Publication Date: 29 April 2008

ID Number: G00157347

A Maverick Approach to the Business Value of IT

Audrey L. Apfel

The IT community has worked to develop new techniques and methodologies, add more data and perform more analysis in an attempt to forecast the value of IT investments. However, it remains elusive when we use our standard language of value to explain it. This research examines the root cause of this situation and tries to determine how to minimize the pain in the process. We begin with three key questions:

- Why won't current methods for forecasting the value of IT investments ever work well?
- How do successful executives establish the value of IT Investments?
- What is a better way to forecast value?

Key Findings

- IT value forecasting is an arduous process that has yet to yield a high degree of credibility for the effort expended.
- The shortcomings of financial metrics are well-understood. Unfortunately, the specific areas that are not well-captured by financial metrics are the same areas that hold technology's greatest potential. Generating better answers to dollar-value questions requires more time, money and expertise than organizations should be expending on what is essentially the wrong question anyway.
- Besides having a different business focus, CEOs and CIOs often have different styles. Successful CEOs develop the ability to decide quickly, using key information. CIOs delivering information about the forecast business value of IT should take these factors into account.

Recommendations

- Focus traditional financial analysis strictly on upfront cost management and back-end benefits realization. Provide perceptual measures to augment upfront value discussions.
- Develop a Value Perception Index with value indicators that resonate with senior-level executives. Provide a simple, practical measure that helps them make a decision about an IT investment opportunity. Follow the three-step process outlined in this research to develop this measure.

© 2008 Gartner, Inc. and/or its Affiliates. All Rights Reserved. Reproduction and distribution of this publication in any form without prior written permission is forbidden. The information contained herein has been obtained from sources believed to be reliable. Gartner disclaims all warranties as to the accuracy, completeness or adequacy of such information. Although Gartner's research may discuss legal issues related to the information technology business, Gartner does not provide legal advice or services and its research should not be construed or used as such. Gartner shall have no liability for errors, omissions or inadequacies in the information contained herein or for interpretations thereof. The opinions expressed herein are subject to change without notice.

TABLE OF CONTENTS

Analysis	3
1.0 The State of Forecasting the Value of IT Investments	3
1.1 The Real-World Process for IT Value Forecasting	3
1.2 We've Been Working on the Problem	4
1.3 Using the Wrong Metrics — Financials Don't Do the Job	4
2.0 Why the Current Value of IT Investment Forecasting Methods Will Never Work	5
2.1 "Too Far" — The Concept of Revenue Distance	5
2.2 "Too Random" — Results From Rigorous Forecasting Processes	6
2.3 II Projects Take Too Long	9
2.4 Value Is "Too Unpredictable" — The Story of the Light Bulb	9
3.0 What is a Better Way to Forecast Value?	.10
3.1 Measuring Expectations and Perceptions of Value	.10
3.2 How Successiul Executives Establish the value of 11 Investments	. 1 1
3.3 Would Perceptual Measure Really Work?	. 12
4.0 Developing and Using a Perception muex	1/
4.1 Step 1. Statemine the Value Standards for Each Category	. 14 1/
4.2 Step 2: Develop a Score for a Specific IT Investment	15
4.4 The New Value Life Cycle	16
4.4.1 Can the Perception Index Answer the Key Questions of IT Value	
Forecasting?	. 16
4.4.2 What About Cost Management?	.16
4.5 How to Incorporate a Perception Index Into Existing Processes	. 17
5.0 Recommendations	. 17
Recommended Reading	. 18

LIST OF TABLES

Table 1.	CIO Technology Priorities, 2006 to 2008	6
Table 2.	Use Financial Management and Perception of Value Processes Appropriately1	7

LIST OF FIGURES

Figure 1. IT Spending That Directly Contributes Business Value	7
Figure 2. Distribution of Success and Failure Across Project Size	8
Figure 3. Determine CEO and CIO Differences in Focus and Style	. 11
Figure 4. IT Effectiveness and Profit Measures via the Business's Opinion of the IT Organizatior Contribution	า's . 12
Figure 5. Gartner Framework for a Perception Index	. 15
Figure 6. Create a Perception Index for Potential Investments	. 15

1.0 The State of Forecasting the Value of IT Investments

Note: This research presents a "maverick" analysis. Maverick analyses focus on out-of-the-box scenarios that are considered low probability but high impact. Although certain aspects of the scenario seem far-fetched, the scenario's impact will intensify as aspects unfold and affect other aspects. Maverick research is typically developed by a small team and is intentionally designed to be on or over the edge to help you think about unconventional options.

