



# PROJECT PLANNING AND MANAGEMENT

---

**TECHNICAL UNIVERSITY OF KENYA**

Stephen Omengo

BA Land Economics, MSc Information Systems Engineering,

RV, REA, REIA/A

[www.StephenOmengo.com](http://www.StephenOmengo.com)

+254 733 775683 : +254 722 936676



# PROJECT EXECUTION

---

**EAEQ 4206: LESSON SIX**



# Project Execution

- Executing Process Group consists of those processes performed to complete the work defined in the project management plan to satisfy the project specifications.
- Involves coordinating people and resources, as well as integrating and performing the activities of the project in accordance with the project management plan.
- The executing Process Group includes the following project management processes.

# Project Execution Processes



## A Guide to the Project Management Body of Knowledge (PMBOK GUIDE) 4<sup>th</sup> Edition:

- 1 **Direct and Manage Project execution** - the process of performing the work defined in the management plan to achieve the projects objectives
- 2 **Perform Quality Assurance** - the process of auditing the quality requirements and the results from quality measurements to ensure appropriate quality standards and operational definitions are used
- 3 **Acquire Project Team** - the process of confirming human resource availability and obtaining the team necessary to complete project assignments
- 4 **Develop Project Team** – the process of improving the competencies, team interactions and the overall team environment to enhance project performance

# Project Execution Processes



## A Guide to the Project Management Body of Knowledge (PMBOK GUIDE) 4<sup>th</sup> Edition:

- |   |  |
|---|--|
| 5 | <b>Manage Project Team</b> – the process of tracking team member performance, providing feedback, resolving issues, and managing changes to optimize project performance |
| 6 | <b>Distribute Information</b> - is the process of making relevant information available to project stakeholders as planned.  |
| 7 | <b>Manage Stakeholder Expectations</b> - the process of communicating and working with stakeholder to meet their needs and addressing issues as they occur.              |
| 8 | <b>Conduct Procurements</b> - is the process of obtaining seller responses, selecting a seller, and awarding a contract.   |

# Direct and Manage Proj. Execution: Tools and Techniques



A Guide to the Project Management Body of Knowledge (PMBOK GUIDE)  
4<sup>th</sup> Edition:

- |   |  |
|---|--|
| 1 | <p><b>Expert Judgement</b></p> <ul style="list-style-type: none"><li>• Expert judgment is used to assess the input needed to direct and manage execution of the management plan</li><li>• Requires training and teamwork</li><li>• Additional expertise from:<ul style="list-style-type: none"><li>• Other units within the organisation</li><li>• Consultants</li><li>• Stakeholders, including customers or sponsors</li><li>• Professional and technical associations</li></ul></li></ul> |
| 2 | <p><b>Project Management Information System</b></p> <ul style="list-style-type: none"><li>• Automated tools e.g. scheduling software tools,</li><li>• configuration management systems,</li><li>• Information collection and distribution system</li><li>• Web interfaces</li></ul>  |

# Perform Quality Assurance: Tools and Techniques



## A Guide to the Project Management Body of Knowledge (PMBOK GUIDE) 4<sup>th</sup> Edition:

- 1 **Plan Quality and Performance Quality Control Tools and Techniques**
  - Project team selected in advance
  - Project depends upon the expertise of on person
- 2 **Quality Audits**
  - Structured independent review to determine weather project activities comply with organisational and project policies, processes and procedures.
  - The objectives of quality audits are
    - Identify all the good/best practices being implemented
    - Identify all the gaps/shortcomings
    - Share the good practices introduced or implemented in similar projects in the organisation and/or industry
    - Proactively offer assistance in a positive manner to improve implementation of processes to help the team raise productivity, an
    - Highlight contributions of each audit in the lessons learned repository of the organisation.



# Perform Quality Assurance: Tools and Techniques

A Guide to the Project Management Body of Knowledge (PMBOK GUIDE)  
4<sup>th</sup> Edition:

- Quality audits can confirm the implementation of approved change requests including corrective actions, defect repairs, and preventive actions.

