

3

The business case

Learning outcomes

After reading this chapter, you will be able to:

- Describe the structure of a business case
- Use the payback, discounted cash flow and the internal rate of return methods to calculate the financial implications of a business case
- Differentiate between tangible and intangible costs and benefits.

3.1 Introduction

No project should be undertaken without first establishing a business case for it – without, in other words, showing that it is justified. The business case defines what is to be done, why, and what are the timescales and costs involved.

Whether the project manager is involved in creating the business case depends on the organization concerned. In some organizations, the project manager is appointed early in the lifecycle and so would have a major input to, even if not total responsibility for, the business case. In other situations the project manager may be appointed only after the business case has been approved and the project has got the go-ahead. However, in either situation, project managers need to have a good understanding of what goes into a business case, as, once the project starts, they will have a major influence on whether the business objectives are achieved and these will be used by stakeholders to measure success. At some time or other, most project managers are asked either to provide input to, or to review, business cases.

Once a project is under way, its progress should be measured against the business case to make sure, for example, that costs or timescales are not being exceeded or that business benefits are not being eroded. The business case thus provides the base for business-level monitoring and control and, ultimately, for assessing whether the project was worth undertaking at all.

3.2 Content and format of a business case

The format of business cases varies quite widely between organizations. Some like to have multi-volume documents, with all the facts and figures carefully recorded, whereas in other organizations a single-page format is mandated. (Although the latter may seem a rather cavalier approach to what can be major business decisions, it should be borne in mind that the only people who can make such decisions are usually (a) very senior and (b) extremely busy and hence do not have the time to wade through vast business case documents. Such people need the basics presented simply, briefly and clearly. If a large document is unavoidable, then even more attention has to be paid to the management summary, of which more shortly.)

If the format varies widely, the content of a business case is rather more predictable and, in the sections that follow, we outline the major elements that are needed in all business cases.

3.2.1 Introduction and background

Usually, a business case opens with a short introduction setting out what the document is about and sketching any background to the proposed project. This may refer to previous work, particularly if a feasibility study has been undertaken to establish the *prima facie* case for the project.

3.2.2 Management summary

In many respects, the management summary is the most important part of the business case. As we have already seen, the people who can make important business decisions are usually very busy and so the management summary is the first part of the business case they will turn to – and perhaps the only part of it that they will read properly. So, it is vital to make the management summary sharp, punchy and clear.

We have seen so-called management summaries that ramble on for dozens of pages and we have wondered who the writers think will read it all. Although not always practical, the ideal management summary would have three paragraphs only:

- A statement of what is the problem or opportunity that the project is intended to address.
- A résumé of the options considered and why those not chosen have not been recommended.
- A statement showing which option has been recommended, why, and what business benefits are expected to flow from it.

Although this ideal cannot always be achieved, every effort should be made to give the management summary as much impact as possible, so as to allow the decision-makers both to see clearly what decision they are being asked to make and to understand the consequences.

3.2.3 Description of problem or opportunity

There should be a description of the problem that the project is designed to solve or the opportunity it should address. Although enough detail needs to be provided to enable the decision-makers to see what is the point of the project, brevity is again the ideal here. Often, decision-makers complain that they have to read dozens (or hundreds!) of pages that tell them what they know already.

3.2.4 Options available and considered

In most cases, there are various options that could be proposed to deal with the problem or opportunity – including, of course, that of doing nothing at all. Those that are not to be recommended should be described briefly and the reasons for rejecting them should be made clear. The option that is to be recommended should be described in more detail, to allow the readers to see what exactly is being proposed.

Often, there will be sub-options as well. There may be a basic option, which deals only with the most pressing issues or, in the case of a computer system, provides the most important functionality, and then there will be additional options that offer enhanced features or facilities.

3.2.5 Cost/benefit analysis

The **cost/benefit analysis** part of the business case presents a description and, where possible, a quantification of the costs of carrying out the project and of the benefits that are expected to flow from it. As Figure 3.1 indicates, costs and benefits are often presented as a ‘balance’. In addition, costs and benefits are:

- tangible (which means they can be plausibly quantified in some way) or intangible (which means that they cannot be so quantified), and
- incurred/enjoyed immediately or in the longer term.

