

A Popular Misconception about Maturity Models

Over the years, one common criticism of maturity models based on Watts Humphrey's original Process Maturity Framework (e.g., CMM/CMMI, People CMM, and the new Business Process Maturity Model) is that they focus on management practices and not on the value-adding processes that are the core of a business. This criticism is not just misleading, it is inaccurate. In CMMI, one finds process areas recommending practices in the core processes for systems development — requirements development, technical solution, product integration, verification, etc. In the People CMM, one finds process areas recommending practices for the core processes of workforce development — staffing, performance management, training and development, competency analysis, workgroup development, compensation, etc. In the Business Process Maturity Model, one finds process areas recommending practices for the core processes of product and service work — product and service preparation, deployment, operation, and support. Why then does this misconception continue among industry experts to this day?

The misconception begins when people fail to understand the basic insight that led Watts Humphrey to propose his original framework. By the mid-1980s Humphrey had watched the software industry focus on adopting best practices for several decades with little affect on project outcomes. Companies adopted higher order languages, computer-aided software engineering tools, improved design methods, programmer selection tests, yet productivity and quality gains were paltry. In pondering this dilemma, Humphrey suddenly realized that none of these best practices would have any impact as long as management was making commitments that projects could not meet without sacrificing the very practices that could save them from chaos.

Humphrey's objective was to ultimately apply the same continuous improvement techniques to the core software engineering processes that Shewart and Deming had applied in manufacturing. However, Humphrey's approach was unique in that he realized he had to fix management first. In realizing what changes had to be made to apply these principles in practice, Humphrey developed the five levels of Process Maturity Framework. The first step was to stabilize the work environment in which the core business processes are performed. This is the essence of Level 2, stabilize the work environment so that those performing the work can repeat practices that have proven successful.

In taking this first step, we are not worried about establishing common practices across the organization, or even defining the best to-be processes. Rather we are focused on solving problems such as failing to provide the resources or staffing necessary to meet commitments or service levels, failing to establish work accountabilities, failing to establish version control on work artifacts, or similar problems that can undermine even the best work practices. Once management has stabilized the work environment, we can focus on crafting a standard to-be process built from industry best practices.

However, many pundits do not see beyond this first step in the maturity journey and think that these maturity models deal only with 'management' practices. Consequently, they fail to see that the next step is to craft a standard end-to-end work process that incorporates all the areas of best practice required to be at the state of the art in a chosen area of core work processes. Thus, Level 3 incorporates best practices for the domain to which the maturity model is applied with the practices required to develop and support standardized processes that integrate these best practices into a seamless workflow. Thus, rather than center on management processes, Level 3

in CMM/CMMI standardizes the practices of system development and in the People CMM it standardizes the practices for developing the workforce. Management processes are included because they are necessary to support the environment in which core business processes can be standardized.

Let us see how this happens using Level 3 process areas in the Business Process Maturity Model as an example. Consider the life cycle of a product or service as depicted in Figure 1 (BPMM process areas are in blue). The product or service must be prepared or developed, it must be deployed, it must be operated or delivered, and it must be supported and maintained. The core value-creating work processes fall within these process areas. However, most organizations support numerous products and services simultaneously and we need to consider the process requirements for supporting the core work value-adding processes. These include managing the organizational resources required by products and services, managing the configuration of materials supporting products and services, developing the competencies required to deliver product and services, managing the definition and improvement of product and service processes, and the various aspects of managing the product and service lines and their performance processes. Maturity models such as CMM/CMMI and the Business Process Maturity Model differ because they incorporate both the value-adding processes, and the management processes required to support them.

