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# A Study on Strategy Adopted to Incorporate Quality aspects during Management of Projects for Overall Stakeholder Satisfaction and for Building Brand name with Profitability

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*Abstract— Every project that is executed have to meet the requirements of stakeholders. Each stakeholder specific unique requirements for that project and its products or services are aggregated with major focus on planning and its efforts during the execution of the project) to comply through the competence within the organization or sub-contracting same to meet specific requirements. A thorough study of the most recent version of the project quality management has been carried out. This paper provides a road map these targets, focus, proper structural approach.*

**Keywords:** Project Quality Management, Project Quality Management Model, Project Review Meetings, Project QA/QC, Project Continuous Improvement

## I. INTRODUCTION

Quality management related to the project is one of the worst topics due to gaps in understanding its application concept, if one does not have any project quality plan or have knowledge on how to manage quality of a project. Many people find quality management to be one of the more difficult project management processes to implement. This is because quality is hard to define, and formal quality management requires you to collect metrics to validate the state of quality. The following process will help create a framework for the quality management process. To ensure that your deliverables meet the customer's requirements, you need to implement a rigorous Quality Management Process. This process defines the Quality Assurance reviews and Quality Control techniques required to assess the level of deliverable and process quality within the project.

## II. STANDARDS FOR MONITORING THE QUALITY OF PROJECTS

**ISO 10006:2003**, Quality management systems - Guidelines for quality management in projects, is an international standard developed by the International Organization for Standardization.

**ISO 10006:2003** gives guidance on the application of quality management in projects.

It is applicable to projects of varying complexity, small or large, of short or long duration, in different environments, and irrespective of the kind of product or process involved. This can necessitate some tailoring of the guidance to suit a particular project.

**ISO 10006:2003** is not a guide to "project management" itself. Guidance on quality in project management processes is discussed in this International Standard. Guidance on quality in a project's product-related processes, and on the "process approach", is covered in ISO 9004. A new "Project Management - Guide to project Management" ISO 21500 has been published in September 2012. Since ISO 10006:2003 is a guidance document, it is not intended to be used for certification/registration purposes.

## III. CITATION AND UNDERSTANDING QUALITY

What Is Quality? To cite the Lew Ireland's choice of definitions, "Quality is the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs." Yet many people presume that Project Quality includes (and indeed demands) more. Part of this presumption comes from the implied needs stated above. And part comes from the subjectivity of stakeholders'—including team members'—preferences about project results. And of course, part of this must come from an inability to measure Project Quality in clear terms until it is too late to correct a flawed project process or product.

#### IV. PROBLEM WITH PROJECT QUALITY

Often key stakeholders cannot evaluate the true risks and the quality of the results until the benefit realization point, and then it is too late to do anything to resolve gaps or problems. With process-oriented efforts it is possible to perform sampling and other quality measures. But the most projects' key results cannot be rigorously evaluated until near the project end, or later. As projects produce something new, there are few standards against which to evaluate “good” results. This particular issue is not just at the overall project level; it often affects the individual assignment delegation process, when those doing the work cannot define the difference between “inadequate quality” and “good enough”.

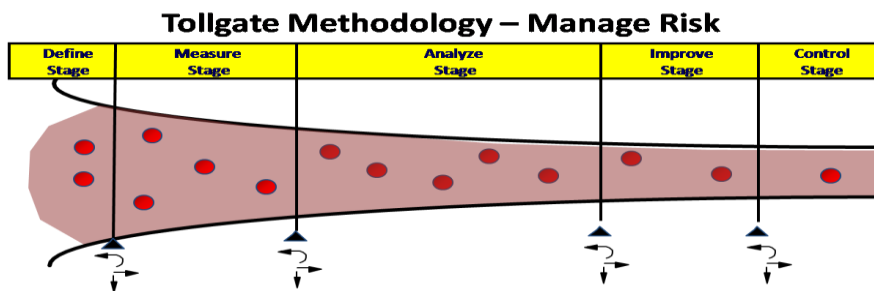


Fig 1: Courtesy [www: projectmanagementguru.com](http://www.projectmanagementguru.com)

#### V. PRE-REQUISITE TO EXECUTE THE PROJECT QUALITY MANAGEMENT

The factors that must be in place to even have a hope of producing Quality results.

- Produce Realistic Plans.
- Involve Customers and Clearly Understand Needs.
- Use Repeatable and Repeated Processes.
- Engage Competent Team Members.
- Assure Team Member Ownership.
- Demonstrate Effective, Informative Delegation.
- Plan and Staff Appropriate Reviews.
- Assure Proper Testing, Documentation, And Training.

