

# Calculating ROI and Returns for IT Projects

Most companies have a raft of projects on their to-do lists and they fund those that offer the best return on their investment: If Project B has a higher return rate and shorter payback period than Projects A or C, your company will most likely fund Project B over A and C.

Project funding is largely a matter of math, and in an era of tight budgets and scrutinized spending, presenting a compelling project proposal is critical, especially for IT and infrastructure managers who oversee projects extensive in scope and expensive in cost.

We'll tell you how to develop the most effective project proposal possible by documenting a project's tangible and intangible benefits.

## Hard and Soft Dollars

The keystone of a strong project proposal is a meticulous accounting of both hard- and soft-dollar returns.

- **Hard-dollar returns:** The actual dollar amount your company saves or earns (and that shows up in year-end fiscal reports) as a direct result of implementing your project. This is a quantifiable measurement, a concrete number.
- **Soft-dollar returns:** Intangible benefits your company realizes by implementing your program, such as higher customer retention or lower employee turnover. This is a qualitative measurement, where you can describe, but can't finitely calculate, the return on investment.

We'll tell you how to determine both types of return. One caveat: All companies measure returns in different ways. Some use prescribed spreadsheets while others suggest different measurements according to project type. A good first step in developing your project proposal is to talk with your finance department about any specific requirements they may have on calculating hard- and soft-dollar savings.

## Calculating Hard-Dollar Returns

Hard-dollar returns represent the money a company saves as a result of implementing a project. For example, if, by installing a new customer relationship management (CRM) system, your company can downsize its Customer Services group from 75 full-time employees to 60, you'll save the company \$750,000 a year. That's the hard-dollar return, and you calculate it with a straightforward mathematical

## Calculating ROI and Returns for IT Projects

formula: The average customer service representative earns \$50,000 a year, and you've reduced their number by 15, so the CRM system you implement saves the company \$750K a year.

Companies prefer to fund projects with hard-dollar returns because that money shows up on the company's books, improving corporate performance and making management look better.

Most people use a single calculation to measure hard-dollar savings, the return on investment (ROI). While ROI is an important standard, it's only one of four ways to measure hard-dollar savings, and in this day of difficult project approvals you need all the ammunition you can get. So we'll show you how to calculate all four numbers for hard-dollar returns. That way, you'll be able to make a comprehensive proposal for your project, addressing management's primary concern—hard-dollar savings—from four angles.

The four measurements for hard-dollar returns are:

- Return on Investment
- Net Present Value
- Payback Period
- Internal Rate of Return

The calculations for these values all use a couple of common financial principles, the discount rate and the present value of money (not to be confused with net present value above), so we'll start by defining those.

### The Discount Rate

The discount rate, sometimes called the corporate discount rate, is similar to a bank's interest rate—it's a percentage that your company charges you for the money it lends you for your project. Why would your company charge you interest, you ask? Simple: Because it could make money on that money if it invested it in the bank instead. A good way to think of the discount rate is as your cost of capital.

Every company of any size has a discount rate, and your CFO or his equivalent calculates it. A company's discount rate doesn't simply reflect a bank's interest rate, however, though that's one of the three elements of a discount rate. Your CFO typically starts with that number--the interest rate your bank would give your company for investing money for a specific period of time--and then adds an amount to reflect inflation and the CFO's calculation for your project's default risk (the chance that your project will

