

Business Case

*Primer*

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## INTRODUCTION

A *business case* is a justification for a business project. A business case requests funding for a project internally from an organization's financial decision-makers or externally from investors.

A business case compares the costs of a project with the benefits that it provides. The business case must show that the benefits outweigh the costs. In many instances, it must include a financial analysis that calculates the project's return on investment (ROI).

Although financial information is important, a business case is more than a financial justification for a project. It is a *business* justification. The business case should show that the project will help the organization meet its goals.

### Typical Contents

Typical business-case topics include:

- Executive Summary
- Business Opportunity
- Alternatives
- Benefits
- Costs
- Financial Analysis
- Assumptions
- Constraints
- Market Analysis
- Organizational Considerations
- Sensitivity Analysis
- Project Description
- Implementation Plan
- Recommendations

Your business case need not include all of these topics, but they make an excellent checklist.

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### Are business cases and business plans similar?

*No. They are both used to generate financing. That's all they have in common.*

*A business plan is a method to achieve the goals of a business. A business plan is used to:*

- *Develop ideas about how to conduct a business*
- *Finance the business*
- *Evaluate the performance of the business*

*Typical sections include:*

- *Executive Summary*
- *General Business Description*
- *Products and Services*
- *Marketing Plan*
- *Competitive Analysis*
- *Operational Plan*
- *Management and Organization*
- *Capitalization and Structure*
- *Financial Plan*

*This information is from The Ernst & Young Business Plan Guide by Siegel, Ford, and Bornstein (John Wiley & Sons, Inc., New York, 1993). The book is available for purchase at:*

<http://www.ImpactOnTheNet.com/bc-books.html>

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The *executive summary* highlights the key points in the business case. These include important benefits and the return on investment.

The *business opportunity* describes the motivation for the project that the business case will propose. The business opportunity includes a definition, a statement of scope, and a discussion of objectives that the project will help the organization achieve.

A business case analyzes the *alternatives* to a proposed project. For example, an online learning business case might compare the benefits and costs of classroom learning. All business cases involve at least two alternatives: doing or not doing a project.

*Benefits* increase revenue, reduce costs, and provide strategic advantage over competitors.

*Costs* include equipment (purchase and maintenance) and labor (training and operation).

*Financial analysis* compares benefits to costs and analyzes the value of a project as an investment. The analysis may include a cash flow statement, return on investment, net present value, internal rate of return, and payback period.

*Assumptions* are events that a business case assumes will happen. For example, a business case might assume approval of a product by a regulatory agency.

*Constraints* are schedule, resource, budget, staffing, technical, and other limitations that may impact the success of a project. For example, a project might require that all employees have access to a central database.

*Market analysis* examines changes in the business environment that impact the success of a project such as technological innovations and shifts in customer demographics.

*Organizational considerations* examine how a project impacts an organization. A project's success might depend on management support and employee acceptance.

*Sensitivity analysis* evaluates the probability that a project can be implemented successfully and the

risks involved in undertaking the project. Risks also may result from *not* undertaking the project.

The *project description* should provide enough information that the people who must approve the business case can decide whether the project is both viable and worth doing.

Don't neglect the *implementation plan!* The rest of the business case is meaningless if the project cannot be implemented successfully.

The *recommendations* summarize the main points of a business case and offer suggestions on how to proceed with the project.

This primer discusses each of the above topics at the point in the business case development process where the team first works with the topic.

## Process

The business case process that this primer recommends has eight phases:

- 1 Assess needs
- 2 Define the business opportunity
- 3 Plan the work effort
- 4 Investigate alternatives
- 5 Evaluate alternatives
- 6 Define the project
- 7 Prepare the report
- 8 Review, revise & present the business case

If you must prepare a business case quickly, you may be tempted to take short cuts through the process so that you can prepare the report as soon as possible. Don't do it! If you neglect any of the phases, your business case will not achieve its potential. Without a persuasive business case, your project is less likely to be funded.

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## PHASE 1: ASSESS NEEDS

In Phase 1, you define the goals that your business case should achieve and the audience that must approve the business case for it to achieve its goals.

### Goals

The goal of your business case may seem obvious: to fund your project. But funding a project may be the last step in an elaborate approval process.

Your most important business case goal may be to market your proposed project throughout your organization. If marketing is your goal, your business case will still need financial information, but it might show the value of similar projects at other organizations and extrapolate the data from other organizations to your organization.

For example, you are proposing a complicated and costly business re-engineering project, which involves major changes to your organization. The goal of the initial business case is to build management support for the proposed project. Showing that business re-engineering is a good idea with many potential benefits is much more important than describing a specific project in detail if your organization is not ready to support the project. Approval of the initial business case will result in the support you need to prepare a second business case with a detailed description of your proposed project, detailed financial information, and a detailed implementation plan.

Even if you have a straight-forward project, you may have other goals besides funding. For example, you are competing with other projects for

funding. One of your goals might be to show that your project is the best choice.

There is no magic formula that will tell you what your goals are. You must analyze what you are trying to accomplish.

### Audience

Your goals depend on your audience. *Who* must you convince? *What* information must you provide your audience to persuade them to approve the business case?

A theoretically perfect business case will not be approved if it does not persuade its audience that its project is worth pursuing.

