

**PAPER NO. CT 62**  
**SECTION 6**

**CERTIFIED**  
**INFORMATION COMMUNICATION**  
**TECHNOLOGISTS**  
**(CICT)**

**INFORMATION**  
**SYSTEM PROJECT MANAGEMENT**

**STUDY TEXT**

## **KASNEB SYLABUSS**

### **GENERAL OBJECTIVE**

This paper is intended to equip the candidate with the knowledge, skills and attitude that will enable him/her to manage information systems projects

### **LEARNING OUTCOMES**

A candidate who passes this paper should be able to:

- Manage project scope using various techniques
- Use information system project management software
- Implement information systems projects
- Monitor and control project risk
- Prepare project schedules using project management software tools
- Manage information systems project procurement process

### **CONTENT**

#### **1. Overview of an Information systems project**

- Definition of a project
- Project management principles
- Purpose of project management
- Project roles and responsibilities
- Information system project environment
- Characteristics of project
- Examples of information system projects

#### **2. Information systems project lifecycle**

- Project identification
- Feasibility study
- Project selection
- Project objectives
- Project proposal
- Project design
- Project development
- Project implementation
- Project monitoring
- Project review

#### **3. Project scope management**

- Scope definition
- Scope verification
- Scope control
- Using a software tool to assist in project scope management

#### **4. Project planning**

- Determining project tasks
- Work breakdown structures
- Milestones schedules

- Task dependencies and relationships
- Planning time scales
- Materials and equipment management
- Tools and techniques of project planning and scheduling
- Using a software tool to assist in project planning

#### **5. IS project resource management**

- Information system project resources
- Resource planning
- Resource allocation framework
- Information resource portfolio management
- Resource schedules
- Cost management
- Determining project tasks
- Work breakdown structures
- Task dependencies and relationships
- Materials and equipment management
- Tools and techniques of project planning and scheduling
- Using software tools to assist in resource management

#### **6. IS project organizational structures**

- Organizational structures
- Integrating project work and project organizational structures
- Team management
- Project team life cycle
- Change management
- IS project quality management
- Quality management
- Quality planning
- Quality assurance
- Quality control
- Tools and techniques for quality control
- Project quality factors
- Overview of project management standards {PRINCE 2}
- Software tools in project quality management
- ISO certification
- Using a software tool to assist in quality management

#### **7. IS project communication management**

- Communication management
- Essentials of project documentation
- Progress reporting
- Report writing
- Managing stakeholders
- Using a software tool to assist in project communication management

#### **8. IS project risk management**

- Risk identification process

- Common sources of risk
- Risk management tools and techniques
- Risk analysis
- Risk monitoring and control
- Using a software tool in risk management

#### **9. IS project procurement management**

- The procurement planning process, tools and methods
- Request for proposal and quotations
- Evaluation of proposals and quotations
- Contracting and contract administration
- Using a software tool in project procurement management

#### **10. IS project implementation, completion and evaluation**

- Managing transition
- Project evaluation
- Team evaluation
- Using a software tool to enhance project evaluation

#### **11. Emerging issues and trends**

<b>CONTENT</b>	<b>PAGE</b>
<b>Topic 1:</b> Overview of an Information systems project .....	5
<b>Topic 2:</b> Information systems project lifecycle .....	24
<b>Topic 3:</b> Project scope management .....	45
<b>Topic 4:</b> Project planning .....	50
<b>Topic 5:</b> IS project resource management.....	74
<b>Topic 6:</b> IS project organizational structures.....	96
<b>Topic 7:</b> IS project communication management.....	123
<b>Topic 8:</b> IS project risk management .....	137
<b>Topic 9:</b> IS project procurement management .....	153
<b>Topic 10:</b> IS project implementation, completion and evaluation.....	159
<b>Topic 11:</b> Emerging Issues and trends	

## TOPIC 1

### OVERVIEW OF AN INFORMATION SYSTEMS PROJECT

**Project management** is the discipline of carefully projecting or planning, organizing, motivating and controlling resources to achieve specific goals and meet specific success criteria. A project is a temporary endeavor designed to produce a unique product, service or result with a defined beginning and end (usually time-constrained, and often constrained by funding or deliverables) undertaken to meet unique goals and objectives, typically to bring about beneficial change or added value. The temporary nature of projects stands in contrast with business as usual (or operations), which are repetitive, permanent, or semi-permanent functional activities to produce products or services. In practice, the management of these two systems is often quite different, and as such requires the development of distinct technical skills and management strategies.

The primary challenge of project management is to achieve all of the project goals and objectives while honoring the preconceived constraints. The primary constraints are scope, time, quality and budget. The secondary — and more ambitious — challenge is to optimize the allocation of necessary inputs and integrate them to meet pre-defined objectives.

#### Approaches

There are a number of approaches for managing project activities including lean, iterative, incremental, and phased approaches.

Regardless of the methodology employed, careful consideration must be given to the overall project objectives, timeline, and cost, as well as the roles and responsibilities of all participants and stakeholders.