## Calculating ROI and Returns for IT Projects

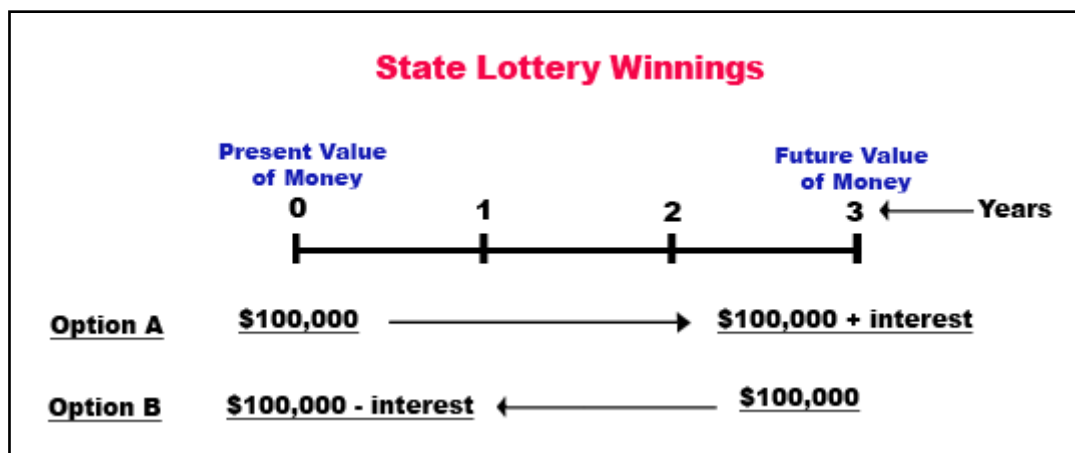
realize only 75% of its expected efficiency, for example). In a typical discount-rate calculation, the bank offers your company an interest rate of 5% and your CFO adds another 15% on top of that for inflation and risk, making your corporate discount rate 20%. Fortunately, getting your company's discount rate is as simple as calling your CFO.

### Present Value of Money

Present value of money goes by another, perhaps more familiar, term, the time value of money. Everyone knows that time is money. If you put money in a bank, it collects interest and is worth more over time. That's why we want to receive money today rather than the same amount at some time in the future—you can make good use of that money in the interim by investing it.

An example helps illustrate the point: say you win \$100,000 in the state lottery with the option to receive your \$100,000 today or in three years. Instinctively you know enough to opt for today, but let's prove the issue mathematically. After all, management will want you to prove the value of your projects mathematically.

So we need to compare the value of \$100,000 today and three years from now. To get these numbers, you use two calculations, one called the Future Value of Money, the other called the Present Value of Money. Each takes into account the interest rate the bank offers and the period of time in question (three years here). If you illustrated your alternatives, they'd look like this:



With Option A, the future value of your \$100,000 is more than \$100,000. With B, the future value of your \$100,000 is just that, \$100,000--and B's *present* value is therefore *less* than that.

## Calculating ROI and Returns for IT Projects

Let's do the calculations for Option A. What would your prize money be worth if you took it today and invested it for three years at an interest rate of 5%?

The calculation for the first year is simple:

Future Value of Your Prize = Present Value of Your Prize X (1 + Interest Rate)

Future Value of Your Prize = \$100,000 X (1 + .05)

Future Value of Your Prize = \$100,000 X 1.05

Future Value of Your Prize = \$105,000

So \$100,000 invested today would give you \$105,000 in a year.

What about after three years? You might think that you simply add \$5,000 for each year to get a total value after three years of \$115,000. But that's not the case: Your money's value is actually higher than that because the bank *compounds* your interest—it pays you interest on the interest you earn (plus the original amount, of course).

The way to account for compounded interest is to multiply the interest rate by itself for the period of time you invest your money. So, for a three-year investment, the future value of your prize money is:

Future Value of Your Prize = Present Value of Your Prize X ((1+ Interest Rate) X (1+ Interest Rate) X (1 + Interest Rate))

Future Value of Your Prize = \$100,000 X ((1+ .05) X (1+ .05) X (1 + .05))

Future Value of Your Prize = \$100,000 X ((1.05) X (1.05) X (1.05))

Future Value of Your Prize = \$100,000 X 1.16

Future Value of Your Prize = \$116,000

You can see that compounded interest gives you \$1,000 more than simple year-over-year interest.

Stated universally, the Future Value of Money calculation is:

Future Value of Money = Present Value of Money X (1+ Interest Rate)<sup>Term of Investment</sup>

But what happens if you choose Option B, to take the \$100,000 in three years? How much is that worth in today's dollars so you can decide between your two options?

## Calculating ROI and Returns for IT Projects

The way you determine the future value of money in terms of today's dollars is with the Present Value of Money calculation. It's the obverse of the Future Value of Money equation: Instead of *multiplying* by the interest rate to see what your money is worth at some time in the future, you *divide* by that rate to determine the value of that money in *today's* dollars—economists state the idea this way: you *discount* the future value of money to get its value today.

The principle of discounting future money so that you get its (lesser) value today is crucial to many of the calculations you'll make in developing your proposal, so be sure to understand it. Why is future money always discounted to get its rate today? Because time is money, and money is worth more over time—in the future--than it is now.

