

Business Case Essentials

A Guide to Structure and Content

Third Edition



*A complete introduction to what belongs in a business case, and why.
The business case in private industry, government, and non profit organizations.*

Marty J. Schmidt

Business Case Essentials

A Guide to Structure and Content

Marty J. Schmidt

Registered Review Copy
Nº 100000024

Published by Solution Matrix Ltd.

Business Case Essentials, Third Edition.

Registered Review Copy

N° 100000024

Copyright © 2009 Solution Matrix Ltd.

All rights reserved. This copy is licensed for the personal and professional use of the registered owner above and on the cover page, only. Under United States and International copyright law, no part of this book shall be reproduced, stored in a retrieval system, or transmitted by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from the author. Violators will be prosecuted to the maximum extent of the law. No patent liability is assumed with respect to the use of the information contained herein. Although every precaution has been taken in the preparation of this book, the author assumes no responsibility for errors or omissions. Nor is any liability assumed for damages resulting from the use of the information contained herein.

International Standard Book Number: 978-1-929500-02-4

Published by Solution Matrix Ltd.

304 Newbury Street, N° 350

Boston MA 02115 USA

1st Edition September 1998

2nd Edition July 2006

3rd Edition July 2009

Financial Metrics Pro and Financial Modeling Pro are trademarks of Solution Matrix Ltd.

Excel is a trademark of Microsoft Corporation.

Crystal Ball ® is a registered trademark of Oracle Corporation.

Contents

Chapter 1: What's a Business Case?	I
Essential Elements	I
Start With a Subject and a Purpose	2
The Subject: What the Case is About	2
Business Case Purpose	2
Defining Success.....	3
Credibility.....	3
Practical Value.....	4
Accuracy.....	5
Scenarios Make the Case	5
Chapter 1 Summary	8
Chapter 2: Introduction and Overview	9
Title and Subtitle.....	9
Author and Recipients	10
Date.....	11
Executive Summary	11
Disclaimer.....	12
Subject Statement.....	13
Name the Proposed Action.....	13
List the Scenarios.....	14
Identify Business Objectives	14
Describe the Proposed Actions	16
Purpose Statement.....	17
The Situation	19
Chapter 2 Summary	21

- Chapter 3: Methods and Assumptions..... 23**
 - Financial Metrics..... 24
 - Benefits Rationale..... 28
 - Benefits Terminology..... 28
 - Making Objectives Tangible 30
 - Targets for Objectives 33
 - Financial Value for Non Financial Objectives 35
 - Assumptions..... 37
 - Major Assumptions 37
 - Are Assumptions Necessary? 38
 - Keeping Assumptions and Explanations in View 39
 - Scope and Boundaries..... 39
 - Cost Model 41
 - Two Approaches to Cost Modeling..... 42
 - The Resource Based Cost Model 42
 - The Activity Based Cost Model 45
 - Which Approach: Resource or Activity Based Model?..... 45
 - Cost Items for Cash Flow Statements 46
 - Data Sources 48
 - Chapter 3 Summary..... 49

- Chapter 4: Business Results..... 51**
 - Cash Flow Model 51
 - Negative and Positive Numbers 52
 - Cost Savings and Avoided Costs as Benefits..... 52
 - Year 0 for Immediate Inflows or Outflows..... 57
 - Where is Projected Income (or Earnings/Profits?) 57
 - Categories for the Cash Flow Statement 58
 - Should Business Case Projections Include Taxes? 59
 - Where do the Cash Flow Figures Come From?..... 59
 - Example: Modeling and Estimating Initial Training Costs..... 60
 - Analysis of Results..... 64
 - Non Financial Results 66
 - Chapter 4 Summary..... 66

Chapter 5: Sensitivity and Risk Analysis	73
Sensitivity Analysis.....	73
Making Assumptions: Point Estimates vs. Ranges.....	74
Simple Sensitivity Analysis	75
Sensitivity Analysis with Monte Carlo Simulation	77
Risk Analysis.....	80
Probabilities for Assumptions	80
Risk Analysis With Monte Carlo Simulation	82
Analysis of Full Value vs. Incremental Cash Flow Results	83
Maximizing Results and Minimizing Uncertainty	85
Sensitivity and Risk Analysis for Non Financial Benefits and Costs	87
Chapter 5 Summary	89
 Chapter 6: Conclusions and Recommendations	 91
Conclusions.....	91
Recommendations	93
Chapter 6 Summary.....	97
 Index	 99
 Further Information	 103