#### The traditional approach

A traditional phased approach identifies a sequence of steps to be completed. In the "traditional approach" five developmental components of a project can be distinguished (four stages plus control):



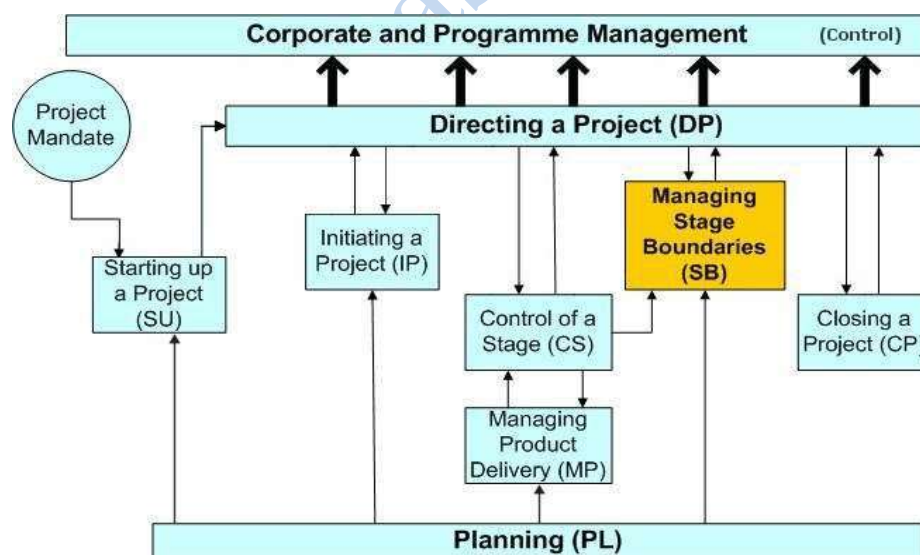
## Typical development phases of an engineering project

1. initiation
2. planning and design
3. execution and construction
4. monitoring and controlling systems
5. completion and finish point

Not all projects will have every stage, as projects can be terminated before they reach completion. Some projects do not follow a structured planning and/or monitoring process. And some projects will go through steps 2, 3 and 4 multiple times.

Many industries use variations of these project stages. For example, when working on a brick-and-mortar design and construction, projects will typically progress through stages like pre-planning, conceptual design, schematic design, design development, construction drawings (or contract documents), and construction administration. In software development, this approach is often known as the waterfall model, i.e., one series of tasks after another in linear sequence. In software development many organizations have adapted the Rational Unified Process (RUP) to fit this methodology, although RUP does not require or explicitly recommend this practice. Waterfall development works well for small, well defined projects, but often fails in larger projects of undefined and ambiguous nature. The Cone of Uncertainty explains some of this as the planning made on the initial phase of the project suffers from a high degree of uncertainty. This becomes especially true as software development is often the realization of a new or novel product. In projects where requirements have not been finalized and can change, requirements management is used to develop an accurate and complete definition of the behavior of software that can serve as the basis for software development. While the terms may differ from industry to industry, the actual stages typically follow common steps to problem solving—"defining the problem, weighing options, choosing a path, implementation and evaluation."

## PRINCE2



## The PRINCE2 process model

PRINCE2 is a structured approach to project management released in 1996 as a generic project management method. It combines the original PROMPT methodology (which evolved into the PRINCE methodology) with IBM's MITP (managing the implementation of the total project) methodology. PRINCE2 provides a method for managing projects within a clearly defined framework.

PRINCE2 focuses on the definition and delivery of products, in particular their quality requirements. As such, it defines a successful project as being output-oriented (not activity- or task-oriented) through creating an agreed set of products that define the scope of the project and provides the basis for planning and control, that is, how then to coordinate people and activities, how to design and supervise product delivery, and what to do if products and therefore the scope of the project has to be adjusted if it does not develop as planned.

In the method, each process is specified with its key inputs and outputs and with specific goals and activities to be carried out to deliver a project's outcomes as defined by its Business Case. This allows for continuous assessment and adjustment when deviation from the Business Case is required.

PRINCE2 provides a common language for all participants in the project. The governance framework of PRINCE2 – its roles and responsibilities – are fully described and require tailoring to suit the complexity of the project and skills of the organisation.

## Critical chain project management

Critical chain project management (CCPM) is a method of planning and managing project execution designed to deal with uncertainties inherent in managing projects, while taking into consideration limited availability of resources (physical, human skills, as well as management & support capacity) needed to execute projects.

CCPM is an application of the theory of constraints (TOC) to projects. The goal is to increase the flow of projects in an organization (throughput). Applying the first three of the five focusing steps of TOC, the system constraint for all projects is identified as are the resources. To exploit the constraint, tasks on the critical chain are given priority over all other activities. Finally, projects are planned and managed to ensure that the resources are ready when the critical chain tasks must start, subordinating all other resources to the critical chain.

The project plan should typically undergo resource leveling, and the longest sequence of resource-constrained tasks should be identified as the critical chain. In some cases, such as managing contracted sub-projects, it is advisable to use a simplified approach without resource leveling.

In multi-project environments, resource leveling should be performed across projects. However, it is often enough to identify (or simply select) a single "drum". The drum can be a resource that

acts as a constraint across projects, which are staggered based on the availability of that single resource.

One can also use a "virtual drum" by selecting a task or group of tasks (typically integration points) and limiting the number of projects in execution at that stage.

## Process-based management

The incorporation of process-based management has been driven by the use of Maturity models such as the CMMI (capability maturity model integration; see this example of a predecessor) and ISO/IEC15504 (SPICE – software process improvement and capability estimation).

## Agile project management



The iteration cycle in agile project management

Agile project management encompasses several iterative approaches, based on the principles of human interaction management and founded on a process view of human collaboration. Agile-based methodologies are "most typically" employed in software development as well as the "website, technology, creative, and marketing industries." This sharply contrasts with traditional approaches such as the Waterfall method. In agile software development or flexible product development, the project is seen as a series of relatively small tasks conceived and executed to conclusion as the situation demands in an adaptive manner, rather than as a completely pre-planned process.

