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IT SAVVY: ACHIEVING INDUSTRY LEADING RETURNS FROM YOUR IT PORTFOLIO[1]

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IT savvy is a set of practices and competencies that add value to each IT dollar invested. We studied 147 organizations over four years and found that top performers have more IT savvy. High IT savvy helped firms achieve greater than industry average returns from their entire IT portfolio.[2] Previous briefings have introduced the concept of the IT Portfolio and its four asset classes (March 2003 briefing), identified the returns from each IT asset class (March 2004) and demonstrated the impact of IT savvy on financial performance (October 2004 briefing). This briefing presents insights from two contrasting case studies of IT savvy.

Characteristics that Create IT Savvy

We found that firms with high IT savvy have developed five mutually reinforcing practices and competencies listed below. See the October 2004 research briefings for complete descriptions.

- More IT use for internal and external communication and work practices.
- More business transactions digitized, e.g., higher percent of sales and purchases digitized.
- More use of Internet and open standards.
- Higher IT skills of both business and IT employees.
- More senior management and business unit involvement in IT decisions.

Four Management Objectives Leading to Four IT Asset Classes

We found business leaders have four different management objectives for investing in IT that create an IT portfolio with four asset classes each with different risk return profiles:

- Transactional—to cut costs or increase throughput for the same cost.
- Informational—to provide information for any purpose, e.g., manage, account, communicate with customers, report, comply.
- Strategic—to gain competitive advantage or position in the market place.
- Infrastructure—the base foundation of shared IT services used by multiple applications.

Any single project can have one or more of these objectives.

A High IT Savvy Firm

Gamma, a real but disguised manufacturing firm, spends less than their industry's average on IT, but leverages thoughtful asset allocation and strong IT savvy to achieve greater profitability, market value and innovation than its competitors (Figure 1). Spending more than the industry average on strategic and transactional IT, and leveraging the Internet for sales, procurement, training, employee evaluation and customer support helps Gamma achieve greater product innovation and close to the industry average cost of selling. Below average human resource capabilities may prevent Gamma from achieving operational excellence that exceeds their industry competitors. Although Gamma spends slightly less than their industry's average on informational IT and infrastructure, their use of the Internet and a strong IT management involvement (cooperative links between IT and business units and top management championing of IT initiatives) enable them to achieve greater profitability and market value than competitors in their industry.

A Low IT Savvy Firm

Epsilon is a low IT savvy firm (Figure 2). A financial services firm that spends less than the industry average

[1] This research was made possible by the support of CISR sponsors and patrons and the National Science Foundation, grant number IIS-0085725. This CISR briefing is the fourth in a series on IT portfolios: published in October, 2004, March 2004 and March 2003. For more technical details see "Top Performing Firms Have Complementary Capabilities and IT investments," Sinan Aral & Peter Weill, MIT Sloan CISR Working Paper No. 343, August 2004.

[2] The analysis is based on 147 firms using data from 1999 to 2002. All results linking IT investments and performance in this briefing are statistically significant controlling for industry, firm size, R&D and advertising expenditure.

on IT, Epsilon has not developed the practices and competencies necessary for IT savvy. Relatively low investment in informational IT and transactional IT are reflected in lower profitability and below industry average operational performance. Below industry average business management involvement and a lack of Internet use and firm-wide IT skills may also contribute to low levels of profitability and below industry average market valuations. Although Epsilon makes near industry average investments in strategic IT, below average Internet use and internal IT use hold back gains in innovation, reflected in below average percent of sales from new and modified products. The state of Epsilon's IT savvy is clearly apparent in their website. Although investments have been made to develop a web presence, the only support for clients wishing to file an insurance claim online is the publication of Epsilon's telephone number.

Maximizing the Business Value of Your IT Portfolio

Just making IT investments is not enough. Better returns are available by matching the type of IT investments made with the firm's objectives. Even better returns are available by having higher IT savvy and matching IT management practices and competencies with the mix in the IT portfolio. IT portfolio management helps achieve better returns by providing a commercial lens for IT investment decisions. Some suggestions for applying IT portfolio management and matching IT savvy are:

1. *Identify the current and previous year's IT portfolios.* Using our (or any) portfolio categorization, estimate your firm's IT portfolios for the last three years and the proposed IT portfolio for next year.[3]
2. *Understand IT asset class performance and benchmarks for your business.* Using the results reported in this series of briefings, assess whether your current IT portfolios are appropriate for your firm's or business unit's strategic goals, IT savvy and appetite for risk. An attractive alternative to using benchmarks is to compare multiple business units within your firm. As each business unit has a different strategy and IT savvy, comparing the alignment of their objectives, practices, capabilities and IT portfolio will help highlight any issues.
3. *Understand and track your firm's IT savvy*. Given the impact on business value generated from IT, firms should assess and actively manage IT savvy. Again, compare IT savvy across multiple business units. Firms or business units with low overall IT savvy should consider re-weighting their IT portfolios towards the less risky transactional and informational investments.
4. *Balance the portfolio for alignment and risk-return profile through a transparent process.* Using the results from the previous three steps, senior management must make judgements about the firm's IT portfolio. The judgements are based on management's intuition concerning the strategy, the appetite for risk, the firm's IT savvy, the economy, available capital etc. Having an IT portfolio *process* makes this judgement explicit and trackable over time instead of hidden within the budgets of each project or department.
5. *Re-weight portfolios annually and when major changes occur.* Objectives, economic conditions and many other important factors change, and like personal investments, IT portfolios need to be re-weighted as needs change. For example, as firms achieve higher IT savvy they could confidently invest more in IT and take more risk in their portfolio.
6. *Incorporate the IT portfolio approach into your IT Governance framework*. Effective IT governance specifies the decision rights and accountability framework to encourage desirable behavior in the use of IT.[4] IT investment is one of the key IT decisions that needs to be governed. Effective governance institutionalizes the disciplines of IT investment (often Incorporating IT portfolio management) in a repeatable governance process that is understood and followed by all managers and linked to the incentive and reward systems of the firm