Many business cases fail because of the careless treatment of intangible benefits. For example, having ‘better management information’ will obviously be of benefit, but how much is it actually worth? Putting spurious valuations on

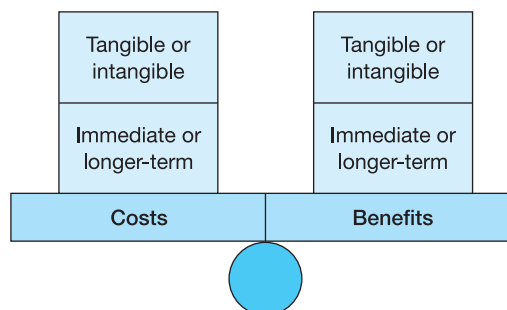


Figure 3.1 Costs and benefits

what are, in fact, unquantifiable benefits often leads to their being questioned by the decision-makers and may also lead to doubt about some of the more justifiable benefits claimed. With intangible benefits it is usually better to explain what they are and to let the decision-makers place their own valuation on them.

Getting reliable information on costs and benefits can be challenging, and input from the organization's management accountants is invaluable here. Costs for elements such as new hardware or packaged software are usually not too difficult to obtain, but some sort of preliminary project plan may be needed for the costs of systems development work.

3.2.6 Impacts and risks

Impacts may have costs associated with them but they also include hard-to-quantify things like the need to adopt a different management culture or to manage suppliers in a different way. Impacts, in short, are changes in the way an organization thinks and acts and are worth spelling out in a business case so that the decision-makers can judge whether the proposed changes are feasible or not.

All projects involve risk of some sort and the subject of risk management is covered in detail in Chapter 15. In a business case, an outline of the principal risks associated with the recommended option (and also, perhaps, of doing nothing), together with the proposed measures for either avoiding or mitigating them, will raise the confidence of the decision-makers that the proposal has been thought through properly.

3.2.7 Conclusions and recommendations

Finally, the recommended way forward should be described and the decision that is needed should be set out clearly.

3.2.8 Other possible inclusions

The sections above describe the basic elements of a business case. However, the PRINCE2® project management method suggests that an outline project plan should also be included to enable the decision-makers to see when and how the project would be implemented if approved. This is a good idea if a credible plan can be generated at this early stage.

3.3 Investment appraisal

Various methods are used to assess the financial implications of a business case and fuller information on these can be found in many textbooks on accountancy. However, we outline here three of the most popular methods: payback, discounted cash flow and internal rate of return.

The simplest approach is to calculate the *payback*, and the technique is best illustrated by an example. Let us suppose that we are trying to justify a project to install a new computer system that will completely eliminate some clerical jobs. The basic facts are these:

- The hardware will cost £500,000.
- Hardware maintenance will cost £50,000 per annum.
- The software will cost £180,000 initially.
- Software support will cost £20,000 per annum.
- We expect to save 11 junior clerical posts which, with overhead costs included, are worth £20,000 each per annum (£220,000 per annum overall).

The payback projection for the project is shown in Table 3.1. We can see from the table that in the first four years the costs of the project outweigh the savings but that, from year 5 onwards, the project is cost-justified.

The problem with a payback calculation, however, is that it takes no real account of what is termed the *time value of money*. What this means is that £100 spent today will cost more, taking inflation into account and the rate of return that it could have earned if invested, than the same sum spent in five years' time. In investment appraisals therefore, especially when comparing the merits of competing projects, it is desirable to use some method of calculation that takes account not only of how much is paid out and received but of exactly when these inward and outward cash flows occur. A technique that addresses the time value of money is **discounted cash flow** (DCF) and this produces a **net present value** (NPV) for the project. The NPV takes into account the cost of borrowing the money needed to finance a project or, alternatively, the interest forgone by investing in the project; in other words, it reflects what else could have been done with the money. Applying this method to the example will make the situation clearer.

The net cash flows for our project are as follows:

Year 1	–530,000
Year 2	+150,000
Year 3	+150,000
Year 4	+150,000
Year 5	+150,000

Table 3.1 Payback projection

<i>Item</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>
Hardware purchase	500,000				
Hardware maintenance	50,000	50,000	50,000	50,000	50,000
Software purchase	180,000				
Software support	20,000	20,000	20,000	20,000	20,000
Cumulative total costs	750,000	820,000	890,000	960,000	1,030,000
Staff savings per year	220,000	220,000	220,000	220,000	220,000
Cumulative savings	220,000	440,000	660,000	880,000	1,100,000
Cumulative savings less costs	–530,000	–380,000	–230,000	–80,000	+70,000