Advocates of this technique claim that:

- It is the most consistent project management technique since it involves frequent testing of the project under development.
- It is the only technique in which the client will be actively involved in the project development.
- The only disadvantage with this technique is that it should be used only if the client has enough time to be actively involved in the project.



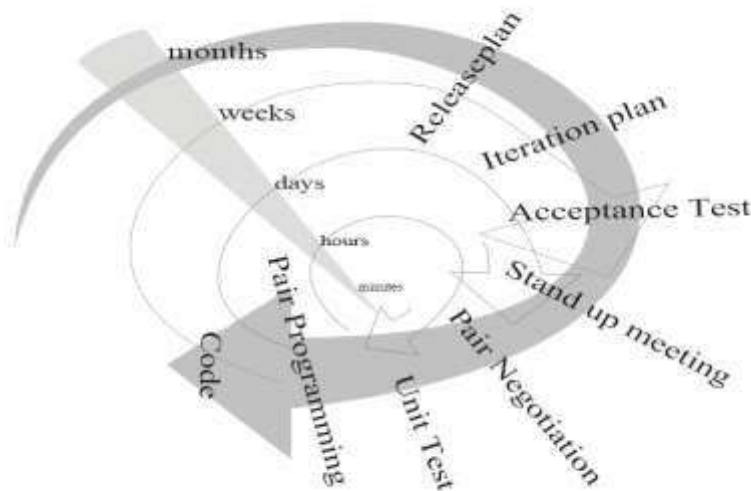
Agile is an umbrella term for multiple project management methodologies, including:

- ❑ Scrum - A holistic approach to development that focuses on iterative goals set by the Product Owner through a backlog, which is developed by the Delivery Team through the facilitation of the Scrum Master.
- ❑ Extreme Programming (XP) - A set of practices based on a set of principles and values, with a goal to develop that provides real value by implementing tight feedback loops at all levels of the development process and using them to steer development. XP popularized Test Driven Development (TDD) and Pair Programming.
- ❑ eXtreme Manufacturing (XM) - An agile methodology based on Scrum, Kanban and Kaizen that facilitates rapid engineering and prototyping.
- ❑ Crystal Clear - An agile or lightweight methodology that focuses on colocation and osmotic communication.
- ❑ Kanban (かんばん(看板)?) - A lean framework for process improvement that is frequently used to manage work in progress (WIP) within agile projects. Kanban has been specifically applied in software development.
- ❑ Scrum ban a mixed scrum and kanban approach to project management. It focuses on taking the flexibility of kanban and adding the structure of scrum to create a new way to manage projects.

## Lean project management

Lean project management uses the principles from lean manufacturing to focus on delivering value with less waste and reduced time.

## Extreme project management



Planning and feedback loops in Extreme programming (XP) with the time frames of the multiple loops.

THIS IS A SAMPLE  
COMPLETE NOTES ARE IN **SOFT** AND IN **HARD COPY**  
CALL|TEXT|WHATSAPP **0728 776 317**  
OR  
Email: [info@masomomsingi.co.ke](mailto:info@masomomsingi.co.ke)

## TOPIC 2

### INFORMATION SYSTEMS PROJECT LIFECYCLE

#### **The Project Life Cycle (Phases)**

The project manager and project team have one shared goal: to carry out the work of the project for the purpose of meeting the project's objectives. Every project has a beginning, a middle period during which activities move the project toward completion, and an ending (either successful or unsuccessful). A standard project typically has the following four major phases (each with its own agenda of tasks and issues): initiation, planning, implementation, and closure.

Taken together, these phases represent the path a project takes from the beginning to its end and are generally referred to as the project —life cycle.¶

#### **Initiation Phase**

During the first of these phases, the initiation phase, the project objective or need is identified; this can be a business problem or opportunity. An appropriate response to the need is documented in a business case with recommended solution options. A feasibility study is conducted to investigate whether each option addresses the project objective and a final recommended solution is determined. Issues of feasibility (—can we do the project?¶) and justification (—should we do the project?¶) are addressed.

Once the recommended solution is approved, a project is initiated to deliver the approved solution and a project manager is appointed. The major deliverables and the participating work groups are identified, and the project team begins to take shape. Approval is then sought by the project manager to move onto the detailed planning phase.

#### **Planning Phase**

The next phase, the planning phase, is where the project solution is further developed in as much detail as possible and the steps necessary to meet the project's objective are planned. In this step, the team identifies all of the work to be done. The project's tasks and resource requirements are identified, along with the strategy for producing them. This is also referred to as —scope management.¶ A project plan is created outlining the activities, tasks, dependencies, and timeframes. The project manager coordinates the preparation of a project budget by providing cost estimates for the labor, equipment, and materials costs. The budget is used to monitor and control cost expenditures during project implementation.

Once the project team has identified the work, prepared the schedule, and estimated the costs, the three fundamental components of the planning process are complete. This is an excellent time to identify and try to deal with anything that might pose a threat to the successful completion of the project. This is called risk management. In risk management, —high-threat¶ potential problems

are identified along with the action that is to be taken on each high-threat potential problem, either to reduce the probability that the problem will occur or to reduce the impact on the project if it does occur. This is also a good time to identify all project stakeholders and establish a ~~communication plan describing the information needed and the delivery method to be used to~~ keep the stakeholders informed.