Reviewing business cases for projects that members of your audience have approved may help you determine what information you should include in your business case.

Learning your audience's concerns and providing information to answer them is an important part of obtaining approval. For example, your project involves complicated and expensive advanced technologies, and a member of the approval committee is suspicious of advanced technology projects. Find out all you can about that person's concerns. Approval of the business case may depend on how well you address those concerns.

If your chief financial officer wants specific financial metrics presented in a specific format, obtain samples of the metrics and the format. Use them in your business case.

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## PHASE 2: DEFINE THE BUSINESS OPPORTUNITY

In Phase 2, you define the *business opportunity*: the motivation for the project that the business case will propose. The business opportunity includes a definition, a statement of scope, and a discussion of objectives. The business opportunity may also include a description of what the organization will be like after the opportunity has been realized.

**Note:** Many articles and books on business cases refer to a problem rather than to an opportunity. I recommend viewing all problems as opportunities for improvement. A short-sighted solution to a problem may simply make the problem disappear. A business opportunity uses the problem as a springboard to improve the business.

### Definition

The definition of an online learning business opportunity might be:

To deliver educational courses over the intranet that train all employees on human resources, accounting, and payroll policies and procedures.

### Scope

Scope includes boundaries, limits, schedules, and budgets. The scope of an online learning business opportunity might be:

The scope includes all human resources, accounting, and payroll policies and procedures that apply to employees. When changes to policies and procedures occur, training will be updated within two business days. Implementation will occur within six months of business case approval at a maximum cost of \$200,000.

### Objectives

Describe what the business opportunity will accomplish. The objectives of an online learning opportunity might be to reduce the cost of training and to reduce the time required deliver training on new policies and procedures.

Metrics will make your objectives much more compelling. For example, your online learning objectives might be to reduce the cost of training by 50% and to reduce the time required to deliver training on new policies and procedures by 75%. You may not yet have the information you need for metrics. If you don't, keep metrics in mind during *Phase 4: Investigate Alternatives*.

### Realization

The realization describes what the organization will be like after it has taken advantage of the business opportunity. This section is important if a business case proposes changes that have a major impact on customers, employees, products, policies, processes, finances, markets, or competitors.

**Note:** If a business opportunity involves solving a problem, the realization is the solution.

### Review

Once you have defined the business opportunity, review it with the business case initiator. This review helps ensure agreement on the extent of the project that the business case will propose. You don't want to be halfway through the business case when you find out that the initiator had a totally different project in mind!

## PHASE 3: PLAN THE WORK EFFORT

In Phase 3, you plan the business case work effort. You select the team, identify stakeholders, establish the schedule, and assign responsibilities and tasks.

Business case work efforts vary from organization to organization and within an organization from project to project. A portion of the work effort may have been completed prior to your involvement. If so, document the planning that has been completed, make changes if necessary, and then finish the planning.

### Team Selection

The size of the team is related to the size of the proposed project. If the business case involves replacing the personal computers in a department with 18 employees,<sup>1</sup> one person may perform all roles. If the business case involves a major business re-engineering project, the team may include a dozen or more members.

A multiple-member team should include:

- A sponsor, usually an executive, who publicizes the business case work effort and interfaces with the organization's senior management
- Technical specialists
- Business analysts
- A financial analyst
- A writer, who prepares the business case report

Any team member may be the business case project manager.

### Stakeholder Identification

The stakeholders include executives, managers, and technical specialists responsible for:

- Review of business case financial information
- Approval of the business case
- Implementation, operation, and acceptance of the project proposed in the business case

The goal is to keep stakeholders informed of business case progress and to solicit their input at key points. Marty J. Schmidt recommends forming a "core team" of stakeholders and meeting with them several times during the development of the business case to make sure that they understand and support the proposed project.<sup>2</sup>

### Schedule

When you were assigned responsibility for the business case, you may have been given a deadline. If not, discuss a tentative deadline with the sponsor and team members. Develop the initial schedule based on the tentative deadline. You will know more about the work effort after the team investigates alternatives in Phase 4. At that point, you may need to adjust the schedule.

### Responsibilities and Tasks

Meet with the team and discuss alternative ways to achieve the business opportunity. Assign general responsibilities and initial investigative tasks.

1. Brannock, James W., "The 8-Day BCA" in *BCA: Business Case Analysis*, pages 13-77 (STS Publications, Plant City, Florida, 2004). For a brief review of this book, see page 22.

2. Schmidt, Marty J., "The Core Team: Key to Credibility" in *The Business Case Guide*, Second Edition, pages 19-23 (Solution Matrix Ltd., Boston, 2002). For a brief review of this book, see page 22.

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## PHASE 4: INVESTIGATE ALTERNATIVES

In Phase 4, you investigate alternatives by gathering information about their benefits, costs, assumptions, constraints, risks, and so on.

### Alternatives

There are three kinds of alternatives:

- Alternatives to the business opportunity
- Alternative projects
- Alternative implementations of a project

#### *Alternatives to the Business Opportunity*

All business cases examine at least two alternatives: pursuing or not pursuing a business opportunity (that is, approving or rejecting a business case). A business case for an online learning opportunity might compare the benefits and costs of online learning with the benefits and costs of the organization's current method of training employees: classroom learning.

