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CIO Corner

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A New Management Framework for IT

Tom Costello, *UpStreme*

For decades, IT executives have struggled to find a mechanism for successfully managing IT and measuring their teams' progress while simultaneously addressing business concerns. To describe and manage IT, they use frameworks, standards, and capability models, such as the Zachman Framework, the Capability Maturity Model Integration (CMMI), the Information Technology Infrastructure Library (ITIL), and Control Objectives for Information and related Technology (COBIT). Yet they also must produce results. Every CIO has lived through the pain of trying to manage their work such that it clearly translates into success and productivity for the business.

The Innovation Value Institute has introduced a new framework that stresses the connection to business value in a significant and measurable way—the IT Capability Maturity Framework (<http://ivi.nuim.ie/ITCMF>). The IT-CMF measures potential across a defined set of capabilities for an IT environment but also aims to speak to the business.

The IT-CMF

The IT-CMF started with a framework proposed by Martin Curley in *Managing IT for Business Value* (Intel Press, 2004). IVI then worked to refine and extend the framework. However, this effort wasn't just an ivory-tower think tank producing slick presentations.

A consortium comprised of large enterprises, technology experts, academia, and seasoned CIOs constructed the new IT-CMF to address a range of issues facing CIOs and nontechnology executives. Furthermore, they've been stress testing the framework with large enterprises, including Chevron, Northrup Grumman, BP, and SAP. For the past several years, these firms and others have been quietly executing the framework.

The early case studies provided a baseline with which the IVI team could review (and promote) the model to industry experts, consultancies, and CIOs from all sectors. In February 2009, IVI went public with the results of their approach, and as of June of 2010, IVI reports that over 150 assessments

have been performed across 80 leading Fortune 500 firms.¹

The success of the early models and the feedback to further optimize the tools certainly played into the expansion and growth of the IVI team and their mission, which is to “[research and develop] unifying frameworks and road-maps for IT and Business executives to create more value from IT and better deliver IT enabled innovation” (<http://ivi.nuim.ie/about>). They've grown their membership (large- and small-scale IT organizations), expanded the involvement of academia in researching the model, and are working to incorporate the IT-CMF into key MBA programs around the globe (including initiatives to create a specific graduate program on the IT-CMF itself).

As evidence of IVI's commitment to the accuracy and longevity of the IT-CMF, its investments in creating and expanding the framework total over US\$10 million and 60,000 hours of human involvement.

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Managing IT Like a Business		Managing the IT Budget		Managing the IT Capability		Managing IT for Business Value	
ITG	IT Leadership & Governance	FF	Funding & Financing	EAM	Enterprise Architecture Management	TCO	Total Cost of Ownership
BPM	Business Process Management	BGM	Budget Management	TIM	Technical Infrastructure Management	BAR	Benefits Assessment & Realization
BP	Business Planning	PPP	Portfolio Planning & Prioritization	PAM	People Asset Management	PM	Portfolio Management
SP	Strategic Planning	BOP	Budget Oversight & Performance Analysis	KAM	Knowledge Asset Management		
DSM	Demand & Supply Management			RAM	Relationship Asset Management		
CFP	Capacity Forecasting & Planning			RDE	Research, Development, & Engineering		
RM	Risk Management			SD	Solutions Delivery		
AA	Accounting & Allocation			SRP	Service Provisioning		
ODP	Organization Design & Planning			UTM	User Training Management		
SRC	Sourcing			UED	User Experience Design		
IM	Innovation Management			PPM	Program & Project Management		
SAI	Service Analysis & Intelligence			SUM	Supplier Management		
SICT	Sustainable ICT			CAM	Capability Assessment & Management		

Figure 1. The IT Capability Maturity Framework. The Innovation Value Institute has organized the IT-CMF into four macro processes, with 33 critical processes. (Source: Innovation Value Institute; used with permission.)

Evaluating the Framework

As a profession, IT currently lacks a clear, universally applied, business-ready, CIO/CFO-ready standard for defining, measuring, and performing continuous improvement on IT. But what would a comprehensive framework need to do to accomplish that goal? In my opinion, such a framework should

1. leverage knowledge from existing frameworks;
2. provide a complete overview of IT;
3. be flexible, because nearly every industry vertical leverages IT differently;
4. connect to non-IT corporate measurement and performance efforts (such as the Balanced Scorecard);
5. speak to both IT and non-tech business leaders;
6. have value to IT;
7. have value to the business;

8. provide baselines or benchmarks for comparison;
9. be easily repeatable for point-to-point comparisons to measure the impact or progress of changes to the IT or business environment (quarterly, year-on-year, and so on); and
10. have been used in the real world with real results.

