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HOW CAN YOU GET MORE ROI FROM YOUR IT INVESTMENTS?

BENNETT E. MCCLELLAN WITH BOB KAPLAN

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OVERVIEW

Enterprise Resource Planning (ERP) systems have gotten a bad reputation, as have CRM, HR and data warehouse projects. Most CFOs will tell you that large-scale IT projects always cost more than budgeted, seldom deliver on their promises, and often falter or fail before they go live. Further, the big companies that make enterprise software, such as SAP and Oracle, extract enormous profits for themselves and their consulting partners.

Bob Kaplan, Senior Advisor for HighPoint Associates comments, "When you look at academic studies, what you see is that for the past twenty years people have been writing papers on how the vast majority of big-scale IT projects either come in way over budget, under deliver, or just completely fall apart."

Does Big IT really deserve its bad rap? On an empirical basis, Kaplan suggests that, "IT is guilty as charged." Big IT leads to big messes.

However, Kaplan asserts that the problem is typically not with the products. Rather, he points to outdated executive mindsets, risk-averse organization cultures, and lack of program management skills as underlying reasons why large-scale IT investments fail. Rather than blame the technology, Kaplan urges executives to re-conceptualize their relationship with IT. He advocates approaching IT not as a utility, but as an entrepreneurial activity. In this article, Bob Kaplan expands on using the entrepreneurial metaphor to re-calibrate expectations for IT and to rethink approaches for implementing large-scale technology changes. Bob draws on his perspectives as a consultant, a former transitional CEO and CTO for multiple companies, and Director at McKinsey & Company where he served as a leader of the Information Technology and Systems practice.

RE-THINKING IT AS ENTREPRENEURSHIP

Bob Kaplan sees IT in entrepreneurial terms. He states, "If you think about strategic IT projects, they are probably the most entrepreneurial things going on inside a company."

Clearly Kaplan does not consider IT to be just a utility. There is, of course, a utility role for IT which Kaplan labels "the

plumbing." The more important role for IT is as the foundation for the company's ability to seek and secure new opportunities. According to Kaplan, "The utility actually gets in the way of strategy."

Kaplan explains, "When you start to move towards the most strategic kinds of IT projects, those that really are involved in business transformations and thinking about managing your company differently, you need to focus on knowledge development, experimentation, doubling down on what is working and killing off what isn't." Thinking about IT as entrepreneurship is about developing solutions for the unknown, not replicating what has worked in the past. It's about finding new models for serving customers.

Searching for a new model is very different than executing a known model. This is one of the key concepts that Stanford, Harvard and Columbia now teach as part of their entrepreneurship courses. Start-ups are not just small versions of big companies. Start-ups represent the search for a repeatable, scalable model. In a larger company, the focus is on execution of the known model. The dichotomy applies to IT, where the utility part is executing the known model. The strategic part is searching for new models.

THE EVOLUTION OF IT IS NOT AS PREDICTABLE AS WE WANT TO BELIEVE

Over the next decade, much of what we think of as core IT functions will migrate from client/servers to cloud computing. Off-shoring will give way to cloud-sourcing. Entrepreneurs will discover new ways to provide IT faster, better, and cheaper. The environment is ripe for innovation. It is also full of uncertainty and risk.

Kaplan defines "risk" as the unknowable, that which cannot be known. He defines "uncertainty" as a known set of outcomes where you are not sure which one is going to happen.

By way of illustration he says, "Risk is essentially what the Apollo 13 mission to the moon had to deal with. An explosion occurred. Nobody had ever thought of that possibility. They had to invent their way out of a potential disaster scenario." The threat consisted of a series of unforeseen and unknowable circumstances.

Uncertainty, in contrast, "is essentially what a gambler faces in Las Vegas. He knows the odds. He just doesn't know what the outcome is going to be."

Kaplan says, "We are very good at dealing with uncertainty and very bad at dealing with risk."

Consider what has happened with SAP over the past three decades. SAP began operations in 1972 with software inherited from Xerox. SAP's original market consisted exclusively of large companies with mainframe computers and fat IT budgets. In 1992, SAP brought out its R/3 product to accommodate the shift from mainframe computing to client/server architectures. The "3" in R/3 isn't the release number, instead it denotes a three-tiered architecture designed to enable seamless integration among databases, application servers, and the devices humans use to do their jobs.