#### *Alternative Projects*

A business case may examine alternative projects to realize a business opportunity. If an organization is not providing any formal training for employees, then a business case for an employee training opportunity might compare the benefits and costs of three alternatives: formal online training, formal classroom training, and no formal training at all.

#### *Alternative Implementations of a Project*

A business case may examine alternative implementations of a project to realize a business opportunity. A business case for an opportunity to replace classroom training with online training

might compare the benefits and costs of two alternative implementations:

- All at once throughout the company
- On a departmental basis starting with human resource policies and procedures

### Benefits

Examine the benefits of each alternative that you have chosen to investigate.

Benefits provide three types of business value:

- Increased revenue
- Reduced costs
- Strategic advantage

#### *Increased Revenue*

A business case for producing a new product would include the anticipated increase in revenue from sale of the product.

#### *Reduced Costs*

A business case for improving a process would include the anticipated savings in equipment, labor, or both. Calculating the labor savings may require research.

For example, you are investigating the benefits of purchasing an expensive office-automation product. The product distributes and updates shared files and prevents errors caused by overwriting the most current copy of a file with a previous version. Both automatic updating and preventing errors reduce labor costs. But you can't include the reduced labor costs in your financial analysis unless you quantify them.

If you research the current process, you might find that an administrative assistant spends three hours a week distributing and updating shared files. Twice a month a current copy of a file is overwritten by a previous copy. The administrative assistant spends an hour correcting each problem.

By eliminating this manual work, the office-automation product would save five hours of administrative time each week. Take the cost per hour for an administrative assistant and multiply it by five to get the product's weekly savings in labor costs. Use that figure in your financial analysis.

### *Strategic Advantage*

These benefits help an organization achieve its goals and compete effectively.

For example, a more accurate and current sales forecasting system would enable decision-makers to react faster to changes in the market. Decision-makers would have the information they need to adjust prices faster and launch promotional campaigns faster. That would give their company an advantage over its competitors.

Although gathering financial data on strategic advantage is usually difficult, quantifying benefits that provide strategic advantage may make the difference between business case success and failure.

### **Costs**

Examine the costs of each alternative that you have chosen to investigate.

Typical costs include equipment (purchase and maintenance) and labor (training and operation).

Labor costs include wages, salaries, and overhead costs like benefits, office space, office equipment, and technical support.

Another cost is lost productivity. A project may require staff to implement it. That reduces the productivity of the staff. Also, employees are often less productive while they are learning how to use new business tools and processes.

### **Assumptions**

*Assumptions* are events that the business case assumes will happen. For example, the business case might assume approval from a regulatory agency. *Critical assumptions* must occur for a project to succeed. For example, a critical assumption for an online learning business case might be that all employees will have access to a personal computer during work hours.

This and the following topics (constraints, market analysis, organizational considerations, and sensitivity analysis) may apply to all the alternatives. If so, document the topics once. For example, two alternative projects to develop a new telecommunication product might assume that regulatory approval will be received prior to the release of the product.

On the other hand, different alternatives may involve different assumptions, constraints, and so on. If so, document the topics separately for each alternative. For example, one alternative implementation of a business re-engineering project might assume that the organization will not relocate any of its facilities during the implementation period. Relocation might not impact the other alternatives.

### **Constraints**

*Constraints* are schedule, resource, budget, staffing, technical, and other limitations that may impact the success of a project.

For example, a project to develop a new product might be constrained by a six-month window of opportunity during which the product must be released in the marketplace. A business re-engineering project might be constrained by the requirements that all employees have access to a central database.

### **Market Analysis**

*Market analysis* examines changes in the business environment that impact the success of a project. These changes include technological innovations, expanding and contracting markets, and shifts in customer demographics.

For example, market analysis might show that the price of new low-end computers has been falling at a yearly rate of 20%. A project to develop a new low-end computer might depend on the price of low-end computers falling no more than 30% in 12 months.

### **Organizational Considerations**

*Organizational considerations* examine how a project impacts an organization. A project's success might depend on management support and employee acceptance. If so, the business case should explain how the project will gain that support and acceptance.

For example, a business re-engineering project may depend on employees accepting new job assignments and tasks. The business case should explain how employee acceptance will be attained and include the associated costs.

### **Sensitivity Analysis**

*Sensitivity analysis* evaluates the probability that a project can be implemented successfully and the risks involved in undertaking the project. Whenever possible, the sensitivity analysis should include mechanisms to monitor and manage risks to assure successful implementation of the project.

If a project's viability depends on the cost of raw materials, a sensitivity analysis would evaluate the probability that the cost of raw materials will increase. The sensitivity analysis would propose contingencies – such as the use of different raw materials – if the costs do increase.

If a project's viability depends on realizing labor savings, a sensitivity analysis might examine possible scenarios if the labor savings fail to materialize.

Risks may be beyond a project's control. For example, risks involved in a project that depends on a third-party proprietary software product might be product abandonment or obsolescence.

There may be risks involved in *not* undertaking a project. For example, the risk of not undertaking a business re-engineering project might be that current product design, manufacturing, and distribution processes will become so inefficient that the company will be unable to compete effectively.

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## PHASE 5: EVALUATE ALTERNATIVES

In Phase 5, you evaluate the pros and cons of each alternative investigated in Phase 4, and you select the best alternative (or alternatives) to propose in the business case.

