

A Solution Matrix White Paper

What's a Business Case? And Other Frequently Asked Questions

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What's a Business Case? And Other Frequently Asked Questions

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What's a business case?

A business case is a tool that supports planning and decision-making, including decisions about whether to buy, which vendor to choose, and when to implement. Business cases are generally designed to answer the question: What are the likely financial and other business consequences if we take this or that action (or decision)?

A good business case shows expected cash flow consequences of the action, over time, and—most important—also includes the methods and rationale that were used for quantifying benefits and costs. The latter are important because every business case in a complex environment requires

assumptions, arbitrary judgments, and the development of new data. The case, in other words, is built from information that goes beyond existing budgets and business plans. Two people working independently can evaluate the same proposed scenario, use correct financial arithmetic and still produce quite different business case results. In order to evaluate the results, readers need to know how they were developed.

The organizing backbone of the case is a time line extending across months or years, as the figure at left suggests. This gives you a framework for showing management how they can work with you to implement financial tactics: reduce costs, increase gains, and accelerate gains. The case also describes the overall impact of your proposal in terms that every financially astute manager looks for: discounted cash flow, payback period, and internal rate of return.



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The content of this paper is covered in detail in the book "The Business Case Guide" (ISBN 1-929500-00-9). For ordering information, visit the Solution Matrix web site at www.solutionmatrix.com.

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Critical success factors and contingencies will be discussed. This tells readers what must be managed in order for the predicted results to appear. Significant risks will also be identified, along with indicators that would signal changes in results.

The business case is not a budget, not a management accounting report, and not a financial reporting statement. This distinction is important for deciding which kind of cost and benefit data go into the business case: incremental values or total cost and benefit figures. Incremental values are probably the right choice in decision support situations, especially where a proposed action is viewed as a potential investment. On the other hand, it is more appropriate to build the case from total cost and benefit figures when the purpose is budgetary or business planning.

Cost of ownership, ROI, and cost/benefit analysis: What's the difference?

Cost of Ownership, Return on Investment, and Cost/Benefit analysis are all special kinds of business case analyses. Each term implies a different approach to the general business case question: "What are the likely financial and other business consequences if we take this or that action (or decision)?" Whether developing your own case or evaluating someone else's, remember that none of these terms has a single precise or universally agreed definition. Therefore, it is important to document and communicate which cost (and/or benefit) line items are included and which are not, the time period covered, and major assumptions used in calculating financial metrics. Here are some of the important characteristics of each approach.

Cost of Ownership (C00) (sometimes called "**Total Cost of Ownership**", or **TCO**) usually means:

The total cost of acquiring, installing, using, maintaining, changing, and getting rid of something across an extended period of time (most or all of its useful life).

Cost of ownership figures are often developed for computer systems, medical test equipment, and a wide range of other expensive capital items. Note especially the following:

- Cost of ownership is always more than purchase price, sometimes many times more. Total five year cost of ownership for computing equipment, for example, can be 3 to 10 times the original purchase price.
- Naming the cost of ownership subject does not fix the boundaries for the cost of ownership analysis. You must still decide and communicate which costs belong in the analysis and why. IT costs of ownership comparisons from publishing analysts tend to have a rather narrow scope, focusing on purchase price, maintenance, and very direct operational costs (here the emphasis is on "Apples-to-Apples" comparability). IT cost of ownership analyses from sales people, consultants, or managers for specific settings tend to have a broader scope, aiming at the "total" or "comprehensive" cost of ownership (here the emphasis is on completeness and predictive accuracy for this setting).
- A cost of ownership estimate can be the "cost" side of a cost/benefit analysis, but cost figures alone does not capture "benefits" except in a

Naming the cost of ownership subject does not fix the boundaries for the analysis. You must still decide and communicate which costs belong in the analysis and why. very limited way. If the costs of ownership figures for different alternative actions are compared (perhaps a "business as usual" scenario and a "change" scenario), one scenario may show cost savings or avoided costs relative to the other.