Here's the Present Value of Money calculation:

$$\text{Present Value of Money} = \text{Future Value of Money} / (1 + \text{Interest Rate})^{\text{Term of Investment}}$$

Now let's put this equation in terms of your lottery prize:

$$\text{Present Value of Your Prize} = \text{Future Value of Your Prize} / (1 + \text{Interest Rate})^{\text{Term of Investment}}$$

$$\text{Present Value of Your Prize} = \$100,000 / (1 + .05)^3$$

$$\text{Present Value of Your Prize} = \$100,000 / (1.05)^3$$

$$\text{Present Value of Your Prize} = \$100,000 / 1.16$$

$$\text{Present Value} = \$86,206.89$$

So taking your \$100,000 prize in three years is like taking \$86,207 today and investing it for that time period.

When you compare your two options, the difference is impressive: By taking the \$100,000 now and investing it, you not only end up with \$13,793 more cash in today's money (\$100,000 – 86,207), but the *future* value of your investment differs as well, by \$16,000: \$116,000 versus \$100,000.

You can see that time truly is money, and your managers understand this well. That's why you need to, too.

### Value of Money in IT Investments

You use these same calculations in proposing projects, and here's why: when you make a proposal to company executives, you need to tell them the benefits they'll realize in the future. After all, they have the

## Calculating ROI and Returns for IT Projects

option to put their money into a financial instrument instead of into your project. Management wants to understand why your project is the better investment, and the way to do that is by citing persuasive benefits and proving them mathematically.

But you not only need to tell management the benefits they'd realize in the future, you need to normalize those benefits to today's dollars. Why? For comparison purposes—management is considering making its investment in today's dollars, so it wants to compare its future benefits in today's dollars as well—therefore, to let managers make an apples-to-apples dollar comparison, you need to convert future benefits into today's dollar.

Let's put this principle to work in calculating the four measures of hard-dollar benefits using the following hypothetical IT project: You're installing a \$100,000 software system and you've calculated the dollar benefits to your company (called the Net Benefit, which you determine by subtracting your gross savings from your recurring costs) as \$50,000 annually. Since technology becomes obsolete relatively quickly, we'll use a term of three years, typical for IT projects. You've called your CFO and he's told you your corporate discount rate is 20%.

On to the calculations. Remember, the four measures of financial return are:

- Return on Investment
- Net Present Value
- Payback Period
- Internal Rate of Return

### Return on Investment

Return on Investment tells management how well a project repays the company. It's a ratio—a percentage—of the dollar amount your company gains from your project over what it initially spent—in simple terms, it's the company's payback.

As such, understanding the ROI calculation is easy: It's the Present Value of Money equation above--the *current* dollar value of the amount of money the company will realize in the future (the Net Benefit)--divided by the company's initial investment.

## Calculating ROI and Returns for IT Projects

The ROI calculation looks like this. Notice that in the calculation below, we have to take into account the fact that the interest on your net benefit (\$50,000) compounds each year, hence the exponents as you add up successive years.

$$\text{Return on Investment} = (\text{Net Benefit Year 1} / (1 + \text{Discount Rate})^1 + \text{Net Benefit Year 2} / (1 + \text{Discount Rate})^2 + \text{Net Benefit Year 3} / (1 + \text{Discount Rate})^3) / \text{Cost}$$

$$\text{Return on Investment} = (\$50,000 / (1 + .20)^1) + (\$50,000 / (1 + .20)^2) + (\$50,000 / (1 + .20)^3) / \$100,000$$

$$\text{Return on Investment} = (\$50,000 / (1.20)) + (\$50,000 / (1.44)) + (\$50,000 / (1.73)) / \$100,000$$

$$\text{Return on Investment} = (\$41,667) + (\$34,722) + (\$28,902) / \$100,000$$

$$\text{Return on Investment} = \$105,291 / \$100,000$$

$$\text{Return on Investment} = 1.05, \text{ or } 105\%$$

While ROI tells you the percentage return your company will realize by funding your project, it doesn't tell you the percentage return of *what*—it doesn't take into account how much money your company put into the project in the first place to detail how much money it'll realize over its initial investment--and getting a 105% return on \$10,000 is a lot different than getting 105% of \$100,000.