Finally, you will want to document a quality plan, providing quality targets, assurance, and control measures, along with an acceptance plan, listing the criteria to be met to gain customer acceptance. At this point, the project would have been planned in detail and is ready to be executed.

### **Implementation (Execution) Phase**

During the third phase, the implementation phase, the project plan is put into motion and the work of the project is performed. It is important to maintain control and communicate as needed during implementation. Progress is continuously monitored and appropriate adjustments are made and recorded as variances from the original plan. In any project, a project manager spends most of the time in this step. During project implementation, people are carrying out the tasks, and progress information is being reported through regular team meetings. The project manager uses this information to maintain control over the direction of the project by comparing the progress reports with the project plan to measure the performance of the project activities and take corrective action as needed. The first course of action should always be to bring the project back on course (i.e., to return it to the original plan). If that cannot happen, the team should record variations from the original plan and record and publish modifications to the plan.

Throughout this step, project sponsors and other key stakeholders should be kept informed of the project's status according to the agreed-on frequency and format of communication. The plan should be updated and published on a regular basis.

Status reports should always emphasize the anticipated end point in terms of cost, schedule, and quality of deliverables. Each project deliverable produced should be reviewed for quality and measured against the acceptance criteria. Once all of the deliverables have been produced and the customer has accepted the final solution, the project is ready for closure.

### **Closing Phase**

During the final closure, or completion phase, the emphasis is on releasing the final deliverables to the customer, handing over project documentation to the business, terminating supplier contracts, releasing project resources, and communicating the closure of the project to all stakeholders. The last remaining step is to conduct lessons-learned studies to examine what went well and what didn't. Through this type of analysis, the wisdom of experience is transferred back to the project organization, which will help future project teams

- ***Project identification***

Project ideas may be due to:

- Prevailing problems in a given area.
  - availability of resources in a given location
- a) How do the projects come about?
  - b) Where do projects come from?
  - c) Why are projects where they are?

### **Approaches to project identification**

There are two major approaches to project identification

- (a) Top-down approach
- (b) Bottom-up approach

### **A. Top-Down Approach**

- Projects are identified based on demands from beyond the community.
- This may include directives from:
  - ✓ International conventions (such as Kyoto Protocol/climate change).
  - ✓ International institutions or NGOs that have determined particular priorities and thus projects.
  - ✓ National policy makers identifying projects that pertain to party manifestos and/or national plans.

### **Advantages of Top-Down Approach**

- It may be a rapid response to disasters like floods, war outbreak because there is limited time and chance to consult the beneficiaries.
- It can be effective in providing important services like education, health, water, roads etc.
- It can contribute to wider national or international objectives and goals and therefore potentially be part of a wider benefit (as in the case of trans-boundary resources, such as climate, water or others)

### **Limitations of Top-Down Approach**

- ✓ Does not help in modifying strongly established ideas and beliefs of people.
- ✓ Assumes external individuals know better than the beneficiaries of the service.
- ✓ Communities have little say in planning process rendering approach devoid of human resource development.
- ✓ Community develops dependency syndrome on outside assistance and does not exploit their own potential.
- ✓ The development workers (change agents) become stumbling blocks to people-led development
- ✓ Tendency to impose their own biases, etc. on people.

### **B. Bottom-Up Approach**

- In this approach community/beneficiaries are encouraged to identify and plan the projects themselves with or without outsiders.

### **Advantages of Bottom-Up Approach**

- ✓ Interveners accomplish more with limited resources since people tend to safeguard what they have provided for themselves.
- ✓ Develops people's capacity to identify problems and needs and to seek possible solutions to them.
- ✓ Provides opportunities of educating people.
- ✓ Helps people to work as a team and develop a —WEI attitude - makes project progressive and sustainable.
- ✓ Resources are effectively managed; dependence reduces, there is increased equity, initiative, accountability, financial and economic discipline.

### **Limitations of Bottom-Up Approach**

- ✓ Not always effective for projects that require urgency to implement.
- ✓ Time-consuming and requires patience and tolerance.

- ✓ People sometimes dislike approach because they do not want to take responsibility for action.
- ✓ The agency using this approach is never in control and cannot guarantee the results it would want.
- ✓ The priorities of communities may not fit with national or international priorities that seek to have a broader impact.

## Top-down approaches to project identification

### 1. The household (socio-economic) survey

- ✓ Studies social and economic situations of a given area
  - e.g. climate, geographical set-up, economic activities, political set up, education system, culture, diet, social services, physical infrastructure etc.
- ✓ Method is popular with the UBOS.
- ✓ Uses questionnaires, interviews, documentation, and direct observation.
- ✓ Data is collected, processed and analyzed and projects are then identified
- ✓ Top-down approaches to project identification

### 2. Rapid appraisal

- ✓ Called **Rapid Rural Appraisal (RRA)** when carried out in a rural areas, and **Rapid Urban Appraisal (RUA)** in an urban area.
- ✓ Method collects and assesses data quickly using any data collection techniques.
- ✓ Primary purpose is to acquire the information in the shortest time possible and it lowers the cost.
  - It is rapid because investigation, assessment and identification of projects are done at the same time.
- ✓ Rapid appraisal uses the following data collection techniques:
  - Analysis of secondary data sources
  - Interviews
  - Direct observation at site
  - Visualization of Resources like social organizational maps and time series maps.
- ✓ Top-down approaches to project identification

### 3. Needs Assessment Survey

- ✓ Also referred to as **situation analysis (SITAN)**. It involves:-
  - Fact finding about problems or needs in a given area or community.
  - Finding out what is lacking in a given area or community.
  - Investigating a situation in a given area.