- Cost of ownership does not capture financial benefits that come from such things as increased revenues, increased business volume, improved competitiveness, and many other factors. This limits the value of a "pure cost of ownership" business case in two important ways:
 - 1. Cost of ownership analysis alone usually cannot provide the basis for estimating "Return on Investment" or financial metrics such as IRR or payback period
 - 2. Cost of ownership alone is a sufficient decision criterion only when all possible actions differ only with respect to cost, but otherwise should have the same positive impact on operations or business performance.
- Cost of ownership results are usually presented as cost totals rather than incremental costs that go with an action. As such, cost figures have clear, easily interpreted meaning for budgets.

The term **Return on Investment (ROI)** is commonly used in different ways.

In financial circles, the strict meaning of Return on Investment (ROI) is Return on Invested Capital, a measure of company performance: The company's total capital is divided into the company's income (before interest, taxes, or dividends are subtracted).

- Alternatively, ROI is sometimes equated with *Return on Assets*: a company's income for a period divided by the value of assets used to produce that income.
- Most business people, however, use "ROI" simply to mean the "Return" (incremental gain) from an action, divided by the cost of that action. In this sense, an investment that costs \$100 and pays back \$150 after a short period of time has a 50% ROI. When ROI is requested, it is prudent ask specifically how that is to be calculated. Understand clearly, that is, how both the "return" and the "investment" are derived and what time period is covered.
- Three ways to maximize ROI are suggested by the figure shown with FAQ #1 above: Minimize costs, maximize returns, and accelerate the returns. A relatively small improvement in all three may have a major impact on overall ROI.
- ROI is an appealing concept because its meaning seems self-evident and easily understood. Many factors can complicate its calculation or interpretation, however, and for that reason many business cases do not attempt to present ROI as a quantitative result, but focus instead on financial metrics such as Net cash flow, DCF, IRR, and payback period (see FAQ #3, below). Problems with ROI include the difficulty of finding a truly appropriate investment cost figure (this may call for arbitrary cost allocation judgments or the addition of "opportunity costs," for instance). Other problems with ROI come from the passage of time. Investment

ROI is an appealing concept...however, many factors complicate its calculation or interpretation. costs typically come early, while returns may come years later. Thus, the time value of money (discounting) may need to enter the ROI equation; and, it may be especially difficult to match specific returns with specific costs. In brief, the simple ROI concept is probably appropriate only when both "Investment cost" and "Return" come over a short time period, are clearly tied to each other, and can be derived simply and unambiguously.

Cost/Benefit (C/B) analysis is used, widely, for planning, decision support, program evaluation, proposal evaluation, and other purposes, in organizations of all kinds, even though the term itself has no precise definition beyond the implication that both positive and negative impacts are going to be summarized and weighed against each other. Some key points to remember about C/B analysis include the following:

- A good cost/benefit analysis for a major acquisition or action will include a time dimension and other characteristics of a good business case (See "What's a business case?" page 1). In order to evaluate a C/B analysis properly, your audience needs to see the timing of expected inflows and outflows as well as the cost and benefit models that determine what is included in the case and what is not.
- A cost/benefit analysis will on the one hand attempt to quantify every benefit and cost for inclusion in the financial analysis, even the so-called intangible or "soft" costs and benefits. On the other hand, it will not omit discussion of important non-quantified benefits and costs. The reason it is important to quantify everything possible is this: If no financial value is assigned to an agreed cost or benefit, that impact contributes exactly nothing to the financial analysis. Is this really appropriate? Often it is not. A company may invest in technology in order to improve its "professional image," improve customer satisfaction, or create a "more professional work environment." But how much monetary value should be credited to these benefits? They will be valued at 0 if an acceptable valuation is not agreed.
- Cost/benefit analyses usually represent incremental costs and benefits (only financial changes due specifically to the action or proposal in view). This is because C/B analysis is usually undertaken for decision support purposes. The objective, after all, is to understand the net effect of a decision. A very easy mistake for C/B analysts to make, however, is to mix incremental C/B data with total C/B data in the same analysis.
- The most useful financial results in a C/B analysis appear in a time-based cash flow summary. This is the basis for calculating standard financial metrics such as net cash flow, DCF, IRR, and Payback Period (See page, below). If the cash flow statement also shows individual cost and benefit line items, it can serve as an effective tool for risk management and for optimizing returns (see "What's the best way to summarize a business case?" below).

