

COST-BENEFIT ANALYSIS



Cost-benefit analysis is designed to compare the costs and benefits of a project or programme. It is often used when deciding whether to implement large projects, or choosing between different options. It is normally applied before a project begins, but can also be used for monitoring and evaluation. Social Return on Investment is an alternative tool, placing more emphasis on social and environmental benefits.

Cost-benefit analysis (CBA) is a tool designed to compare the costs of a project or programme with its benefits. CBA was first developed as an economic appraisal tool. It is normally used by large agencies when planning major projects or programmes, such as the construction of a new hydro-electric power station or the development of a new transport policy. However, it can be used to compare the costs and benefits of any project or programme.

CBA is mostly used during the design phase of a project or programme, to decide whether or not it should go ahead, or to decide between different options. It involves working out the total potential costs and benefits of a project or programme, and then translating these into monetary terms (e.g. dollars or pounds). The costs and benefits can then be compared to check that the benefits outweigh the costs. If they do not then there is little point in going ahead with the project or programme. CBA can also be applied to two or more potential projects or programmes to decide which provides the best net benefit. Net benefit is worked out by subtracting the total costs from the total benefits.

Although CBA is mostly conducted before a project or programme begins, it can also be used as a monitoring and evaluation (M&E) tool. When used in this way, the *actual* costs and benefits in quantifiable monetary terms are evaluated, as opposed to the *potential* costs and benefits. In theory, this enables a judgement to be made about the real net benefit. If an organisation carries out CBA both before and after a project or programme, it can assess how far predictions of costs and benefits were accurate. This can help with the planning of future projects and programmes.

Cost-benefit analysis debates

The value of CBA is clear in projects and programmes where it is appropriate to compare costs and benefits in economic terms. However, most CSOs do not regularly use CBA for either planning or evaluation purposes. This is for a variety of reasons (see Fleming 2013, Kaplan n.d.).

- Within CBA both benefits and costs must be translated into monetary terms to be compared. This might be relatively easy in an infrastructure project designed to produce economic benefits for a region. But it may be much harder to do in projects or programmes with complex and intangible goals such as empowerment, mobilisation or enhanced capacity. In these cases a

certain amount of guesswork is needed to translate potential or actual changes into a monetary value.

- In some social development projects the costs are known and fixed, but the benefits may evolve over time. For example, the costs of work involving capacity development may be fairly easy to calculate. It might also be possible to measure the immediate benefits within a project or programme. But it will never be possible to assess all the potential or actual benefits. For instance, individuals supported through a capacity building programme may later use new skills within different organisations and contexts. It would be impossible to factor in all these potential changes. Use of CBA can therefore lead to a bias towards projects and programmes where benefits are more immediate, and away from longer-term interventions.
- Similarly, the findings of a CBA may vary greatly according to time. At the start of a project or programme it is only ever possible to make a prediction. However, if CBA is carried out at the end of a project or programme the costs may all be known, but some of the benefits may not yet have been realised.
- CBA is best applied to timebound projects or programmes that can be treated as a single investment. CBA does not easily allow for organisations to individually assess their contribution to change. Yet many CSOs operate in an environment where they are contributing to change, rather than being the sole actor.
- CBA can sometimes be a simple exercise. But at other times it can be very complex, involving complicated calculations and formulae to assess costs and benefits over time. Consequently, CBA often requires the services of an economist or evaluator with expertise in CBA techniques.

Some CSOs have experimented with different ways to help solve these challenges. For example, some organisations (see Anderson et. al. 2013) have carried out CBA in a participatory way with communities. Their argument is that communities are well able to identify and assess potential benefits within their own situations. Carrying out CBA in a participatory way can offset the tendency of CBA to be carried out as an expert led, technical, top-down approach.

Similarly, other organisations have experimented with different variants of CBA to explore how social and environmental changes can be assessed alongside economic benefits. The best known of the variants is Social Return on Investment. This is described below.