After Y2K, SAP struggled to keep up with diverging market demand. The company redesigned and rebundled R/3 multiple times under various umbrella brands. It introduced mySap. com as a concept rather than a product to respond to the emerging software-as-a-service (SaaS) market. It purchased TopManage to create the foundation for attracting small to medium-sized enterprises. It acquired Business Objects to gain credibility in analytics, Sybase to extend its mobile information management capabilities, and SuccessFactors to establish a beachhead in cloud computing.

SAP generally paid a hefty premium for its acquisitions, the penalty for not catching the drift of the market before a competitor captured the prize. This seems ironic for a company selling enterprise resource *planning*, but SAP's struggle to remain relevant illustrates an important IT challenge. If the largest maker of enterprise software cannot control the direction of the market, who can? The short answer is: *nobody*.

IT is a juggernaut. The field continues to develop feverishly. The pace of development creates many unknowns or, in other words, risks. Yet corporate executives all too often view IT as something you can buy, install, and turn on – risk free. This view of IT as a utility has little to do with the reality of IT as an unpredictable juggernaut. So why does it persist?

HOW THE IT-AS-UTILITY VIEW GETS REINFORCED

IT executives themselves often reinforce the image of IT-as-utility. It is easy to justify your existence when what you do touches so many people daily. Everybody knows when the email system chokes. It is harder to perceive when the

company misses a strategic opportunity because it could not respond fast enough with appropriate technology. Also, IT executives, like most executives, measure their worth by the size of their budgets. Empires still matter.

Kaplan observes, "What you see in the empires is that the vast majority of people are working on what I would consider plumbing kinds of activities. Sometimes as much as 60% of the people in IT departments are doing this sort of thing. When there is a crisis with the servers or something didn't get patched or email isn't working, that's what gets all the attention. The long-term strategic issues get crowded out."

Finance and purchasing functions also contribute to the view of IT-as-utility. CFOs continue to squeeze on IT as an overhead cost to be minimized. Purchasing groups routinely interact with outside IT service providers as "vendors." Proposed IT projects must promise to deliver a specific ROI, even though those involved generally know that picking numbers in a high-risk competitive environment is more of a game than a discipline.

Kaplan says, "There are risks inherent in strategic IT projects that can't be known. CIOs should be able to say, 'Whatever number I give you today will be wrong.' But that's a totally unacceptable political answer inside most companies. Until that becomes a more acceptable kind of discussion to have, CIOs will continue to say, 'It's going to be \$17.5 million and take 8 months.' Everybody walks out of those meetings going, 'Yeah, that's BS.' But the CFO wanted a number, so the CIO invented one."

A third factor is that the life cycle of IT knowledge is getting shorter and shorter. Kaplan states, "Too many IT organizations don't put enough of an emphasis on keeping the skill set of their people up to date." Many IT executives continue to approach tomorrow's problems with yesterday's mindset.

MANAGING IT RISK NECESSITATES THE SEARCH FOR NEW MODELS

Kaplan suggests that the element of unpredictability makes it an ideal time to re-conceptualize the role of IT. The core problem with longer-term projects in a high-flux environment is that one cannot anticipate the real risks involved. You start out thinking you know how to solve a problem, but the environment sends mixed signals and eventually you end up groping your way toward the answer you really needed.

This is exactly the situation facing every entrepreneur launching a new venture. The entrepreneur faces risk – the unknowable – until such time as more facts are known.

product prototypes are tested, customer interest is probed, value propositions realized, and competition identified.

Kaplan says, "No start-up ever says, 'Well, the first thing that I am going to do is buy a server and put up our own e-mail system. Then we are going to gather requirements for the customers over the next two years, develop the perfect product, send it off to manufacturing, and deliver it to the customer with a big bang and say, 'That was what you wanted, right?' Yeah, right!"

Obviously it makes no sense to launch multi-year IT projects that proceed to fail in a predictable manner. Instead, IT executives must embrace a more agile model for developing and delivering vital technology-dependent services. Rather than devote their time to the mechanistic aspects of technology, IT executives need to refocus their attention on birthing opportunities. IT executives need to become entrepreneurial in their roles as service providers.