Firms with average or low IT savvy can increase their returns and reduce their IT risk without investing another cent in IT. These firms should apply another scarce resource—management attention—to increasing their IT savvy. Superior results from IT savvy reflect a return on superior management capability, one of the few long term sources of competitive advantage. We suspect that the aspects of high IT savvy we measured are reflective of superior capability in all aspects of management, including IT. Firms with strong IT savvy like 7-Eleven Japan (see October 2004 briefing) and Gamma have developed a firm-wide culture of IT savvy that impacts every employee and process. The instinct and discipline to use IT effectively is part of every manager's thinking and part of the firm's DNA. IT savvy can be learned and it pays off.

[3] To estimate your portfolio using the MIT CISR IT portfolio framework please go to: *http://web.mit.edu/cisr/MITCISR-ITPortfolio.doc* to get a brief questionnaire. See the March 2003 and future briefings for IT Portfolios benchmarks.

[4] See P. Weill & J. Ross, "How Effective is Your IT Governance?," CISR Research Briefing, Vol. 5 No.1B, March 2005

Figure 1: High IT Savvy at Gamma

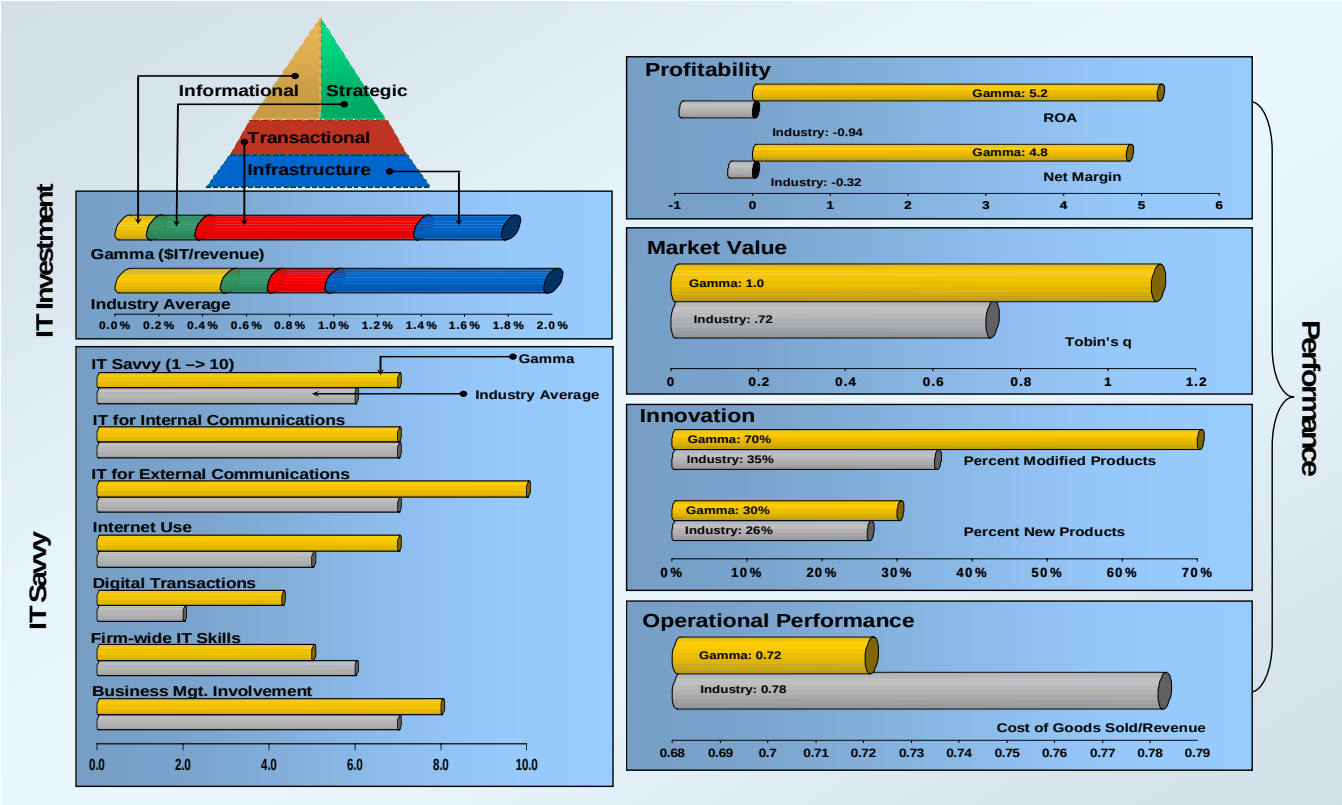
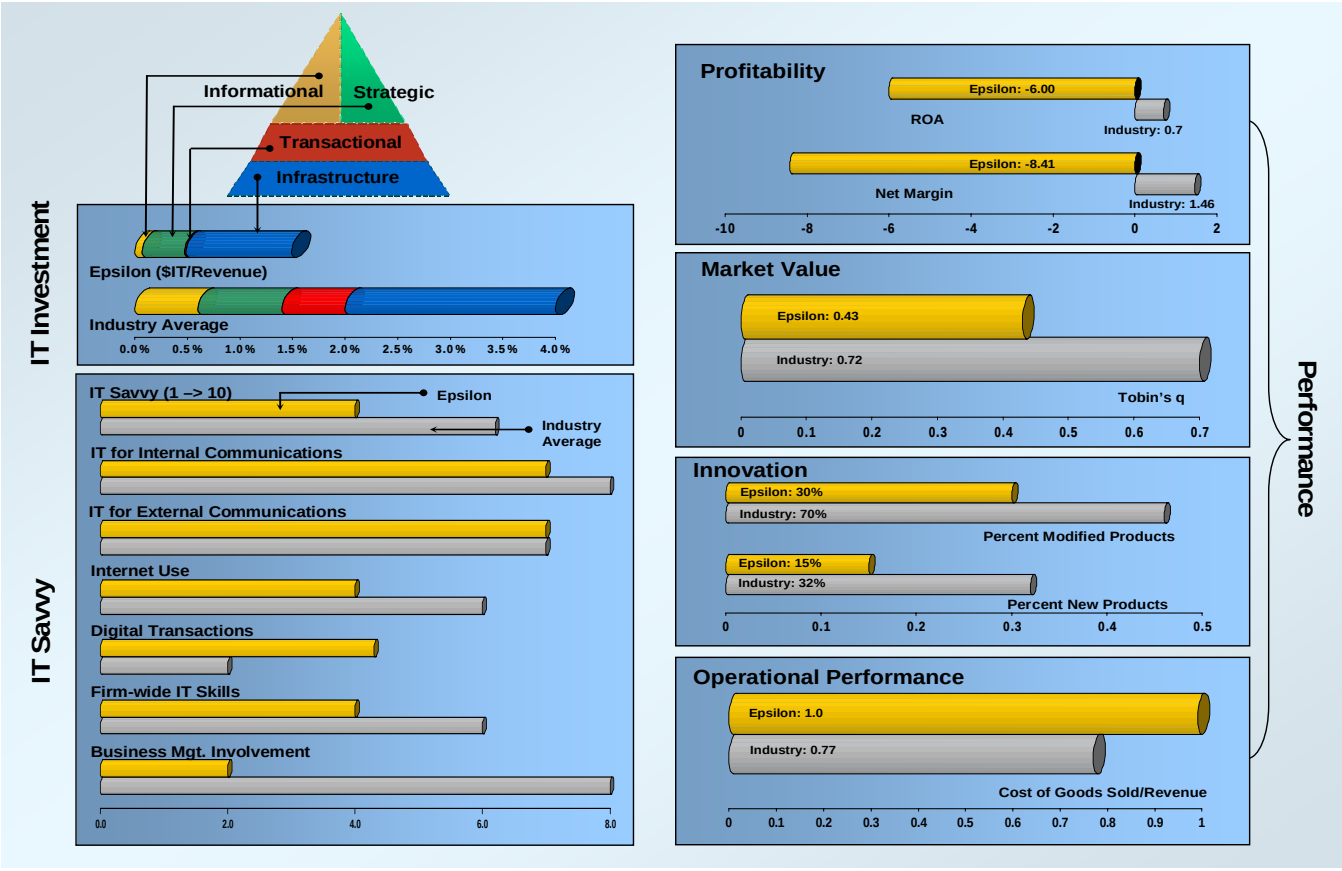


Figure 2: Low IT Savvy at Epsilon



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NEW PROJECTS:

- Building Service Oriented Capabilities
- Leading the IT Organization
- Top Performing Firms & Their IT Savvy

CONTINUING PROJECTS:

- Benchmarking & Building Risk Mgmt. Capabilities
- Business Model Evolution & IT Portfolios
- Effective IT Engagement Models
- Strategic Sourcing

ACTIVE "CLASSIC" TOPICS:

- Effective IT Governance
- Enterprise Architecture
- IT Portfolios
- IT-Enabled Business Change

Since July 2000, CISR has been directed by Peter Weill, formerly of the Melbourne Business School. Drs. Jeanne Ross, George Westerman and Nils Fonstad are full time CISR researchers. CISR is co-located with MIT Sloan's Center for e-Business and Center for Coordination Science to facilitate collaboration between faculty and researchers.

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