Acknowledgements

Business Case Essentials first appeared in 1998 as a 20-page white paper. It was a response to requests from consulting clients and seminar participants for a concise outline of business case structure and content. What they wanted especially was a brief, clear outline showing what belongs in a business case and why. There are many templates and examples available that show one approach or another to business case analyses for specific situations—IT hardware acquisitions, environmental protection projects, or process reengineering initiatives, for instance. However, none of these really bring out the essence of business case analysis itself, or what it takes “make” the case. Nor is there much available in the form of a step-by-step guidance for building and using a case. *Business Case Essentials* was written to meet those needs.

Based on reader feedback and suggestions, *Essentials* was expanded into a longer white paper in 2006, and now into a 100-page book. The goal is still to create a guide that is concise and clear, but the longer format allows more complete coverage of important questions that could not be addressed in the shorter white papers. In addition, there are many improvements due to contributions from colleagues, seminar participants, clients, and readers of all kinds.

In preparing this edition I am especially grateful for contributions and feedback from my colleagues and partners in Solution Matrix, Jeff Jackson (Auckland, New Zealand), Johannes Ritter (Frankfurt, Germany) and Anuar Mohd Ariff (Kuala Lumpur, Malaysia).

For valuable contributions, suggestions, and feedback I would also like to thank,

- Joe Ahern, Cheyenne, Wyoming
- Lars Björkeson, Stockholm, Sweden
- Allan Castillo, Irving, Texas
- Patrick Dugan, Rochester, New York
- Jörgen Eklund, Stockholm, Sweden
- Phil Lori, Perth, Australia
- Sean McSpaden, Salem, Oregon
- Tom Richardson, Santa Rosa, California
- Frank Röttgers, Frankfurt, Germany
- Don Schwartz, Santa Rosa, California
- Darren Wellington, Salem, Oregon

Marty J. Schmidt, MBA, PhD
New York, New York
8 July 2009

Chapter 1

What's a Business Case?

Essential Elements

When is a business case complete? What makes it compelling and credible? Are there standards or rules for business case structure and content? If you are asking questions like these, you are not alone. Business people today are rapidly losing tolerance for management error and, at the same time, demanding real accountability for decisions and plans. Throughout the business world, moreover, the competition for scarce funds is becoming more intense. As a result, everyone talks about the “business case” these days. Nevertheless, surprisingly few people in business really know what that means.

A business case is similar in some ways to a legal case presented in court. The trial lawyer and the business case author are both free to structure arguments, select or ignore evidence, and package the formal presentation. Whether or not the result is effective depends on their ability to tell a convincing story with compelling logic and facts. This can usually be done in many different ways. There is no single correct outline, format, or content list.

Looking beyond superficialities, however, all good cases clearly have many characteristics in common. Good business cases, for instance, always present (in one way or another) rules for deciding which data belong in the case and which do not. They stipulate, that is, the boundaries of the analysis. Readers need this information in order to know confidently that the case reflects all costs and benefits that are relevant and only those that are relevant. When fundamental information of that sort is missing or unclear, intelligent readers sense the lack instinctively and credibility suffers.

We cannot prescribe a single outline or template for all cases, but we can identify “building blocks” of this kind that are essential to building a logical structure and supporting it with evidence that will stand up to critical scrutiny, serve as a useful guide to management, and predict what actually happens.

