line now, the solution is simple. Use the company process that produced the base line to produce the post-training or post-process implementation to measure change in performance. This, of course, is an answer as naive as the original question is disingenuous.

Ask a different question: 'Can you show that the productivity of an individual or group of individuals can be improved by this training or HRD process?' This question can be answered logically and relatively simply using the simple costing model to calculate some figures.

Please note that I use the word 'programme' and the word 'training'. I am using them very specifically. Training is the acquisition of skills, knowledge and attitude (SKA) to meet the job requirements effectively and efficiently. It does not specify how the skills, knowledge or attitudes will be acquired. The word 'programme' refers to a series of learning events that together ensure the learning is complete. So, as an example, this might be as follows:

- 1 Introductory on-the-job training to ensure a basic understanding and basic skills.
- 2 Specific learning objectives set and met by a targeted off-the-job training course.
- 3 Supervised experience to consolidate the skills and knowledge.
- 4 Coaching to embed the attitudes, with counselling to ensure problems are resolved by the learner.

Mandy Geal, a partner in LEARNINGpartners, has done some work and reduced a very difficult area to simple approaches. The two key approaches she has used are individual productivity gains and cost avoidance.

Productivity gains

A method of calculating the value of productivity gains is as follows:

- 1 **Calculate the cost of the employee's time on the task** (typically 3 (overhead multiplier) x salary x percentage of total work time (100% = 217 days; see above).
- 2 **Estimate the difference in productivity before and after the training programme.** Fundamentally this activity requires the application of training needs analysis. In manufacturing, the managers will be able to give output per person figures, what is the norm and what is the output of the best person. We have met similar strong statistical information in call centres, telesales, logistics and so on. There are many work areas that have avoided this form of measurement for all sorts of reasons. However, with clear thinking, the co-operation of the managers and careful analysis, a sound estimate can be made.

At what level will the person be operating after the training is the

second part of the equation. In new training areas this can be difficult to answer. But with experience and application of the process, sound estimates can be made. Soft skills are the most problematic ones and can only be estimated by analysing the SKA that will make a difference and analysing the performance of a skilled person. Probably the most robust tool in helping you analyse and forecast performance levels is a behaviourally well-structured competency framework.

3 Calculate productivity gain in economic value.

Once we have estimates of the present productivity and the projected productivity after training, we can work out the productivity gain. Assume that the person is working at 75 per cent of the expected level. Assume that after training the person will be working at 90 per cent of the expected level.

That is 90% – 75% = 15% difference.

The gain in productivity is by how much has performance improved. If it started at 75 per cent and has improved by 15 per cent, the gain has been 15%/75% x 100 = 20%
 For those who want a more concrete example of this difficult concept: Assume I can high jump 5 feet 6 inches and my trainer reckons I can jump 6 feet. That is 0.5 feet more. The percentage gain is 0.5/5.5 x 100 = 9.1% improvement.

Cost avoidance

A perennial question is whether to retrain or recruit when the organisation changes. To make this decision it is helpful to cost the recruitment, including the training of the new person and the retraining of an employee – how much it costs to recruit and train the recruit minus how much it costs to retrain somebody. Let's consider a method for

calculating recruitment cost that is avoided by retaining people.

- 1 Calculate cost of recruiting a new team member (typically 33% salary).
- 2 Calculate cost of learning curve (e.g. 50% productivity during learning period).
- 3 Calculate opportunity cost, i.e. whilst job is empty (average time to fill a position is approximately two months).
- 4 Calculate value of not losing people to competitors. (This imponderable is not attempted here.)

Example

Calculate the cost of recruiting, typically 33% of salary (£25,000) = £8,333

Cost of learning curve, 50% salary for 6 months = £6,250

Opportunity costs, 2 months' salary job unfilled (60 x £25,000/217) = £6,912

Cost of replacement = £21,495

Cost of retention due to training (see previous example for method): Say the training takes four times as long 4 x £2,782.50 = £11,130
Cost saving due to training is £21,495 – £11,130 = £10,365

(We have not considered the cost of redundancy that improves the retraining model or some other costs that marginally reduce the savings, such as that the new person may not require as much training as calculated. Of course, if the cost of retraining exceeds the cost of recruitment, then the decision to recruit may be the best option.)

The important point is that if somebody leaves, they have to be replaced. Delay in recruiting costs money. What compounds the problem is recruitment of the wrong person.

Worked example – calculating the value of productivity gains

Cost of 100% employee time on the task (3 x £25,000) = £75,000

80% productive before training and 100% effective after training = 20% difference

20%/80% (baseline productivity) x 100 gives gain in productivity = 25%

Productivity gain in economic value (25% x £75,000) = £18,750

The investment for this gain is the cost of the training (4 days x £350) and the opportunity cost of the productive days lost during the training – say (4 x £75,000/217) days.

That is (4 days x £350) + (4 x £75,000/217 days) = £2,782.50

The financial gain in the first year is the economic value of the productivity gain minus the investment.

That is £18,750 – £2,782.50 = £15,967.50.

The gain in each subsequent year is £18,750.

Training therefore is one of the most valuable tools in improving productivity. Clearly even training that gives much lower improvement in performance is worthwhile. The real issue is about identifying the SKA required for effective performance and where the person lacks those factors, and then using effective training methodologies that impart to the person the SKA required.