The evaluation involves a financial analysis of each alternative. A critical assumption, constraint, market analysis, organizational consideration, or sensitivity analysis may eliminate an alternative from consideration despite a favorable financial analysis.

### Financial Analysis

*Financial analysis* compares benefits to costs and analyzes the value of a project as an investment. To start a financial analysis, choose an analysis period and prepare a cash flow statement.

**Note:** The extent of your financial analysis depends on your goals and audience. There is no sense in computing detailed financial information such as net present value and internal rate of return if your audience wants a ballpark estimate of the return on investment and payback period.

### Analysis Period

The financial analysis of all the alternatives should be for the same period.

Often a longer period is better. The alternatives have more time in which to recover purchase and implementation costs.

Establish a time line that includes dates for:

- Cash flow into the organization through quantified benefits and out of the organization through costs

- Delivery of benefits that do not have financial data; for example, benefits that provide strategic advantage
- Time-critical assumptions, constraints, market analysis, organizational considerations, and sensitivity analysis

### Cash Flow Statement

A *cash flow statement* shows how an alternative will impact the flow of cash into and out of your organization. You need this information to perform the financial analyses in this phase:

- Return on investment
- Net present value
- Payback period
- Internal rate of return

Let's create a simple cash flow statement for a proposed project. After we have identified costs and savings (that is, after we have conducted *Phase 4: Investigate Alternatives*), we will assign the costs and savings to a time line.

Here is our proposed project. ABC Company wants to purchase a new office-automation product with an estimated life cycle of three years. Based on the estimated lifecycle, we will use a three-year time line with four dates: year 0 (start of project), year 1, year 2, and year 3.

The product costs \$10,000. The installation fee is \$2,000, and the cost of the annual maintenance contract is \$500.

The new product will replace leased equipment that costs \$2,000 a year, and it will save five hours a week of administrative time.

The total cost per hour (including overhead) for an administrative assistant at ABC Company is \$30. At \$30 per hour, the new product will save \$7,800 per year (5 hrs./week x \$30/hr. x 52 weeks/year).

ABC Company plans to purchase and install the new product when the next payment for the leased equipment is due.

To prepare the three-year cash flow statement, we must answer three questions:

- Will the \$500 annual cost of the maintenance contract change after the first year?
- Will the \$2,000 annual savings from replacement of the leased equipment change?
- Will the savings per hour from the reduction in labor change after the first year?

To keep our example simple, we will assume that costs and savings will not change from year to year.

Table 1 shows the cash flow statement for our proposed project.

*Table 1: Cash Flow Statement*

<b>Costs</b>	<b>Year 0</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Equip. purchase	(10,000)	0	0	0
Installation fee	(2,000)	0	0	0
Maint. fee	(500)	(500)	(500)	0
<i>Subtotal</i>	<i>(12,500)</i>	<i>(500)</i>	<i>(500)</i>	<i>0</i>
<b>Savings</b>				
Leased equip.	2,000	2,000	2,000	0
Labor	0	7,800	7,800	7,800
<i>Subtotal</i>	<i>2,000</i>	<i>9,800</i>	<i>9,800</i>	<i>7,800</i>
<b>Cash Flow</b>	<b>(10,500)</b>	<b>9,300</b>	<b>9,300</b>	<b>7,800</b>

When the project starts (year 0), \$10,500 will flow out of ABC Company. The project will bring in \$9,300 during year 1, \$9,300 during year 2, and \$7,800 during year 3. At the end of year 3, the new

product should be replaced. For that reason, year 3 does not include:

- Paying the maintenance fee for year 4
- The savings from not leasing equipment

**Return on Investment**

A project's *return on investment* (ROI) is its savings (quantified benefits) over a specified period divided by its costs over the same period. Multiple the result by 100 to obtain the ROI percentage.

$$ROI = (\text{Savings}/\text{Costs}) \times 100$$

Here is an example of a simple ROI calculation for ABC Company's project.

Immediate (year 0)  
 savings: \$2,000  
 costs: \$12,500

Year 1  
 savings: \$9,800  
 costs: \$500

Through end of first year  
 savings: \$11,800  
 costs: \$13,000

To calculate the ROI after one year, divide \$11,800 (savings) by \$13,000 (costs). The result is 0.91.<sup>1</sup> Multiply by 100. The ROI is 91%. A project that breaks even has an ROI of 100%. There is no return on investment after one year.

Year 2  
 savings: \$9,800  
 costs: \$500

1. Don't go overboard with decimals. In our example, labor savings is an estimate. It's accuracy does not justify a result with more than two decimal places.

Through end of second year  
 savings: \$21,600  
 costs: \$13,500

To calculate the ROI after two years, divide \$21,600 by \$13,500. Multiple by 100. The result is 160%. The project returns 160% of its investment after two years.

Year 3  
 savings: \$7,800  
 costs: \$0

Through end of third year  
 savings: \$29,400  
 costs: \$13,500

The ROI after three years is 218%.

This simple example does not take into account the net present value of the money used to purchase the office-automation product.

**Net Present Value**

The *net present value* (NPV) adjusts the net cash flow by the value of money over time. Savings and costs are greater the sooner they occur. If you can buy equipment for \$12,000 or lease it for \$4,000 a year over three years (without paying any interest or other finance charges), leasing the equipment is the better choice because your organization can earn interest on \$8,000 during the first year and on \$4,000 during the second year.