In this book, essential building blocks appear in five categories::

- Introduction and Overview (Chapter 2)
- Assumptions and Methods (Chapter 3)
- Business Results (Chapter 4)
- Sensitivity and Risk Analysis (Chapter 5)
- Conclusions and Recommendations (Chapter 6)

The contents of *Business Case Essential, 3rd Edition* are covered in more detail in the book *The Business Case Guide, 3rd Edition*. For more information on the *Guide* visit www.solutionmatrix.com/guide. For more on other business case resources, visit the Solution Matrix Ltd. web site at www.solutionmatrix.com. Copyright © 2009 by Solution Matrix Ltd. All rights reserved. N° 10000024

This list shows a very natural order for presenting important information categories in the case. Each category, moreover, includes a number of building blocks that should be approached in a certain order. Order is important because later blocks depend on earlier blocks. In the case building project, the author develops these blocks in about the same order they appear in the business case report. In a sense, the business case author takes readers through the same reasoning—down the same path—that he or she has just traveled in building the case. You can think of *Business Case Essentials* as a journey down this path where we review what author and reader need to know about each building block.

Start With a Subject and a Purpose

The entire business case follows from a clearly described *subject* and *purpose*. In fact, we meet these two sets of information in Chapter 2, as essential building blocks in the **Introduction Section**. A subject statement describes what the case is about, and the purpose statement explains what it will be used for.

The Subject: What the Case is About

There are many kinds of business cases on many subjects, but most have this in common: Each case is “about” two kinds of things:

- A proposed action or decision.
- Meeting business objectives addressed by the action.

The business case asks “What happens if we take this or that action?” The case answers in business terms—terms focused on financial results, business objectives, and measures of progress toward those objectives. The case is “about” meeting business objectives through a proposed decision or action.

Case building begins when the case builder knows the business objectives to be addressed. These might include, for instance, reducing costs, improving employee productivity, or increasing sales revenues. Case building continues when the case builder explains how these objectives will be addressed, through specific actions such as funding a project, making a capital acquisition, or bringing a product or service to market.

Each of these potential actions presents management with choices, such as : “Should we undertake employee training? Should we fund the project? Bring the product to market? Make the acquisition? Which vendor should we choose? Should we start now or start a year from now? For such questions, the author recommends some answers over others and then “makes the case” by showing why the recommended answers are preferred.

Business Case Purpose

Why is the case being built? Who will use it? For what purpose? What information do they need in order to meet that purpose? The author needs to answer these questions before building the case because they are crucial to knowing what to put in the case.

Business people turn to the business case for several kinds of reasons:

- To address **decision support** questions, such as “Should we fund the proposed project?”
- To address **planning** questions, such as “How much funding will we need if we approve the project?”
- For **management and control** questions, such as “How do we maximize returns and minimize risks?”
- For **accountability** questions, such as “How do we show that we complied with vendor selection requirements?”

A single business case may in fact address several or all of these kinds of questions. In the current business climate such questions are coming more and more often, with increasing urgency, in business, non profit, and government organizations of all kinds.

Defining Success

From the start of the case building effort, the author needs to have in mind a clear definition for “success” with the case. To the project manager seeking project approval with a business case, getting a “Yes” from the Project Management Office might seem like success. To the sales person supporting a customer proposal with a business case, getting closure on the sale might seem like success. However, a better definition of success—one that provides practical guidance to case builder and reviewer alike—takes the position of the organization and decision makers responsible for using case results. From this viewpoint, a *successful* business case meets these criteria:

- **Credibility:** The case is believed.
- **Practical Value:**
 - It enables decision makers and planners to act with confidence.
 - It enables them to manage the action for optimum results.
 - It discriminates clearly between proposals that should be implemented and those that should not.
- **Accuracy:** It predicts what actually happens.

Notice that these criteria are tested in the order given. If the case is not believed, the other criteria do not matter. If it does not bring decision makers to a confidence level where they will take action, no one will ever know if the predictions are accurate. Whether or not the project managers or sales people actually get approval or closure depends on their ability to design and build a case that meets these criteria.

Credibility

Business case reviewers may know a lot or they may know very little about what to look for in a business case. They may or may not know what makes the difference between a strong case and weak case. In all cases, however, you can be sure they know this much: The business case looks into the future. Everyone knows that predictions about the future come with uncertainty.

Reviewers will have questions that must be addressed—questions like these:

- How do we know we will actually see these results?
- How likely are *other* results?
- How do we know that all important costs and benefits are included?
- Are there any hidden costs or other unpleasant surprises coming?
- How do we know that different action proposals were compared fairly?