To get the dollar figure for the future value of your company's investment, you need to calculate the project's Net Present Value.

### Net Present Value

The Net Present Value equation tells you the *dollar* value of a future return in terms of today's money. If your project has a positive NPV, meaning that its value in the future will be higher than it is today, your company should green-light the project.

Here again, the Present Value of Money calculation comes into play. To determine the NPV, you sum the present value of the future benefits your company will realize each year over the project's lifetime, then deduct the initial cost of the project:

$$\text{Net Present Value} = ((\text{Net Benefit Year 1} / (1 + \text{Discount Rate})^1) + (\text{Net Benefit Year 2} / (1 + \text{Discount Rate})^2) + (\text{Net Benefit Year 3} / (1 + \text{Discount Rate})^3)) - \text{Initial Cost}$$

$$\text{Net Present Value} = ((\$50,000 / (1 + .20)^1) + (\$50,000 / (1 + .20)^2) + (\$50,000 / (1 + .20)^3)) - \$100,000$$

$$\text{Net Present Value} = (\$50,000 / (1.20)^1) + (\$50,000 / (1.20)^2) + (\$50,000 / (1.20)^3) - \$100,000$$

$$\text{Net Present Value} = (\$50,000 / 1.20) + (\$50,000 / 1.44) + (\$50,000 / 1.73) - \$100,000$$

## Calculating ROI and Returns for IT Projects

Net Present Value =  $(\$41,666 + \$34,722 + \$28,935) - \$100,000$

Net Present Value =  $\$105,323 - \$100,000$

Net Present Value =  $\$5,290.62$

Now you know the amount of money your project pays the company back in three years over its initial investment, but you don't know *when* the company's investment will be repaid (and therefore, when that investment will start to show a profit). The way to determine this is by calculating the project's Payback Period.

### Payback Period

Happily, the payback period involves a simple calculation. You take the initial amount of money the company invested in your project and divide it by the annual net benefit.

Payback Period = Initial Investment / Annual Net Benefit

Payback Period =  $\$100,000 / \$50,000$

Payback Period = 2 years

Your project pays back its initial investment in two years.

When management looks at payback, it favors projects with shorter payback periods because they return their cash faster, and the company can then reinvest that cash in another investment. In addition, shorter payback periods are less affected by market conditions, interest rates, and the economy.

So after 2 years, your project will begin to show a profit. Great. But what about the third year and beyond—management will want to know how their investment performs *after* it's been paid off. After all, they could keep their \$100,000 in a financial instrument that makes more money year after year than your project might. So you need to determine what return the company will realize on its investment, and that figure is the Internal Rate of Return.

### Internal Rate of Return

Internal Rate of Return (IRR) is perhaps the most complex—and difficult—of the equations to calculate (and to understand, for that matter).

## Calculating ROI and Returns for IT Projects

Simply stated, IRR is another way to evaluate the value of an investment and to compare alternative investments. If you put money in a bank, for example, it's easy to determine its internal rate of return--it's the bank's interest rate, say 5%. If you go down the street and see a bank with a 4% interest rate, you know which offers the better return for your money.

For investments like IT projects, internal rate of return is an interest rate as well—a return based on invested cash. But how do you calculate IRR for IT projects? Here's the equation:

$$\text{Initial Investment} = ((\text{Net Benefit Year 1} / (1 + \text{IRR})^1) + (\text{Net Benefit Year 2} / (1 + \text{IRR})^2) + (\text{Net Benefit Year 3} / (1 + \text{IRR})^3))$$

At first glance, this equation looks nonsensical because it calls for the very number you're trying to calculate, the IRR. In fact, that's the case, and you satisfy the equation by solving for IRR. You do that in one of three ways: by trial and error, by using a look-up chart, or by using the IRR function in Excel. Since trial-and-error takes a long time and look-up charts are hard to find (even on the Web), most people use an Excel calculation.

So let's solve for IRR for our hypothetical project. After typing the above equation into Excel, we initially used a guess for the IRR—24%--and found we're fairly close. After a few minutes of trial and error, we found that 0.233751896 works. So the rounded IRR for our project is 23.38%.

