

Process Maturity and Quality Improvement

Abstract

This paper describes why it is important to choose an offshore IT outsourcing provider who has developed mature processes and what role do the mature processes play in improving the overall quality. These are the basis on which the outsourcing vendor is selected amongst the

various others in the bid. This paper also describes the various critical characteristics that should be considered before involving oneself into a partnership of an offshore IT outsourcing provider.

Need for a Mature Process

Although the major reason for hiring an offshore outsourcing IT provider is to save the cost and time. However, it is equally important for the provider to have a way to give and maintain a long-term relationship based on quality delivery and high-performance outputs. This is possible only if there are mature processes already developed and implemented in the day-to-day practices. There has to be a complete managing system to monitor the overall progress. Hence, this gives a double impact as the hiring company can take the benefit of the low cost outputs as well as an ongoing improving productivity.

Focus remains not only on process improvement but

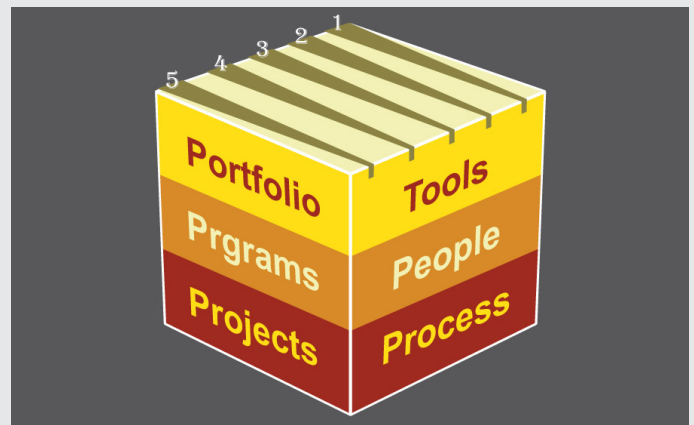
also on continuous development in order to be efficient and competitive in the market. Working from two different locations is the biggest issue when opting for outsourcing. The outsourcing provider can be capable to bridge this gap of geographical isolation only if it has processes mature enough to be people and management independent. The processes will have to be mature as well as reliable, predictable and efficient at the same time. This independence gives business benefits and ensures risk free operations and significant results. Being away yet connected is the need for making the outsourcing successful.

Process Maturity and Quality Improvement

The process maturity and improvement is directly related to the cost effectiveness as it eliminates the scope of rework. It also helps to understand the requirements well which in turn helps in on time completion of work and customer satisfaction. The other benefits of process maturity are as follows:

- Improved schedule and budget predictability
- Improved cycle time
- Increased productivity
- Improved quality (as measured by defects)
- Increased customer satisfaction
- Improved employee morale
- Increased return on investment
- Decreased cost of quality

The most important aspect is to monitor, track, measure the results of the day to day efforts put on with the client's business objectives as a scale to provide quality output and predicting the results before hand. The main goals include shorter cycle times; extended customer satisfaction, return on investment, lower costs. The base line is maximum output with minimum input with 100 % perfection and error free deliverables.