TRANSFORMING IT EXECUTIVES INTO IT **ENTREPRENEURS**

According to Kaplan, adopting the entrepreneurial model begins with IT executives seeing their roles differently. He says, "If I were back running an IT shop, I would want to have an IT group whose skill set was focused on four things:

- Process re-engineering
- Systems analysis
- Informatics, and
- Analytics."

He adds, "And everybody in IT needs to have some business strategy training and skills."

Everybody? Bob responds, "Absolutely."

Kaplan says, "For example, right now I'm teaching courses in business strategy to technical executives in major corporations. In one case, the course involves taking the company's top 150 people through a half-dozen, two-hour classes on how to think about strategy. It's engineers and computer guys. The classes came about because the CEO wanted everyone to have a common vocabulary and to convey the message that strategy is everybody's job."

Kaplan uses this example to emphasize his point: IT executives should be directing their resources toward the things that help businesses succeed at serving customers and making money. Learning how to think strategically is an essential component oftransforming IT staff from plumbers into business developers. IT people need to get involved with surfacing opportunities, supporting product experimentation, giving market feedback, and adapting organizational structures to fit strategic needs.

And they need to get rid of all the plumbing they can possibly unload.

Companies still need plumbing, but they don't need their IT departments to provide it. What they need IT to do is figure out, "How can we help our businesses get the technology they need to succeed – fast?" And then deliver it – fast.

Kaplan addresses the question of how IT executives can transform themselves into IT entrepreneurs by elaborating on three categories of action:

- 1. What do IT executives need to do the same?
- 2. What do IT executives need to do differently?
- 3. What do IT executives need to stop doing?

WHAT DO IT EXECUTIVES NEED TO DO THE SAME?

Kaplan notes that the prescription for entrepreneurial transformation does not involve a complete makeover of the typical IT executive. Having served many CIOs as a consultant and having served as a CIO, he suggests the transformation process is more like switching on the right genes, rather than genetically re-engineering the person.

For example, Kaplan says, "You still need analysis to know what's needed. You still need management interfaces with partners. You still need people who speak both IT and business. You still need internal integrators who can work with, as opposed to for the businesses."

In other words, entrepreneurial CIOs still need to find, direct and retain the best technical people to work on the company's most important challenges. If you are the CIO you also need to keep yourself and your staff on a rapid learning path to avoid having your knowledge become obsolete. You further need to keep yourself up to date on business developments that affect the company strategically. And you need to work with the other members of the executive team to help them understand how IT can help them pursue new opportunities.

If you are already doing these things, well done. Now, what do you need to do differently?

WHAT DO IT EXECUTIVES NEED TO DO **DIFFERENTLY?**

To find out what needs to change, Kaplan suggests, "Start with the strategic objectives of a business unit and identify how and where IT should be contributing to the achievement of those objectives. If you are not putting most of your company's resources behind those efforts, then this needs to change."

Kaplan highlights the following areas that typically need reassessment as the IT group evolves toward the entrepreneurial model:

Assess the strategic importance of each activity using IT resources

Place the bulk of your time and attention on getting things done better, faster and cheaper when it serves the business strategy. Look to deliver effectiveness first, efficiency to follow. If a supported activity is not providing strategic assistance, then figure out how it could be done outside the IT organization.

Consider the cloud as the new architectural model

Thinking about IT as a function without any hardware, ultimately outsourcing your entire infrastructure, changes the way we think about what IT departments traditionally do. Thinking in terms of "the cloud" may include traditional "outsourcing" models, and it will include new models. With more and more core applications being re-written for the cloud, we are on the verge of IT starting to achieve the promise (ironically) of being used like a utility. Accordingly, what you need to do is free up resources to focus on business development, not applications and infrastructure.

Do more of the day-to-day stuff outside

While the on-shore/off-shore model of outsourcing has most likely peaked, the inside/outside model of outsourcing, typically involving a much higher percentage of on-shore work, is just beginning. For example, if you move from running your own server farms to using Amazon's cloud services, you will probably be bringing some of your data center functions back onshore. But you will not be taking them back inside. Keeping costs out of a startup is one way to help assure the eventual profitability of the enterprise.

Adopt an agility mentality for development

Agile development isn't a methodology. It's a mentality. You need to take "agility" beyond the words. A lot of companies claim to deploy agile development methods, but when you look at their documentation, you see the old waterfall method. People seem to know the words, but they have not developed the skill set. Agile development involves taking a first shot at what you think you want. Then you do a rough prototype in a couple of weeks, sort of build the Potemkin village, and see what the business users think of that. If you like the way it looks, then you start thinking about how to build the real structures. You have to be willing to try it and toss it.