Every business case and IT investment decision comes with some attempt at value forecasting, often in the form of intricate financial justifications that make the leap from the delivery of new IT capabilities to the changing financial performance of the organization. They are somewhat credible for predicting cost savings and head-count reductions, but not for forecasting revenue generation, sales growth or other forms of business value.

Forecasting IT investment value using financial models and methods such as return on investment (ROI), internal rate of return (IRR), net present value (NPV) and others have consistently failed to yield convincing results. For the CIO or IT leader, continued use of these methods erodes personal credibility and lessens organizational relevancy. However, IT value forecasting is necessary to determine:

- Should we invest in this project?
- How does this opportunity compare with others that are competing for limited resources?
- After the project is complete, did we get what we expected?

These simple questions have been difficult to answer for many areas of IT investment. In this section, we examine the overall nature of this problem, the traditional process used to forecast value, the pros and cons of relying on financial metrics and the track record on making good on these forecasts. The conclusion is that our current approaches are not fit for the purpose and will not get much better, so we build and propose an alternative approach.

1.1 The Real-World Process for IT Value Forecasting

Developing value forecasts for complex IT initiatives is a long and arduous process. Stakeholders are interviewed and research conducted to produce financial models, usually with complex, multiyear estimates, options analyses, and various models and simulations. This is commonly followed by long presentations with many numbers and charts to senior executives. To oversimplify a bit, the reaction and direction given to the IT organization after such presentations is generally one of four outcomes — go forth, go back, go away or just go.

- **Go Forth.** In this scenario, senior staff tells IT leaders that the numbers seem to be in line with what they expected. All in all, this is a good outcome, but it indicates that not much was learned through the research that wasn't known before. The analysis merely reinforced the expectations that existed when the project was proposed.
- **Go Back.** If the numbers forecast are less than expected, or the analysis does not concur with executives' desires, intuitions, premonitions, wants or needs, then the "go back" decision may result. Under this scenario, the staff is generally asked to rework the numbers until "go forth" can be achieved.

Beware of misplaced cause and effect: What does this decision look like in real organizations? In one organization, the senior vice president, upon seeing a number that did not match his initial perception, used the code words "you need to normalize the data." Despite the misuse of mathematical concepts, he always got his point across and the numbers were magically "normalized" until he was satisfied.

In another organization, a consulting firm generated a comprehensive business case that showed value and business return from a large application project to be below established criteria for investment. The result of the analysis? A second firm was hired to do a new business case.

• **Go Away.** As well-intentioned or well-designed as the initiative may be, if the project is presented as an unsolicited opportunity that has not been properly aligned or socialized through the business beforehand, then it generally cannot be pushed onto the organizational agenda.

Sponsors of these initiatives are often within the IT organization and see new opportunities for collaboration, adopting new tools or applying other technology-centric opportunities. Executives usually encourage new ideas, but don't always know how to fit them into their current processes or get them done with already constrained resources. Rather than give a hard "no," they put the sponsors through several iterations of data gathering, reviews, interviews, business case versions and so on as they try to figure out what to do with the idea. This may look like a "go back" decision, or even a tentative "go forth — once we have a little more information." However, the decision is "go away," and it may take a while for project sponsors to figure that out.

• Just Go. Call it "data center tax," "keep the lights on" or "infrastructure;" just don't make executives think too much about it. These are the "big money," foundational IT projects and investments in business, but they are hard to separate from it. The decision to "just go" signals two things: 1) The sponsor/leader (generally the CIO) has the credibility within the organization to get the funding based on his or her past experience and competency; and 2) The deciding group doesn't want to hear anything about it.

In each case, the actual findings, analysis and numbers presented had little direct effect on the actual decision made. The process converged around meeting the expectations that the opportunity "walked in the door with" — however those expectations were generated. It makes the work done throughout this process seem superfluous, and continuing to work on optimizing this process unwise.

