

Assessing Your Position in Agile Space

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What would it mean for Chrysler to be in the masters class at change proficiency? How would we assess GM's and Ford's position in relationship to Chrysler's? How can any assessment process be more than fleetingly useful in a business environment of accelerating change?

We will explore a framework and assessment approach for answering these questions. This initial exploration will be shallow in order to touch all the steps. We will add depth to each step individually in subsequent discussions. Most of the concepts have been introduced here previously, with a close look recently into the use of design principles that underlie Agile capabilities. Now we step back and look at the bigger picture to help prioritize a transformation to Agility, assess progress toward Agility, and comparatively position one company with another either as competitors in the same industry or as benchmarks independent of industry.

Traditional manufacturing companies can learn a lot about Agility by looking into other industries at some of the companies in the electronics

and computing markets. With punishing advances in product and process technology, product life cycles moving to under a year, and rapid globalization of both markets and competitors -- successful players in these markets are employing equally fast-paced operating practices. Of course high growth markets can give the illusion of corporate growth even when market share is shrinking and reserves are being depleted, so caution must be

exercised when looking for benchmark examples.

Intel, Motorola, Hewlett-Packard, and Microsoft are all touted by the press for their successful practices in fast paced markets. That doesn't necessarily mean that they are Agile to the point of being masters at change proficiency; but they are probably better than their current competitors currently are.

Assessing whether or not they are in the masters class is something that should be of interest to them since their competitors aren't simply trying to catch up. Assessing where they are and what they do to stay there is something that should be of interest to everyone in any industry.

Building the business case for Agility is different for every company and every industry. Certain concepts are enduring yet certain other concepts are short-lived and faddish: witness the Japanese current rethinking of both lean work-in-process inventory and the values of high-variety

customer options (but that's another story).

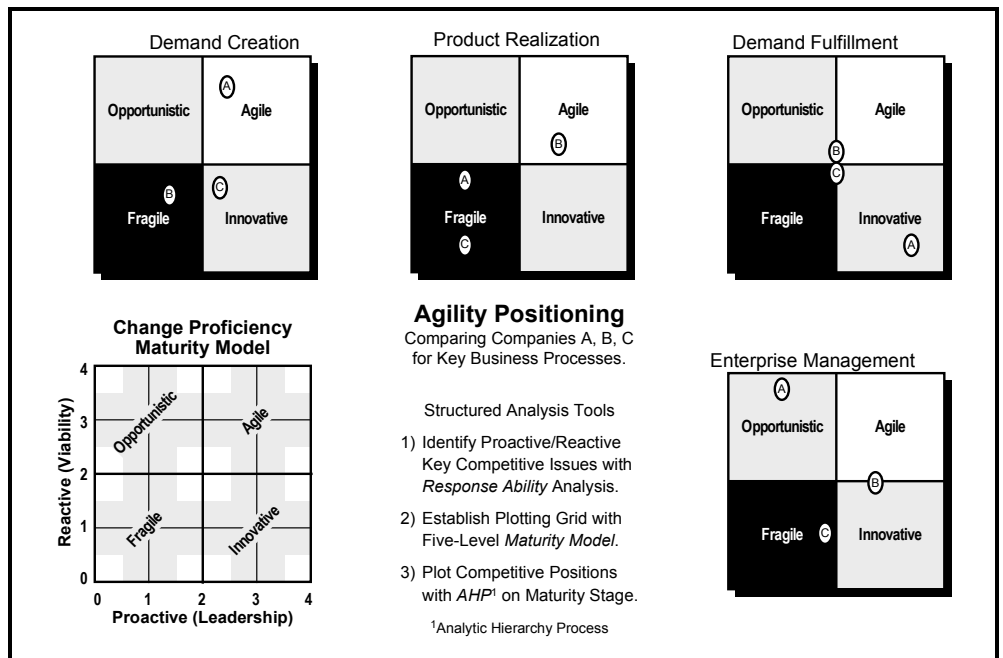
More to the point, if we want to gauge a company's progress toward timeless mastery at change proficiency will we accumulate points for practices like teaming, mass customization, virtual partnering, integrated product/process development and other very important concepts of the day? Or will we look for more fundamental capabilities that allow a company to adopt and integrate whatever operating concepts are important today as well as those yet undefined that become important tomorrow?

Implementing today's competitive practices says nothing about your ability to implement tomorrow's.

So how can we gauge this fundamental capability at change proficiency that makes a company timelessly Agile? What we are looking for is some sort of continuum from novice to professional at change proficiency, and a way to place our own or someone else's company in that continuum. What we need is a "change proficiency maturity model" that gauges process mastery. The Software Engineering Institute (SEI) of Carnegie Mellon University has developed a highly regarded process maturity model that we can "reuse" with some "reconfiguration".