To determine net present value, ask your financial analysts what value they are using for the annual *discount rate* (or investment yield rate). Use that rate to adjust the savings and costs for each year.

Here's the formula:

$$NPV = \frac{NC^{Y0}}{1} + \frac{NC^{Y1}}{(1+r)} + \frac{NC^{Y2}}{(1+r)^2} + \frac{NC^{Y3}}{(1+r)^3} + \dots + \frac{NC^{Yn}}{(1+r)^n}$$

NC = net cash flow  
 Y0 = immediate  
 Y1 = year 1  
 Y2 = year 2  
 Yn = year n (last year in computation)  
 r = discount rate

Let's examine a project with two alternatives: buying equipment for \$12,000 or leasing it for \$4,100 a year over three years. The financial staff has given us a discount rate of 5% (r = 0.05).

At first glance, purchasing the equipment appears to be the better choice. But let's compute the net present value for each alternative.

The NPV for purchasing the equipment is \$12,000 because we pay for it immediately.

$$NPV = \frac{12,000^{Y0}}{1} = \$12,000$$

To compute the NPV for leasing the equipment, we use the NPV formula for Y0, Y1, and Y2. We pay \$4,100 immediately, \$4,100 after one year, and \$4,100 after two years.

$$NPV = \frac{4,100^{Y0}}{1} + \frac{4,100^{Y1}}{1.05} + \frac{4,100^{Y2}}{(1.05)^2}$$

$$NPV = 4,100 + 3,905 + 3,719 = \$11,724$$

The difference between purchasing and leasing is \$276. Leasing is the better choice.

To compute the NPV for ABC Company's project, we start with the net cash flow for each year from Table 1. ABC Company's discount rate is 5%.

$$NPV = \frac{-10,500}{1} + \frac{9,300}{1.05} + \frac{9,300}{1.1025} + \frac{7,800}{1.1576}$$

$$NPV = -10,500 + 8857 + 8435 + 6738 = \$13,530$$

The NPV for our three-year ABC Company project is \$13,530.

### Internal Rate of Return

The *internal rate of return* (IRR) is the discount rate (investment yield) at which a project's net present value equals zero. All other factors being equal, the project with the higher internal rate of return is better.

If project #1 is the equivalent of investing money at 40% (IRR = 40%) and project #2 is the equivalent of investing money at 15% (IRR = 15%), project #1 is the better choice.

Remember our NPV formula?

$$NPV = \frac{NC^{Y0}}{1} + \frac{NC^{Y1}}{(1+r)} + \frac{NC^{Y2}}{(1+r)^2} + \frac{NC^{Y3}}{(1+r)^3} + \dots + \frac{NC^{Yn}}{(1+r)^n}$$

To compute the NPV, we assigned a value to  $r$ .

To compute the IRR, we assign NPV a value of zero. We must solve an equation – which requires either skill with algebra or luck with the “let’s make  $r$  equal this” method. Here is the equation for our three-year ABC Company project:

$$0 = \frac{-10,500}{1} + \frac{9,300}{(1+r)} + \frac{9,300}{(1+r)^2} + \frac{7,800}{(1+r)^3}$$

Using the “let’s make  $r$  equal this” method, we compute  $r$  to be approximately 0.68. The IRR for the ABC Company’s proposed project is 68%.

### Payback Period

The *payback period* is the time required for the savings (quantified benefits) to equal the costs.

For our ABC Company project, the NPV after one year is negative \$1,643. The NPV after two years is \$6,792. The payback period occurs between one and two years after the project starts.

The difference between the NPV after one year and the NPV after two years is \$8,435. The NPV increases by \$843.50 each tenth of a year.

NPV after 1.0 year: -\$1,643.00

NPV after 1.1 years: -\$799.50

NPV after 1.2 years: \$44.00

The payback period for ABC Company’s project is 1.2 years.

### Selection

Review your analysis for each alternative.

Eliminate alternatives with a high probability of failure as indicated by your analysis of their assumptions, constraints, markets, organizational considerations, and sensitivities.

Eliminate alternatives with weak financial performance as indicated by your financial analysis.

Examine the remaining alternatives. Balance the projected financial performance against the assumptions, constraints, markets, organizational considerations, and sensitivities.

Select the best alternative or alternatives to propose as the business case project.

## PHASE 6: DEFINE THE PROJECT

In Phase 6, you define the business case project. If you selected multiple alternatives in *Phase 5: Evaluate Alternatives*, then define each alternative as a separate project. The projects may share assumptions, constraints, market analysis, organizational considerations, and sensitivity analysis that apply to all of the alternatives.

A business case is a *business* justification, not simply a financial justification. Defining the project is an important part of the business justification.

Phase 6 may be iterative with phases 4 and 5. As you define the project, you may identify additional benefits and costs as well as new assumptions, constraints, markets, organizational considerations, and sensitivities. If so, investigate the new information and re-evaluate the alternatives.

### Project Description

The *project description* should:

- Give an overview of the project
- Define the project's major components and activities
- Document the project's scope and boundaries
- Explain all changes that the project will make to the organization and its policies, processes, products, services, and markets

The project description should provide enough information that the approval committee can decide whether the project is both viable and worth doing.