1.2 We've Been Working on the Problem

Demonstrating the business value of IT has been a top-10 strategic management priority for CIOs for as long as we have been surveying CIOs about it, which is more than five years. Gartner has developed multiple methodologies about it; Google has more than 100,000 hits for "business value of IT;" and "Harvard Business Review" has written on it many times. Still, we seem no closer to finding an answer.

Perhaps we are not asking the right question. Perhaps we have not framed the issue with the right metrics and measures — those that organizations could use to credibly, practically and cost-effectively forecast IT value.

1.3 Using the Wrong Metrics — Financials Don't Do the Job

We need to understand why simply trying to refine the methods used to generate financial calculations will not yield measurable progress for forecasting IT value. The shortcomings of

 $\ensuremath{\mathbb{C}}$ 2008 Gartner, Inc. and/or its Affiliates. All Rights Reserved.

financial metrics are well-understood. There are benefits and value that financial metrics do not capture. When taken into the realm of accounting principles, examples include the gap between market value and book value of publicly traded companies, how to value intangibles, unique business processes, intellectual property and so forth. Unfortunately, the specific areas that are not captured by financial metrics are many of the same areas that seem to hold technology's greatest potential.

Cost reduction is the one area where IT delivers clear line-of-sight benefits that can be reflected in financial payback fairly easily. IT has long been used as a tool for cutting costs or reducing head count, but these are trivial opportunities on the IT value scale. The more interesting uses of IT for organizations are not in these areas, and will have the most problems getting clear value forecasts. For example:

 We worked with a European insurance company that had strict ROI criteria for funding IT opportunities and a closed-loop process for forecasting, monitoring and measuring value. In a stable industry, the company had several years of solid growth and a stable market position. However, the company recognizes that its system has no method for approving the value of opportunities that would bring any level of business change beyond basic process automation. The metrics just won't account for it.

When justifying the use of "soft," qualitative or nonfinancial metrics, remember that the goal is to get a more complete picture of the forecast value and benefits. Soft measures should be practical, easy to collect and directionally correct (meaning there is agreement on whether the movement of the metrics up or down represents desired improvement and value generation). Qualitative metrics represent the academically and scientifically perfect measures everyone wants to have but are too difficult, complex or expensive to obtain.

2.0 Why the Current Value of IT Investment Forecasting Methods Will Never Work

In a perfect world, IT value forecasts would be accurate and long-range, and would be based on historical data and well-reasoned assumptions about future events and probabilities. However, this won't happen because of the effort involved, and because of the number of unknown variables that would have to be known to make the process yield anything better than a guess. In this section, we examine four particular characteristics of IT investments and projects that thwart our ability to easily and accurately forecast business value. We label these characteristics of IT investments as: too far, too random, too long and too unpredictable.

2.1 "Too Far" — The Concept of Revenue Distance

"Revenue distance" was defined by Ravi Aron, a professor of operations and information management at The Wharton School of the University of Pennsylvania. Revenue distance measures how far removed a set of business activities is from a company's revenue-generating activities. The greater the revenue distance, the more difficult it is to make the value of the activity directly visible. For most technology investments and activities, revenue distance is qualitatively "far." It may take several steps — and assumptions at each step — to determine the linkage. Only for IT initiatives with clear cost-reduction opportunities is the revenue distance relatively short.

If we apply the revenue distance test to the top 10 initiatives that the 2006 to 2008 Gartner CIO surveys identified, then few of them can claim a short revenue distance for most organizations (see Table 1). The "trail of evidence" from where any of these technology capabilities are exploited within an organization through the people they touch, the processes they affect and the performance they change to visible value realized (mostly in terms of direct revenue for commercial organizations) is difficult to construct. Too many steps are needed from areas that

Publication Date: 29 April 2008/ID Number: G00157347

Page 5 of 18

© 2008 Gartner, Inc. and/or its Affiliates. All Rights Reserved.



are too deeply embedded in the organization. This is why forecasting IT value is a task undertaken from "too far."

