HELPING YOU BUILD A BETTER BUSINESS CASE
For Biometrics or Any Emerging Technology or Project

Investments in technology projects can be difficult to justify with lots of data to collect, numbers to "crunch" and challenges boiling dissimilar information down to some all-inclusive result. Some criteria are quantifiable and even comparable in terms of dollars; while others are subject to opinions that vary from one individual to the next. This paper looks at the Business Case as a tool that not only helps to justify projects, but to select the best alternative from among the different choices that will be available. Although applicable to any project or technology, biometrics is highlighted.

So, exactly what is a Business Case?

A business case represents a study of costs, choices and other considerations. It provides executive highlights, but also explains details for those that need or want them. Essentially every factor that goes into a project is considered, evaluated, studied and analyzed to estimate the expected impact upon specific opportunities and situations that are under consideration. Results are then summarized, pro forma reports and statements compiled when appropriate, and recommendations and evaluations made to aid decision-makers in providing informed business decisions. The bigger the investment, the more essential the business case becomes and the more complicated the analysis will be. Overall, the business case will do the following:

- Justify the investment being made
- Aid in selecting the best possible course of action or alternative
- Serve as a checklist to avoid overlooking important details
- Provide metrics for post mortem project assessments and reviews
- Assure that all stakeholders are on board and that they agree with not only conclusions, but the underlying assumptions and methodology. After all, they will be expected to play a key role when it comes to implementing the project.
- Serve as a foundation for a project plan as well as later initiatives

The Starting Point

Start by considering an array of opportunities, challenges and concerns such as those in the diagram to the right. Be careful to avoid leaving out something that may be important. No item should be dismissed before its true impact has been considered or assessed. Priorities can then be more accurately set to assure analysis of the most relevant and important ones when proceeding with the development of the business case. Then, as the investigation continues, other items may become apparent that are also relevant. The result becomes an iterative process that gets better and better as it proceeds.
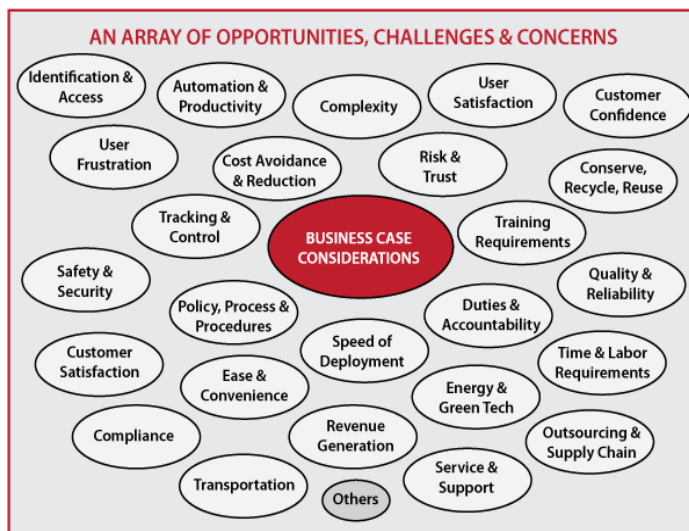
Results are seldom black or white.

Tradeoffs turn matters into varying shades of gray. It often takes creativity to determine values that are representative without distorting the integrity of results. The business case will help to organize and analyze information that is required. It will also make it easier to finalize the course of action that follows the justification for funding and implementation. Our suggestions improve the approach and the organization of data while minimizing challenges that will be encountered along the way. This help and second opinions are appropriate as busy schedules may not always permit the time necessary to do every job completely and correctly.

The same product or solution is often not right for everyone.
There can be subtle differences that detract from results. It is important to assess value that distinguishes between what is important from the perspective of both those who pay the bills as well as for those who will be using whatever is being purchased. Indexes can be created that reflect varied rankings of importance and value. When comparing alternatives, the choice, "Not to make changes," is always an option. Why risk doing something that is likely to make things worse. Not knowing is seldom an acceptable excuse.

What if things appear overwhelming or seem to go too far, too fast?
It may be time to step back and question whether or not the project is too aggressive and impractical. If any warnings that surface during the development of the business case are not heeded, it can lead to failures to reach project goals and objectives. It can also result in costly delays while problems are being resolved. This is especially true with biometrics and other new technologies. Something is a lot easier to implement the second time and even easier the third and so on. The first time around it is better to be extra cautious. This is the time to find out what corners can be safely cut the next time. With any new, evolving technology, take special care to assure that designs have stabilized enough to permit shortcuts. Why not be safe than sorry?