A good cost/benefit analysis ... will include a time dimension and other characteristics of a good business case.

What's the best way to summarize a business case: Net Cash Flow? DCF? IRR? Payback?

Business case results are often summarized with several well-defined financial metrics, such as net cash flow, discounted cash flow, internal rate of return, and payback period. Each says something about the overall pattern of costs and benefits, each carries a different message. Here are some factors to consider when deciding which metrics to use.

Net cash flow is the heart of the financial business case.. **Net cash flow** is the heart of the financial business case and the basis for deriving other financial metrics. Cash flow, like income, focuses on the difference between money coming in and money going out over a time period:

Net Cash Flow = Cash Inflows - Cash Outflows

Cash flow results do not, however, include some items found in the income statement, such as depreciation expense. Depreciation expense, for example, does not represent an actual cash payment during the reporting period, but rather an accounting charge against earnings. As a result, depreciation expense is not a "cash outflow" in the above equation. The income statement tells stockholders and taxing authorities what the company is credited with earning during a period; the cash flow statement tells management how much cash they have to work with (or how much they gained or lost).

Lining up the cash flow results of several time periods creates a cash flow stream such as this Business Case example:

Business Case A						
Timing	Total Cash Inflow	Total Cash Outflow	Net Cash Flow			
Now	\$0	\$100	-\$100			
Year 1	\$40	\$20	+\$20			
Year 2	\$50	\$30	+\$20			
Year 3	\$75	\$35	+\$40			
Year 4	\$90	\$30	+\$60			
Year 5	\$100	\$40	+\$60			
Total	\$355	\$255	+\$100			

The action or acquisition under consideration is expected to bring a net cash flow of \$100 over five years. But does this represent a good business decision? Can the returns be improved? Where are the risks? The level of detail in this table is the minimum data needed to begin answering such questions.

Note Each column and row tells a story: Inflows continue to rise throughout the 5-year period, but so do total outflows. Management will want to use this understanding and the data behind it, for instance, to apply the financial tactics mentioned in FAQ #1, above: reduce costs, increase gains, accelerate gains.

In a nutshell, a business case summary should always include a net cash flow stream because it:

- Shows actual inflow and outflow figures, which are important for budgeting and business planning
- Provides the basis for calculating other financial metrics, such as DCF, IRR, and payback
- Is the beginning point for management actions to manage and optimize overall results

The **Discounted Cash Flow (DCF)** is a cash flow summary that has been adjusted to reflect the time value of money. It is an important criterion in evaluating or comparing investments or purchases; other things being equal, the purchase or investment associated with the larger DCF is the better decision. Almost every professional trained in finance will ask to see cash flows on a discounted and non-discounted basis.

DCF makes use of the Present Value concept, the idea that money you have now should be valued more than an identical amount you would receive in the future Why? The money you have now you could (in principle) invest now, and gain return or interest, between now and the future time. Money you will not have until some future time cannot be used now. Therefore, the future money's value is Discounted in financial evaluation, to reflect its lesser value.