To what extent will each of the following technologies be a top-five priority for you?	Rank in 2008	Rank in 2007	Rank in 2006
Business intelligence	1	1	1
Enterprise applications (ERP, supply chain management [SCM], CRM)		2	*
Servers and storage technologies	3	5	9
Legacy modernization, upgrade or replacement	4	3	10
Security technologies	5	8	2
Technical infrastructure	6	8	12
Networking, voice and data	7	6	2
Collaboration technologies	8	10	4
Document management	9	9	**
Service-oriented architecture and service-oriented business applications	10	7	6

 Table 1. CIO Technology Priorities, 2006 to 2008

Source: Gartner (2006 to 2008)

2.2 "Too Random" — Results From Rigorous Forecasting Processes

We put work into forecasting value, in part, to be able to perform benefits realization after the project is over and the value should be realized by the business. That is the theory, regardless of how infrequently we see it put into practice. Here, we examine not how difficult the benefits realization process is (which is very difficult), but how likely we will be to have an appropriate opportunity to perform it. The hypothesis is that if benefits realization is impossible to conduct, even superficially, then there should be less rigor put into the upfront process of the value forecast — saving time and effort for the organization.

According to the Gartner 2008 IT Spending and Staffing Survey, about one-third of IT spending can be shown to improve business performance directly, and those are normally associated with enhancement and "frontier" investment categories (see Figure 1). These become the likely candidates where visible, countable business value should surface.





Figure 1. IT Spending That Directly Contributes Business Value

Of these investments, not all related projects will succeed. We assume that an organization would not choose to go through a benefits realization process and validate its value forecasts for projects that were deemed "failures." How many of these are there? There are multiple studies from the Standish Group and others that conclude that 30% to 40% of IT projects fail. Our latest survey of application development projects puts the number at about 20% (see Figure 2 and "Exploring the Relationship Between Project Size and Success").

Source: Gartner (December 2007)



Figure 2. Distribution of Success and Failure Across Project Size

Source: Gartner (December 2007)



That leaves 20% to 24% of IT projects — those that improve business performance (30%) and do not fail (70% to 80%) — available to analyze for value realized. The key characteristic here is not that we can only close the value forecast/benefits-realized loop for such a small number of total opportunities, but the uncertainty of which ones those will be. Because one of the factors is project success/failure, we can't just say we will measure only those opportunities that should show visible value and are implemented successfully, because, at the time of the value forecast (in an initial business case, for example), we just don't know. Once again, the preponderance of evidence would indicate that the effort put into detailed value forecast and ROI numbers for every initiative is not time well spent. The effect we describe here is that the value results of IT projects are just "too random."

2.3 IT Projects Take Too Long

There is a significant time gap between technology investment and technology payoff. The project must first be executed and deployed, then users must go through an adoption curve, and business processes need to be changed. Often, partners and customers need to be involved. That leaves ample time for uncertainties or shifts in business strategy to render the project's initial assumptions irrelevant and benefit expectations totally incorrect.

There are techniques for modeling situations with multiple levels of uncertainty — such as complex simulation models, uncertainty models, options analysis and so on. Although we advocate running the IT organization like a business, few businesses use this level of sophisticated analysis for mainstream investments, let alone "shared service" or overhead functions. These techniques might get a more reliable value forecast, but we wouldn't recommend them as a good career move.

We are stuck with the assumption that we should try to make forecast numbers more reliable and credible without the tools, organizational will or justification to make them better than "best case estimates." Change the fundamental assumption while building the case that the current process can't substantially improve under the weight of factors like this one — the project just takes "too long."

2.4 Value Is "Too Unpredictable" — The Story of the Light Bulb

Just as failed IT projects can teach us lessons, so can successful ones. When reviewing successful IT projects with organizations, we generally find that there are several unexpected benefits, with numerous reasons for those benefits:

- Even mainstream technologies are "unknown" and "emerging" to an organization the first time they are deployed. It is impossible to forecast something that didn't exist before, and that includes the effect of a new technology. Clayton Christianson discusses this inability to forecast a disruptive change in his book, "Innovator's Dilemma." The concept here is much the same: Although the IT project description may categorize capabilities as "enhancements" or "upgrades" to the organization, they have the effects more akin to an organizational disruption.
- Any IT-enabled initiative will involve complex interactions among the people, processes and technology, and organizations have no track record of forecasting the true effects of process changes, cultural effects and work-habit changes.
- Modeling the value and effects of technology needs to account for ripple-up and rippledown effects, and there is no reliable way to do that.