NAS is carried out to:

- ✓ Find out the problem in a given community so as to identify the most appropriate solution (s)/project (s) to solve the problem (s) in question.
- ✓ Analyze the causes of the problems and seek likely solutions to the problems leading to project identification.
- ✓ Bottom-up approaches to project identification

### 4. Animation

- ✓ Process of stimulating people to become more aware and conscious of problems they suffer from.
  - To gain confidence in their ability to deal with these problems and take initiatives to improve situation.

THIS IS A SAMPLE  
COMPLETE NOTES ARE IN **SOFT** AND IN **HARD COPY**  
CALL/TEXT/WHATSAPP **0728 776 317**

OR

Email: [info@masomomsingi.co.ke](mailto:info@masomomsingi.co.ke)

## TOPIC 3

### PROJECT SCOPE MANAGEMENT

Project scope is the part of project planning that involves determining and documenting a list of specific project goals, deliverables, tasks, costs and deadlines.

The documentation of a project's scope explains the boundaries of the project, establishes responsibilities for each team member and sets up procedures for how completed work will be verified and approved. The documentation may be referred to as a scope statement, statement of work (SOW) or terms of reference. During the project, this documentation helps the project team remain focused and on task.

The scope statement also provides the project team leader or facilitator with guidelines for making decisions about change requests during the project. It is natural for parts of a large project to change along the way, so the better the project has been "scoped" at the beginning, the better the project team will be able to manage change. When documenting a project's scope, stakeholders should be as specific as possible in order to avoid scope creep, a situation in which one or more parts of a project ends up requiring more work, time or effort because of poor planning or miscommunication.

Effective scope management requires good communication to ensure that everyone on the team understands the scope of the project and agrees upon exactly how the project's goals will be met. As part of project scope management, the team leader should solicit approvals and sign-offs from the various stakeholders as the project proceeds, ensuring that the finished project, as proposed, meets everyone's needs.

#### Plan Scope Management

- **Scope** Management Plan: how the scope will be defined, validated and controlled including how to prevent scope creep, how to **handle change requests**, escalation path for disagreement on scope elements between stakeholders, process for creating scope statement, WBS, processing Change Request, how the deliverables will be accepted
- **Requirements** Management Plan: how the requirements will be managed, documented and analyzed, including how to process requirements, address missed requirements, configuration management, **prioritize** requirements, metrics (and rationale) for defining the product, define the traceability structure (in RTM requirement traceability matrix), authorization level for approving new requirements
- **important:** primary means to understand and manage stakeholder expectations

#### Collect Requirements

- **Requirement:** a condition/capability that must be met /possessed by a deliverable to satisfy a contract/standard/etc., including quantified/documented needs, wants, expectation of the sponsor/stakeholder/customer

THIS IS A SAMPLE  
COMPLETE NOTES ARE IN **SOFT** AND IN **HARD COPY**  
CALL|TEXT|WHATSAPP **0728 776 317**  
OR  
Email: **info@masomomsingi.co.ke**

## TOPIC 4

### PROJECT PLANNING

**Project planning** is part of project management, which relates to the use of schedules such as Gantt charts to plan and subsequently report progress within the project environment.

Initially, the project scope is defined and the appropriate methods for completing the project are determined. Following this step, the durations for the various tasks necessary to complete the work are listed and grouped into a work breakdown structure. Project planning is often used to organize different areas of a project, including project plans, workloads and the management of teams and individuals. The logical dependencies between tasks are defined using an activity network diagram that enables identification of the critical path. Project planning is inherently uncertain as it must be done before the project is actually started. Therefore the duration of the tasks is often estimated through a weighted average of optimistic, normal, and pessimistic cases. The critical chain method adds "buffers" in the planning to anticipate potential delays in project execution. Float or slack time in the schedule can be calculated using project management software. Then the necessary resources can be estimated and costs for each activity can be allocated to each resource, giving the total project cost. At this stage, the project schedule may be optimized to achieve the appropriate balance between resource usage and project duration to comply with the project objectives. Once established and agreed, the project schedule becomes what is known as the baseline schedule. Progress will be measured against the baseline schedule throughout the life of the project. Analyzing progress compared to the baseline schedule is known as earned value management.

The inputs of the project planning phase 2 include the project charter and the concept proposal. The outputs of the project planning phase include the project requirements, the project schedule, and the project management plan.

The Project Planning can be done manually. However, when managing several projects, it is usually easier and faster to use project management software.



Project planning is a discipline for stating how to complete a project within a certain timeframe, usually with defined stages, and with designated resources. One view of project planning divides the activity into:

- Setting objectives (these should be measurable)
- Identifying deliverables
- Planning the schedule
- Making supporting plans

Supporting plans may include those related to: human resources, communication methods, and risk management.

Computer hardware and software project planning within an enterprise is often done using a project planning guide that describes the process that the enterprise feels has been successful in the past.

Tools popularly used for the scheduling part of a plan include the Gantt chart and the PERT chart.

- ***Determining project tasks***

## **Defining the Project Tasks, Cost and Schedule**

### **Cost & Schedule Estimates**

- The principal measures of a project are cost, time (schedule) and performance
- For a given project one or more of these measures may be constrained.
- Initial estimates on cost and schedule are essential to determine if your plan is realistic o  
May need to plan for (or implement) trade-offs according to established priorities
- Cost and schedule needs to be monitored throughout the project life-cycle

### **Steps to defining the project tasks**

Determine the primary characteristics of the project

- Establish the project scope
- Establish the project priorities

Determine how best to organize the project tasks

- Organization by deliverable
- Organization by process
- Combination of two

Create the Work Breakdown Structure (WBS)

- Establish highest level, most general tasks
- Establish —tree structure of lower level tasks
- Lowest level used to identify —work packages

### **Determining the project scope**

Defining the project scope is a necessary precursor to developing an effective project plan.