Specifically, do more experiments

People frequently say it costs too much to experiment. But in systems development, real value typically only emerges when someone sits down in front of a prototype to see what they can do. And then they realize, "Oh, I didn't know I could do that!

Here are three other things that could be really useful!" But the iterative development mindset typically isn't present in IT projects, even when people say they are prototyping. That distinction frequently gets blurred. To be clear, a prototype is something that you are just testing. If it works, you throw it away at the end of the test. Test and toss. A prototype is not a sneaky way to begin scalable systems development. Prototyping is a way to learn what the customer really wants.

Engage your outsourcers as partners, not vendors

You hear "partnering" as a slogan, but you don't see it much in practice. Companies make a really big mistake in thinking about outsourcing as picking a vendor or a set of vendors. People really need to be thinking about picking partners. You need to go into any kind of outsourcing relationship with a long-term mentality, not a short-term view. You don't want to put the contract up for bid every three years. You can't build the kind of relationships or domain expertise you need with that kind of vendor mentality.

Manage your own partner contracts

Where are all your vendor contracts maintained? Who has the file? How many vendors are you dealing with? How many different contracts do you have? What is the renewal date on each contract? What are the terms of the renewals? Almost nobody can answer all those questions. And what is really frightening is many people say, "I don't know where the contracts are," or "I don't know where all of them are." Money often falls through the cracks because vendor representatives can work the different contracting entities and avoid getting lumped into an enterprise contract. Don't lose track of your partners.

Reinforce and build up project management and program management skills

Not enough time and attention is typically given to the disciplines of project management and program management. Project management in many places gets reduced to, "Yeah, we've got an Excel spreadsheet." Nobody is really thinking broadly about how to manage risky and uncertain projects or how to dynamically allocate resources across the portfolio of projects. This is not a low level managerial task. It typically requires a good deal of experience and some sophisticated program management tools. Service partners often promise to provide this managerial service, but they are seldom able to deliver it. IT needs to retain middle management skills to oversee both internal and outsourced functions.

Invest more in skills building

As a rule of thumb, IT organizations should allocate a minimum of 10 and up to 20% of the time of everybody in IT for staff development and skill development. We are not talking about the programs put on by HR, but the programs put on by Microsoft, SAP, IBM and the innovative companies

creating the new IT order. Also, IT organizations tend to get complacent with the people they have. CIOs need to make sure the skill sets they retain match the business challenges they are facing. CIOs need to ask themselves, "Do I have the best and the brightest? Or at least people who are in the top quartile in their areas?" If not, get them!

Help educate the CFO about the riskiness of IT development

Educating CFOs may be the most challenging thing CIOs need to differently. A lot of potential obstacles can get in the way of achieving this objective. If CIOs approach their jobs as entrepreneurs, then they need to think of CFOs as angel investors or venture capitalists. What do the angels need to understand? What do the VCs need to know? Develop budgets that reflect the nature of the risk. Make the case for "test and toss." Develop the analytics to back test results with numbers. While it may be politically difficult, stop pitching IT projects as point forecasts. No honest entrepreneur would make claims to their investors that they know are unsupportable. Why should you?

WHAT DO IT EXECUTIVES NEED TO DO STOP DOING?

First, many of the things IT executives need to stop doing are the opposites of what they need to do more of. For example, stop thinking of your vendors as vendors, think of them as partners. Stop using prototypes as pilots, use them to refine your knowledge of what the customer really wants. Here are some more:

- Let go of the waterfall it's a pitfall
- Quit making point forecasts for project budgets it's deceptive
- Stop viewing program management and project management as overhead

Second, there are myths that CIOs should stop perpetuating. For example:

- No vendor does it as well as we can
- We need to get the requirements perfect before we start development
- It costs too much to do prototypes
- What we really need is a complete system, not just a few applications
- The only way to manage this effort effectively is to bring it in-house

Beyond this kind of rules-based approach, the third thing IT executives need to stop doing is seeing themselves as service providers rather than business builders.

