Can CMMI Adoption Improve BPO Success?

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Overview

- How risky is BPO?
- Why is BPO risky?
- Process maturity
- Process improvement
- What is CMMI?
- CMMI Benefits
- Bringing CMMI to South Africa
BPO Growth and Challenges

- Gartner (in 2003) expected BPO growth worldwide to be 21% per annum
- In 2005 BPO internationally estimated at $234 Billion
- BPO is risky:
  - 20-25% of BPO relationships fail in first 2 years
  - 75% fail within 5 years
- How do you manage the risk?
Why is BPO risky?

- The “Process Management Premise”
  - The quality of a product or service is determined by the quality of the process used to develop or deliver it.
  - The success of a project is determined by the maturity of the process used to deliver it.
  - The more “immature” the process the higher the risk.
What is a Process?

People with skills

Tools and equipment

Procedures, methods and tasks

PROCESS
Process Maturity

You’re doing major home renovations

Bob’s quote is R20K

Tom’s quote is R24K

Bob from AB Construction

Tom from Build-It (Pty) Ltd
Process Maturity

Bob’s last 30 projects

Bob from AB Construction

Probability

What he promised

What he actually achieved

Schedule / Cost / Quality / etc

X

X+Y
Process Maturity

Tom’s last 30 projects

Schedule / Cost / Quality / etc

Probability

What he promised

What he actually achieved

X

Tom from Build-It (Pty) Ltd
Process Maturity

- Processes at AB Construction are:
  - *Ad hoc* – improvised by staff and their managers
  - Not rigorously defined, followed or enforced
  - Successful projects depend on the heroic efforts of some of the company’s very skilled staff
- AB Construction engages in “fire fighting”
Process Maturity

- Processes at Build-It (Pty) Ltd are:
  - Defined, documented and constantly improved
  - Process descriptions are consistent with the way people work.
  - There is a constructive use of product and process measurement.
- Build-It engage in fire prevention.

Tom from Build-It (Pty) Ltd
"Build-It (Pty) Ltd has a higher level of Process Maturity than AB Construction."
Process Improvement

- The risks associated with BPO can be reduced if BPO organizations are more like “Build-It” and less like “AB Construction”
- How do organizations improve their processes?
Process Improvement

**Initial state:**

The job is done, but predictions are poor and little repeatability
Process Improvement

Focus on improving each project:

- Better project planning
- Better monitoring of project progress
- Introduce quality assurance
- Introduce configuration management
- Begin to measure and analyse project metrics

Repeatable State:

Repeatability is better, but predictions still poor

What he promised

What he actually achieved

Bob from AB Construction

Schedule / Cost / Quality / etc

Probability
Process Improvement

Focus on defining processes across the whole organization:

- Lay down organizational policies
- Create a set of “standard” organizational processes
- Each project draws its processes from standard set
- Focus on doing the actual project work (engineering) better
- Manage risks

Defined State:

Predictions better.
Measurements collected from each project improves organization’s “standard” processes
Focus on quantitative management:

- Use metrics collected from projects to improve both project management, and to drive organizational process improvement.

**Quantitatively Managed State:**

Further improve both predictions and repeatability
Process Improvement

Focus on optimizing process:

- Encourage innovation and finding and resolving causes of problems.

Optimizing State
High degree of predictability and repeatability

What he promised
What he actually achieved

Schedule / Cost / Quality / etc

Probability
What is CMMI?

- Developed by the Software Engineering Institute (SEI) at Carnegie Mellon University in Pittsburgh, USA
- Capability Maturity Model Integration (CMMI®) brings together Process Improvement Models for:
  - Software,
  - Systems Engineering,
  - Integrated Product and Process Development (IPPD),
  - Supplier Sourcing
What is CMMI?

Maturity Levels 1 to 5

Process Improvement

(5) Optimizing: Continuously improving
(3) Defined Organisational Assets
(2) Repeatable Project management
(1) Initial Just do it

Process Control

Qualitative

Quantitative

What is CMMI? What is CMMI? What is CMMI? What is CMMI?
What is CMMI?