Quality Improvement Model

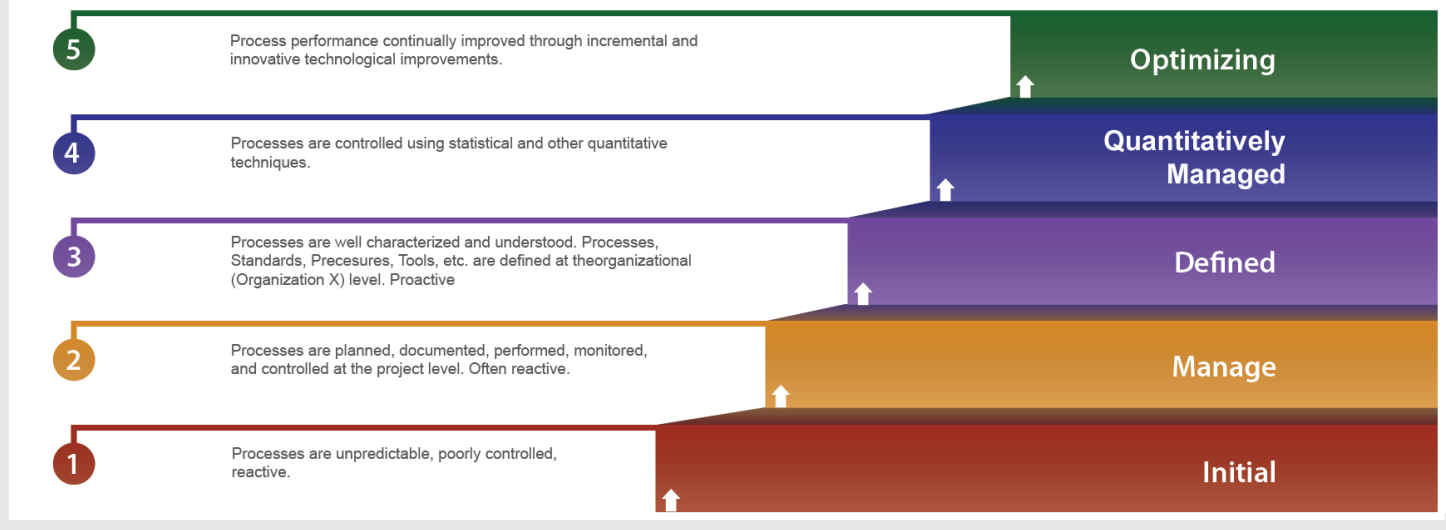
It is very important to always look back and learn from our experience. Measuring the outputs of any process and making improvements wherever feasible is the main requirement for incremental and quantitative progress. The processes should be improvised and matured in such an extent that its outputs can be quantified and compared with the previous outputs. Hence, there is a need of a quality improvement model that can help outline the processes necessary for the success of any organization. Out of the various models available the

Capability Maturity Model is the most efficient one by the Software Engineering Institute (SEI). There are a lot of benefits of the CMMi model which gives a new dimension to process improvement and quality output.

In all there are 5 levels of CMMi and stepping from one level to the next helps organizations in efficient execution of their operations and gives desired and predictable outcomes which in turn increase the reliability and customer satisfaction.

Capability Maturity Model

CMMI, staged, uses 5 levels to describe the maturity of the organization.



Level 1- Initial

Processes are unpredictable, poorly controlled and reactive. The process performance may not be stable and may not meet specific objectives such as quality, cost, and schedule, but useful work can be done.

Level 2- Managed

The managed process comes closer to achieving the specific objectives such as quality, cost, and schedule.

A managed process is a performed process that is also:

- Planned and executed in accordance with policy
- Employs skilled people

- Adequate resources are available
- Controlled outputs are produced
- Stakeholders are involved
- The process is reviewed and evaluated for adherence to requirements

Level 3- Defined

Processes, standards, procedures, tools, etc. are defined at the organizational level. Project or local tailoring is allowed, however it must be based on the organization's

set of standard processes and defined per the organization's tailoring guidelines. Major portions of the organization cannot "opt out."

Level 4- Quantitatively Managed

At this level although the processes may produce predictable results, the results may be insufficient to achieve

the established objectives

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Level 5- Optimizing

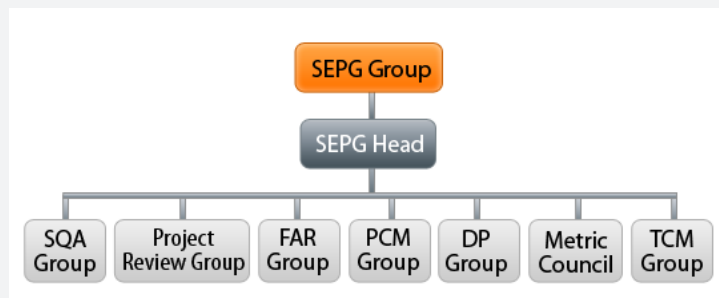
- Maturity level 5 focuses continually on improving process performance through incremental and innovative process and technological improvements.
- An organization continually improves its processes based on the quantitative understanding of the common causes of variation inherent in the processes.
- The effects of deployed process improvements are measured and evaluated against the quantitative process improvement objectives.
- At maturity level 5 the organization is concerned with addressing common causes of process variation and changing the process to improve process performance and to achieve the established quantitative process improvement objectives.