## 3 Process Analysis

- Process analysis follows the steps outlined in the process improvement plans to identify needed improvements
- This analysis also examines problems experienced, constraints experienced, and non value added activities identified during operation
- Include root cause analysis – a specific techniques to identify a problem, discover the underlying causes that lead to it, and develop preventive actions





# Acquire Project Team: Tools and Techniques

A Guide to the Project Management Body of Knowledge (PMBOK GUIDE)  
4<sup>th</sup> Edition:

1	<b>Pre-Assignment</b> <ul style="list-style-type: none"><li>• Project team selected in advance</li><li>• Project depends upon the expertise of on person</li></ul>
2	<b>Negotiation</b> <ul style="list-style-type: none"><li>• Assignments are negotiated</li><li>• Objectives includes clarification of roles and responsibilities, constructive feedback to team members, discovery of unknown or unresolved issues, training needs.</li></ul>
3	<b>Acquiring</b> <ul style="list-style-type: none"><li>• Involves hiring fro external sources</li><li>• Sub-contracting to another organisation</li></ul>

# Acquire Project Team: Tools and Techniques



A Guide to the Project Management Body of Knowledge (PMBOK GUIDE)  
4<sup>th</sup> Edition:

## 4 Virtual Teams

- Groups of people with a shared goal who fulfil their roles with little or no time spent meeting face to face
- Usually through electronic media - emails, audio-conferencing, web-based meetings, video conferencing
- Makes it possible to:
  - Form team with companies in different geographical areas
  - Team with experts in different geographical regions
  - Employees who work from home
  - Teams of people who work in shifts
  - Include people with mobility or disability
  - Move forward with project which would have been ignored due to travel expenses

# Develop Project Team: Tools and Techniques



## A Guide to the Project Management Body of Knowledge (PMBOK GUIDE) 4<sup>th</sup> Edition:

- |   |   |
|---|---|
| 1 | <b>Interpersonal Skills</b> <ul style="list-style-type: none"><li>• Soft skills</li><li>• Understanding the sentiments of the project team members and anticipating their actions, acknowledging their concerns and following up their issue.</li><li>• Skills such as empathy, influence, creativity, group facilitation</li></ul> |
| 2 | <b>Training</b> <ul style="list-style-type: none"><li>• Activities designed to enhance the competencies of the project team members. (Formal or Informal)</li><li>• E.g. classrooms, online, computer based, on-the-job-training, mentoring, and coaching.</li></ul>  |
| 3 | <b>Team Building Activities</b> <ul style="list-style-type: none"><li>• Designed to improve interpersonal relationships.</li><li>• To enable team members work together effectively</li></ul>   |



# Develop Project Team: Tools and Techniques

## A Guide to the Project Management Body of Knowledge (PMBOK GUIDE) 4<sup>th</sup> Edition:

- |   |  |
|---|--|
| 4 | <b>Ground Rules</b> <ul style="list-style-type: none"><li>• Ground rules establish clear expectations regarding acceptable behaviour by project team members.</li><li>• Requires commitment</li><li>• Discussing ground rule allow steam members to discover value that are important to one another</li></ul>               |
| 5 | <b>Co-location</b> <ul style="list-style-type: none"><li>• Co-location involves placing many or all of the most active project team members in the same physical location to enhance their abilities to perform as team.</li></ul>   |
| 6 | <b>Recognition and Awards</b> <ul style="list-style-type: none"><li>• Recognising and rewarding desirable behaviour</li><li>• Only desirable behaviour should be rewarded e.g. overtime,</li><li>• Team members should not be punished for poor planning, or unrealistic expectation from their senior management.</li></ul> |

# Manage Project Team: Tools and Techniques



## A Guide to the Project Management Body of Knowledge (PMBOK GUIDE) 4<sup>th</sup> Edition:

- |   |   |
|---|---|
| 1 | <b>Observation and Conversation</b> <ul style="list-style-type: none"><li>• Used to stay in touch with the work and attitude of project team members</li><li>• Interpersonal issues</li></ul>   |
| 2 | <b>Project Management Appraisal</b> <ul style="list-style-type: none"><li>• Objectives includes clarification of roles and responsibilities, constructive feedback to team members, discovery of unknown or unresolved issues, training needs.</li></ul>  |
| 3 | <b>Conflict Management-</b> <ul style="list-style-type: none"><li>• Conflict is inevitable in projects.</li><li>• Sources of conflicts include: scarce resources, scheduling priorities, personal work styles</li><li>• Successful conflict management leads to greater productivity and positive working relationships</li></ul> |



# Manage Project Team: Tools and Techniques

A Guide to the Project Management Body of Knowledge (PMBOK GUIDE)  
4<sup>th</sup> Edition:

## Characteristics of Conflict and conflict management Process:

- Conflict is natural and forces a search for alternatives
- Conflict is a team issue
- Openness resolves conflict
- Conflict resolution should focus on issues, not personalities
- Conflict resolution should focus on the present, not the past

## Factors that influence conflict resolution

- Relative importance and intensity of the conflict
- Time pressure for resolving the conflict3position taken by the players involved
- Motivation to resolve conflict on a long term or short term basis



# Manage Project Team: Tools and Techniques

A Guide to the Project Management Body of Knowledge (PMBOK GUIDE)  
4<sup>th</sup> Edition:

## Six technique for resolving Conflict:

- **Withdrawing/Avoiding** – retreating from an actual or potential conflict situation
- **Smoothing/Accommodating** – emphasising areas of agreement rather than areas of difference.
- **Compromising** – searching for solution that bring some degree of satisfaction to all parties
- **Forcing** – pushing ones viewpoint at the expense of others; offers only win lose situation
- **Collaborating** – incorporating multiple view points and insights from different perspectives; leads to consensus and commitment
- **Confronting/Problem solving** – treating conflict as a problem to be solved by examining alternatives; requires a give and take attitude and open dialogue



# Manage Project Team: Tools and Techniques

## A Guide to the Project Management Body of Knowledge (PMBOK GUIDE) 4<sup>th</sup> Edition:

- |   |   |
|---|---|
| 4 | <b>Issue Log</b> <ul style="list-style-type: none"><li>• Documenting the issues and who is responsible for resolving specific issues by a target date</li></ul>   |
| 5 | <b>Interpersonal skills</b> <ul style="list-style-type: none"><li>• Leadership – communicate and inspire the project team to high performance.</li><li>• Influencing – ability to influence stakeholders on a timely basis<ul style="list-style-type: none"><li>• Ability to be persuasive and clearly articulate points and positions</li><li>• High levels of active and effective listening skills</li><li>• Consideration of the various perspectives in any situation</li><li>• Gathering relevant and critical information to address important issue and reach agreements while maintaining mutual trust</li></ul></li></ul> |



# Distribute Information: Tools and Techniques



## A Guide to the Project Management Body of Knowledge (PMBOK GUIDE) 4<sup>th</sup> Edition:

- |   |  |
|---|--|
| 1 | <b>Communication Methods</b> <ul style="list-style-type: none"><li>• Individual and group meetings</li><li>• Video and audio conferences</li><li>• Computer charts</li><li>• Remote communication methods</li></ul>  |
| 2 | <b>Information Distribution Tools</b> <ul style="list-style-type: none"><li>• Hard-copy document distribution, Manual filing systems, Press releases</li><li>• Electronic communication and conferencing tools; emails, fax, voice mails, telephone, video and web conferencing, website and web publishing</li><li>• Electronic tools for project management; web interfaces to scheduling, project management software, meeting and virtual office support software, portal and collaborative work management tools.</li></ul> |

# Manage Stakeholder Expectations: Tools and Techniques



## A Guide to the Project Management Body of Knowledge (PMBOK GUIDE) 4<sup>th</sup> Edition:

1	<b>Communication Methods</b> <ul style="list-style-type: none"><li>• Method of communication identified for each stakeholder in the communication plan</li></ul>
2	<b>Interpersonal Skills</b> <ul style="list-style-type: none"><li>• Building trust</li><li>• Resolving conflict</li><li>• Active listening</li><li>• Overcoming resistance to change</li></ul>
3	<b>Management Skills</b> <p>Management- directing and controlling a group of people for the purpose of coordinating and harmonising the group towards accomplishing a goal beyond the scope of individual effort</p> <ul style="list-style-type: none"><li>• Presentation skills</li><li>• Negotiating</li><li>• Writing skills</li><li>• Public speaking</li></ul>

# Conduct Procurement: Tools and Techniques



## A Guide to the Project Management Body of Knowledge (PMBOK GUIDE) 4<sup>th</sup> Edition:

- 1 **Bidder conferences**
  - Meeting between the buyers and all sellers before a bid is submitted.
  - Ensures all bidders receive clear information
  - Ensures no preferential treatment
- 2 **Proposal evaluation techniques**
  - A criteria is used to evaluate bidders before award
- 3 **Independent estimates**
  - Estimate the service or goods to act as benchmark for procurement.
  - Significant difference indicate that procurement statement was deficient or ambiguous
- 4 **Expert judgement**

Expert judgement is used to evaluate seller proposals.  
This may include experts e.g. in design, legal, accounting, research etc

# Conduct Procurement: Tools and Techniques



## A Guide to the Project Management Body of Knowledge (PMBOK GUIDE) 4<sup>th</sup> Edition:

- |   |   |
|---|---|
| 5 | <b>Advertising</b> <ul style="list-style-type: none"><li>• Advertising in newspapers, trade publications etc.</li><li>• Inviting bidders in newspapers</li></ul>  |
| 6 | <b>Internet search</b> <ul style="list-style-type: none"><li>• You can obtain prices through search on the internet</li><li>• This may however not work for complex processes</li></ul>                           |
| 7 | <b>Procurement negotiations</b> <ul style="list-style-type: none"><li>• Reach a mutual agreement prior to signing the contract</li><li>• Project manager may not be the lead negotiator in procurements</li></ul> |