What that future money is worth today is called its Present Value, and what it will be worth when it finally arrives in the future is called not surprisingly its Future Value. Just how much present value should be discounted from future value is determined by two things: the amount of time between now and future payment, and an interest rate. (For rough estimates, think of the interest rate as the return rate we would expect if we had the money now and invested it). For a future payment coming in one year:

Present Value = (Future Value) / (1.0 + Interest Rate)

What is the present value of \$100 we will not have for a full year? If we use an annual interest rate of, say, 10%, then

Present Value = (\$100)/(1.0 + 0.10) = \$90.91

What is the present value if the payment were not coming for 3 years? For multiple periods, the present value calculation becomes:

Present Value = (Future Value) / (1.0 + Interest rate)ⁿ

The exponent "n" is simply the number of periods, or years, in this case 3. The present value of \$100 to be received in 3 years, using a 10% interest rate is thus:

Present Value = $\$100 / (1.0 + 0.10)^3 = \$100 / (1.1)^3 = \$75.13$

"Periods" for these calculations can actually be years, months, or any other time. In any case, be sure that the interest rate represents interest for that period. (When calculating DCF on a monthly basis, for instance, use the annual interest rate divided by 12).

As the payment gets further into the future, its present value drops. Also, as you can see, increasing the interest rate would further reduce the present value. Only where interest rates were assumed to be 0 (an economy with no

Almost every professionaltrained in finance will ask to see cash flows on a discounted and non-discounted basis.

investment possibility and no inflation) would present value always equal future value.

Now consider two competing investments in computer equipment. Each calls for an initial cash outlay of \$100, and each returns a total a \$200 over the next 5 years making net gain of \$100. But the timing of the returns is different, as shown in the table below (Case A and Case B), and therefore the present value of each year's return is different. The sum of each investment's present values is called the Discounted Cash flow, or DCF. Using a 10% interest rate again, we find:

Timing	Case A Net Cash Flow	Case A Present Value	Case B Net Cash Flow	Case B Present Value
Now	-\$100.00	-\$100.00	-\$100.00	-\$100.00
Year 1	+\$60.00	\$54.54	+\$20.00	+\$18.18
Year 2	+\$60.00	\$49.59	+\$20.00	+\$16.52
Year 3	+\$40.00	\$30.05	+\$40.00	+\$30.05
Year 4	+\$20.00	\$13.70	+\$60.00	+\$41.10
Year 5	+\$20.00	\$12.42	+\$60.00	+\$37.27
Total	+\$100.00	NPV = \$60.30	+\$100.00	NPV = 43.12

Comparing the two investments, you can see that the early large returns in Case A lead to a better total net present value (NPV) than the later large returns in Case B. Note especially the Total line for each present value column in the table. This total is the net present value (NPV) of each "cash flow stream." When choosing alternative investments or actions, other things being equal, the one with the higher NPV is the better investment.

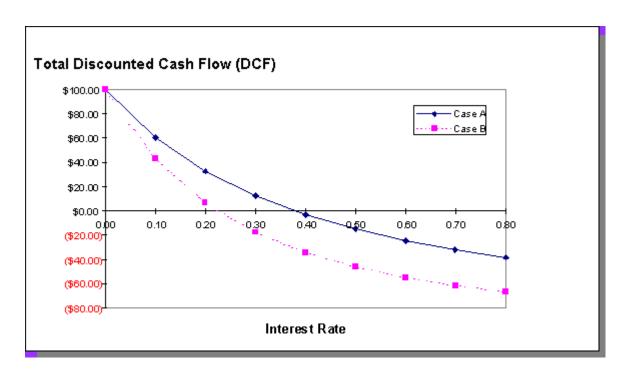
In brief, a DCF view of the cash flow stream should probably appear with a business case summary when ...

- The business case deals with an "investment" scenario of any kind, in which different uses for money are being compared
- The business case covers long periods of time (two or more years)
- Inflows and outflows change differently over time (e.g., the largest inflows come at a different time from the largest outflows)
- Two or more alternative cases are being compared and they differ with respect to cash flow timing within the analysis period

Like DCF, the Internal Rate of Return (IRR) is a cash flow summary that has been adjusted to reflect the time value of money, but its meaning is a little less obvious than DCF. Nevertheless, IRR is a widely used concept, and it is frequently an important criterion in evaluating or comparing investments or purchases. As the word "Return" indicates, the IRR view of the cash flow stream is essentially an investment view: money will be paid out in order to bring in gains. The higher an investment's IRR, the better the investment's return relative to its cost.

