



BPM & Organizational Maturity

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Maturity Model du Jour: A Recipe for Side Dishes

At the turn of the century Tom DeMarco, an IT guru, joked that “there is now a maturity model for every aspect of our daily lives”. By now there are probably at least two per aspect, accelerating toward three by the end of this decade. While anything including tips for aging gracefully can be called a ‘maturity model’, precious few of these upstarts have the power of the original Capability Maturity Model (CMM) for guiding improvement. Realistically, we only need a handful of maturity models. Most in the motley array of maturity models would be better served as extensions to a small set of core maturity models that do the heavy lifting of organizational change.

Most of the easily-Googleed maturity models are mere descriptions of how the organization or one of its aspects might look at different stages of evolution. Such descriptions give the reader a sense of how a collection of best practices might grow over time. Their value is primarily informative and diagnostic. Most of these models give little guidance on the specific steps that should be taken to improve and move between the maturity levels.

For instance, Hammer’s Process and Enterprise Maturity Model (PEMM, Harvard Business Review, 85-4, 111-123) describes how various aspects of a process-driven enterprise would appear at 4 stages of maturity, but provides no practices for moving between the stages. Consequently the use of this model is primarily diagnostic, since it does not offer an improvement roadmap of best practices. If the ordering of implementation practices had been worked through, the characterizations of levels for some of the components may have changed. Like the PEMM, the vast majority of maturity models are descriptive rather than prescriptive, and their use is primarily diagnostic.

The few maturity models that present clusters of best practices in some domain rarely incorporate the web of practices required to institutionalize and sustain the domain’s best practices. Consequently, the infrastructure and organizational changes required to support domain best practices is never implemented. For instance, implementing better order operations practices on top of work units that are understaffed, inconsistently managed, and poorly trained will produce the frequently reported underwhelming benefits.

The fundamental difference between the maturity models architected from Watts Humphrey’s original Process Maturity Framework (CMM, People CMM, CMMI, and the Business Process MM) and the vast majority of what are called maturity models is their focus on transforming the organizational environment in which best practices are performed. The original CMM was a roadmap of best practices in software engineering accompanied with the best practices in project and organizational management required to sustain them. Consequently the CMM was a staged roadmap for enterprise transformation that focused on software and application development organizations.

The People CMM proved the generalizability of the Process Maturity Framework by applying it to workforce practices, a domain far removed from system development. The People CMM was not merely a model of best practices in HR, rather it transformed the constellation of enterprise

practices required to develop and sustain a high performance workforce. In fact, the People CMM targeted operational management rather than HR as the locus of responsibility for workforce development. Consequently the People CMM needed to include the full complement of practices required to support operational management's efforts to attract, develop, motivate, organize, and retain the workforce.

One of the core principles of the Process Maturity Framework is that at Level 3 it produces an architecture for some critical foundation of the organization's capability. There are a small number of these foundational components. People, process, technology, information, and business strategy cover most of foundational elements from which organizations and their cultures are built. CMM, CMMI, and the Business Process MM develop an enterprise process architecture at Level 3. The People CMM develops an architecture of workforce competencies at Level 3. Unfortunately there are currently no maturity models for the technology, information, or strategy foundations that are fully consistent with the Process Maturity Framework.

The unique power of the Process Maturity Framework emerged from Humphrey's original insight that better software development languages, tools, methods, and best practices were providing almost no benefit to software developers because they were being implemented on projects that were poorly managed and out of control. Humphrey realized that until projects were stabilized through sound project and configuration management, the best design, coding, and testing practices had no chance to demonstrate their benefits and would probably be sacrificed to death-march schedules. Consequently, Level 2 in CMM and CMMI focuses on building a solid infrastructure of management practices on which best technical practices can thrive. The architecture of standard technical practices is then developed and applied to a portfolio of stable projects at Level 3. Similarly the People CMM builds the infrastructure of people management practices within work units at Level 2 on which more sophisticated enterprise competency programs can be developed at Level 3.