Here's the IRR calculation rewritten using the value we found for IRR:

$$\text{Initial Investment} = ((\$50,000 / (1 + 0.233751896)^1) + (\$50,000 / (1 + 0.233751896)^2) + (\$50,000 / (1 + 0.233751896)^3))$$

$$\text{Initial Investment} = ((\$50,000 / (1.233751896)^1) + (\$50,000 / (1.233751896)^2) + (\$50,000 / (1.233751896)^3))$$

$$\text{Initial Investment} = ((\$50,000 / 1.233751896) + (\$50,000 / 1.522143734) + (\$50,000 / 1.877947713))$$

$$\text{Initial Investment} = (\$40,527 + \$32,848 + \$26,625)$$

$$\text{Initial Investment} = \$100,000$$

Everything checks out—our value for IRR equals the initial investment for our project, \$100,000.

IRR is a critical number for your project proposal. It tells you two important facts. First, it gives you the *actual rate of return* your project provides your company. That's a key number because management will compare that rate to the company's corporate discount rate, to other projects vying for funding, and to other investments, as we'll explain below.

## Calculating ROI and Returns for IT Projects

How does the IRR equation calculate the actual rate of return? It lets the discount rate *float* until you satisfy the equation (find the correct number for IRR, in other words):

$$\text{Initial Investment} = ((\text{Net Benefit Year 1} / (1 + \text{IRR})^1) + (\text{Net Benefit Year 2} / (1 + \text{IRR})^2) + (\text{Net Benefit Year 3} / (1 + \text{IRR})^3))$$

By using known hard numbers—the initial investment and the future benefits—the IRR equation calculates a project's *true* rate of return. It has to—IRR is the only unknown in the equation.

The other important number the IRR equation gives you is the project's break-even point. When you solve for IRR, you're solving for the rate at which your project *returns the company's initial investment*. The internal rate of return determines the exact point at which future savings equal the amount the company initially invested—when your project returns the company's initial investment, in other words, also known as the point at which the project breaks even.

In fact, you can check the math in your IRR calculation using the NPV equation. When a project breaks even, it shows future benefits of zero—the savings the project generates exactly equals the project's initial cost, so the equation for those future benefits (NPV) should give us a value of zero when we use IRR as the discount rate.

Let's prove it. If we use the IRR we determined above in the NPV calculation, here's what we get:

$$\text{Net Present Value} = ((\text{Net Benefit Year 1} / (1 + \text{IRR})^1) + (\text{Net Benefit Year 2} / (1 + \text{IRR})^2) + (\text{Net Benefit Year 3} / (1 + \text{IRR})^3)) - \text{Initial Cost}$$

$$\text{Net Present Value} = ((\$50,000 / (1 + 0.233751896)^1) + (\$50,000 / (1 + 0.233751896)^2) + (\$50,000 / (1 + 0.233751896)^3)) - \$100,000$$

$$\text{Net Present Value} = ((\$50,000 / (1.233751896)^1) + (\$50,000 / (1.233751896)^2) + (\$50,000 / (1.233751896)^3)) - \$100,000$$

$$\text{Net Present Value} = ((\$50,000 / (1.233751896)) + (\$50,000 / (1.52)) + (\$50,000 / (1.88))) - \$100,000$$