IRR has a simply stated definition: The IRR for an investment is the discount rate for which the total present value of future cash flows equals the cost of the investment. It is the interest rate, that is that produces a 0

NPV. You may still wonder just how to evaluate that, or how to apply it to a specific investment or purchase. Probably the best way to grasp IRR quickly is with the help of the graph below.



IRR has the most meaning when there is an initial net cash outflow ...IRR can be quite misleading if there is no large initial cash outflow.

These curves are based on the same Case A and Case B cash flow scenarios presented under "Discounted cash flow" (above). Here, however, we have used nine different interest rates, including 0 and 0.10, on up through 0.80. As you would expect, as the interest rate used for calculating Net Present Value of the cash flow stream increases, the resulting NPV decreases. For Case A, an interest rate of 38% produces NPV or DCF = 0, whereas Case B hits 0 with an interest rate of 22%. Case A therefore has an IRR of 38%, Case B an IRR of 22%. Which is the better Investment? Other things being equal, the one with the higher IRR.

Now, would an investment with an IRR of, say 75% be a better investment? The answer is YES. Another way to think of IRR is this: IRR tells you just how high interest rates would have to go in order to "wipe out" the value of this investment. For the Case A cash flow, the prevailing interest rate would have to rise all the way to 38% to make this investment worthless. The Case B investment would become worthless if interest rates rose to 22%.

Like IRR, the **Payback Period** metric takes essentially an "Investment" view of the action, plan, or scenario, and its estimated cash flow stream. Payback period is the length of time required to recover the cost of an investment (e.g. purchase of computer Software or hardware), usually measured in years. Other things being equal, the better investment is the one with the shorter payback period.

Also, payback periods are sometimes used as a way of comparing alternative investments with respect to risk: other things being equal, the investment with the shorter payback period is considered less risky.

As an example, consider a \$150 software purchase that is expected to improve productivity valued at \$60 per year for the next three years:

	Paid Out	Paid Back	Total Paid Back
Year 1	\$100	\$60	\$60
Year 2	-	\$60	\$120
Year 3	-	\$60	\$180

Payback obviously occurs in Year 3, but where, precisely? The "formula" for payback period is a little cluttered, but it should be simple to follow. (Note that Year 3 is the final Payback Year).

For the example,

Payback Period =
$$2 + (\$150 - \$120) / (\$180 - \$120)$$

Payback Period =
$$2 + 30/60 = 2.5$$
 Years

Payback period is an appealing metric because its interpretation is easily understood. Nevertheless, here are some points to keep in mind when using it:

- Payback cannot be calculated if the positive cash inflows do not eventually outweigh the cash outflows. That is why payback (like IRR) is of little use when used with a pure "costs only" business case.
- Payback calculation ordinarily does not recognize the time value of money (in a discounting sense) nor does it reflect money coming in after payback (contrast with discounted cash flow and internal rate of return, above)
- Other things being equal, the action or investment with the shortest payback period is the better investment because it is less risky. It is usually assumed that the longer the payback period, the more uncertain are the positive returns. For this reason, payback period is often used as a measure of risk, or a risk-related criterion that must be met before funds are spent. A company might decide, for instance, to undertake no major investments or expenditures that have a payback period over, say, 3 years.

Which of these financial metrics should you use to summarize a business case? The best general approach is to develop and present all of them—if their values have meaning. The real issue then is to decide which of them should become primary decision criteria, or which should carry the most weight in comparing alternatives. There is no universal answer to that question, but here some factors to consider.

• The cash flow stream must have a positive net total in order for payback or internal rate of return to have meaning (or for "Return on Investment" in any sense to have meaning). If you are producing a "costs only"

Payback period is an appealing metric because its interpretation is easily understood.

business case, using cost totals as your data, then PB, IRR, and ROI will no be appropriate, You may, however, create positive cost impacts such as cost savings, by building the case from cost changes relative to another scenario or "business as usual" baseline. That is the only way that a "cost only" business case can approach PB, IRR, or any form of ROI.

