HOW TO ACHIEVE VALUE FROM INFORMATION TECHNOLOGY INVESTMENTS

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THE FOCUS OF INFORMATION TECHNOLOGY VALUE HAS SHIFTED FROM SUPPORTING BUSINESS STRATEGY TO ENABLING AND DRIVING IT.

INFORMATION TECHNOLOGY POWERS TODAY'S GLOBAL ECONomy. As the single largest investment made in the U.S. economy today, information technology (IT) will fuel more than 5% of the GNP by the year 2000. What's more, investments in IT are expected to double in the next five to seven years. Yet, even in light of heady spending, executives are asking, "Where's the payback?"

DEFINING IT VALUE

Despite efforts to correlate IT spending with a variety of business performance indicators such as ROI and ROA, research suggests there is no significant relationship between the amount a firm spends on IT and its performance. Studies such as *INFORMATIONWEEK*'s 1995 survey of business executives and similar analyses have failed to show any consistent relationship between IT expenditures and a company's performance.

Naturally, paper industry leaders insist on an explanation for this lack of success. After all, they believe investment in hardware and software should help them achieve a robust bottom line. However, more than half the senior business executives surveyed in 1993 by *Computerworld* and Andersen Consulting said they're not getting their money's worth from IT.

In the 1970s and 1980s, IT was viewed as a traditional shortcut to processing and collecting voluminous amounts of data. IT value was defined in terms of reducing staff, cutting costs, etc. While this traditional framework continues to exist, a new paradigm has emerged as the paper industry struggles to understand the value IT brings to the organization.

SHIFTING THE PARADIGM: VALUES-BASED IT

The focus of IT value has shifted from cost reduction to opportunity creation—from a vision of "support business strategy" to "enable/drive business strategy." As an enabler/driver, IT is beginning to be valued as a vehicle to accelerate business growth, implement new corporate strategies, or uncover new business opportunities. Known as "values-based" IT, this new framework for thinking about the true sources of IT value doesn't conform to measurement by traditional methods such as ROI or break-even analysis.

DEFINING IT VALUE THROUGH OPTIONS

We suggest a different approach, one that draws on thinking from other fields, including financial markets. It is an approach based on "options." An option has intrinsic value. Having the option to do one of several things puts you in a position that gives you power and economic value, even if the value is not delivered immediately. In the past, IT investments have been viewed as obligations. In the future, they will be viewed as options—options that create decision making platforms for the future.

Having mastered a technology early or having built a capability before the capability becomes critical gives you an option that your competition may not have. The option may show up as earlier time to market or a preemptive ability to capture a market.

For every situation in which a value vision is contemplated, multiple, often competing options for how to achieve that vision exist. In more complex situations, the direction a company takes today may lead to opportunities in the future that could cause a reevaluation of the current strategy.

For example, suppose a paper company has a vision of a sales force that is more effective in the marketplace, generating tremendous new business opportunities through improvements in the efficiency of the sales support functions. Several, but certainly not all, of the questions that need to be asked are:

- Which IT should be used? Laptops? Personal data assistants? Should they utilize wireless technology?
- What IT applications should be used? E-mail and spreadsheets? Should the firm develop custom applications?
- Would the technology and applications really improve sales efficiency? If salespeople theoretically have more face time with their customers, would they use that time to their advantage?
- Would the sales force adapt to using new technology, or would acceptance be inhibited by laggards?

There can be intense pressure to move forward with the project, but there are many unknowns, any one of which could scuttle it by reducing or eliminating the value of the investment. One approach, using options, would be to invest in information gathering, discovering more about the technology, the reactions to application prototypes, testing customer reaction to quick turnarounds in sales process, and analyzing the impact of improved quality (cleansed) data. This is taking a multiple path approach to validate assumptions before committing the major investment.

CALCULATING THE VALUE OF AN OPTION

Current literature focuses on calculating the value of an option. The fact is that there are many discussions of this technique. It proves that investing in options and continuously seeking more information so that you can review your options to proceed or take another course can create economic value.

The process of calculating the value of an option requires breaking the investment program into discrete stages determined by the organization's need to gather information or to handle lead-time issues. To accomplish this, the company has to identify the uncertainties and the options that exist at each stage of the investment. It also means evaluating the investment required under varying assumptions, understanding probabilities linked to each of the outcomes, and understanding the expected endpoint value of different option investment decisions. Companies that consider investing in multiple technology paths today are assuming that they will abandon all but one (or even all of them) before completion of the process.

Key questions need to be asked about each option:

- How attractive is the option?
- Can the company sustain a lasting advantage if they undertake the option?
- Does the company have the capabilities to successfully implement the option?
- Are the risks acceptable?
- Will forecasted benefits be achieved and actually increase shareholder value?

From our experience, the structured analysis that emerges from the valuation process will help in structuring the investment process. It should help you understand what your options are and how to stage the investments. It will also tell you the value. You will need the valuation to make decisions to invest, hedge, or kill investment programs in the future.

DELIVERING IT VALUE

How does an enterprise select IT that fits the corporate culture (legacy systems or client/server platforms) and remain responsive to constant changes in the marketplace? Realizing the value of these options is derived from a company's success in the implementation of IT initiatives.

The traditional view of IT value delivery centers on project management: the tasks, dependencies, start/end dates, responsibilities, and costs of a project. The underlying notion is that once a project is defined and approved, the project staff marches off in lock-step, completing task after task in a linear fashion until the project is completed. In this view, a successful project is defined as being "on time, on budget."

Noticeably absent in this success scenario is any reference to measuring value delivery. Typical are the many managers who struggle through the justification phase of a project believing that if the project is completed, it has instant value. The danger is in assuming that the initial course of action for implementation of an IT project will remain the best course of action over the life of the project.

Organizations need to adopt "option thinking" to force project managers to identify key implementation decision points. Such decision points allow managers to reevaluate project phases, providing an opportunity to halt or redirect a project. Checkpoints must redefine, not as phase boundaries in a traditional linear project, but as option points that help managers reevaluate their options at every decision point.

These checkpoints should be used for values-based assessments which ask critical questions:

- Is the company focused on the right things?
- Are current projects and activities aligned with the IT value vision?
- Are investment levels sufficient?
- Does the firm have the critical capabilities needed to deliver value?

RESULTS

Above all, values-based delivery stresses results. This means that the success of a project should be measured by the delivery of value, not by project budgets or timelines. This is not to say companies should abandon schedules or budgets. However, even an on-budget, on-schedule IT project that doesn't meet the true needs of the enterprise can't be considered successful.

As paper industry leaders struggle to make the most of their company's investments in IT, they may want to adopt a new framework that assures that the true sources of IT value are evaluated. No longer just a tool to crunch the numbers, IT gives business the power of options. And well planned, well executed IT implementations maximize the value of those options. TJ

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