This fundamental requirement of stabilizing the local environment in which best practices can survive is rarely implemented in most maturity models. For instance, maturity models consisting of best practices relating to some aspect of an organization's information infrastructure need to focus first on how information and data is defined, collected, and managed at the work unit or project level before considering how an enterprise information or data architecture will be constructed. How many organizations have an elegantly defined enterprise data architecture, but are not sure where the data is? If the data is scattered across undocumented, hastily built applications under poor configuration control, the data architecture rests on mush.

One alternative is for maturity models in each domain of interest to implement the full complement of organizational practices required to stabilize, standardize, and sustain the domain's best practices. However, full maturity models are large, expensive, and time consuming to build. Even when built by experienced experts, full maturity models take 1-2 years to build and cost upwards of \$1 million. Costs soar when maturity models are developed by those with little experience, even if they are domain experts.

The better alternative is to build extensions to existing maturity models rather than trying to develop a full maturity model. CMMI and the Business Process MM are designed to support the addition of process areas that more elaborate best practices in a process domain. Thus, the domain process areas in these models can be supplemented or substituted with processes areas containing best practices from other domains.

For instance, CMMI focuses on activities conducted in projects, and it is specifically focused on systems development projects. However, CMMI can be enhanced with process areas containing best practices in a specific domain such as construction. That is, the technical engineering process areas in CMMI (Requirements Development, Technical Solution, Product Integration, Verification, and Validation) can be replaced by process areas consisting of best practices in the construction industry (e.g., Site Preparation, Architectural Design, Foundation and Framing, Infrastructure Installation, Building Finish, etc.). A Construction MM would not have to rebuild all the process areas dealing with project management, but would provide interpretive guidance for how project management practices should be applied to construction projects.

The Business Process MM became necessary because CMMI was only designed for project-based processes and a more general-purpose process-focused maturity model was needed for the rest of the enterprise. Best practice models in the business process space can use the Business Process MM as a foundation and supplement it with domain specific process areas such as finance, marketing, sales, etc. without having to reinvent the maturity infrastructure required to support them. Since the Business Process Maturity Model is now a supported specification of the Business Process Management Initiative in the Object Management Group (OMG) it is an open, freely available maturity model with a public infrastructure for managing its improvement and evolution.

Carefully constructed, domain specific extensions to the Business Process MM could begin to emerge in a way similar to developments in open source software. Organizations like OMG provide opportunities for interested communities to develop and standardize domain specific enhancements. For instance, a consortium of experts in finance could construct domain specific process areas for Revenue Accounting, Financial Planning, Treasury, Compliance and Control, and other clusters of best practices in Finance. These process areas could then be substituted for the existing domain process areas in the BPMM. Figure 1 depicts how this substitution would be accomplished for process at BPMM Level 3, but process area substitutions might be made at other maturity levels, most probably Level 2. Many existing standards for best practices in specific domains such as SCOR (supply chain) and ITIL (IT services) could be integrated into the Business Process MM to provide a better roadmap for adopting their practices in guided stages rather than as a single big bang.

