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Learn to Speak the Language of ROI

by John O'Leary

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Learn to Speak the Language of ROI

If you can't explain your idea in terms of its return on investment, it will die a painful death in the corporate finance department.

NOBODY IS getting approval to spend money these days unless he can demonstrate an economic return. And so nonfinancial professionals are having to master the mysterious lexicon of return on investment (ROI), which includes terms such as *breakeven, internal rate of return,* and *discounted cash flow.*

These concepts should be second nature for anyone charged with making or monitoring financial decisions. But in too many companies, an understanding of ROI is limited to the finance department.

Say you want to spend $200,000 on a new automated call system. You're jazzed up about how reducing wait times from 60 seconds to 30 seconds will boost customer satisfaction and loyalty. As important as such improvements are, they're not what the green-eyeshade types in finance care most about. For them, the key benefit is adding more money to the bottom line. Since they're the ones making the decision on your project, not only do you have to understand how the new system will increase profits, you must also be able to make the case for your initiative using the language of financial modeling.

The pressure is most noticeable in IT: in a 2001 survey by *Information Week,* 80% of IT and business professionals said that the importance of measuring the ROI of technology investments had increased over the prior year. But all managers are under greater scrutiny. "More and more managers are being asked to justify their spending using ROIs," says Linda Matthews, assistant professor of management at the University of Texas-Pan American.

Says Joe McCuine, director of finance for investment operations at Deutsche Asset Management in Boston, "Any business leader who doesn't understand an ROI analysis is in trouble." To get your project funded, especially when money is tight, here's what you need to learn.

Cash flow modeling

An ROI analysis enables you to compare the financial consequences of two (or more) business alternatives. An ROI is meaningless unless you specify the time frame over which the financial performance is to be measured; most ROI calculations seek to project three to five years out.

Should we spend X dollars to do Project A or Y dollars to do Project B? Would we be better off buying or leasing? Would it be better to build this product in-house or to outsource? To answer such questions you have to build a business case—a financial story based on facts, reasonable assumptions, and logic. At the heart of this story is a picture of the expected cash flow. A cash flow projection provides estimates of the net financial impact of a decision over a period of time. To construct such a projection, you must document not only all of the expected costs and benefits of the decision but also the time period in which they occur.

Here it's important to highlight a crucial difference between an ROI cash flow analysis and a profit-and-loss (P/L) statement. The ROI analysis is cash-based. A P/L, on the other hand, is a financial analysis that uses standard accounting principles to spread out costs in a reasonable fashion. For example, on a P/L, an expenditure for a piece of equipment with a useful life of five years would be amortized over that time frame, with one-fifth of the cost hitting the P/L each year. On a cash flow statement, the charge hits in the time period that you send the check out the door.

One way of building a cash flow is translating "soft" benefits into hard numbers. If you work for an airline and want to increase passenger legroom, it would be easy to calculate the hard costs of removing several rows of seats. But how would you quantify the benefits of having happier, more comfortable passengers?

One approach might be through survey data showing that, say, 10% of your passengers would be willing to pay a 15% premium for more legroom. And don't forget to estimate the financial impact of the higher customer retention you might experience because of your roomier seats, or of the new customers you might win over. You may want to build a spreadsheet to see how your estimate of the financial benefit changes as you alter your assumptions.

Once you've finished estimating all the positive and negative cash flows associated with the decision in question, summarize the cash flow by calculating the net impact for each time period. At that point, you're ready to start analyzing the results using the following methods of comparison:

- **PAYBACK PERIOD.** This is the point at which all the costs expended have been recovered. Many companies have a benchmark of five to seven years as a maximum payback period.

- **BREAKEVEN POINT.** This is the moment when costs are matched by

increased revenue or cost savings for that period. The time between the breakeven point and the end of the payback period will vary according to how significantly revenues outpace costs after the breakeven point has been reached.

▪ **Discounted cash flow (DCF).** This is a summarized cash flow that accounts for the time value of money, which is an adjustment for the fact that $100 received today is worth more than $20 a year for next five years. The DCF shows the impact of your project in today's dollars. The present value of $100 is calculated with the following formula:

$$\text{Present Value} = \$100 / (1+x)^n$$

where *n* is the number of years into the future that the benefit (or cost) will occur, and *x* is the interest rate expressed in hundredths.

▪ **Net present value (NPV).** The sum of all the present values in the discounted cash flow, the NPV gives you a sense of the absolute size of the return expected from a project. As shown in the example, the NPV of $84,000 means that the projected overall financial benefit of doing the project is equivalent to realizing an immediate gain of $84,000. The NPV should be looked at in light of the size of the investment that will be made,

Building the Financial Case

The following ROI analysis makes projections for the launch of a fictitious new product, the RT-200. As with many cash flow analyses, this spreadsheet compares the financial consequences of investing in the launch of the RT-200 against the alternative of "standing pat," that is, not launching the product (which carries no cost or return).

US$ in thousands	Year 1	Year 2	Year 3	Year 4	Total
Financial Benefit (Revenue or Cost Savings)					
Revenue	–	500	1,000	1,500	3,000
(Lost revenue)	(50)	(100)	(100)	(100)	(350)
Cost savings	–	100	120	130	350
Total Benefit	(50)	500	1,020	1,530	3,000
Investments					
Capital Expenditures:					
Hardware	600		100		700
Licenses	200				200
Development	500			100	600
Subtotal Capital	1,300	–	100	100	1,500
Operating Expenses:					
Headcount	25	25	25	25	100
Fabrication		55	90	155	300
Marketing		420	130	50	600
Subtotal Operating	25	500	245	230	1,000
Total Investments	1,325	500	345	330	2,500
Return on Investment				**Total Return =**	**$500**

	Year 1	Year 2	Year 3	Year 4	Total
Total Cash Flow	(1,375)	-	675	1,200	
Discounted Cash Flow (Present Value)	(1,375)	-	557	901	84
Assumes 10% discount rate					

The bottom-line ROI analysis on the RT-200 project:

- The project will cost $2.5 million in capital and operating expenses during the next four years but will generate $3 million in additional revenue and cost savings, for a four-year ROI of 20%.
- The project will be at breakeven during Year 2.
- The payback period for this investment is between three and four years.
- The net present value of this investment is $84,000, assuming a discount rate (or cost of capital) of 10%.
- The internal rate of return is 12.5%.

which in this case is $2.5 million. Although any NPV above zero shows that doing the project is preferable to doing nothing, in practice the benchmark NPV to beat is not zero but how much the investment could have earned in an alternative investment. (Most business calculators have function keys that can compute a project's NPV for you.)

▪ **Internal rate of return (IRR).** This is the interest rate at which the discounted cash flow yields a net present value of zero. This metric is useful when comparing a variety of potential investments.

Getting your budget approved

Conducting the ROI analysis is just the first step. Now take it to the folks in finance. Don't bore them with talk about boosting customer satisfaction or reducing cycle times. Use the ROI analysis to spell out how your project will make the company money.

Returning to the automated call system example, your focus, when pitching this investment to the finance department, should be on how shorter wait times will mean fewer customers switching to competitors, which will translate into more revenue. Moreover, the new call system will require fewer customer service reps, which will also translate into lower costs.

This "dollars first" thinking will enable you to engage your audience in their passion—not yours. By describing your initiative in language that finance hears best, you're much more likely to win approval. ❖

Boston-based business writer ***John O'Leary*** *is the author of* Revolution at the Roots *(Free Press, 1995), a book about best practices in the public sector. He can be reached at MUOpinion@hbsp.harvard.edu*