As you describe the project and explain how it will be implemented, you may discover potential problems with the selected alternative. If you do, go

back to *Phase 4: Investigate Alternatives*. After you resolve the problems, the probability of successful funding and implementation will increase.

**Tip for high-tech business cases!** If your project involves complicated technologies that are unclear to the people who must approve your business case, they may refuse to fund the project. Documenting and quantifying benefits may not be enough. The audience may need to understand how the technologies used in the project enable the benefits. If other documents explain how the project will work, refer to them. If you must write your own material, see Impact Technical Publications' *White Paper Writing Guide*. "Phase 6: Write" tells you how to explain technical concepts clearly. You can download the guide at:

<http://www.ImpactOnTheNet.com/wp-guide.pdf>

### Implementation Plan

Develop an implementation plan with major project tasks and milestones. Typical tasks include acquisition, development, testing, deployment, and training.

The implementation plan should account for all important assumptions, constraints, markets, organizational considerations, and sensitivities. The rest of the business case is meaningless if the project cannot be implemented successfully.

The implementation plan should include feedback mechanisms tied to milestones. After the business case has been approved, use the feedback to monitor the implementation and to evaluate the success of the project.

## PHASE 7: PREPARE THE REPORT

In Phase 7, you prepare the business case report. The report may be a document, a slide presentation, or both.

**Tip!** Prepare a document even if it is not required. Most business cases are distributed as handouts. A document is easier to read than a handout of presentation slides and makes its points much more effectively.

### Responsibility

One team member should be responsible for writing the report. All other team members provide input, but the writer makes sure that the content has a logical organization and a unified style. The writer also makes sure that all definitions, descriptions, and examples are clear and complementary. Don't use multiple definitions for the same concept. This can be a major problem when several team members submit input.

### Length

The length of a business case report depends on the complexity of the project. Replacing a department's personal computers with new equipment is a simple project. Analyzing the financial information involved in using current equipment, upgrading current equipment, purchasing new equipment, or leasing new equipment, as James W. Brannock<sup>1</sup> does, should be sufficient. Implementing a business re-engineering project is much more

complicated. It requires an extensive report with in-depth analysis of benefits and costs as well as a detailed project description and implementation plan.

### Content

The typical contents given in the Introduction make a good checklist for the content of a business case report:

- Executive Summary
- Business Opportunity
- Alternatives
- Benefits
- Costs
- Financial Analysis
- Assumptions
- Constraints
- Market Analysis
- Organizational Considerations
- Sensitivity Analysis
- Project Description
- Implementation Plan
- Recommendations

Include those sections for which you have information and group them according to the alternatives you are presenting.

For example, you want to present information about two alternatives and propose one of them in the business case. Each alternative has its own assumptions and sensitivities. Neither alternative has constraints, market analysis, or organizational considerations.

Your report's contents might look like this:

1. Brannock, James W., "Business Case Analysis Example of Final Briefing" in *BCA: Business Case Analysis*, pages 367-379 (STS Publications, Plant City, Florida, 2004).

- Executive Summary
- Business Opportunity
- Alternative #1
  - Benefits
  - Costs
  - Financial Analysis
  - Assumptions
  - Sensitivity Analysis
- Alternative #2
  - Benefits
  - Costs
  - Financial Analysis
  - Assumptions
  - Sensitivity Analysis
- Project Description
- Implementation Plan
- Recommendations

**Note:** I have not yet discussed the Recommendations and Executive Summary. Write those sections last, after you have written all the other sections.

Although a typical business case contains a large amount of financial data, narrative flow is important. You are telling a story to encourage your audience to fund your project. Summarize the financial information in the text. Put large amounts of financial data in appendices.

### Format

A business case report should have a restrained and formal appearance. It should not be difficult to read. Don't cram text and endless tables of data into the smallest space possible. There is no point in writing a business case report if your audience won't read it!

Page designs that work well for white papers are excellent for business case reports. For formatting suggestions, see "Phase 5: Design the Look & Feel"

in the *White Paper Writing Guide*. You can download the guide at:

<http://www.ImpactOnTheNet.com/wp-guide.pdf>

### Illustrations

Charts are an important way to convey financial information. Diagrams may clarify the description of a project. For more information, see "Phase 7: Illustrations" in the *White Paper Writing Guide*.

### Recommendations

The *recommendations* summarize the main points in the business case report and offer suggestions on how to proceed with the proposed project. For example, a report might recommend approving the business case within two months to take advantage of a market opportunity.

Highlighting the business opportunity and the financial information that supports the business opportunity is often a good idea.

### Executive Summary

Write the *executive summary* last. It should communicate the essence of the business case in a few well-chosen words. Depending on the complexity of the business case, the executive summary may be anywhere from a few paragraphs to several pages.

The executive summary should highlight the key points in the business case. These include important benefits and financial information like return on investment. Critical assumptions, constraints, market analysis, organizational considerations, and sensitivity analysis may also be included. A portion of your audience may read only the executive summary. Make sure it is persuasive!

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## PHASE 8: REVIEW, REVISE & PRESENT THE BUSINESS CASE

In Phase 8, you review the business case to maximize its credibility, revise it, and present it to the approval committee.

