

Determining TCO, ROI and Other Key Financial Metrics

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What are the key financial metrics my company should use to evaluate its IT investments?

- IT professionals are increasingly called upon to financially justify their projects and purchases. Using the same financial methods as deployed in other business areas enables IT investments to be evaluated on an equal footing.
- Total Cost of Ownership (TCO) goes beyond initial purchase price or implementation cost to consider the full costs of an asset over its useful life.
- A detailed picture of a project's intended financial performance can be created using a combination of Income and Cash Flow Statements backed by ROI, Payback Period and Net Present Value calculations.
- Although important, financial analyses are only one part of an informed IT investment decision.

Although IT organizations have long performed cost/benefit analyses to justify new projects and support hardware and software purchases, these analyses are often perfunctory and are rarely tied and measured against bottom line business performance. This situation is changing due to tight economic conditions and increased internal competition for a limited pool of corporate funds and resources for new initiatives. Rather than focusing on technology issues, features and costs, IT professionals are increasingly expected to put together business cases that frame recommendations by their impact on overall company performance. These more rigorous analyses result in better “go/no go” decisions and enable corporate executives to compare IT requests on an equal basis with requests from other business areas.

Total Cost of Ownership (TCO)

This analysis compares investment alternatives by their true costs over the life of the investment. The initial purchase or implementation cost is only part of the true cost of owning and operating an investment. A myriad of other factors come into play including the cost of operations, cost of maintenance, useful life span, and training costs. TCO is determined by adding all of the costs associated with a given purchase over its expected useful life. In this analysis, the option with the lowest initial cost may turn out to be the most expensive when all costs are considered. For example, an air conditioner may be priced 50% less than its competitor, but due to much lower operating efficiency it uses significantly more electrical power. If the air conditioner is used only for one year, the lowest priced version may be the most cost effective despite the lower operating efficiency, but if the expected lifespan is five or more years, the initially more expensive and efficient unit may ultimately be the wiser and cheaper choice. Although this analysis is most frequently performed for capital purchases, it is applicable to many IT situations, including application “build or buy” evaluations and sourcing decisions. For instance, over the effective life of a business application, the cost of maintenance and support dwarfs the cost of initial development. By not considering TCO during the development

process, IT organizations often optimize development activities at the expense of long-term operating and support effectiveness, saving a few dollars today at the cost of many dollars later. Likewise, when considering sourcing options, IT managers are often attracted by the very low rates offered by small offshore providers, yet when all surrounding costs are considered, the TCO for the service is frequently more expensive than other options.

Return on Investment (ROI) and Related Calculations

ROI determines the attractiveness of an investment by calculating the financial performance of the money invested. In its simplest form, straight ROI is expressed as a percentage. For example, putting money into a bank savings account provides an ROI of 2%. More sophisticated analyses create Income Statements, which spread the effects of an investment over its effective lifespan, commonly 3 to 5 years for IT investments. In spreadsheet form, the Income Statement shows benefits as income in the top of the sheet and costs across the bottom, summing the rows and calculating net benefit by subtracting the sum of the costs from the sum of the benefits in each column. The sum of the cost portion of the Income Statement can be used to calculate TCO.

In an Income Statement, capital expenses are depreciated. A Cash Flow Statement is similar, except that all expenditures are shown as cash outflows when they occur. Companies use Cash Flow Statements to determine the impact of large investments on their cash positions. Other comparative analyses are built from the Cash Flow Statement. These include straight ROI, Payback Period and Net Present Value. The payback period calculates the length of time before the initial investment is returned (paid back) from the income generated by the benefits. Net Present Value uses a discount rate on the assumption that a dollar today is worth more than a dollar in the future to calculate the overall income generated by the investment in today's dollars. These three calculations allow CFOs and business executives to accurately compare the financial value of investing in three very different projects. A project that quickly repays its initial investment using tangible income from its benefits is known as a self-funding initiative.

A Few Caveats

While important, financial analyses are only one of several factors to consider before picking one IT initiative over another. For example, a proposed development project may have the potential of delivering very high ROI if successful, but may also have a high risk of failure, with the chance of losing the entire investment. Likewise, TCO is good for differentiating between two options with equivalent benefits (such as our air conditioning example), but since it is strictly cost focused, it needs to be supplemented for situations with differing benefit levels.

Action Items

- If your organization is not already doing so, start creating solid business cases for all major initiatives.
- To ensure conformance with internal accounting standards, seek the assistance of your finance organization when producing the first few business cases.
- Although the particulars vary by project, these calculations lend themselves very well to spreadsheet templates.
- The responsibility for an IT investment business case does not stop once the project is approved. Continue to monitor results throughout the project's life to see if it achieves the commitments made in the business case. Having a track record of achieving business case projections builds careers and eases getting approval for future investment requests.

About Clarity Consulting, Inc.

Clarity Consulting, Inc. is a management consulting firm specializing in Information Technology strategies and emerging trends in areas such as outsourcing, process redesign, efficiency enhancement, productivity and service level metrics, service offering development, and IT product and service positioning..

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