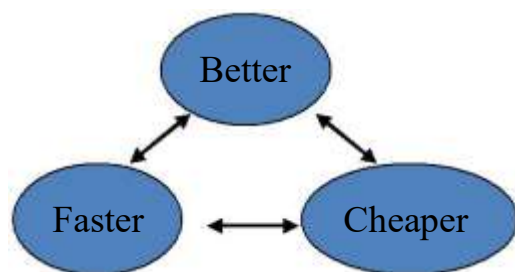


Determining the scope includes addressing the following questions:

- What are the major objectives for the project?
- What are the major deliverables or outputs over the life of the project and when are they due?
- What are the significant events or milestones that will happen during the project?
- What technical requirements must be satisfied?
- What are the project constraints or limits that must be taken into account?

This effort goes hand-in-hand with development of the system requirements.

### Determining the project priorities



The primary measures of a project are in terms of cost, schedule and performance  
Usually very difficult (impossible?) to enhance or optimize all three of these measures at the same time

Establishing the priorities at project start provides guidance for trade-offs

### Organizing the project tasks

Are tasks focused on producing a tangible result?

- Project and tasks are structured by concrete products or deliverables (e.g. building a hydroelectric dam)
- Task definitions breakdown into sub-deliverables, further sub-deliverables and work packages
- Can be run in a highly parallel fashion

Are tasks focused on processes or phases?

- Project evolves over time where results from one phase affect tasks in subsequent phases
- Tasks and —deliverables defined as outputs needed to move to next phase

Many aerospace projects are actually a combination of these two structures

- Phases allow new innovations to be defined and developed
- Tangible results (e.g. spacecraft) occur during the project

### The Work Breakdown Structure

NASA definition of the WBS

- A family tree subdivision of effort to achieve an end objective
- Developed by starting with the end objective required and successively subdividing it into manageable components in terms of size and complexity

- Product or task oriented and should include all the effort necessary to achieve the end objective

THIS IS A SAMPLE  
COMPLETE NOTES ARE IN **SOFT** AND IN **HARD COPY**  
CALL|TEXT|WHATSAPP **0728 776 317**  
OR  
Email: **info@masomomsingi.co.ke**

## TOPIC 5

### IS PROJECT RESOURCE MANAGEMENT

In organizational studies, **resource management** is the efficient and effective development of an organization's resources when they are needed. Such resources may include financial resources, inventory, human skills, production resources, or information technology (IT).

In the realm of project management, processes, techniques and philosophies as to the best approach for allocating resources have been developed. These include discussions on functional vs. cross-functional resource allocation as well as processes espoused by organizations like the Project Management Institute (PMI) through their Project Management Body of Knowledge (PMBOK) methodology of project management. Resource management is a key element to activity resource estimating and project human resource management. Both are essential components of a comprehensive project management plan to execute and monitor a project successfully. As is the case with the larger discipline of project management, there are resource management software tools available that automate and assist the process of resource allocation to projects and portfolio resource transparency including supply and demand of resources. The goal of these tools typically is to ensure that:

- There are employees within our organization with required specific skill set and desired profile required for a project,
- Decide the number and skill sets of new employees to hire, and
- Allocate the workforce to various projects.

### Corporate Resource Management Process

Large organizations usually have a defined corporate resource management process which mainly guarantees that resources are never over-allocated across multiple projects. Peter Drucker wrote of the need to focus resources, abandoning a less promising initiatives for every new project taken on, as fragmentation inhibits results.

### Techniques

One resource management technique is resource leveling. It aims at smoothing the stock of resources on hand, reducing both excess inventories and shortages.

The required data are: the demands for various resources, forecast by time period into the future as far as is reasonable, as well as the resources' configurations required in those demands, and the supply of the resources, again forecast by time period into the future as far as is reasonable.

The goal is to achieve 100% utilization but that is very unlikely, when weighted by important metrics and subject to constraints, for example: meeting a minimum service level, but otherwise minimizing cost. A Project Resource Allocation Matrix (PRAM) is maintained to visualize the resource allocations against various projects.

The principle is to invest in resources as stored capabilities, and then unleash the capabilities as demanded.

A dimension of resource development is included in resource management by which investment in resources can be retained by a smaller additional investment to develop a new capability that is demanded, at a lower investment than disposing of the current resource and replacing it with another that has the demanded capability.

In conservation, resource management is a set of practices pertaining to maintaining natural systems integrity. Examples of this form of management are air resource management, soil conservation, forestry, wildlife management and water resource management. The broad term for this type of resource management is natural resource management (NRM).

- ***Information system project resources***

In project management terminology, **resources** are required to carry out the project tasks. They can be people, equipment, facilities, funding, or anything else capable of definition (usually other than labour) required for the completion of a project activity. The lack of a resource will therefore be a constraint on the completion of the project activity. Resources may be storable or non-storable. Storable resources remain available unless depleted by usage, and may be replenished by project tasks which produce them. Non-storable resources must be renewed for each time period, even if not utilized in previous time periods.

Resource scheduling, availability and optimization are considered key to successful project management.