### **Review**

The reviewers are your business case team and your stakeholders. I recommend two separate reviews: a team review followed by a stakeholder review.

#### *Team Review*

The review should cover the entire report to the approval committee. If the team will distribute a written document and give a presentation, review the document and run through the presentation.

**Note:** If you developed the business case on your own, review it with your subject matter experts and others who provided input.

The report should support your business case goals and meet the information needs of your audience. Check the report against your needs assessment in Phase 1.

The business case should be complete and objective. Review the financial information and the project information to make sure that the report will be credible to the approval committee.

The report should contain all the information that the approval committee will need to reach a knowledgeable and informed decision about the project.

The report should give each alternative's strengths and weaknesses fairly. All implementation schedules, financial projections, and delivery dates for

non-quantified benefits should be reasonable. The report should state the critical assumptions, constraints, market analysis, organizational considerations, and sensitivity analysis for all alternatives.

#### *Stakeholder Review*

If possible, review the business case with the stakeholders after you review it with the team. If you don't have time for separate reviews, have the team and the stakeholders review the business case together. Avoid presenting the business case to the approval committee without first reviewing it with the stakeholders.

### **Revision**

When you have consensus on the report's organization, content, and tone, prepare the final version.

Don't forget to proofread the final version. Make sure that no mistakes have crept into the business case document or presentation at the last minute.

### **Presentation**

If the business case report involves both a document and a presentation, distribute the document to the approval committee before you give the presentation. If the committee has not specified the time period, a week should be sufficient.

Remember that the approval committee may question information in the business case. Be prepared to provide answers or to research the information, make adjustments, and present a follow-up report.

Good luck with your presentation!

## APPENDIX A: SAMPLE BUSINESS CASE

This sample is a business case for the hypothetical ABC Company project discussed in “Financial Analysis” on page 11. The sample shows the typical contents of a business case.

Remember: never force the contents of a business case into a template. The contents of *your* business case must meet *your* needs as explained in *Phase 1: Assess Needs* on page 5.

### Business Case for New Office Automation Equipment

Date: April 15, 2006

#### Executive Summary

This business case recommends purchasing ElectroWorkFlow, an office-automation product that will save \$23,400 in labor costs over three years.

Process and data improvements resulting from ElectroWorkFlow should increase productivity throughout ABC Company. For example, the productivity of the financial modeling staff may increase by up to 40 hours a year.

ElectroWorkFlow will cost \$13,500 over three years; it will replace leased office-automation equipment that costs \$6,000 over three years.

The return on investment (ROI) over three years is 218%. The payback period is 1.2 years.

#### Business Opportunity

ABC Company has an opportunity to save 260 hours of office labor annually by automating time-consuming and error-prone manual tasks.

This opportunity aligns with ABC Company’s objective to grow efficiently and to devote its resources to revenue generating functions.

#### Alternatives

The business case team examined the three leading office-automation products. Two of them were eliminated from consideration because they cost from \$40,000 to \$60,000 over three years. Both products deliver the same benefits as ElectroWorkFlow. Because the products scale well, they are viable at companies much larger than ABC Company.

#### Benefits

ElectroWorkFlow will provide all the capabilities and benefits of ABC Company’s current office-automation product.

ElectroWorkFlow will eliminate the \$2000 annual cost of the current leased equipment.<sup>1</sup>

ElectroWorkFlow will solve two problems that require on average five hours of work each week by administrative assistants:

- Automatic distribution and updating of shared files
- Elimination of errors when overwriting files

---

1. The lease cost is not expected to change over the next three years.

### *Automatic Distribution and Updating of Shared Files*

Administrative assistants at ABC Company spend on average three hours a week distributing and updating shared files. ElectroWorkFlow will automate these processes.

By automatically distributing and updating shared files, ElectroWorkFlow will save an estimated \$4,680 per year<sup>1</sup> in labor costs.

### *Elimination of Errors when Overwriting Files*

ABC Company's current office-automation product has no built-in safeguards to prevent users from accidentally making changes to an obsolete version of a file and then overwriting the current version with the obsolete version. On average, users accidentally overwrite current files with obsolete files twice a month. Administrative assistants spend an hour correcting each problem.

By eliminating these errors, ElectroWorkFlow will save an estimated \$3,120 per year in labor costs.

### *Improved Financial Modeling*

Financial modelers use roughly two dozen shared files. When current data in these shared files is overwritten with obsolete data, financial modelers must recheck and redo their models. No records are kept for this work, but anecdotal evidence suggests that up to 40 hours per year may be wasted redoing financial models. At \$50 per hour, this lost time costs ABC Company up to \$2,000 a year.

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1. The total cost per hour (including overhead) for an administrative assistant at ABC Company is \$30.

### **Costs**

ElectroWorkFlow purchase price: \$10,000.

Estimated life cycle: three years.

Installation fee: \$2,000.

