



Delivering value from outsourcing

An SMS White Paper

With acknowledgement to material previously compiled by Hilary Bush and Grant Rule.

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Ask the average “man in the street” about the performance of IT projects and you are likely to elicit hollow laughter. The “man (or woman) in the street” is also a tax-payer, a purchaser of mobile phones, insurance, banking services and any other product or service produced by businesses reliant on software-intensive systems. Poor service is endemic, so the end consumer’s perception of IT performance is that it fails to deliver good value. How many Boards of Directors view the value delivered from their IT department in the same light?

Outsourcing is often seen as the preferred strategy for improving the value delivered from IT and for improving software project performance. Where this is so, increasingly the CMMI[®] is being applied for its original purpose, as a means of evaluating and monitoring supplier capability. The argument goes that professional software supply companies, whose core competencies include the exploitation of IT, are likely to run projects more predictably and cost effectively than an organisation's in-house staff. Especially when a project necessitates integration of COTS or the adoption of new technology in which there is no local experience.

So why is it the newspapers still report major software disasters?

It was in fact the very unpredictability of software acquisition projects that caused the US Department Of Defense (DoD) to commission the Capability Maturity Model[®] and the associated assessment method. Such a high proportion of projects were late, over-budget or delivered a product that failed to fulfil expectations, that the DoD realised that 'lowest cost' does not equate to 'lowest risk'. If you want a product that works, that is available in short order, when planned and that will stay operational, you have to be prepared to pay a sensible price for it. Selecting the supplier that submits the lowest bid, often intentionally as a 'loss leader' to undercut competition, with the intention of recouping a profit during the subsequent maintenance and support contract, has been shown by experience to be a high-risk strategy. The supplier must exhibit a capability to deliver.

This lesson surely applies just as much to the typical business as it does to government and military contracts.

Good and continuing business relationships are built upon promises made and fulfilled. The ethos of the CMMI[®] is knowledgeable commitment, i.e. negotiation based upon full information, followed by agreement between the affected stakeholders. Indeed the importance of this issue is enshrined in Generic Process 2.7 'Identify and Involve Relevant Stakeholders'. It thus applies to every Process Area... and every project.

The CMMI[®] regards Software Acquisition as a project in its own right, but it....is not just about managing the performance of a supplier.



In earlier versions of the model, Supplier Sourcing was distinguished as a separate, optional, discipline. However, no project works in isolation. Every stage of software development produces output or relies on input, or both. Hence, the large majority of projects involve negotiation and agreement between separately managed groups, i.e. some sourcing of services or products from external suppliers or internal 'upstream' departments. In recognition of this, the latest version of the CMMI® model integrates many of the relevant practices with those of project management. Nevertheless, the formulation and monitoring of sourcing agreements continues to be regarded as important enough to warrant the dedicated maturity level 2 Process Area of Supplier Agreement Management (SAM). This covers not only the initial selection of a supplier, but also the management of the supplier's performance throughout the whole-life process of supply. Feedback, as usual, is the key to success.

Just as most projects incorporate an exercise in some form of acquisition, so the CMMI® regards 'pure' acquisition as a project in its own right. Such acquisitions have their own lifecycle and disciplines that the customer organisation needs to apply, irrespective of how professional the candidate supplier(s) appears to be.

General Motors, in collaboration with the Software Engineering Institute has sponsored the development of a draft CMMI® for Acquisition (CMMI-Acq – released June 2006). Once piloting has been completed, this is expected to lead to a model accepted by both government and industry users. It provides process improvement guidance for organizations engaged in the acquisition of all kinds of software-intensive systems. The practices focus on the customer-side activities required for supplier sourcing, including: supplier selection; agreements; managing acquisition of products and services; standard performance measures; use of acceptance criteria; handoff of deliverables; etc. Hence, it is essential reading for anyone working in a 'retained organisation'.

The draft CMMI-Acq is regarded as one 'constellation' of the practices that compose the CMMI® v1.2 architecture. The other 'constellations' are the CMMI® for Development (CMMI®-Dev – released August 2006) and the CMMI® for Services (CMMI®-Svc – currently under development).