Social Return on Investment

Social Return on Investment (SROI) is similar to CBA and uses most of the same techniques and processes. The key difference between SROI and CBA is that CBA often ignores non-financial benefits, and does not usually consider questions of equity. On the other hand, SROI attempts to quantify the economic value of both social and environmental outcomes for different stakeholders. SROI also encourages stakeholder involvement to quantify benefits and costs. It does this by getting different stakeholders to identify and value proposed or achieved changes within a project or programme. SROI is based around a series of seven key principles, described in the box below.

Principles of Social Return on Investment

1. *Involve stakeholders:* Inform what gets measured and how it is measured and valued by involving stakeholders.
2. *Understand what changes:* Articulate how change is created and evaluate this through evidence gathered, recognising positive and negative changes as well as those that are intended and unintended.
3. *Value things that matter:* Use financial proxies so that the value of the outcomes can be recognised. Many outcomes are not traded in markets and as a result their value is not recognised.
4. *Only include what is material:* Determine what information and evidence must be included in the accounts to give a true and fair picture, so that stakeholders can draw reasonable conclusions about impact.
5. *Do not over-claim:* Only claim the value that organisations are responsible for creating.
6. *Be transparent:* Demonstrate the basis on which the analysis may be considered accurate and honest, and show that it will be reported to and discussed with stakeholders.
7. *Verify the result:* Ensure appropriate independent assurance.

Source: SROI Network (n.d.)

SROI's emphasis on involving stakeholders, understanding changes, and valuing things that matter (from different perspectives) are perhaps more in tune with the culture of

many CSOs than traditional CBA approaches. However, the core aspects of CBA remain. SROI involves quantifying costs and benefits in monetary terms, and then assessing the net benefits in order to establish the potential or actual worth of a project or programme.

While there is obvious potential for SROI to support planning and evaluation processes, and many CSOs have successfully applied it, some in the CSO community remain suspicious of SROI approaches. This is mainly because of the need to translate benefits into monetary terms in order to compare them with costs. Some believe there will always be dangers to this approach, summed up by the classic quandary of how to put an economic value on a human life.

CBA applied to M&E

A degree of informal cost-benefit analysis is often needed when deciding how much to invest in M&E in a project, programme or organisations. Whilst this is seldom made explicit, many M&E practitioners and designers weigh potential costs against potential benefits when designing or planning M&E studies, systems or frameworks.

Some of the costs of an M&E system or framework are obvious, such as core M&E staff salaries, the costs of running M&E training sessions, and programme staff time spent on M&E exercises. Other costs may be harder to assess, and could include the time spent by different stakeholders, including beneficiaries, who are expected to participate in M&E activities.

The benefits of an M&E system or framework may be very difficult to assess (and even more difficult to express in monetary terms). If funding for a project or programme is dependent on certain M&E processes being carried out then of course the situation is easier. But where M&E is carried out for reasons such as learning, improving and enhancing awareness the benefits may be much harder to quantify.

Much depends on the nature of a project, programme or organisation. Projects implementing tried and tested ways of working are likely to require less (and cheaper) M&E, and the main benefit will be ensuring that a project or programme remains on track. By contrast, innovation projects with the potential to be expanded or mainstreamed may derive much greater benefits from M&E, and therefore might warrant much greater investments (costs).

An implicit assessment of the costs and benefits of different M&E approaches should lie at the heart of almost every piece of work involving the design of M&E studies, systems or frameworks. Key questions to ask are: firstly, whether the ultimate benefits of M&E work outweigh the costs; and, secondly, how the benefits compare to the potential benefits of spending time and resources elsewhere.

Further reading and resources

The paper by Fleming (2013) (referenced below) provides useful overviews of CBA, SROI, and several other methodologies that can be used to help assess value for money. It includes a brief step-by-step process for each methodology. There are also many resources available through the Better Evaluation website, starting with the summary produced by Kaplan (also referenced below).

The paper produced by Anderson et. al. (2013) provides an overview of 23 different studies in which NGOs and other organisations have applied CBA and SROI at community level within the field of climate and disaster risk management.

References

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