

No Proof, No Project

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Merrill Lynch and Citibank Global Securities Services are taking big steps to apply ROI strategies to technology investments. As 2002 comes to a close and financial-services firms look to the coming year, one thing is certain: budgets are tight. More than a year after the Sept. 11 attacks and the disruption to the financial community, the economy continues to struggle. Firms are announcing more layoffs, cost-cutting strategies and, of course, increasing scrutiny on spending, especially on technology.

Firms looking very carefully at IT budgets are beginning to see a new, or at least renewed, trend in spending strategy. They are basing their decisions on a project's ROI. Return on investment, or ROI, is not a new concept. However the technology to measure ROI at major financial-services firms is gaining momentum, becoming highly complex, and is essential to getting a project approved.

Traditionally, the concept of ROI has implied looking at a cash-flow analysis when making a decision between two technology investment choices, says Bill Irving, president and partner at Capco, a consulting firm.

However in today's environment, the term and the practice of measuring ROI for technology investments has changed. Irving explains that ROI has come to embody not just cash flow analysis, but determining achievable benefits within the shortest possible time frame. He adds that, these days, short-term payback often means measurable ROI within one year.

Whether it's forecasting the monetary return on an IT investment over a number of years, predicting whether an investment is feasible, or deciding when to cut losses and terminate projects, measurement of ROI is becoming critical to the financial-services industry.

Two firms in particular are making great strides in applying ROI within their IT departments. Merrill Lynch and Citibank Global Securities Services are both embarking on significant ROI initiatives that aim to streamline, improve and manage their technology spending.

Merrill Takes Tech ROI Enterprise-Wide With over 2,000 active IT projects going on at any point in time, Merrill Lynch is using ROI to streamline technology spending while remaining competitive with new products, services and market areas. Managing, approving and tracking these project investments is a huge task and ROI has taken on a new meaning for Merrill.

Meaning is relative, though, when it comes to ROI. When talking about ROI on a high level, Marvin Balliet, chief financial officer for the Global Technology and Services Group at Merrill Lynch, says that the term ROI is often overused.

"People will forever look for the magical mathematical formula that will tell them whether or not they should approve a technological investment," he says. Unfortunately, Balliet says, there just isn't one out there.

Instead, Balliet believes in an "overall governance model" that determines whether technology projects should be started, continued or finished. "We've changed the way we manage technology at Merrill over the last three years, the most important change is that the business people own their entire technology portfolio," he explains.

Balliet says that the business heads have been told to decide how much technology they can afford when formulating their overall profit/margin plans.

During the budget process, each business head must go to their technology counter parts to find out: What does it cost to keep the lights on, or everything running as is; what does it cost to continue the initiatives I've already started and compare those to the number that I can invest in technology this year.

Furthering its ROI strategy and overall governance model, Merrill requires an appropriation request or a business case examining four areas for each technology initiative over \$2.5 million. The business-case report is a standard format of questions and answers and the business heads must fill in the blanks. Balliet says that most business cases can be completed in two or three days.

If a project is approved after this process, the business head must report back about the initiative every quarter. This includes follow up on whether the project is on budget and on scope and if it still has the proper business involvement. In addition, this project health-check also asks if the business head wants to continue the project and, if they do continue, do they anticipate they will get the same value out of the project as originally proposed.

The reasoning behind these checks? "The markets change so rapidly in financial services," says Balliet. "For example, a project whose goal was to increase the capacity to process Nasdaq trades was a very viable project in 2000. While most of our projects are finished in a 12 to 18 month time frame, we would have to be asking ourselves whether we still wanted to do that project now, if we still needed that capacity."

With the changing markets and technology demands, bigger business lines within Merrill also are charged with rebalancing their technology portfolios every month, while smaller business lines probably rebalance quarterly, says Balliet. "They take a look at the portfolio throughout the year and ask themselves whether they're putting the money in the right places based upon what the marketplace indicates at that point in time."