Allocation of limited resources is based on the priority given to each of the project activities. Their priority is calculated using the Critical path method and heuristic analysis. For a case with a constraint on the number of resources, the objective is to create the most efficient schedule possible - minimizing project duration and maximizing the use of the resources available.

- ***Resource planning***

***What makes a good resource plan?***

A good resource plan consists of a schedule that is as detailed as possible for the information known, and the types of resources needed for each task. A good resource plan will have a single task owner on each task.

## Resource Assignments

Notice the columns called 'duration' and 'resource type' in our Product Development Activity List below. Duration refers to the timeframe in which the task will be performed. Resource type is the skill set required to accomplish the task. In order to assign tasks to individuals, it is necessary to know the expected duration of a task as well as the individual resource availability. Before assigning individuals to tasks, it is recommended to associate a task with a resource type. Then enter the expected duration of that task based on the resource chosen. This provides the ability to analyze a project schedule, assuming there are no resource constraints on an individual's availability.

Duration is the expected timeframe needed to complete the task while taking into consideration the skill level and general availability of the resource. Duration should account for reality. If the activity 'identification of focus group targets' (WBSID 1.1.1.1) is expected to take two weeks, but historically, employees are only available 70% of the time due to general meetings, holidays, vacations, etc., then planning for a duration of three weeks would be more reasonable.

The resource types used in your organization may be different than what is depicted in this chart. Utilize the resources types that exist in your own organization. The objective here is to associate a responsible party with the appropriate skill set to each of the tasks.

The work package 'project management' has been identified as a level of effort (LOE) activity. This means that the individual(s) assigned to that activity will perform various activities during the full duration of the project. Level of effort is best used when individuals are 100% allocated to the project.

Work Package	WBSID	Activity	Predecessor	Duration in Weeks	Resource Type
Focus Group	1.1.1.1	Identify Focus Group Targets	---	3	Marketing Analyst
Focus Group	1.1.1.2	Prepare Focus Group Objectives	1.1.1.1	5	Marketing Analyst
Focus Group	1.1.1.3	Perform Focus Group	1.1.1.2	1	Market Researcher
Surveys	1.1.2	Perform Survey	1.1.1.3	2	Market Researcher
Research Analysis	1.1.3	Perform Analysis	1.1.2	4	Marketing Analyst
Market Research Findings	1.1.4	Create Market Research Findings	1.1.3	2	Marketing Analyst
Research Evaluation	1.2.1.1.1	Review Market Research Findings	1.1.4	1	Design Engineer
Research Evaluation	1.2.1.1.2	Develop Design Options	1.2.1.1.1	2	Design Engineer
Research Evaluation	1.2.1.1.3	Present Design Options	1.2.1.1.1	1	Design Manager
Design Document	1.2.1.2.1	Draft Design Document	1.2.1.1.2	3	Design Engineer
Design Document	1.2.1.2.2	Design Document Review	1.2.1.1.3, 1.2.1.2.1	2	Design Engineer
Design Document	1.2.1.2.3	Final Design Document	1.2.1.2.2	1	Design Engineer
Concept Models	1.2.2	Develop Concept Model	1.2.1.2.1	4	Modeler
Design Selection	1.2.3	Review Concepts	1.2.1.2.2, 1.2.2	1	Design Manager
Bill of Materials	1.3.1	Create Initial Bill of Materials	1.2.1.2.3	2	Production Engineer
Initial Prototype	1.3.2.1	Develop Initial Prototype	1.3.1	10	Fabrication Engineer
Initial Prototype	1.3.2.2	Revise Initial Prototype	1.3.1	2	Fabrication Engineer
Prototype Testing	1.3.3	Test Prototype	1.3.2.1	4	Production Tester
Production Design	1.4.1	Design Production Process	1.3.2.1	4	Production Engineer
Production Testing	1.4.2	Design Production Testing Process	1.3.2.1	3	Testing Engineer
Production QA design	1.4.3	Design Quality Assurance Tests	1.3.2.1	2	Quality Assurance Analyst
Marketing Strategy	1.5.1	Develop Marketing Strategy	1.1.3	6	Marketing Analyst
Marketing Plan	1.5.2.1	Develop Initial Marketing Plan	1.5.1	3	Marketing Analyst
Marketing Plan	1.5.2.2	Final Marketing Plan	1.5.2.1	1	Marketing Analyst
Brochures	1.5.3.1	Create Brochures	1.5.2.2	4	Public Relations Firm
Advertising	1.5.3.2	Create Ads	1.5.2.2	5	Public Relations Firm
Commercials	1.5.3.3	Create Commercials	1.5.3.1, 1.5.3.2	10	Public Relations Firm
Production Plan Sign-off	1.4.4	Production Plan Sign-off	1.3.2.2, 1.4.1, 1.4.2, 1.4.3	1	Production Engineer
Production Devel. Sign-off	1.3.4	Production Devel. Sign-off	1.5.3.3, 1.4.4	1	Sponsor
Project Management	1.6	Project Management Activities	---	LOE	Project Manager

There are two types of resource plans. One is hypothetical, based on resource type set without any resource constraints. Resource type refers to the skill set that a task requires for completion. The other is an actual resource plan, based on actual resource availability. A hypothetical schedule based only on the resource types needed produces a hypothetical resource plan.

In our example activity list, the resource types were identified and duration was converted into a network schedule and Gantt chart. When a schedule is created in Project Insight, project management software, or imported from MS Project, Project Insight automatically creates a Gantt chart.