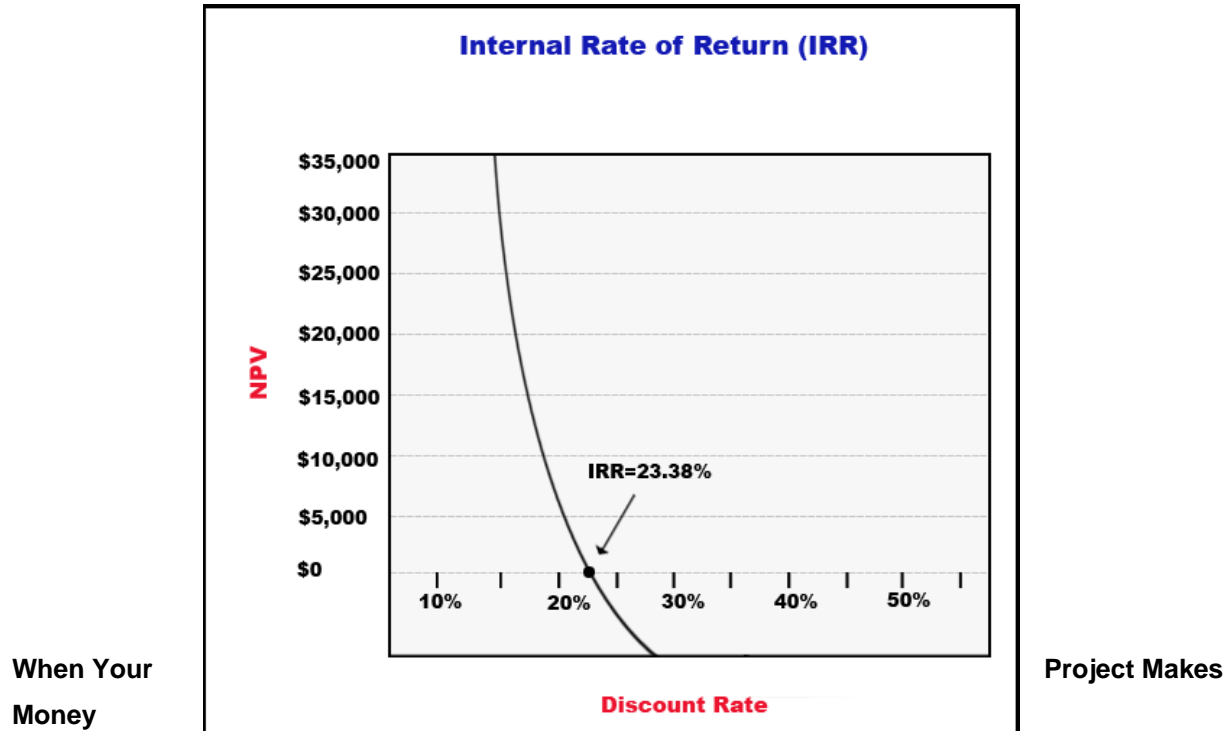
$$\text{Net Present Value} = (\$40,527 + \$32,848 + \$26,625) - \$100,000$$

$$\text{Net Present Value} = \$100,000 - \$100,000$$

$$\text{Net Present Value} = \$0$$

You can see the relationship between IRR and NPV in the chart below.

## Calculating ROI and Returns for IT Projects



But what are the *practical* implications of IRR? First, it's a measure of the profitability of an investment—it's the percentage return that your company realizes if it invests in your project, just like a bank's interest rate is the percentage return your company realizes if it deposits that money in the bank. If your IRR falls above the corporate discount rate, your company's making money on your project. For example, the IRR for our hypothetical project is 23.38% and our corporate rate is 20%, so the project will make money—its NPV is positive.

Second, IRR's a decision-making tool, a way for management to compare alternative investments--and managers tend to approve the investment with the highest IRR. Remember, one of the alternative investments you're up against is management leaving its money in an interest-bearing account. An investment with an IRR that doesn't match or beat the bank's going deposit rate won't get funded.

Now for a dose of reality: Most companies don't fund projects that simply break even. If you had calculated an IRR of 20% for the project above, for example, and the corporate rate was also 20%, it's unlikely your project would get the nod from management. In sanctioning projects, companies prefer initiatives that not only break even, but that earn money as well—that have a positive impact on the bottom line (and on the annual report). That's why most companies add a point or two (or more) to the IRR and make *this* the target rate for new projects. In corporate circles, this bolstered figure goes by the

## Calculating ROI and Returns for IT Projects

name "hurdle rate," and it's the point where companies make a go/no-go decision on projects. This is the figure you need to shoot for. You can get your company's hurdle rate from your CFO.

Does a project *have* to meet or beat the hurdle rate in every instance? No. Companies can relax their focus on hurdle rate if they believe the project has merits other than hard-dollar returns—in reducing employee turnover, for example, or in satisfying more customers. These are called soft-dollar returns and we'll describe them below.

### Soft-Dollar Metrics

While calculating hard-dollar returns can be daunting, soft-dollar calculations can be even more nettlesome. Soft-dollar returns represent qualitative (rather than quantitative) benefits your company realizes by implementing a new project or procedure. For example, after installing a videoconferencing system in the sales department of a large company, you've saved the company tens of thousands of quantifiable dollars in travel expenses, but you've also improved employee morale—staffers no longer have to bear long flights and delays on sales calls, they get more time with their families, and they avoid long lines at airport check-in.