To best evaluate the fit of the IT-CMF against these needs, let's examine the framework and its parts.

IT-CMF: A Closer Look under the Hood

The IT-CMF divides the essential capabilities of the IT organization into four categories:

- managing the IT budget,
- managing the IT capability,
- managing IT for business value, and
- managing IT like a business.

The mechanics of measuring the maturity of each of these four broad categories involves evaluating 33 different aspects within IT (see Figure 1). These subcategories probe more deeply into how IT is performing and provide a comprehensive view not only of IT but also of its value, linkage to business, and performance as a business.

Similar to the CMMI and other capability models, the IT-CMF measures each of these 33 aspects on a 1–5 scale (5 being optimal). What's different, however, is that the model doesn't presume that 5 is the best score for your industry. Overachieving in certain categories could, in fact, be a bad thing. Consider Figure 2, which shows IT-CMF results as they're presented to an organization. In this example, an overinvestment in IT capability has been flagged as a potential risk.

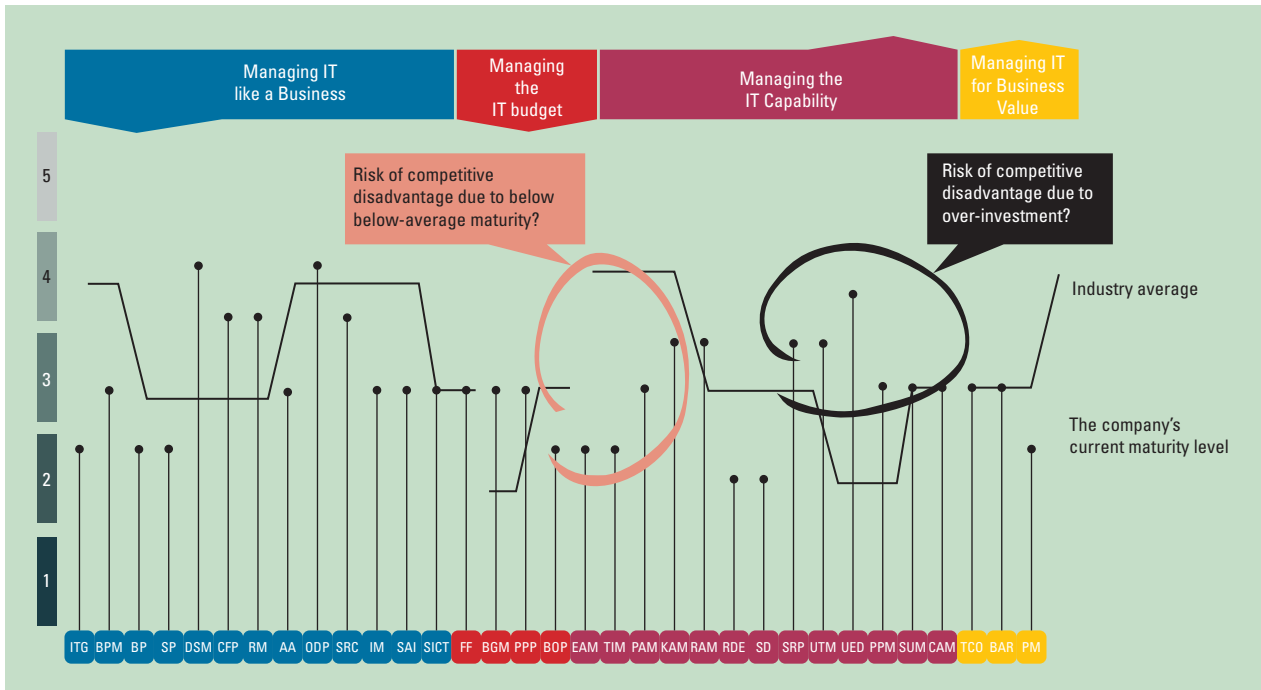


Figure 2. Sample IT-CMF results, as presented to a company. The framework can be applied across all IT functions or to a selected set of areas. (Source: Innovation Value Institute; used with permission.)