Measures for Quality Improvement

The software engineering groups are devised at organization level for taking care of the process improvement activities. In Silver Touch we have the Software Engineering Process group which plans all the process improvement activities to be carried out in the organization and it has various subgroups as mentioned below:

- **Software Engineering Process Group (SEPG):** Carries out all the process improvement activities and facilitates the sub groups. Is involved in the review and approvals of all the activities of the sub groups.
- **Process Change Management (PCM):** Undertakes all the process related changes to map the business needs of the organization.
- **Technology Change Management (TCM):** Undertakes all the technology related changes to map the business needs of the organization.
- **Software Quality Assurance (SQA) Group:** Verifies adherence to the processes and carries out quality assurance activities like reviews, audits, analysis etc.
- **Project Review Group (PRG):** A combination of members from various work areas reviews the project level artifacts and gives feedback for improvement.
- **Metrics Council (MC):** Quantifies the outputs at the organization and project level and analyzes the output for base lining the organization goals for various metrics.
- **Functional Area Representative (FAR) Group:** They are subject matter experts for particular process areas responsible for reviewing and improving the processes related to process area.
- **Causal Analysis and Resolution (CAR) Group:** Carry out all the activities to find out the root causes of the problems prevailing at the organization level and implementing solutions for it. Also to carry out various defect prevention activities organization wide.

The SEPG group structure and its sub groups are depicted in the diagram below



All the groups as mentioned above are actively working in Silver Touch. Each group consists of members as per the roles and responsibilities of each group. These groups have carried out activities to satisfy the process areas of CMMi level 5 and have successfully helped the organization to be assessed with CMMi level 5.

Selecting an Offshore IT outsourcing provider

In order to satisfy all the above mentioned criterions it is very important that the outsourcing provider should have matured processes as it gives stabilized outsource operations and whether they are scaling their outputs. Measuring the output is necessary as it is the way leading to improvement and success. Hence, it should also be noted whether the outsourcing provider is metric driven. Apart from time and money, building an efficient partnership is necessary. Both the partners should understand the requirements and difficulties of each other and should be flexible in the terms and conditions for the smooth operations. This will provide the improvement in the performance. The outsourcing provider should understand the customer needs and try to deliver the exact.

Here in Silver Touch, we provide the best outsourcing solutions and ensure that the first outsourcing experience

with us is not the only one. We believe in customer satisfaction, reliable partnership as well as retaining the customers with our quality services. There are various teams and skilled resources for providing diverse services from developing varied web applications to mobile and iPhone. We not just provide the services but also involve the customers throughout the development process so that they are involved in and out. Our customers worldwide have benefitted from our services and look forward to be associated with us by taking benefits of our services time and again.

We involve our customers throughout the development life cycle and let them have an insight of the monitoring and control activities going on as well as the current status so that the customers can keep track of the progress.

Conclusion

The process improvement management is the essential feature of any offshore IT outsourcing provider in order to meet up to the expectations of the global customers. They need to ensure high quality output, on time deliverables, reliable partnership and metric driven operations. It is always important to quantify ones output and trace the mistakes and correct them. If the client organization is able to take advantage of the mature processes of an outsourcing provider then the result would always be improved results and higher efficiency.

Process Maturity and Quality Improvement

Deliver best products, software solutions and services, on time with quality, and as per customer expectations

About SilverTouch

SilverTouch, a company established in 1992 is widely accepted for its IT solutions with a huge customer base in more than 20 countries across the world.

SilverTouch is actively engaged in Enterprise software development, enterprise content management, document management and IT consulting services such as Business process optimization, process consulting, implementation and customization of ERP. SilverTouch leads brilliantly in new technical developments such as: Mobile Application development services on iPhone, iPad, Blackberry, Android, J2ME and Windows mobile platforms. Even now, SilverTouch helps its global clients for major developments, deployments and managements of their mobility solutions and enterprise application development programs.

SilverTouch has alliance with several industry leaders such as Microsoft, Apple, Cisco, IBM, Oracle, SAP, Java, Dell, VM ware, Symantec, Sonic Wall which provides a competitive edge over other industry peers and targets to understand and cater to all types of requirements that concern our clients, thereby, leading to serve them precisely to their satisfaction.

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