- Discounted cash flow (DCF) totals are sensitive to the interest rate (discounting rate) used in the calculation, and choice of rate is arbitrary. When using DCF, be sure to use a rate that matches your audience's common practices and expectations. (The other financial metrics—net cash flow, payback period, and internal rate of return—do not depend on arbitrarily chosen values).
- When the positive returns are uncertain or risky, give relatively more
 consideration to discounted cash flow. DCF will give relatively more
 weight to projected near-future returns, which are probably more certain,
 and relatively less weight to distant-future returns, which are probably
 less certain.

Should I build an "after tax" or a "before tax" business case?

If your business case refers to a government or nonprofit organization, the "Tax" question is a non-issue. For taxpaying companies, however, it is an important question. Results of "before tax" and "after tax" business cases can look quite different. Here are some ways that taxes can impact the cash flow results of a business case:

Tax effects can be especially important where different financing options are under consideration.

- Taxes lower overall gains. Where the business case shows gains or net cash inflows, taxes operate to lower overall gains because operating income and capital gains are normally taxed. If the total income tax rate is, say 30%, a \$100 operating gain becomes a \$70 net gain after taxes.
- Taxes also reduce overall cost and expense impacts. Where the business case shows losses or net cash outflows, tax effects operate to reduce the overall loss. For a company that pays 30% taxes on income, a \$100 operating loss (or net cost) also reduces the company's tax liability by \$30. The net effect of the \$100 loss on overall cash flow is thus \$70.
- When the business case includes capital assets, tax savings from depreciation improve the bottom line. Where the business case includes the acquisition of capital assets (either through purchase or capital lease), tax savings from depreciation can operate to increase overall cash flow. Depreciation expenses themselves do not contribute to cash flow: they are an accounting convention that impacts reported income, but not a real cash outflow. However, because depreciation expenses lower reported income, they also lower the tax liability, which does impact real cash flow. If a company claims \$100 depreciation expense on an asset during the year, and if the company ordinarily pays a 30% tax rate on operating income, then the depreciation expense lowers taxes by \$30 (that is, the net cash flow for the year is increased by \$30).

Should you build an "after tax" or a "before tax" version of the financial business case? Sometimes one version is more appropriate than the other; in other cases, both versions are called for. Here are some factors to consider:

- How are other, competing proposals being presented? When your
 proposals or plans compete with others, results need to be directly
 comparable to them, using the same approach to tax impacts. If presenting
 a before-tax case, however, take the trouble to understand what the "aftertax" case would look like, in case there's important information there that
 should not be overlooked.
- Which approach ("before" or "after" tax) means more to the audience? If the case results are to be used by those who have responsibility for profits/profitability or overall company performance, an after tax version of the case should certainly be presented. On the other hand, where conformance to budget or budgetary planning are important considerations, a before tax version of the business case should be included. Managers at some levels of the organization may have much more interest on actual spending levels or sales revenues, and less direct interest in after tax profit levels.
- What effect does adding or removing tax consequences have on business case results? Tax effects can be especially important where different financing options are under consideration, as for instance in a "Lease vs. Buy" comparison, or when comparing a capital lease scenario with an operating lease scenario. In situations where before and after tax versions of the business case differ substantially—where tax effects on overall results are large—then tax planning itself may be an important management concern, and both versions of the case should probably be in view.

Why do business cases fail?

Business case scenarios often fail in two ways. Either they meet with skepticism or a cold shoulder from management and fail to achieve the immediate objective—obtaining funding, for instance. Or, they fail when the proposal or plan is implemented and the real costs and benefits turn out to be very different from the business case estimates. We believe that both kinds of failure usually result from the same root causes.