Case builders cannot hope to eliminate all uncertainty from predicted results. They are predicting the future, after all. However, they can minimize uncertainty and measure what remains. Almost all of the “building blocks” in the following chapters contribute to case credibility by providing concrete answers to the questions above. The **cost model**, for instance, helps show that all relevant costs and only the relevant costs are included (Chapter 3). **Risk analysis** shows the likelihood of other results instead of the primary predicted results (Chapter 5)

Practical Value

Business case reviewers may believe every word and number in the case, but still find the case does not meet their needs. When this happens, they may send it back to the author for re-work or more research in areas *they* are interested in. Or they may ask for stronger arguments in favor of projected results. Or, they may simply table the case and take no action on it. When this happens, the case clearly has not given reviewers enough confidence to act upon the results. For them, the case fails the practical value criterion.

Case builders can build in practical value by determining at the start of the case building project specifically:

- Which decision criteria are important to reviewers—which criteria will turn their decision one way or another.
- Which financial outcomes and which non financial outcomes reviewers are looking for.
- Other important factors that may influence reviewer decisions (e.g., mandatory legal requirements or a cash flow shortage).
- Specific information that planners need (e.g., total capital costs, or payback period for an investment).
- How competing proposals will be prioritized (the criteria by which competitors will be ranked).
- How much uncertainty reviewers are willing to accept in projected results.

First-time case builders are sometimes surprised to learn that these points are not necessarily determined or obvious when a proposed action is simply named. What it takes to “make the case” for any proposal typically depends on such things as the current business situation, the values and priorities of individual reviewers, organizational policy and history, and—most importantly—the business objectives addressed by the action.

In the business case structure presented here, the information that gives practical value to the case is identified when case building starts and is presented in the case report as part of the **purpose statement** building block (Chapter 2).

Accuracy

Failure on the first two success criteria (credibility and practical value) may disappoint the case builder. Failure on the third criterion—accuracy—can hurt the entire organization, especially if reality turns out much worse than predicted. When products fail in the market, when projects are grossly over budget, or when expensive assets do not justify their existence, the problem very likely started with an inaccurate business case.

Some people may object at this point: “It takes *time* to test accuracy. We are projecting business results three years into the future, after all (or five years, or twenty years). We won’t know how the case scores on accuracy until the end of that period.” And, putting the spotlight on business case accuracy makes some people uncomfortable. They ask if they should be held accountable in three years for delivering on predictions made today. “Things change,” they say, “and assumptions underlying the case today will certainly be different in three years.” The knowledgeable case builder has two good responses to that line of reasoning.

First, some of the case building blocks in the following chapters enable the case builder to minimize, limit, measure, and communicate uncertainty in projected business results before a proposal is implemented. The only *absolute* certainty in predicting business results is that no one can predict with absolute certainty the consequences of a complex action. If you project five-year cash flow benefits of, say, \$10.5 million, you can be very sure that over time it will not be *exactly* that.

Nevertheless, the case builder can use building blocks such as the **scope and boundaries statement**, **cost model**, **benefits rationale**, **sensitivity analysis**, and **risk analysis**, to make compelling support for claims like these: “The 90% confidence interval for five-year net cash flow is \$8.0 - \$13.2 million.” Or, “The probability that next year’s training costs exceed \$120 thousand is less than 0.05.”

There is also an important second point about building in and communicating accuracy as well. The business case user can in fact begin testing, maintaining, and improving accuracy of case results immediately after the proposed action begins. Used this way, the business case provides a very powerful kind of statistical quality control for projects, programs, asset management, and other business investments. The key to understanding how this works is understanding the role of *assumptions* in projected business costs and benefits (See Chapter 5).

Scenarios Make the Case

Where in the business case, exactly, is the *proof* that one proposed action represents the best available business decision?

Business case proof is built on reasoning very similar to the rationale behind scientific proof in the laboratory. In chemistry or physics research, for instance, the scientist tests the idea that one factor causes another, or that one theory accounts for reality better than another, with a controlled experiment. The researcher demonstrates “proof” by comparing experimental results from different, carefully controlled test conditions.