As an example of the importance of rebalancing, Balliet says that in the years 2000 and 2001, most technology initiatives focused on the equities side, with little development on the debt-business side because the returns didn't warrant the investment. But this reasoning has now flip-flopped 180 degrees. The "governance model," says Balliet, requires looking at a number of factors before making ROI decisions. "We have some target financial-hurdle rates (of return), but we approve projects that don't meet those rates because there are a lot of other non-financial measures that clearly indicate we should go ahead with the initiative," he says. "And there are times when projects meet the financial-hurdle rates but we opt not to go with them due to some other non-financial reason." Merrill has developed this governance model for investments around applications rolled out to about 8,000 users in its Global Technology and Services Group. Merrill has been using the Business Engine Network (BEN) by Business Engine for some time as the financial tool for technology investments and is now replacing its project-management systems with Microsoft Project, which integrates with the BEN.

The BEN is a Web-based enterprise application that is hosted by a Business Engine provider, in Merrill's case, but can also be hosted within the enterprise. The system tracks the complete lifecycle of an IT organization, says John O'Neil, chairman and chief executive of Business Engine. He explains that IT projects are usually divided between the "lights on" everyday technology, and projects like entering a new market or building a new system.

The actual ROI process is embedded within the BEN and organizations can set up their own templates for determining the standards a project must meet. "In addition to budgeting what the project is going to cost, users also budget what the proposed payback will be, so that two months into the project they can check back to see where they are and where the ROI is," O'Neil adds.

"I have all of my financial information around a project in the BEN. I have all my resource information around a project in the BEN and the idea is now we can look in one place and see everything about a project," says Balliet. "We can sit down and have very timely discussions with the business people and we can play what-if scenarios, rebalancing that portfolio and trying to see if we need to slow projects down or speed them up, depending on where we think the payback is and the time sensitivity of delivery."

The BEN also helps Merrill manage IT spending on a global basis. The firm has about 600 technology people based in India who report their time spent working on projects directly into the system. "We have certain projects where we actually have four different development centers working on it - some stuff done in Japan, London and the U.S. and we also have people in India working on it," says Balliet. "We know our best FX people are sitting in London, our best order-processing people are in Asia and then we have the best people for regulatory issues in the U.S."

Bringing it all together is important, says Balliet, who adds that the BEN lets a project manager see how the project is doing in each location and manage the project effectively from wherever they are located.

Merrill began the BEN installation in November of 2001, with the final installation scheduled for completion in November 2002. The 8,000 users constitute anyone who touches a project, from technology heads to developers. "It's a one-stop shop for everything you need to know about a project," adds Balliet.

Citibank Tackles ROI Citibank Global Securities is also in the midst of revamping its ROI strategy. "It's been about an 8-month journey and we realized you have to look at the product as the components that are in the product and understand how you're delivering value to the clients. You have to also understand the impact of changes in those variables to see how it actually impacts your return," explains Jon Howell, vice president and program director Net Solutions at Citibank Global Securities Services, which comprises custody, clearing, agency and trust, and depository receipts.

Previously, the group had been using many different ROI models - some formal, some informal - depending on the type of project, says Howell. He adds that developing a more generic ROI model for use across the group was important to create a "code of ROI for the business."

Citibank Global Securities initially worked with consultants to build an internal model for ROI and then enlisted the help of iValue, a consultancy focusing on the valuation of information technology. iValue simulations "fit into what Wall Street perceives as creating value," says Ray Trotta, co-founder of iValue. Citibank went to iValue to verify its own model and see how it overlapped with the iValue ROI model.

"iValue validated the overall structure of the model and basically said these are all the key indicators," says Howell. He adds that iValue also recommended focusing on sub-indicators, which take an even more in-depth look at the factors surrounding an IT investment. Howell says that he plans to take the internally developed model along with the iValue recommendations to develop a generic model for ROI that can be used for everything. "The inputs will change and some of the assumptions will change, but basically the methodology will remain the same," he says.

Chris Gardner, also a co-founder at iValue, describes the iValue ROI models as economic simulators with valuation models built in to tie results back to value. "What we are really doing is applying the principals of corporate finance," says Gardner. The iValue approach is based on discounted cash flow, which utilizes cash flow instead of profits and takes into account future cash flow rather than prior performance, says Trotta.