What could the executive readers of your Biometrics Business Case be thinking?
The Business Case for Biometrics represents a prime example of what can go wrong when trying to justify something. Just suppose that you prepare the greatest possible Business Case for introducing biometrics into your company to solve access control and other security shortcomings. Instead, what would happen if those signing the checks only get excited about projects that save money? Even worse, some people believe that security breaches are like lightning . . . . . "they only strike an unlucky, careless few that ask for it." Now what does that do to the arguments in your business case? What could have been done about it? Instead of stressing biometrics, why not talk about the fraud reducing time and attendance machine that has an automatic input to a payroll system. Back up your recommendation with a page of relevant savings that will result. Then, once installed, while the thing cuts fraud and reduces clerical expense, it will also acquaint employees with the value that biometrics provides as it improves the frustrating, time wasting aspects of jobs and lives. Would that not make you a hero? Yes, most likely, but after downplaying and defusing privacy "concerns" of those who have been "buddy punching." So, not understanding your audience could be mistake number 1.

You can also build compliance savings around automatic logging, reporting and control using biometric identification. Consider, too, the cost of cleaning up a privacy and data breach that can cause identity thefts. Cost avoidance is also attractive when there is a significant and growing probability of being breached.

Where do people have the most trouble getting started?
We have found that many people have been pre-sold about the need for a business case. However, the disconnect is that, once motivated, problems result from not knowing precisely what their own business case should accomplish, how to prepare it and how to get the greatest value from the effort that is required. Not setting bounds and realistic expectations for a project can be mistake number 2. It can be especially difficult, if not impossible, to deliver something that is overly complicated and unrealistic in its goals and objectives.

Another problem area is terminology. Those with technology backgrounds have trouble dealing with accounting and financial terms, and those with business backgrounds get hung up trying to figure out how features and functions translate to business value in terms of profits, revenues, savings, cost avoidance and so on. Yes, people have trouble communicating. (Could that be mistake number 3? You get the drift. Now look for other things that could detract from the success of your own business case.)

What is the difference between qualitative and quantitative?
Understanding is very important to business case development. You will find it highly beneficial to translate qualitative measures into quantitative ones. This allows the summarization of comparative results in terms of the standard, commonly-used yardstick, the dollar.

Qualitative indicates subjectivity. It represents factors that are hard to measure, such as frustration, ease and convenience, where we each have our own standards and measures. They are typically looked at from a relative sense rather than an absolute one. If we have familiarity and training in a particular area, it should appear simpler and easier to us than to someone else without our special skills and background.

Quantitative infers objectivity. It involves the expression of values from an absolute numerical point of view, usually in terms of dollars. Consequently, quantitative analysis lends itself to the comparison of one thing to another where one is greater than, equal to or less than something else. An example is that something costs $3 less. The contrasting qualitative expression is that something is less costly, cheaper, inexpensive and so on.

Spreadsheets are a big help when comparing alternatives.
Creating and using a spreadsheet can be very useful when examining the impact of changes on bottom line results. It is great to have data update itself automatically and quickly to see what works and what doesn't. This indicates how volatile the impact would be if changes occur.
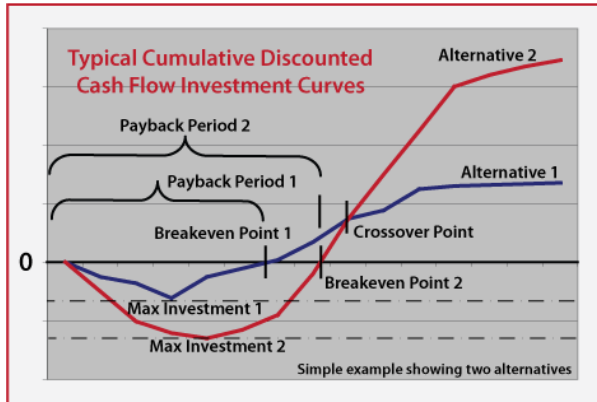
Analytics are essential to any business case.
A business case will likely include a study that provides quantitative assessments based upon ranges and extremes such as high, low and normal or most likely. Soft costs and values that are not readily quantified such as reduced frustration, increased customer satisfaction, greater ease-of-use, improved reputations, reduced risk and increased compliance tend to create obstacles when it comes time for absolute comparisons. Restating them in relation to things that can be expressed and summarized in dollars should be done to the greatest extent possible.