How does this relate to the light bulb? The light bulb is a well-understood technology that many believe holds substantial business value. However, building a business case for a light bulb points to several areas where "we don't know what we don't know." As with any piece of technology, we don't know exactly how users will embrace it.

- Will people be more productive because of the new light or continue to work as they always have?
- Have their jobs been redefined to extend their hours to exploit the technology?
- Have they all been provided with lamps and effective training on how to use them?
- Will they complain to HR that all of their circadian rhythms have been thrown off and demand that the lamps and light bulbs be removed from the workplace?
- Did we check with the "green" initiatives in our organization to determine whether our light bulbs will comply with future requirements?

The point is obvious: Even with a technology as simple as the light bulb, it is difficult to forecast business value.

Although this may sound trivial, it is not completely made up. One organization outfit its knowledge workers' offices with light sensors and high-efficiency light bulbs. However, many employees found that the lighting — in combination with the company-provided monitors — resulted in an uncomfortable working environment. Some brought in desk lamps to use instead of the overhead lights. Others ordered new monitors in an attempt to remain productive.

There is no doubt that any projected value and cost savings from the energy-efficient lighting evaporated shortly after deployment. If managers had embraced the "too unpredictable" notion, then they might have chosen an alternative approach, such as a pilot of the new lighting or a prototype lab of several configurations.

3.0 What Is a Better Way to Forecast Value?

Given that we have a set of unknowns and complex characteristics surrounding IT investments, it is not surprising that we made little progress trying to unravel the true business value of IT. However, organizations *do* make good decisions about IT investments and value every day. How does this happen? And how can we craft a better way to forecast value?

3.1 Measuring Expectations and Perceptions of Value

Working backward from the end of an IT project — where value is realized (or not) — we can determine that value delivered is closely aligned with the definition of success. It is mainly a matter of the perception of the stakeholders and users. The project is a success if they perceive it to be one.

Perceptual measures can be extremely useful as value indicators. In reviewing business cases, we find that the activity of assigning the business value of an IT initiative continues not until there is consensus on the relative accuracy of the numbers (and new learning is uncovered), but rather until the numbers reflect the predetermined perceptions of what the value should be. Even during post-implementation benefits realization activities, time is often spent "uncovering" the benefits that stakeholders expected to find, instead of being a totally unbiased activity. In short — at least based on many Gartner experiences and a number of articles and interviews — perception is reality.



3.2 How Successful Executives Establish the Value of IT Investments

Gartner and others have conducted numerous studies comparing skills and styles of CEOs and CIOs, the results of which are summarized to typify the general "business leader" personality versus the general "IT leader" personality (see Figure 3). Besides having a different business focus, CEOs and CIOs often have different styles as well, and this can exacerbate issues such as communications.

	CEOs	CIOs	
Business Focus	Revenue and growth	Security, cost and integrity	
Personality	Big-picture and expansive	Practical and operational	
Motivation	Power, autonomy, growth	Structure and comfort	
Attitude	Optimist	Conservative	
Style	Promoting, idea-generating	Quieter and closure-oriented	

Figure 3. Determine CEO and CIO Differences in Focus and Style

Source: IBM Survey, EXP CIO Survey, G2 Non-IS Exec Survey, CEO Interviews, Robina Chatham, John Hunt

One hallmark of successful CIOs is a facility for and comfort level with large amounts of data and a discipline around processes. However, this skill set does not always transfer well to every aspect of executive-level decision making.

Many successful business leaders exhibit a capability for making decisions quickly with a minimum of processes, using only key information. Moving forward quickly is viewed as preferable to "thinking it to death." Such executives often view a CIO's "obsession" with applying data or processes to business initiatives as obstructionist or unwieldy. They will put faith in their intuition or "gut feel," form a specific perception from uncertain data and let it lead them to a firm decision. A December 2006 survey by Doremus Communications and The Economist Group found that:

- 50% of CEOs, CFOs and CIOs said they "regularly spend money on projects they believe in whether an ROI case exists or not."
- 44% do not require an ROI analysis if they strongly believe in the project, using "faith in their own intuition" as the standard.

Words like "gut feel," "intuition" or "faith" are not generally part of the vocabulary of IT leadership, and yet that's how the business runs — every day. This system is not infallible, but many good decisions have powered significant IT investment.