Kaplan comments, "Unfortunately, too many CIOs are not looked at as business people. They are looked at as technical managers. Every issue of CIO Magazine has an article on how to be more strategic as a CIO. This puzzles me. I don't know why that is not happening. It does in some companies, but it's more the exception than the rule that the CIO is viewed as a senior contributor to business thinking."

And finally, CIOs need to stop making things complex. Most entrepreneurs realize that in order to scale their enterprises, they have to do something really simple. Or at least they have to develop a really simple, easily communicated vision of what they do. The activities or processes that go into a product may be complicated, but the concept of what the product is and what it does must be simple. Let go of the urge to make things complex. Seek to communicate what you are trying to achieve as simply as possible.

SUMMARY: HOW CAN COMPANIES GET MORE ROI FROM IT?

The question posed at the beginning of this article was, "How can companies get more ROI from their IT investments?"

Bob Kaplan provided a number of specific ideas for transforming the IT function from a service organization to an entrepreneurial engine. At the heart of all of these ideas is one simple concept: **IT needs to adopt a new entrepreneurial mindset regarding what it can do for the company.**

Some of the changes suggested may seem minor. Some of the suggestions may seem too difficult to tackle at the moment. Whether an IT executive is able to achieve the full checklist provided is probably not that relevant. Trying to take on a different mindset is essential. Thinking differently is the precursor to acting differently.

Kaplan explains, "If we take the model of entrepreneurship, we are not saying we need IT people to become entrepreneurs. What we need them to do is *think* like entrepreneurs within their function. Then a lot of these things might fall logically out of that."

He continues with an illustration. "I was once CEO of a company called Motif. It is an outsourcing company that does high-end back office work, as well as customer support where there is a need for human judgment to be part of the process. For example, they have teams of reservations agents who do work with the big travel services companies, making and changing reservations. One of the things we did was take software engineers and have them actually be on the floor with the agents who are doing the work, just sitting there watching the agents work to see what they were doing.

"The software engineer would watch the agent, see that they are opening two windows on two different monitors, and then say to them things like, 'Do you always open those two windows together?'

"And the agent would say, 'Yes.'

"And then the software engineer would ask, 'If those two windows always opened automatically together, and it was done on one screen, would that save you some time?

"The agent would say, 'Sure, maybe 10 or 15 seconds per transaction.'

"Over the course of time what we found was that there were dozens of those small things that would never occur to an agent to ask IT to do. They would never occur to IT that it was potentially useful. But by having the agents and the software engineers sitting side by side, talking to each other while the work was going on, we got dozens of these small changes. Over the course of the year, these added up to 5 to 10% productivity improvements. That has now become a way of life at Motif and a competitive differentiator for the company. As an outsourcer, they are not just lifting and shifting work to cheap labor off-shore. They are able to steadily improve customer processes because of their unique approach to IT and operations."

Kaplan points out that achieving this kind of change of mind takes practice. It's a mental discipline. Looking at the IT function entrepreneurially can be accomplished with persistence and a questioning mentality. IT executives need to practice asking key business development questions. Where are we looking for opportunities? Where is the biggest bang for the buck? How can we quickly test things to see if the customer would buy it? How will it help to differentiate us from our competitors?

When CIOs begin to think like entrepreneurs, the focus on the ROI equation will shift. Instead of just asking, "What are we going to get out of it?" they will also ask, "Why are we putting money into it?" The traditional IT view considered the investment factor as a given, and the expected returns as a hoped-for outcome. Entrepreneurs consider both parts of the equation as variables for obtaining the results needed to assure the success of their ventures.

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BOB KAPLAN has over 30 years of experience as a senior executive and management consultant. He currently counsels CEOs and other senior executives on strategy and organizational issues, primarily within the technology, media, financial services and utility sectors. Bob has held senior executive positions such as acting CEO and acting CTO for multiple companies, including: Motif Inc., ITM Software, Silicon Valley Bank, Netliant, and Alibris. Before this, Bob spent 11 years at McKinsey & Company, where he was a Director in the San Francisco and Silicon Valley offices and a Leader of the Information Technology and Systems Practice. Prior to joining McKinsey, Bob was the Managing Partner of the San Francisco office of the Boston Consulting Group. He also worked at Peat, Marwick, Mitchell & Co. (now KPMG) as a Systems Consultant. Bob holds an MBA from the Stanford Graduate School of Business and a BA from Yale University.