So how do you assign a dollar value to employee morale? Or to higher customer satisfaction? Or to any of these traditional soft-dollar benefits:

- Improved employee morale
- Reduced employee turnover
- Improved employee communication (via an Intranet)
- Enhanced team collaboration
- Improved decision-support capability
- Improved corporate compliance
- Increased individual efficiencies (but difficult to quantify)
- Improved information flow/retrieval
- Improved customer support
- Enhanced customer experience
- Improved customer satisfaction

The good news is that you *can*, and this section shows you how.

### Determining Soft-Dollar Benefits

## Calculating ROI and Returns for IT Projects

To put soft-dollar savings into tangible form, you first need to identify the soft-dollar benefits that come from implementing a new technology or process. Then you need to tease the hard-dollar components out of those benefits. We'll use the sales-force example above to illustrate the process, but the basic guidelines are these:

- Identify the soft-dollar benefits you see resulting from an initiative
- List the positive effects of that initiative on your budget
- Detail your assumptions
- Assign a dollar figure to those benefits, outlining the logic by which you arrived at that figure
- Anticipate objections before presenting your proposal to management and be ready to address them

Here's how we used the above guidelines to arrive at the soft-dollar benefits of the videoconferencing system.

Identify Soft-Dollar Benefits We believe that traveling less boosts employee morale, increasing job satisfaction and reducing employee turnover.

List Positive Effects We'd have to hire and train fewer new employees, reducing departmental costs.

Detail Assumptions To calculate the effect of this reduced turnover on our budget, we make these assumptions:

- Any employee who leaves is replaced (no staff reductions due to attrition, in other words)
- New employees come from outside the company rather than from another department or from within the sales department
- New employees require training and two weeks' of learning-curve time

Assign Dollar Figures We talk with HR and find that, on average over the last five years, our department has had a turnover rate of 16%. We also find out from HR that studies show that, on average, improved working conditions reduce employee turnover by 9%, so our turnover rate this year will be 7%.

## Calculating ROI and Returns for IT Projects

In other words, instead of having to hire and train 16% of our 43-person sales force, or 7 people, we have to hire and train only 7% of our sales force, or 3 people. That means we have to hire and train 4 fewer people.

To figure out how much hiring and training 4 fewer employees saves us, we first have to calculate how much hiring and training each new employee costs us and multiply that figure by 4. Then we can include the resulting savings in our project proposal as a soft-dollar benefit.

We again look at past records and find that we spent an average of \$1,300 on help-wanted ads and recruitment firms to find each new salesperson.

We also find that it takes an administrative assistant 1 day to train new employees on the paperwork required for our sales system and, based on that AA's salary, that costs \$125 (for all new employees—they can listen to the AA as a group).

The sales head spends a half-day with new employees outlining his department's preparation for and approach in sales calls and, based on his salary, that costs \$350 total.

Each new employee attends a week-long corporate sales-training session at a cost of \$2,200 apiece.

The employees spend four hours each in HR classes to review company policies which, based on their salaries, costs \$160 per employee.

Finally, we calculate learning-curve costs. Based on the sales records of seasoned salespeople and comparing them to previous new employees' sales, we know that new employees, on average, sell through 2/3 as much as veterans for the first two weeks. Since the average sell-through of a seasoned employee is \$1,000 a day, we know that new employees sell \$666 worth of product a day, costing the company \$334 a day in lost sales per employee. Over 10 working days, that adds up to \$3,340 per employee.

The total soft-dollar savings to our sales department for hiring 4 fewer employees is \$28,275.

Anticipate and Address Objections However, that's not the number we put in our proposal. Anticipating management will question whether we'll reduce hiring by the full 9% cited in studies, we halve that figure to get a generous reduction in employee turnover of only 5%, or 2

## Calculating ROI and Returns for IT Projects

employees, meaning we save the cost of hiring just 2 employees in this scenario. Using the figures above, we include a soft-dollar savings of \$14,475 in the proposal.