Even when some financial analysis and metrics are required, IT leaders may tend to impose a much higher standard of rigor and certainty around value metrics than the rest of the business. This perceptual difference in the validity of financial metrics and the importance of rigor can lead to a impasse between the IT organization and the rest of the business, and inhibit the ability of



the IT organization to move ahead with IT initiatives that are likely to provide value to the enterprise.

3.3 Would Perceptual Measure Really Work?

Executives make good decisions on their perceptions of value all the time. Although we see anecdotal evidence of this with some regularity, we are beginning to see specific research to support the value of perception.

A specific comparison of business value to perception comes from an organization called CogniTech Services (<u>http://www.cognitechcorp.com/Benefits.htm</u>). Figure 4 shows a relationship connecting IT to the enterprise profit margin.

Figure 4. IT Effectiveness and Profit Measures via the Business's Opinion of the IT Organization's Contribution



Enterprise Profit Margin Index

This data comes from studies of more than 200 companies that carried out a measurement process developed by CogniTech. If the company or business unit score of IT contribution or effectiveness is above average (about 47 in the chart), then the positive correlation holds — that is, the company profit margin is likely to be above the industry average (shown as an index of

one). Below the average effectiveness score, other factors, such as credibility, come into play,

Publication Date: 29 April 2008/ID Number: G00157347

and the relationship is lost.

© 2008 Gartner, Inc. and/or its Affiliates. All Rights Reserved.





When CIOs understand this relationship, they appreciate the need to work with business unit stakeholders to develop an environment in which IT is clearly perceived as contributing to the success of the business unit. If that contribution happens, then it seems logical that the business will actually do better and contribute to superior business performance. Hence, this illustrates the opportunity for an appropriate connection to the process of making IT investment decisions. If the investments produce higher user opinions, then they will likely produce higher profits. Equivalent performance measures apply to the public sector.

Others who have published extensively on this topic include Paul P. Tallon and Kenneth L. Kraemer, as noted below:

- "Fact or Fiction? A Sensemaking Perspective on the Reality Behind Executives' Perceptions of IT Business Value" by Paul P. Tallon and Kenneth L. Kraemer (2006). Their survey from executives in 196 firms finds that executives' perceptions are more fact than fiction.
- "Fact or Fiction: The Reality Behind Executive Perceptions of IT Business Value" by Paul P. Tallon, Kenneth L. Kraemer and Vijay Gurbaxani, Center for Research on Information Technology and Organizations, Graduate School of Management, University of California, Irvine. Based on data from 196 executives from 42 firms, their study determined that "Executive perceptions are correlated with objective measures of IT business value, thereby establishing executive perceptions as a valid means of assessing IT business value."

Having established that:

- A primary focus on collecting vast amounts of detailed financial data has not served well as a way to forecast the value of IT investments.
- Executive decision makers are comfortable with "soft" information, working with incomplete data and mixing in their perceptions through intuition or gut feeling, especially if they can make quick and timely decisions.

We need to forge a solution for forecasting IT value that delivers enough information to understand the value of the decision, is presented in a way they want to consume information, and is easier and more practical to measure. The solution still needs to be structured and transparent, so that group decisions can be enabled, and various investment opportunities can be compared with each other.

4.0 Developing and Using a Perception Index

The goal of a perception index is to provide a framework and measures that key stakeholders can use to answer three questions relating to the expected business value from a specific IT investment:

- Can we expect to generate enough value to justify the cost? This is the analysis generally developed through the business case for the opportunity.
- How does this opportunity compare with others we could undertake? This question is answered through the exercise of project and portfolio management, whereby projects and opportunities need to be compared with each other.
- At the end of a project, were we able to generate value and benefits that made this a good opportunity? The caution here is not to require that the benefits achieved were exactly what was forecast, because we know the process is imprecise.



The perception index should be a one-page set of criteria that can be used to score each opportunity, feeding the prioritization process.

4.1 Step 1: Stakeholder Analysis

This step requires identifying key stakeholders. The framework must be tailored to them — how they acquire and use information, the kinds of questions they ask, and what kind and level of information holds their attention. These are often the members of a governance or investment board who make the ultimate "go/no go" decisions on projects.