The NPV calculation uses tables of discount factors, which depend upon the interest rates currently being used. If the discount rate is 20 per cent (that is, we would have to pay 20 per cent interest for the money being used on the project), then the discount factors to be applied for years 2 to 5 are 0.833, 0.694, 0.579 and 0.482. Using these factors, the calculation of net present value is:

$$\begin{aligned} & -530,000 + (0.833 \times 150,000) + (0.694 \times 150,000) + (0.579 \times 150,000) \\ & + (0.482 \times 150,000) = -£141,800 \end{aligned}$$

The general convention is that a project is justified if it produces a positive NPV. On this basis, our project cannot be recommended. Now this is a rather different result from that given by our simple payback calculation and illustrates why a DCF calculation is desirable. In our simple payback example, it appeared that our project was cost-justified, albeit that we had to wait five years for a positive result. But the NPV calculation indicates that there are probably better things that could be done with the funds needed to invest in the project. The result of the NPV calculation does rather depend on the period over which it is made; if the example had been calculated over eight years instead of five, it would have shown a positive NPV of £41,850. But every organization will have some rules about the length of time over which an investment must be justified, and five years is a typical period.

Sensitivity analysis can be applied to DCF/NPV calculations to see what would be the effect of using different discount rates. In our example, using a discount rate of 15 per cent produces a net present value of -£101,600 and a discount rate of 10 per cent would have given an NPV of -£54,650. So, it appears that the negative result for this project is relatively insensitive to rather large changes in interest rates.

Of course, not all projects are justified solely on grounds of cost. Installing an expensive scanner in a hospital, for example, would probably be justified in terms of the improvements in patient care that could be made with it. Even so, the NPV calculation does enable the decision-makers to see the true financial costs of their decisions.

The third measure, **internal rate of return** (IRR), in effect stands the DCF/NPV calculation on its head and asks 'what discount rate would we have to use so that costs and benefits precisely balance out over the defined assessment period?' There is no formula for calculating IRR and it has to be found by trial and error, usually using a computer spreadsheet: One tries different discount rates until an NPV of zero is achieved and, in our example project, the IRR is 5.136 per cent. Managers like IRR because it gives a simple, single number that can be used to compare different projects to see which ones are most worth investing in. So, all other things being equal, a project with an IRR of 10 per cent would be better than one with an IRR of 5 per cent. However, all other things are seldom equal and a problem with IRR is that it does not take into account the sheer size of the competing projects. For this reason, the accounting textbooks seem to agree that DCF/NPV is the better measure to use, whilst acknowledging that many managers like to use IRR.

3.4 Presenting the business case

Once the components of the business case have been assembled, they need to be offered to the decision-makers in an attractive and persuasive way, in the form of some sort of written document often supported by a formal presentation.

Thinking first about the report, a simple four-part formula is to consider the following issues:

- *Aim.* What decision needs to be made?
- *Audience.* Who are the decision-makers and what are they interested in? Some people are captured by a grand vision and others by the careful accumulation of facts and figures, and it is important to understand which category (or categories) the decision-makers fall into.
- *Arrangement.* Using a logical order to present the materials, probably following the order given in section 3.2 above.
- *Appearance.* The decision-makers have to be induced to read the document and it must be easy for them to find what they are looking for. Therefore avoid lots of densely packed text and try to have plenty of white space and diagrams (ideally in colour).

If giving a presentation, remember that a presentation is usually a supplement to a written report, not a substitute for it. The format of the presentation should follow that of the management summary: describe the problem, outline the options, present and 'sell' the proposed solution. The presenter(s) should select the main points to present but have the full 'chapter and verse' available to answer questions and to enlarge on topics if requested.

3.5 Benefits realization and management

In recent years, there has been growing interest in the subjects of **benefits realization** and **benefits management**. The reasons for this are not hard to find: too many projects have been completed without the expected benefits being achieved. Benefits realization and benefits management aim to manage the project in such a way as to maximize the chance of the benefits being achieved.

Figure 3.2 provides an example of a basic benefits realization and management process.

The key to any benefits realization effort is the business case as this is where the benefits have been identified and, where possible, quantified. From the business case, a set of criteria should be developed against which the achievement of the benefits will be measured.