- Best practices are grouped together into 25 “process areas” (PA’s)
- Some examples of these PA’s are:
  - Project Planning (PP)
  - Project Monitoring and Control (PMC)
  - Measurement & Analysis (MA)
  - Configuration Management (CM)
CMMI Benefits

- Inside your business / organisation:
  - Having processes helps you understand what’s going on
  - People within the organisation are happier and more effective
  - Defining, measuring and controlling the process helps make process improvement sustainable
  - Better chance that new tools and techniques can be successfully introduced
CMMI Benefits

- Business benefits of CMMI
  - Results from 30 different organisations

<table>
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<th>Performance Category</th>
<th>Median improvement</th>
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<tbody>
<tr>
<td>Cost</td>
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<tr>
<td>Schedule</td>
<td>50%</td>
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<tr>
<td>Productivity</td>
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<tr>
<td>Quality</td>
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<td>14%</td>
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<tr>
<td>Return on Investment</td>
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CMMI Benefits

- CMMI benefits companies bidding for business
  - An increasing number of RFP’s from US and Europe now have “CMMI Rating at Maturity Level X” as a pre-requisite
  - Half the CMMI Maturity Level 5 companies in the world are in India
  - How many SA companies have a CMMI rating?
CMMI in South Africa

- Many South African companies that have heard of CMMI believe that:
  - Getting a rating is very expensive
  - CMMI is only possible for very large organisations
  - Requires skills that we don’t have in SA
- International experience shows that none of these “myths” are true.
Other IT Process Models

- IT PROJECTS
- IT OPERATIONS
- IT GOVERNANCE

- CMMI
- ITIL
- COBIT
THE JCSE FOUNDING PRINCIPLES
The Joburg Centre for Software Engineering at Wits University (JCSE) aims to improve competitiveness and stimulate growth and employment in South African Software Development and the ICT Sector, by:

- **Improve processes**: promoting international best practice in Software Engineering within an African context.
- **Promoting investment**: Establishing a business friendly environment that attracts investment in the local ICT industry.
- **Supporting transformation**: Aligning with the objectives of the ICT Charter to encourage the growth of SMMEs.
- **Encouraging innovation**: Applied research, technology incubation and IP development.
- **Building capacity and skills**: Educating experts to lead Africa’s software development sector.

**IMPROVE PROCESS**

**PROMOTE INVESTMENT**

**SUPPORT TRANSFORMATION**

**ENCOURAGE INNOVATION**

**BUILD CAPACITY & SKILLS**
Bringing CMMI to South Africa

- "SEI Partners" are licensed by SEI to deliver official courseware, methods and services
- In February 2006 JCSE selected by SEI as its first Partner in Africa.
- JCSE has launched a “Bringing CMMI to South Africa” programme
Bringing CMMI to South Africa

- Over next 2-3 years JCSE will focus on CMMI adoption, based on two SEI offerings:
  - A 3-day course “Introduction to CMMI” [Fee = $US3,300 in USA and Europe]
  - Appraisal services based on “Standard CMMI Appraisal Method for Process Improvement” or SCAMPI. Different appraisal levels – SCAMPI A, SCAMPI B and SCAMPI C
Bringing CMMI to South Africa

JCSE is implementing a 3-phase process

- **PHASE 1**: Build capacity & market awareness
- **PHASE 2**: 2-year Pilot Study
- **PHASE 3**: CMMI® Roll-out
Bringing CMMI to South Africa

- **Phase 1: Building capacity & market awareness**
  - Recruit and train 5 instructors
  - Train 1 of these instructors as SCAMPI A appraiser
  - Train other 2 instructors as SCAMPI B&C appraisers
  - Road-show and awareness activities
Bringing CMMI to South Africa

- **Phase 2: Pilot Study**
  - Select 5 local software developing organisations
  - For each organisation:
    - “Intro to CMMI” course
    - Conduct Gap Analysis appraisal
    - Develop process improvement plan
    - SCAMPI A, B and C appraisals
    - Provide CMMI consulting
  - Conclude with Report on scope for CMMI adoption in South Africa
Bringing CMMI to South Africa

- Phase 3: CMMI Roll Out
  - Based on experience gained in Pilot Study, develop and implement a CMMI Roll Out Plan for SA and neighbouring African countries
Bringing CMMI to South Africa

- **Status of Programme (as of May 2007)**
  - Training of five CMMI instructors completed
  - 1 SCAMPI Lead Appraiser certified
  - “Intro to CMMI” course has been presented every month since November (once in Cape Town) – 62 people have been trained [Cost = R7,900]
  - Pilot Organisations [SITA, FNB, Psybergate, Comsec, IBM, Nedbank and Wits University] selected.
Bringing CMMI to South Africa

- Status of Programme (as of May 2007)
  - Major CMMI awareness campaign has been launched – culminating in a “CMMI in Africa” Symposium in Joburg on 3-4 September 2007

More Information: info@jcse.org.za
THANK YOU!!!!

ANY QUESTIONS???