As a starting point to this exercise, categorize the value expectations for the IT investment in one of three ways:

- To create a new opportunity
- To improve an existing process
- To mitigate risk

Have stakeholders weight the three categories, then develop a consensus on the weightings across the group. This consensus building can be done via one-to-one interviews, workshops or e-mail exchanges. This process begins to set the standard for the types of opportunities the group will be more willing to entertain. It blends characteristics of the organization (how risk-tolerant is it?), external market factors (are we looking to expand and enable future market opportunities?) and economic factors.

4.2 Step 2: Determine the Value Standards for Each Category

Express the standards in three to eight clear, understandable sentences — that is, without any IT jargon. These standards should embody specific measures or criteria that can be scored for any potential IT investment (see Figure 5). Each standard needs to describe what value looks like for that category. For example, a create-an-opportunity category could read: "Open offices in new geographies 30% faster than we do now." For a mitigate-the-risk category, it could be: "Ensure we do not end up in the newspaper for a security breach."







Source: Gartner (March 2007)

The categories, the weightings for each category and the value standards are the elements of the perception index. The next step is to use this tool to forecast the value of a specific IT investment.

4.3 Step 3: Develop a Score for a Specific IT Investment

Each value standard — that is, the three- to eight-sentence statements that embody specific measures or criteria — is scored from 1 to 10 on the value that the particular IT investment being studied is expected to deliver within each of the three perspectives: opportunity, process or risk. This gives a lens through which to view the potential value impact of the IT investment. The weightings and scores are combined to produce an overall weighted score (see Figure 6). This can be used against a convenient cost unit, such as one unit for each \$10,000, to form a perception index, which can enable a comparison among competing initiatives. Interpretation of the score varies by organization. We have not developed any general guidelines because this is a new approach taken from the methodology in "Toolkit: Five Perspectives Beyond ROI (A Process for Scoring and Prioritizing Projects and Programs)."

Analyze the Value of the Investment	Perspective	Weight (%)	Score (%)	Weighted Score (%)		
	Opportunity	20	70	14 109/		
	Process	60	30	18 40%		
	Risk	20	40	8		
	Cost	\$500,000 /100,00 (common unit) = 5				

Figure 6	Create a	Percention	Index for	Potential	Investments
i igule 0.	oreate a	i erception	IIIUEA IUI	i otentiai	mestments

Form the Index Value Perspectives Weighted Score/Cost Unit = 40/5 = 8 Source: Gartner (March 2007)

Publication Date: 29 April 2008/ID Number: G00157347

© 2008 Gartner, Inc. and/or its Affiliates. All Rights Reserved.

The overall score can be used to produce a prioritization, and the three categories can form the investment framework for the project portfolio. Categories in which the weight is high — that is, important to the organization — but the investment scored low indicate questionable alignment. The reverse situation (in which the project scores well against a category the organization has weighted lower) should be examined as key reasons to modify or abandon the proposed project. It might look like a great opportunity, with terrific stand-alone ROI, but in the context of this framework, the organization may not be interested enough right now.

4.4 The New Value Life Cycle

Benefits have their own life cycle, consisting of three major phases:

- Planning Phase Proper planning results in the business "doing the right things," in terms of maximizing potential benefit.
- Execution Phase New capabilities are developed and deployed. This is about "doing things right," in terms of executing well, handling change well and controlling scope to focus on optimizing benefits.
- Harvesting Phase This is about "reaping the benefits." For the IT organization, this
 means ensuring that new capabilities are used as intended to deliver tangible business
 results.

When we look across all phases of the life cycle, Gartner's Perception Index needs to be used in context with a few other tools First, we must ensure that it answers the three key questions we set forward in Section 4.0. This will ensure that it is a practical and useful construct. Second, organizations are not going to abandon financial analysis completely, especially when it comes to cost management. Third, we need to describe how organizations with traditional IT value forecasting processes would start to incorporate a perception index or similar approach.

4.4.1 Can the Perception Index Answer the Key Questions of IT Value Forecasting?

Gartner's Perception Index helps answer the key question: Is this a worthy investment to consider? It provides a raw score that can be used against a hurdle rate of, for example, a 70% score to be considered. Each organization can set its appropriate hurdle rate. The index also enables direct project-to-project comparisons. Specific values can be assigned by category to force a level of strategic alignment.