The nature of process improvement and process mastery have become a major focus for many industries in the last few years. The US Government is accelerating this interest by funding the development of process assessment and improvement tools, and auditing process mastery among its defense suppliers. Recognizing the increasing complexity and criticality of software systems to automation of all kinds, the Government wanted a method for assessing the capabilities of its software contractors. In response,

Judgment and engaged minds are required here; but then that really is what distinguishes the masters class from the journeyman.



SEI released a brief description of a software development "process maturity framework" along with a "maturity questionnaire" in 1987. The framework demarcated a progressive series of five stages from totally unconscious to total mastery, much like a person's professional maturity path: amateur, apprentice, journeyman, master, guru-de-guru. The questionnaire was intended to help identify a vendor's stage of development-process maturity and illuminate areas for improvement.

To SEI's consternation, early users mistakenly embraced the questionnaire as "the model" rather than as a tool for exploring and prioritizing issues of process maturity. Not unlike the wide-spread substitution of TQM procedures for TQM objectives: Turn the crank, nose to the grindstone, mind un-engaged.

To combat this problem SEI augmented the maturity framework in 1992 with a model that includes key processes and key practices, and is the common foundation for: 1) an effective process assessment for the supplier developing an improvement program and 2) a disciplined method for the customer evaluating a supplier's capability (see <http://www.sei.cmu.edu/>).

Most importantly, the model recognizes that there are alternative ways to accomplish the goals of the key processes: It is not prescriptive about specific approach. Thus, the key practices refer to what must be done rather than mandating how to do it. Judgment and engaged minds are required here - but then that really is what distinguishes the masters class from the journeyman.

The software process Capability Maturity Model deals with a well bounded area (software development) with forty years of observable practice. The Agile enterprise in its infancy has not yet displayed its full range of necessary infrastructure and successful practice. Nevertheless, we can build a useful Change Proficiency Maturity Model by following the SEI lead and focusing on process requirements rather than process prescriptions.

Assessing Competitive Change Proficiency

The framework shown in the figure is the foundation for the maturity model which we will explore in more depth later. For now, the five stages of maturity provide a metric for measuring a company's proficiency on the two axes of interest: Proactive and Reactive change proficiency (this column April '95).

Determining what stage of maturity fits a company can be done simply or studiously. The simple method is equivalent to the educated guess and is based upon whatever knowledge and perception the analyst (or group consensus) has of the company and its observable behaviors.

A more studious approach utilizes the Analytic Hierarchy Process (AHP) to rank order the many practices and behaviors within the full maturity model that constitute and indicate a maturity level - especially when a company exhibits scattered capabilities from various levels. AHP is a process for reaching useful conclusions with fuzzy data (T.L.Saati, Decision Making for Leaders, <http://ahp.net/www/ahp/>). More importantly, AHP will lead the user(s) through a thought process that builds a deep appreciation for the practices involved in change proficiency and the ways in which different companies implement them.

A primary question, of course, is what will be the focus of the assessment? If we look for a single

Agility roll-up as comparison among companies (who's the Agilest of them all?) the AHP methodology offers a way to arrive at a conclusion, though it is not clear what value this would offer. Better perhaps to identify a number of key business practices and assess competitive change-proficiency for each.

The "Agility Positioning" figure shows four top-level generic business practices. Each of them is equivalent to the "software process" focus of the SEI model complete with an individualized set of key processes and key practices. The key processes for each generic business practice is developed using some form of *Response Ability* Analysis that identifies the important change-proficiency issues. *Response Ability* Analysis refers to a variety of methods based on the "Change Domain" concept (Feb and Jun '95).

The four generic business practices in our figure are clearly at a higher enterprise level than SEI's software process model addresses. A change proficiency assessment at this high level is useful to help crystallize a corporate vision. To develop an actionable improvement program, however, a further reduction in process granularity is in order, and is accomplished with *Response Ability* Analysis.

In subsequent columns we will explore this maturity model and its application further - with the intention of describing a set of tools that can help build a business case as well as an actionable prioritized improvement strategy - at any process level in an organization.

For the truly adventuresome, Paradigm Shift International will be conducting guided exploration executive workshops to custom develop and apply these tools. Inquire at 505-586-1536. Safaris start in second quarter 1996.

Change Proficiency Maturity Model Framework				
Maturity Stage	Metric Focus	Working Knowledge	Capabilities	
			Reactive	Proactive
Accidental	Pass/Fail	Examples	Lucky	Accidental
Repeatable	Time	Concepts	Safe	Occasional
Defined	Cost	Metrics	Confident	Competitive
Managed	Quality	Responsibilities	Sure	Aggressive
Mastered	Breadth	Principles	Automatic	Formidable

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Note: These metrics apply to "Change Proficiency", thus, the concern is cost-of-change, not cost-of-product.