Similarly, the business case author “proves” that one proposal or another is the best choice by comparing carefully designed *scenarios*. Generally speaking, a scenario is an account, or story, that

describes what happens under one course of action. In the business case, the “what happens” is presented in business terms that are important to decision makers and planners (See “Practical Value,” p. 4).

Consider briefly, an example used throughout this book referring to a company that designs and manufactures mechanical parts for aerospace industry companies. In the current economic climate, and in a highly competitive market, management decides that several business objectives are especially important:

- Reducing design and manufacturing costs.
- Improving their ability to design and produce more complex products.
- Increasing the number of products developed and sold each year.
- Increasing average gross margin per product and overall gross profits.
- Reducing new product design time.
- Reducing manufacturing setup time.

They may consider ways to address this set of objectives, such as

- Specialized training for engineering and manufacturing professionals.
- Reorganizing design teams.
- Upgrading the engineering design system software.

Which of these is the best course of action? Should they try one solution or a combination of these? A business case can address these questions by projecting and comparing business results under several action scenarios, for example:

- Scenario 1: Proposed upgrade of design system software.
- Scenario 2: Combination proposal: Train, reorganize, and upgrade software
- Scenario 3: Business as usual.

Exhibit 1-1 (next page) summarizes the structure and contents of the business case. The entire case is a logical structure, an assembly of building blocks, each designed to help establish the credibility, practical value, and accuracy of the scenarios at its heart. Based on the scenario comparison and risk and sensitivity analyses, the author will recommend one scenario for action (which may even be the “Business as Usual” scenario). The following chapters present the structure and the blocks that make this possible.

Business Case Analysis Proposed Engineering and Manufacturing Improvements

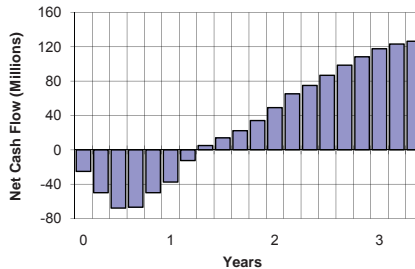
- Subject of the case:
 - Business objectives.
 - Proposed actions.
- Purpose of the case.
 - Who will use the case and for what purpose.
 - What information is required to meet the case purpose.
- Scope and boundaries of the case.
 - Time period to be analyzed.
 - Whose costs and whose benefits are included in the case.
- Background situation and context: Why meeting these objectives is important.
- Threats and constraints impacting choice of action.
- Important assumptions and methods.
 - Benefits rationale.
 - Cost model.
 - Assumptions (e.g., market size, inflation rate, raw materials prices).
- Proposed action scenarios.

Scenario 3: Business as Usual (Baseline)

Scenario 2: Combination Proposal

Scenario 1: Proposed Upgrade Design System Software

- Scenario-specific actions
- Scenario-specific assumptions
- Projected financial results



- Financial metrics (e.g., total cost, net cash flow, net present value, return on investment, and payback period)
- Non financial benefits and costs (contributions to non financial business objectives)

- Scenario results compared.
- Sensitivity analysis: (measures how much each assumption contributes to business results).
- Risk analysis (the likelihood of different outcomes).
- Conclusions and Recommendations.
 - Recommended choice of action scenario.
 - Critical success factors, important contingencies, and risk factors that must be watched.

Exhibit 1-1. Business case structure and content.

Chapter 1 Summary

- There is no single correct outline or content for the business case, but all good cases have some characteristics (building blocks and structure) in common.
- Essential building blocks for the case naturally fall into five categories:
 - Introduction and overview
 - Assumptions and methods
 - Business results
 - Sensitivity and risk analysis
 - Conclusions and recommendations
- The business case subject statement describes what the case is about. The proposed actions are described, and the business objectives they address are presented. The subject statement also identifies the different action scenarios that will be compared.
- The business case purpose statement describes who will use the case, for what purpose, and what information they need to meet that purpose.
- A successful business case meets these criteria:
 - Credibility: The case is believed.
 - Practical value: It enables decision makers and planners to act with confidence.
 - Accuracy: It predicts what actually happens.
- The author makes the case (“proves”) that one scenario represents the better business decision by comparing projected results from two or more action scenarios. Insofar as possible, one of these will be a “Business as Usual” (baseline) scenario.