Average Scores

In a press release from June 2010, the average score on the 1–5 scale was quite low at 2.1 (see <http://ivi.nuim.ie/news/SS2010.shtml>). The highest scores went to firms in the tech sector at 2.5, while firms in the pharmaceutical sector were among the lowest at 1.9. Financial services came in at 2.2, utilities at 2.0, and all other sectors and organization types came in at 2.1. As you’d expect, when firms performed a self-assessment, the average score was “average” at around 3.0.

How Does this Speak to the Business?

There will probably never be a tool or framework driven by “the business” to assess IT that would focus beyond some form of regulatory evaluation (such as a financial audit or an evaluation of compliance with the Sarbanes-Oxley Act). To date, most IT assessment tools have been focused on the technical aspects of IT, with a very few considering people, organization, or culture.

The fact that the IT-CMF goes further into the interconnection with the business and whether IT runs as a business is key. The result is that the IT-CMF appears to be uniquely positioned to become a vehicle for better communication, decision making, and budgeting of IT for the improvement and alignment of an enterprise.

Room for Improvement

Referring back to my original list of 10 items to consider when evaluating the value of a framework, I believe the IT-CMF meets or exceeds the first seven points. The areas where improvement is needed are the last three items.

First of all, baselines and benchmarks (by industry vertical) aren’t in place. However, as more members join the IVI and more assessments are completed, the framework will certainly provide baseline data for industry-wide assessment.

Second, though I would think annual assessments would be useful to provide timely feedback

and better responses, few organizations currently seem interested in reviews on an annual basis. This is more of a limitation of the business environment than the tool set. The IT-CMF appears capable of handling annual reviews and, in fact, would properly leverage them if performed.

Finally, more case studies are certainly required of mid-tier-sized organizations. This will help establish better data for the baselines (as noted earlier) and help serve a broader array of clients.

The Future of IT-CMF

As IVI moves into the second stage of its growth plan, its ability to integrate more members and perform a greater number of assessments is expanding rapidly. IVI states that it currently has over 120 practitioners and researchers from over 40 global member companies, which are divided into 14 working groups.

In the very early stages of the program, IVI was offering assessments

to firms at a nominal cost, with the hope that these firms would later join as IVI members. IVI doesn't currently publish the terms or requirements for participation of members, and it's reasonable to assume that the IVI will have to further evolve and expand its membership base before a standard "membership" cost structure is set.

Not all members are "enterprises" who are consumers of the framework. Several large-scale consultancies have also joined the consortium, clearly participating in the definition and ultimately the deployment of this framework. As a result, IVI is further working on certifying professionals to achieve qualifications as "professional diplomas" and "master" qualifications to ensure there will be a substantial base of professionals prepared to assess and assist in any improvement programs.

Of course, CIOs are used to seeing methodologies come and


go. Seasoned CIOs often sit back and wait for new trends to move beyond the hype stage and gain traction through use. More importantly, they want to ensure that any new "thing" has staying power before investing energy, time, effort, or dollars. Yet as of June 2010, nearly 300 CIOs and senior IT executives had completed one of the certification

IVI provides a balance of industry "might and expertise" offset by the more neutral academia and research forces.

programs (<http://ivi.nuim.ie/news/SS2010.shtml>).

IVI, as a cross-academia and industry-based consortium, provides a powerful balance of industry "might and expertise" offset by the more neutral and unbiased academia and research forces. As long as the IVI maintains

a balance that doesn't favor any one force over the other, this framework should be more effective than the evolution of the SEI-CMM model that came out of Carnegie Mellon in 1986. Much like SEI, the intellectual property related to the IT-CMF is owned and licensed by National University of Ireland Maynooth.

The IT-CMF framework is going to evolve into a prominent and meaningful tool for our industry. CIOs (and nontechnical executives) should thus become familiar with it and should consider when—not whether—an assessment or membership in the IVI consortium would benefit their overall business mission. 

Reference

1. J. Kennedy, "World's Most Powerful CIOs Create a Master's Degree for IT," *Silicon Republic*, 2 June 2010; www.siliconrepublic.com/strategy/item/16441-worlds-most-powerful-cios.

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