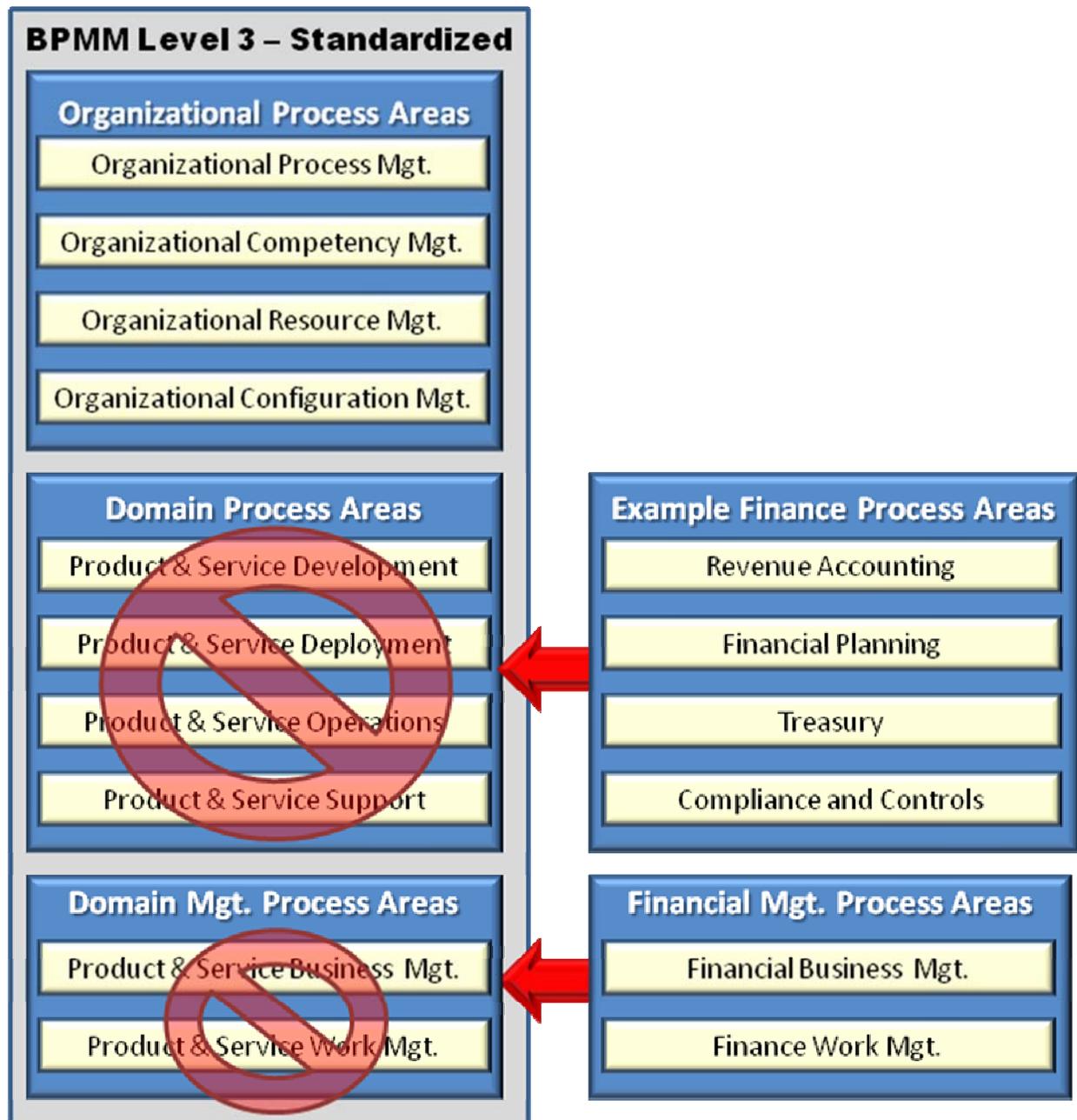


Figure 1. Substituting Domain-Specific Process Areas in the BPMM

What about MMs in areas such as technology or information for which a foundational maturity model has not been built? Unfortunately, without a base supporting model, MMs will abound, probably at a minimum rate of one per vendor. In time the community may demand a consolidation that forms a base model to cover the foundational domain against which domain specific extensions can be developed. For instance, one might expect the plethora of Service Oriented Architecture MMs to finally get amalgamated into one MM, and hopefully an MM that covers the larger technology space rather than one that only addresses the technical approach enabled by current technology. SOA presents a unique challenge from a maturity modeling perspective that has been rarely addressed to date, since its success depends on improvements in both the process and technology spaces. More on this in our next column.

A great benefit from having a limited number of publicly supported MMs is that user communities can develop around them and share lessons learned and best practices for implementing them. Organizations can much more easily integrate improvement programs-guided MMs with a common architecture. For instance, several organizations have implemented improvement programs guided by CMMI and People CMM simultaneously to address both process and workforce capability in a consistent way. Since most MMs do not adhere to the architectural principles of the Process Maturity Framework, their approaches to improvement are difficult if not impossible to integrate.

For organizations to effectively address enterprise maturity, we need a limited number of MMs that address the primary capabilities needed for high performance—people, process, technology, information, and strategy. These need to be open, publicly supported models around which bodies of improvement practice and domain-specific extensions can be developed and shared across organizations. Until this consolidation happens, enterprise maturity will remain adolescent.