The CMMI®-Acq defines a structure for managing and controlling the relationships inherent in a chain of supply. Its contents refer to the relationships between Users, Customers, Suppliers and the Project itself. The constituent goals and practices provide a clear framework of best practice for the management of these complex relationships.

The CMMI® is clear that acquisition applies both to products and services, and to supply from sources both internal and external. Hence, we should



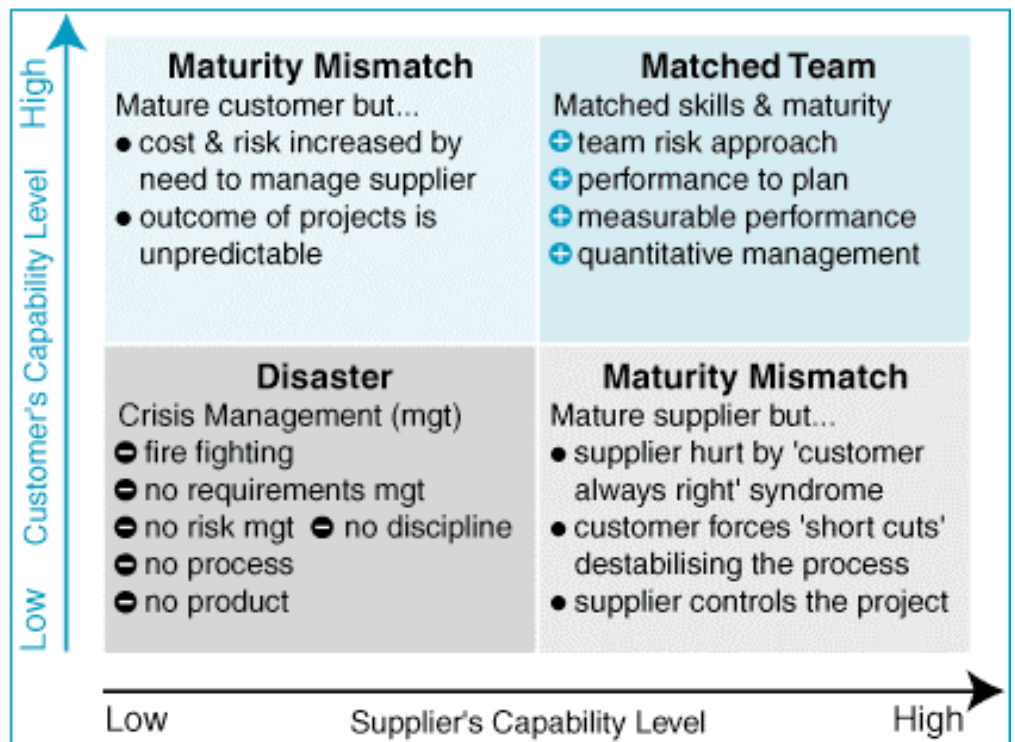
apply these 'best practice rules' to the management of all the relationships critical to the success of a project. Put simply, the practices are:

- Establish and maintain fully negotiated agreements that focus on delivering value to the end consumers
- Use the agreement as the basis for monitoring and evaluating progress and improvement over time
- Use quantitative methods and techniques for managing the relationship and the value delivered
- Establish and maintain a cooperative and productive relationship between customer, project and supplier.

...most beneficial results are achieved when there is some match between the maturity of both the customer and the selected supplier.

Partnership involves at least two *partners*. So the most beneficial results are achieved when there is some match between the maturity of both the customer and the selected supplier... and when both commit to continuous improvement.

If all stakeholders applied these rules of acquisition to all external interactions, imagine how smoothly communications would run! Misunderstandings, blame, recriminations and buck-passing could become things of the past. End consumers would experience unrivalled service, receive the value they expect and need, and maybe begin to appreciate software engineering for the profession it strives to be.





This paper is based on “Managing Supply Chains” by Hilary Bush and “Does your selected supplier have the capability to deliver?” by Grant Rule, with acknowledgements to the Software Engineering Institute.

It was edited and updated by Sue Rule.

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