#### VI. ROLE OF PROJECT MANAGER

- To recommend management on standards applicable , policies and processes that will enhance the quality of the project
- Should test any assumption made for validity in real time scenario, before considering in the matrix / plan.
- Should have a clear matrix, which should support project quality covering all deliverable perfectly during all stages of its execution .
- Should support the QA /QC department or team , during testing or audits impartially.
- Should accept any changes in project constraint , they affect the project deliverable
- Quality should be ensured as an ongoing process and should not be delayed to be taken up by the next stage team

#### VII. APPROCH TO PROJECT QUALITY MANAGEMENT

The project can be controlled with respect to quality from broad three different processes

- Quality Planning is identifying which quality standards are relevant to the project and determining how to satisfy them
- Quality assurance is evaluating the overall project performance on a regular basis to provide a confidence that the project will satisfy the relevant quality standards.
- Quality Control is the monitoring of specific project results to determine if they comply with the relevant quality standards and identifying ways to eliminate causes of unsatisfactory performance

VIII. SYSTEMATIC APPROCH FOR MANAGING QUALITY ASPECTS DURING MANAGEMENT OF PROJECT

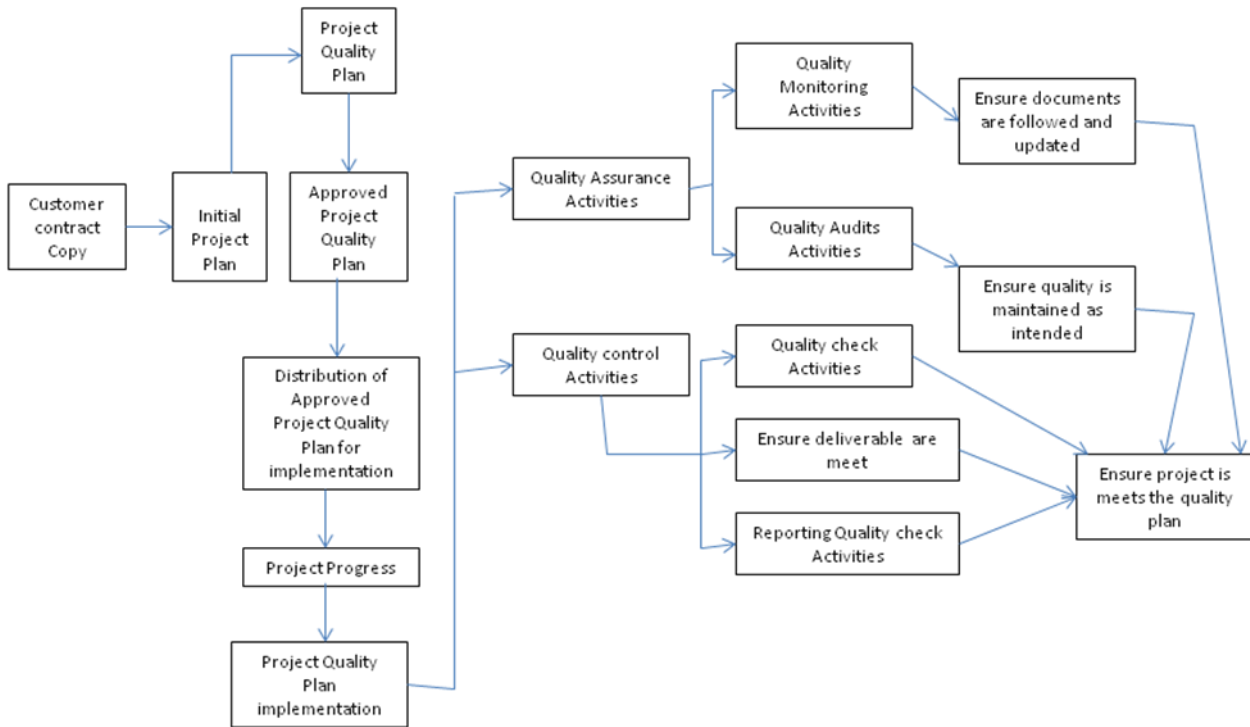


Fig 2: System approach for Project Quality Management

**A. PROCESS FOR MANAGING QUALITY DURING PROJECT MANAGEMENT**

The first action by management upon receipt of project contract is to identify, who will do what and when ..

Establishment of project plan of the planning process team , performing the quality assurance by project executing team, and quality control by technical monitoring and controlling progress team ...

The entire project proposal needs to be studied in detail, so as to create the specific quality management approach to meet all deliverable commitment. Based on the customer contract, a project plan needs to be established through involvement of all stakeholders. The clarity on all aspects of the stated or intended need to be addressed in the project plan. After approval of project plan, a supporting project quality plan should draw with correct criteria's for quality control, and quality assurance activities..

Identify a set of metrics that will provide insight into the quality of the deliverables. The project manager should already be capturing overall financial and duration metrics. The quality-related metrics need to be more sophisticated. There are two areas where you are trying to manage quality - in your project work processes and in the actual deliverables you are building. You should try to capture metrics that will measure each.