Annual maintenance contract: \$500.<sup>2</sup>

### **Financial Analysis**

#### *Cash Flow Statement (three years)*

<b>Costs</b>	<b>Year 0</b> 7-1-06	<b>Year 1</b> 7-1-07	<b>Year 2</b> 7-1-08	<b>Year 3</b> 7-1-09
Equip. purchase	(10,000)	0	0	0
Installation fee	(2,000)	0	0	0
Maint. fee	(500)	(500)	(500)	0
<i>Subtotal</i>	<i>(12,500)</i>	<i>(500)</i>	<i>(500)</i>	<i>0</i>
<b>Savings</b>				
Leased equip.	2,000	2,000	2,000	0
Labor	0	7,800	7,800	7,800
<i>Subtotal</i>	<i>2,000</i>	<i>9,800</i>	<i>9,800</i>	<i>7,800</i>
<b>Cash Flow</b>	<b>(10,500)</b>	<b>9,300</b>	<b>9,300</b>	<b>7,800</b>

ABC Company's discount rate as of April 1, 2006, is 0.05.

Return on investment (ROI): **218%**

Net present value (NPV): **\$13,530**

Internal rate of return (IRR): **68%**

Payback period: **1.2 years**

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2. The maintenance contract contains a clause that locks in this rate for three years.

### Assumptions

The volume of shared files will remain the same or increase over the next three years.

Significant changes will not occur in the way most shared files are distributed, used, and updated.

### Sensitivity Analysis

To realize \$7,800 in annual labor savings, ABC Company must reduce administrative assistant (AA) labor by 260 hours per year.

Currently, ABC Company employs three full-time AAs and one part-time AA who works on average 34 hours per week. In 2005 ABC Company hired a leased worker to perform 120 hours of AA tasks.

By eliminating the leased worker (120 hours saved) and reducing the part-time AA to 31 hours per week (140 hours saved), ABC Company will save 260 hours per year in AA labor.

### Project Description

When the business case is approved, the IT department will schedule installation of ElectroWorkFlow over a weekend.

ElectroWorkFlow installers will perform all office automation conversion and testing work with the assistance of ABC Company's regular weekend IT staff.

ElectroWorkFlow trainers will provide a half day of training to a member of the IT staff and a half-day of training to the administrative assistants.

The office manager will monitor the administrative assistants' time reports each week to make sure that

ABC Company realizes the anticipated labor savings. If administrative assistants encounter problems, they will report them to the IT support staff.

The office manager will prepare a monthly report on administrative assistant labor savings and submit it to the directors of IT and finance.

### Implementation Plan

ElectroWorkFlow will be installed over the weekend of June 24-25, 2006.

**Note:** The lease for the current office-automation equipment expires on July 1, 2006.

ElectroWorkFlow will be production ready at 6:00 am on Monday, June 26, 2006.

A member of the IT staff will be trained from 9-12 am on June 26, 2006.

Administrative assistants will be trained from 1-4 pm on June 26, 2006.

### Recommendations

This business case recommends purchase of ElectroWorkFlow on June 23, 2006, and installation over the weekend of June 24-25, 2006.

The \$2,000 annual lease for the current equipment expires on June 30, 2006. To avoid renewing the lease, ABC Company should install ElectroWorkFlow no later than June 24-25, 2006. If necessary, ABC Company can install ElectroWorkFlow over another weekend in June 2006.

This schedule will enable ABC Company to realize the project's net present value of \$13,530 by July 1, 2009.

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## APPENDIX B: RECOMMENDED BOOKS

Links for purchasing these books are available at the Impact Technical Publications Web site:

<http://www.ImpactOnTheNet.com/bc-books.html>

The Web site also recommends several books about information technology business cases.

### **The Business Case Guide (Second Edition)**

Marty J. Schmidt

This impressively comprehensive book has ten times more information than the *Business Case Primer* you are reading. The book starts with an overview of basic concepts and then examines in detail both the contents of a business case and the process of developing a business case.

As Schmidt explains in Chapter 1, “*The Business Case Guide* is designed to help you understand the structure and the content that make a business case compelling and useful. It is also designed to lead you through the steps in developing a solid business case: defining the case, designing the case, developing cost and benefit data, analyzing the results, and packaging, presenting, and using the case.”

Although at times the book bogs down in detail (the discussion of the date to put on the business case occupies the better part of a page!), it presents most of the material clearly and thoroughly. The two helpful appendixes contain a sample business case and an overview of financial metrics for those of us who need a refresher course in finance and accounting.

### **BCA: Business Case Analysis**

James W. Brannock

Amazon.com describes this book as a “how to” guide for business and economic decisions that “shows a comprehensive, yet surprisingly easy to learn set of examples, concepts and techniques for conducting such studies. It offers a simple guide to basic analysis of business situations.”

The 66-page chapter on “The 8-Day BCA” justifies the cost of the book. The chapter walks readers through the process of analyzing and developing a simple business case for replacing the personal computers in an office. The chapter includes explanations of all calculations in the example business case including net present value, total ownership costs, and cash flow.

Other chapters of interest:

- “Economic Analysis,” which discusses the concept of present value, breakeven analysis, savings-to-investment ratio, benefit-to-cost ratio, and payback among multiple projects
- “Business Case Analysis Purpose and Events”
- “Business Case Analysis Example of Final Presentation” (25 slides)

Much of the rest of the book discusses - to quote the back cover - “economic and management science techniques.” These techniques may be of limited interest to readers who want to master fundamentals quickly so that they can prepare an effective business case.

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This primer uses the names of a fictitious organization (ABC Company) and product (ElectroWorkflow). Any resemblance between this organization and product and any real organization or product with the same name is purely coincidental.



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