Once the project is under way, one of the key control criteria applied by the project sponsor or project board (see Chapter 4) should be 'is this project on target to achieve the business benefits?' Any projected overrun of cost or timescales could jeopardize these benefits, as could changes in the scope, so the baseline established by the business case should be used to evaluate any such alterations in the project's planned progress.

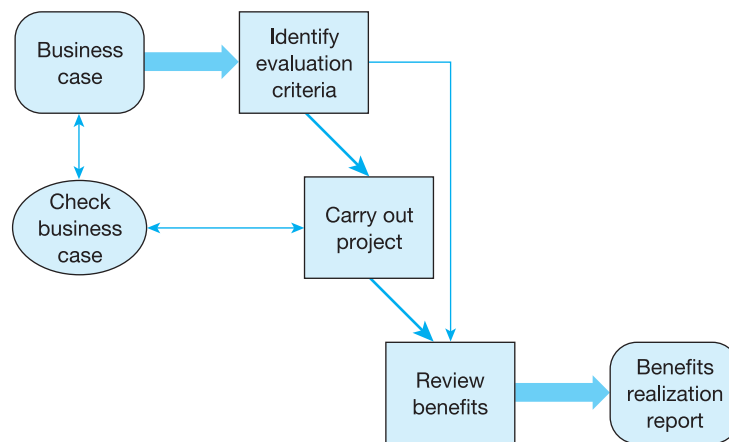


Figure 3.2 Benefits realization and management

Once the project has been completed, and perhaps after a sufficient interval has elapsed to allow the new systems to bed down, a formal review should be carried out to see if the expected benefits have been realized. This will have to use the original business case as its starting point and will have to take into account any changes in the business climate that may have affected the ability of the project to deliver the business benefits. The purpose of the review is to ensure that lessons are learned that can benefit future projects.

3.6 Summary

The compilation of a business case is essential before any project is undertaken as it will define the scope of the project in broad terms and establish what are the costs and benefits of undertaking it. Ideally, the project manager should be involved in preparing the business case, or at least should have significant input to it. The business case provides a baseline against which possible changes to the scope or direction of the project can be evaluated and decided on.

Questions

- 1 At what point in the project lifecycle should the business case be prepared?
- 2 What should be the role of the project manager in relation to the business case?
- 3 Explain the term 'cost/benefit analysis'.
- 4 What do you understand by the terms 'tangible' and 'intangible' when applied to costs and benefits?
- 5 What is meant by the term 'benefits realization' and why is it important?

Case study

The SWOT analysis conducted by France Vacances has already shown that not having an internet service is not a viable scenario, since so many of the company's customers now regularly use the internet. However, the issue still arises as to how much it would be worth investing in the project, and this means that the company has had to develop a business case for undertaking the internet development.

Jean-Pierre Massenet, as the accountant, has undertaken production of the business case and he has identified three main business options that could be considered:

- 1 Building an internet booking system for France Vacances and interfacing that with the company's existing systems.
- 2 Building a standalone internet system and operating the internet booking as, in effect, a separate subsidiary business.
- 3 Finding a partner organization with an internet booking system and interfacing France Vacances's system with that.

The third option is unattractive as the customers of the booking system would not be France Vacances's own and this is considered very important. Massenet also rejected the second option as it is likely that the company's customers would sometimes use the internet and sometimes book over the telephone and having two sales channels would go against the principle of being a 'one-stop shop' for all the customers' requirements.

Consequently, the business case has been built around the first option, adding a web-based booking front-end to the existing booking system.

Massenet has used France Vacances's salesforce to conduct a telephone survey of existing customers, and that has suggested that an additional €50,000 of business might be secured each year via the internet. Assessing the likely amount of additional business (from new customers) is more difficult but a recent travel industry survey concluded that firms could attract 10–15 per cent new customers through e-commerce. If true, this would mean that France Vacances could obtain between €68,000 and €100,000 per annum more business through web bookings, but the directors, wishing to be cautious, have opted for the lower figure. In total, then, it seems as if the internet booking system should secure an additional €118,000 worth of business annually. The directors want to break even on their investment in three years and so this suggests a maximum cost for the internet development of €354,000. Initial discussions with various potential software vendors, including their preferred partner E-Con, suggest that a system could be developed for €350,000. On that basis, the directors approve the business case.

Further reading

- Boardman, Anthony E, Greenberg, David H, Vining, Aidan R and Weimer, David L (2001), *Cost-Benefit Analysis: Concepts and Practice*, 2nd edn, Prentice Hall
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