This project quality plan should also be subjected to critical review with all stakeholders, undertaking proper approvals for acceptability This plan should form the blue print with details on the process and activities to ensure quality deliverables as intended in the contract.

This project quality plan also needs to be made available at all necessary locations for implementation, any other policies, statutory/regulatory requirements also made available to meet the plan. Any clarification on issues should be subjected to critical review and updating in plan if needed.



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The management should ensure availability of the competencies and the correct amount of resource is made available at scheduled times during project execution to meet the quality plan. (Fig 1)

**B. QUALITY CONTROL AND QUALITY ASSURANCE DURING PROJECT EXECUTION**

Execute quality control activities are done through validating the quality of deliverables. It is also referred to as "inspection". Ensure that the quality control activities for every deliverable are performed while the project is underway. Project quality assurance of quality starts with effectively delegating and managing Individual work package or activity assignments like establishment of standard working processes used to build deliverables. It is also referred to as "prevention". Having good processes should result in better quality deliverables.

Monitor and resolve deliverable quality is done through validating the quality of delivery as ongoing activities and also whenever any problem or deviation observed steps are taken to correct and improve the process

**C. REVIEW ON PROJECT QUALITY DATA AND FOLLOWUP**

Effective reviews with right participants are very important to check whether the inspection conducted reports are properly considered for correction to avoid contamination of results their off. Effective reviews can be conducted after adequate preparation on right process, even with external facilitation considering all obtained key project results. This cannot be possible with massive data at the end of a project, but can be conducted during various critical intervals /stages. Reviews should also follow these guidelines:

- Assure proper preparation
- Review the results, not the performer.
- Find the problems, not the solutions to them.
- Assure follow-up on open items.

**IX. CONTINUOUS IMPROVEMENT OF PROJECT QUALITY MANAGEMENT**

Enterprise project quality management continuous improvement includes 5 main levels:

- Deliverables management: Detect and monitor project inputs and outputs results quality control (QC)
- Process management: Review and improve project process methods and abilities quality assurance (QA)
- Needs management: Analyze, verify and control project scope requirements management (RM)
- Organization development: Assess project organization and team abilities organization development(OD)
- Value management: Assess and plan enterprise project management strategy, value, policy, needs and objectives value management (VM)

According to the above, please see below for Kris Project Quality Management Continuous Improvement (CI) Model:



Fig 3 Courtesy: [http://www.krispmschool.com/pmsystemmodel/e\\_projectqualitycimodel.php](http://www.krispmschool.com/pmsystemmodel/e_projectqualitycimodel.php)



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#### X. ADVANTAGES OF INCORPORATION OF QUALITY DURING PROJECT MANAGEMENT

So the best project quality management will not only ensure that all those involved in projects are fully aware of all acceptable quality deliverables, also have knowledge on how to measure and monitor them, and who will do what to meet these requirements. Project executed with quality management will not only keep the customer satisfied, but also satisfy all associated stakeholders during the entire lifetime of that project. The overall saving is tremendous considering meeting the deliverable thus reduce risks by control on cost bottom line perfectly thus avoiding any financial penalties for deviations. Finally the excellence of the brand name matter most for any organization, considering future business and its growth.

#### XI. CONCLUSION

The project manager does not have any time to spend on quality as this involves the inspection if any defect, again rework and recheck. These activities bound to affect the delivery schedule as well as cost factors. Ignoring quality bound to attract the risk factors related to functionality, deliverable not meet, rejection by the customer, even if accepted the cost of services during the warranty period. Finally, many people find quality management to be one of the more difficult project management processes to implement. This is because quality is hard to define, and formal quality management requires you to collect metrics to validate the state of quality it is also observed that no project is perfect and there are lessons to be learned, so a copy need to be kept in the repository for future reference to unlearn and grow with time positively.

#### ACKNOWLEDGMENT

Mr Patange Vidyut Chandra would take this opportunity to thank, all quality gurus who have contributed their life to enhance the quality of product, process and systems through the innovative tools and management approach.

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Mr. Patange Vidyut Chandra holds a Bachelors degree in Mechanical and Masters in Industrial Engineering and Management, Post Graduation in Operations Management; He is Ex Manager –TQM from Davangere cotton mills.. He worked as consultant for over 12 years of which 6 years visiting Saudi Arabia and Oman and accumulated rich expertise with major focus on execution of projects related ISO 9001, ERP programming, oil/gas pipe for Saudi industrial gas supply company, and boilers Almutlaq services at KSA .etc Professionally he is a qualified lead auditor for ISO 9001, Green Belt for Six Sigma Quality and Certified Quality Manager from Qimpro College –Mumbai. Presently as Assistant Professor in Sreenidhi Institute of science and technology with the Department of Mechanical Engineering, teaching Operations Research, Production Planning and Control and Total Quality Management.