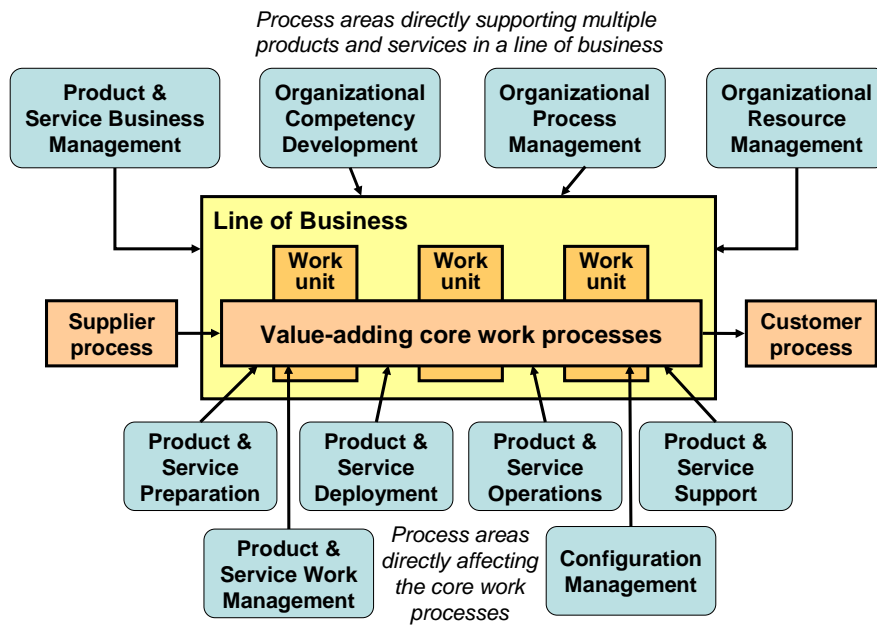


Figure 1. Relationships of BPMM Level 3 process areas to core work processes

The process areas for product and service preparation, deployment, operation, and support have been designed to be sufficiently generic so that they can apply to product and service work in most industries. However, the model has been designed so that these process areas can be replaced in 'plug and play' fashion with process areas containing best practices from specific industry segments (insurance, pharmaceuticals, telecommunications, etc.) or business functions (finance, IT, marketing, etc.). For instance the generic product and service process areas at Level 3 could easily be replaced with process areas designed from SCOR for Plan, Source, Make, Deliver, and Return, or from the IT Infrastructure Library for IT Service Management, Service Delivery, Service Support, Asset Management, etc. For one client we organized best practices in product marketing into Level 3 process areas for responsibilities such as market analysis, product specification, and sales support. Far from being just a management model, with proper tailoring

the Business Process Maturity Model can be applied to many, perhaps most business process domains.

The central role of the core work processes becomes even more evident at Level 4. Once we have established a standard process, those performing the work can begin controlling it quantitatively to ensure it achieves the business goals of management. Management's role is to determine and track the priorities for process performance — reduced operating cost, faster time to delivery, reduced defects or downtime, improved customer experience, etc. The components of the core business processes that are most critical in controlling the high priority outcomes become the focus of quantitative analysis and control at Level 4. For instance, if management's priority is speed of completing a customer transaction, then the quantitative analysis and control practices at Level 4 would be applied to process components such as transmitting customer requests that have the greatest impact on transaction speed. Those performing the work control it quantitatively, while management uses the data coming from the performance of process components to predict final outcomes of the end-to-end business process.

When an existing business process does not have the capability to achieve management's objectives, we take the next step in the maturity journey. At Level 5, we implement the continuous improvement activities required to proactively close capability gaps. These improvements could involve innovations in practices, technologies, or workforce practices that ultimately change the results achieved through performing the value-added work of the business. Levels 4 and 5 focus squarely on applying quantitative management and continuous improvement techniques directly to the value-adding core business processes.

The great insight underlying maturity models designed from the process maturity framework is that you cannot improve just the core business processes without improving the way they are managed and supported at the same time. A superficial reading of CMM/CMMI, the People CMM, or the Business Process Maturity Model might lead to the conclusion that they focus only on management processes. However, those who understand how these models transform their core business processes have used them to save millions of dollars in operating expenses and increased value delivery to their customers.