After a project is deployed and benefit harvesting has been done, your perception index can be brought out and re-examined to determine whether value was realized and how the actual value compares with the initial perception of project success. By applying the same value standards used to forecast the value, stakeholders cannot only gauge their perceptions of whether value was delivered, but they can use the results to more accurately forecast future projects.

Remember, if the stakeholders are happy, then the project is a success.

4.4.2 What About Cost Management?

We have carefully separated cost management in this research from the value discussion, but it continues to play a role in any project. Cost forecasting is better engineered than value forecasting, although it is still uncertain in many cases. However, it is required because the organization needs to make discrete spending decisions. Also, as projects proceed, severe cost overruns can trigger new decisions, such as stopping or rescoping a project. Value is much less transparent, and often cannot even be examined until long after project activity has ended.

 $\ensuremath{\mathbb{C}}$ 2008 Gartner, Inc. and/or its Affiliates. All Rights Reserved.



Although the key measure for success remains the perceptions of success and value delivered, financial analysis still plays a role in the benefits realization process. It is appropriate to collect and measure any specific financial benefits that have accrued. The key is to understand that these benefits are never the whole story, and it is often difficult to align them specifically to IT because of the difficulty separating IT from the complex mix of people, processes and technology that all came into play in delivering the value.

Therefore, throughout the value life cycle, there are two processes — one that is financial and cost-centric, and the other that is value and perception-centric — running in parallel, as described in Table 2.

	Planning	Execution	Harvesting
Financial Process	Thorough analysis of cost	Ongoing cost tracking	Analysis of benefits realized
Perception of Value Process	Perception index plus support for process documentation	Perception index checkpoints	Perception index verification

Table 2. Use Financial Management and Perception of Value Processes Appropriately

Source: Gartner (December 2007)

4.5 How to Incorporate a Perception Index Into Existing Processes

Organizations would be hard-pressed to abandon financially based value forecasting for anything strictly "perceptual" in nature, but that doesn't mean nothing can be done. Start by adding a perception index and evaluation to your existing methodology so you can track relevancy. Most organizations have an area in their business case for "soft benefits," "intangible benefits" or "other benefits." This is a recognition that the financial numbers don't tell the whole story. In practice, this area in the business case often garners more interest in the decision process than the financial analysis. This is the perfect spot to add a structured perception index, leaving the other sections unchanged.

For projects where it is well-known that ROI and traditional measures don't work (such as innovation projects, infrastructure enhancements and so on) use the perception index to inform the process in a new way.

5.0 Recommendations

Investigate a perception index or other tools to focus an overly analytical IT organization on the real keys to value forecasting. Ensure that the value forecast process answers the three key questions:

- Is this a good investment for the organization to consider?
- Do we have a way to compare the value of this investment to others we are considering?
- Do we have a way to determine whether this was a good investment decision after we have deployed it?

Also ensure that it answers these questions in a way that is practical, timely and tuned to the perceptions of key stakeholders.



RECOMMENDED READING

"Toolkit: Five Perspectives Beyond ROI (A Process for Scoring and Prioritizing Projects and Programs)"

"Toolkit: Investment Categories for Structuring Your Project Portfolio"

"Exploring the Relationship Between Project Size and Success"

REGIONAL HEADQUARTERS

Corporate Headquarters

56 Top Gallant Road Stamford, CT 06902-7700 U.S.A. +1 203 964 0096

European Headquarters

Tamesis The Glanty Egham Surrey, TW20 9AW UNITED KINGDOM +44 1784 431611

Asia/Pacific Headquarters

Gartner Australasia Pty. Ltd. Level 9, 141 Walker Street North Sydney New South Wales 2060 AUSTRALIA +61 2 9459 4600

Japan Headquarters

Gartner Japan Ltd. Aobadai Hills, 6F 7-7, Aobadai, 4-chome Meguro-ku, Tokyo 153-0042 JAPAN +81 3 3481 3670

Latin America Headquarters

Gartner do Brazil Av. das Nações Unidas, 12551 9° andar—World Trade Center 04578-903—São Paulo SP BRAZIL +55 11 3443 1509