The first cause might be called "lack of history." Many organizations do not save and use the experience of previous business case exercises to improve current efforts. The problem is that a business case in a complex setting probably requires arbitrary and subjective judgments (when allocating costs, or valuing benefits, for instance); It may require new data and information that do not exist in current budgets, business plans, or financial statements; it will very likely need cost and benefit models tailored to fit the action or acquisition under consideration (to determine what belongs in the analysis and what does not). These requirements can be very hard to meet adequately on a "first pass" business case, even if the best methods and expertise are used without reference to earlier cases.

All these requirements improve when validated and fine-tuned over and over again, through cycles of business case analysis and implementation. The data and results will change from business case to business case but the methodology should be consistent and improved continually. This is the single most effective way to improve business case accuracy.

It is also the single most effective way to counter skepticism and improve credibility. A business case may be challenged on many different fronts, but primarily the following two:

• In terms of *methodology* Critics may say ...

"The choice of cost/benefit items was biased."

"The scope of coverage was inadequate"

"Too much credit was given to 'soft' benefits."

"The data are incorrect, out of date, or incomplete."

"IRR is a misleading metric for this kind of scenario"

• In terms of *analysis*

Critics may say ...

"The benefit stream needs a longer 'ramp up' or 'learning curve."

"Not enough weight was given to risk factors"

"The projected gains are too optimistic"

Clearly, the business case sponsor has an uphill battle if both the methodology and the analysis have to be explained, sold, or defended at the same time. Methodology, at least, should not be an issue if it has been established, explained, improved, and accepted through previous business case exercises.

A second major reason that business cases fail has to do with the special nature of the financial business case, compared to familiar tools like budgets, accounting reports, and business plans. The latter have much better "text book" definitions and are much easier to approach with prescribed templates and content. Many business people fail to understand, however, just how undefined is the term "business case." A request for a business case is similar in some ways to a request for your personal resume: you have a lot of freedom to design the structure and select content; whether or not the result is effective depends on your ability to tell a convincing story with compelling logic and facts. This puts high responsibility and special demands upon the business case developer—a responsibility that is often under-appreciated. Here are some business case characteristics that need but often do not receive careful attention:

• A business case designed to answer the question "What will be the financial consequences if we choose X or do Y?" will probably be built upon incremental cost and benefit changes—financial impacts specifically due to the action or acquisition under consideration. Budgets, accounting reports, and business plans, by contrast, are typically built from total figures for inflow and outflow line items. Incremental values for a business case scenario must therefore be developed with a "base case" or "business as usual" scenario also in view, to provide a basis for comparison.

- Business cases—especially those that deal with IT, communications, and infrastructure changes—usually cut across boundaries: organizational boundaries, management levels, functional distinctions, and budgetary categories (operating vs. capital, for instance). Accordingly, contributions to business case content will have to be drawn selectively from all involved entities.
- Defining the business case subject does not completely determine which cost and benefit line items should be included. Cost and benefit models for this purpose will need to be constructed specifically for the scenario at hand.
- The business case may very well have to deal with non-quantifiable as well as quantifiable cost and benefit impacts. The scenario in view may anticipate important contributions to business goals, which cannot be satisfactorily assigned a dollar value.

Further Information

Solution Matrix White Papers

The following Solution Matrix White papers are available at no charge.

- What's a Business Case? and Other Frequently Asked Questions
- The IT Business Case: Keys to Accuracy and Credibility
- Business Case Essentials: A Guide to Structure and Content

The Business Case Guide

Practical Instruction, as well as templates and worksheets for the business case content presented in the white papers is covered in detail in *The Business Case Guide* (ISBN 1-929500-00-9), available from Solution Matrix Ltd. at web site www.solutionmatrix.com.

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About Solution Matrix Limited

Solution Matrix Ltd. delivers consulting services, training, tools and guides, to help business people apply the methods and concepts presented in this document. Since the mid 1980s, Solution Matrix consultants have delivered successful business case solutions for companies across a wide range of industries and sizes, in North America and Europe. Solution Matrix Ltd. is based in Boston, Massachusetts.

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