Please look at the following examples to see how this can be done. Consider a few "factors" and the ways that they are typically measured ("Qualitative Measures"). The "estimating approach" suggests ways to convert subjective qualitative information to quantitative, analytical measures.

FACTOR	QUALITATIVE MEASURES	ESTIMATING APPROACH
Customer satisfaction	Surveys and assessments of customer behavior (purchases) can be related to an index of satisfaction	Look for sales database entries about referrals and reasons for added purchases. Summarize and extrapolate the results in dollars.
Frustration	Is there a correlation to sick days? Help desk trouble calls can also be an indicator if not resolved quickly. How long are they open?	Consider adding up costs and frequencies and extrapolate for the number of individuals and time period.
Ease of use	Before and after studies reported from evaluations and pilot projects should provide the necessary data to consider this and other factors.	Create averages and extrapolate times saved to the entire universe. Multiply average employment costs times hours saved.
Reduced risk	Industry studies estimate costs and the probability of incurrence.	Multiply costs times probabilities times the size of the universe impacted.

The Role of Cumulative Discounted Cash Flow Analysis (CDCFA)
This is the heart of the business case, the place where the rubber meets the road. It is the point where all of the data that has been meticulously collected above gets summarized and is then compared for use in a final decision-making process. Summarization is in the form of Cumulative Net Discounted Cash Flows.

Typical Cumulative Discounted Cash Flow Investment Curves

Payback Period 2

Payback Period 1

Alternative 2

Alternative 1

Breakeven Point 1

Crossover Point

0

Max Investment 1

Breakeven Point 2

Max Investment 2

Simple example showing two alternatives

When Cumulative Net Discounted Cash Flow data is plotted for each project alternative, a family of hockey-stick-shaped curves results in which each curve shows:

- Data that is cumulative (additive over time) and differential (compared to pre-project costs and benefits)
- Net sums of positive and negative cash flows that represent investments, expenses and benefits
- Values that are expressed in constant dollars based upon a desired internal rate of return for this type of investment
- A low point that is the maximum net investment that applies to that alternative
- A zero point that is when the alternative breaks even compared to the status quo
- Its own payback period (time required to breakeven)
- Estimates of net cumulative value are shown that represent what is expected at every point in time for the project.

The maximum net investment, payback period and net cumulative values are especially important to those making decisions about going forward and the ways to do so. They give the financial perspective that says, "The less you invest, the sooner you get your money back and the more money you make, the better." The curves readily show the best ones in each category, but probably none will score highest in all three.

Nothing replaces sound business judgment.

There are probably readers who are disappointed because they now realize that a CDCFA is not an automatic way to make final project decisions. Yes, this is true, but it is not just because three scores may need to be reconciled. Whether it is a CDCFA, Cost-Benefit Analysis or some other tool, each one has its limitations, its place and its value in the decision-making process. The challenge is to use each one as effectively as possible to understand all of the ramifications that go into project decisions. Each one complements the others to collectively aid business leaders in making informed decisions. However, it is then up to them to supply their own sound business judgment.

In Summary

A good business case is an important tool for those making investment decisions. It also aids those making related day-to-day decisions by forcing managers to carefully consider all alternatives and aspects of the work that they will be required to supervise and deliver. Although those without an accounting/finance background will find business cases more challenging, no one making technical decisions should fail to recognize the financial consequences of their actions. The business case should be helpful to them.

For assistance with business cases, biometrics and other emerging technologies, please contact:

Rockwood Management Services
52 Johnson Drive
Chatham, New Jersey 07928
973-635-1970
Info@Rockwood.com
www.Rockwood.com

Attachment

Business Case Terms

Following is a partial listing of accounting and finance terms that may be of interest. We expect to discuss them further in reissues of this paper.

- *Cash Flow*

- *Cumulative Discounted Cash Flow Analysis (CDCFA)*

- *Cost-Benefit Analysis*

- *Discounted Cash Flow*

- *Earnings Before Interest and Taxes (EBIT)*

- *Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA)*

- *Internal Rate of Return (IRR)*

- *Net Present Value*

- *Payback Period*

- *Pro Forma Statements*

- *Return on Investment (ROI)*

- *Total Cost of Ownership (TCO)*