Leveraging this approach, the Citibank Global Securities model is built in Excel and integrated with outside software for Monte Carlo simulations. When a project is run through the model, a series of demand curves are spit out to help understand where the value is being extracted, says Howell. The Monte Carlo simulation is based on four basic

project drivers - indirect benefits, technology costs, client adoption and direct value to client. "Monte Carlo simulation runs through different scenarios and determines which of them are most sensitive to change and that allows us to see what we have to manage as we run through the project," says Howell. The model also calculates earnings before interest and taxes to determine which simulations are profitable. "It's not a true earnings model, it's a value model," he adds. "How much value do you get versus the cost you spend."

Moving forward, the generic ROI model will be rolled out into different product groups, says Howell. But the group continues to examine how exactly the model will be rolled out and used. "Do we batch fill certain projects? Do we run it on projects that we're already working on? Do we only do it on new projects? There are a lot of questions still," says Howell.

ROI Catches On Why is basing technology spending on ROI gaining momentum? According to Capco's Irving, "We're about 18 months or more into what is a pretty serious focus on reduction of cost, capacity, etc. But I am beginning to see a focus on other objectives and initiatives now." In other words, financial-services firms are beginning to move away from cost cutting for necessity toward calculated spending on more strategic initiatives for future growth and competitiveness.

"People have come to realize that pure focus on cost reduction was having an impact on their ability to service customers and maybe even creating some operational risk in their organization, simply because they were really skimming down and putting the business processes at risk," says Ismail Pishori, worldwide general manager of the financial-markets segment at HP.

While Wall Street firms have been performing ROI calculations previously, Business Engine's O'Neil says that only in the last 18 months has the area been taken seriously. "Before Y2K and the Web boom, and even with T+1 and those things, the overriding fear was not that the project wouldn't see ROI, but that it wasn't going to get done fast enough," says O'Neil. "Now in the downturn, ROI has to be provable and real."

The Business Case for IT Investments at Merrill

Balliet says the first step is a total cost of ownership over a five-year period for the technology investment. This total cost of ownership includes the cost of developing the application, the infrastructure impact the application will have, how it will affect the networks, how it will affect distributed data-processing centers and mainframe data centers, how much the maintenance costs and the number of people needed to support the application when it's put into production.

The second component is the value expected from the initiative. "Will I increase revenue or do I need it to protect revenue of specific clients because other competitors are providing the same service?" asks Balliet.

The value component also takes into account the expense reductions that will result from a project through shutting down other applications or being able to streamline staff. In addition, the value proposition looks at whether or not the technology will help to avoid cost increases if the technology must scale to keep up with increasing volumes or new regulatory requirements.

"The third component examines whether the project is meeting technology standards and technological feasibility," says Balliet. In this area for example, the business heads would consult with the architecture and technology heads to figure out if the technology project is going to function as it should.

The fourth area explores the implementation risks - or the risks if the project goes ahead versus if it doesn't.

Saving Time and Money

As an example of the BEN system and Merrill's overall ROI model put to work, Balliet says that one business line anticipates saving almost \$5 million per year. The group was going through the budget cycle for 2003 and found out that people were spending 25 percent of their time looking into enhancements and changes to reports.

"In other words, someone says, 'What would it take for me to change this report? I don't like these columns and I want to flip them,'" says Balliet. "All of this is nice to have, but not necessary work. They were spending most of their time pricing it out." The work had zero value, says Balliet, and most of the time the requests for the enhancements were not approved because of the money. But the time being spent was costing the group significantly.

In terms of balancing spending, Balliet says that the easiest thing to do would be to eliminate all new strategic development. "It's definable, it's easy to stop and doesn't require a lot of creativity," he says. "But our goal has been to minimize the amount of that reduction."

Merrill is more interested in evaluating different price approaches in order to get strategic work done. "How can we do strategic initiatives cheaper, can we do them in India or can we do it in a fixed-price contract?" asks Balliet. "And on the other side, what can we eliminate in the lower-value food chain, with the business people's consent and cooperation, so that we can fund more strategic initiatives."