### Resources for Calculating Soft-Dollar Savings

One of the advantages we had in calculating soft-dollar savings was an extensive paper record. But what if you don't have such a record? You still need to understand how a new system can improve productivity, reduce head count, streamline customer service calls, and the like. You need to tap other sources, and we've compiled a list for you below that will help you find people and resources who can help:

- Studies, surveys, and polls recommended by your HR department, corporate librarian, or trade associations for IT professionals
- Data the research librarian at your nearest big-city public library gathers for you
- Data the references from your short list of vendors give you
- Research compiled by a consultant you hire for a day or two
- Recommendations that colleagues at your and other companies provide based on their experience
- Insight from professional groups you join, meetings you attend, and networking you do
- Information you get from conferences, conversations with vendors, and classes in your area of interest
- Answers you get in response to queries posted in forums that cover the technology you're considering
- Research from the Web for white papers, analyst reports, and best practices
- Recommendations from talking with friends—an old mantra (actually used in job searches, but valid here) says that everyone knows 20 people who can help you
- Responses to Information Wanted ads in the business section of community bulletin boards like craigslist.com
- Replies to queries you post on your alumni Web site

### Project Estimates

In putting together your project proposal, you'll have to rely on vendors' RFPs for hardware, software, installation, support, and training costs. Obviously you're not going to get final figures in these RFPs, and

## Calculating ROI and Returns for IT Projects

just as obviously projects can change once you start them, with change orders, unanticipated problems, and added equipment.

One way to compensate for the differences between proposed and actual costs is to use the highest estimates you get back from each of the three to five vendors you asked to fill out an RFP. Alternatively, you can average the numbers from all the RFPs. And, of course, as you research the technology, you can ask experts about cost, installation, and alterations, and tweak your project estimates intuitively.

In the same way, your soft-dollar savings won't represent an exact accounting. In fact, some companies are content to see a number of soft-dollar items listed, and you make your case through the totality of hard- and soft-dollar benefits. And sometimes unquantified soft-dollar items are considered as important as hard-dollar savings when they relate to retaining customers or making them more satisfied with the company.

To help jog your memory for costs and savings for project proposals, check the attached reference list, Hard- and Soft-Dollar Costs and Savings.

## Hard- and Soft-Dollar Costs and Savings

### Deployment Cost Areas to Consider

Below is a list of products/services you may need to include as costs in your project proposals.

- Application servers
- Application software
- Desktops
- End-user training
- Implementation
- Inside services
- IT training
- Networking servers
- Networking software
- Upgrading your wireless infrastructure
- Upgrading your cabling plan or closets
- Power
- Backup and redundancy
- Outside services
- Server software
- Storage media
- Storage servers
- Support and maintenance
- Increase in headcount

### Typical Cost Saving or Benefit Areas

Below is a list of places where you may be able to identify corporate savings as you develop project proposals. We've divided the savings into operational areas, productivity, personnel, increased revenue, and cost avoidance.

#### Operational Savings

- Copy and paper expenses
- Courier services costs
- Decrease average amount of time spent on tasks
- Decrease average customer support call time (equals more calls per hour per CSR)

#### Employee Productivity – Time Savings

- Improve decision-making capabilities and better decisions (cut credit risk opportunities)
- Increase average number of forms processed per day
- Increase collection amount (reduce % loss in collection process)
- Reduce mailing costs
- Net reduction in overall number of personnel

# Calculating ROI and Returns for IT Projects

- Outsource work

## Personnel Reduction or Redeployment

- Printing
- Redeploy personnel from target department
- Reduce a cost per transaction of a targeted transaction (reduce overall new account setup)
- Reduce collection time (delinquent and long-overdue amounts)
- Reduce receivables and average payment time
- Reduce/improve hardware costs (storage is a good example)
- Reduce internal service costs
- Reduce outside/external service costs
- Reduce/eliminate consulting resources
- Reduce/eliminate temporary or seasonal hiring
- Slower hiring rate per average year
- Reduce telephone expenses
- Reduce travel expenses

## Increased Revenue

- Increase sales to existing base
- Identify new markets
- Identify new products/services for existing customer base
- Reduce lost business or opportunities (better on-hand inventory, easier to buy, one-click purchase)
- Reduce time to market (profits accrue sooner)

## Cost Avoidance

- Avoid requirement for new facilities
- Reduce or slow normal hiring based on annual growth projection
- Increase existing asset efficiency (more people and less space)
- Reduce existing leases
- Reduce or eliminate premium costs with better cycle times (such as premium freight charges)
- Reduce or eliminate regulatory fines or fees assessed
- Reduce or eliminate travel costs for meetings (videoconferencing)

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