Project Insight, project management software, permits the project manager to run 'what-if' scenarios on projects in planning phase. Project managers or project schedulers may set up schedules with tasks related to the resource type or skill set required to accomplish that task. Then assignments may be made to team members.

### Setting up Project Work

As mentioned earlier, the initial schedule and resource plan should be developed and analyzed based on the resource type required, without considering resource availability. Assignments will be made as a second step.

Assigning work is as much about psychology as it is about executing the project. Most individuals prefer to have a clear understanding of the work that needs to be performed. Resources require focused attention to the task in order to deliver the highest quality work. Studies have shown that if an individual is juggling more than three tasks simultaneously, the efficiency of his/her work is significantly hampered.

In addition, without clear prioritization of tasks, it is human nature for people to work on tasks that they feel most comfortable with and not necessarily the ones that are most important to complete. As the project manager, understanding basic human tendencies is critical in effective execution of a plan.

Again, since projects are unique events, it is inevitable that schedule changes will occur and the assignment of work will be modified. Therefore, smaller, more regular assignments to individuals will minimize confusion and produce better results.

Project Insight assists the project manager with respect to these issues because the software distributes and delivers project tasks or assignments to the team member automatically.

### Creating a Resource Plan

The first step is to produce a detailed list of all the individual resources needed to complete the project. Start by listing each of the major resource groups (e.g.: **Labour, Equipment and Materials**), then list the individual components of each group.

- **Labour:** identify all the roles responsible for or involved with the completion of any activity specified in the Project Plan. Remember to include any external or contract staff that will be brought in for specific tasks.



## TOPIC 6

### IS PROJECT ORGANIZATIONAL STRUCTURES

- ***Organizational structures***

An **organizational structure** defines how activities such as task allocation, coordination and supervision are directed towards the achievement of organizational aims. It can also be considered as the viewing glass or perspective through which individuals see their organization and its environment.

Organizations are a variant of clustered entities

An organization can be structured in many different ways, depending on their objectives. The structure of an organization will determine the modes in which it operates and performs.

Organizational structure allows the expressed allocation of responsibilities for different functions and processes to different entities such as the branch, department, workgroup and individual.

Organizational structure affects organizational action in two big ways:

- First, it provides the foundation on which standard operating procedures and routines rest.
- Second, it determines which individuals get to participate in which decision-making processes, and thus to what extent their views shape the organization's actions.

Types of organisation structure.

- 3.1 Pre-bureaucratic structures
- 3.2 Bureaucratic structures
- 3.3 Post-bureaucratic
- 3.4 Functional structure
- 3.5 Divisional structure
- 3.6 Matrix structure
- 3.7 Organizational circle: moving back to flat
- 3.8 Team
- 3.9 Network
- 3.10 Virtual
- 3.11 Hierarchy-Community Phenotype Model of Organizational Structure

A project organization is a structure that facilitates the coordination and implementation of project activities. Its main reason is to create an environment that fosters interactions among the team members with a minimum amount of disruptions, overlaps and conflict. One of the

important decisions of project management is the form of organizational structure that will be used for the project.

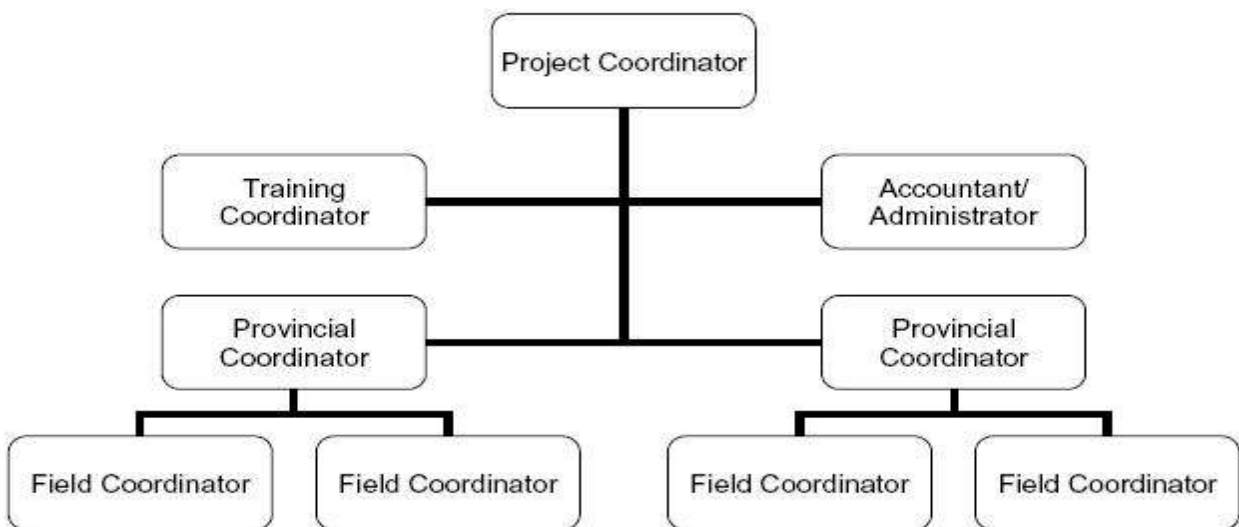
Each project has its unique characteristics and the design of an organizational structure should consider the organizational environment, the project characteristics in which it will operate, and the level of authority the project manager is given. A project structure can take on various forms with each form having its own advantages and disadvantages.

One of the main objectives of the structure is to reduce uncertainty and confusion that typically occurs at the project initiation phase. The structure defines the relationships among members of the project management and the relationships with the external environment. The structure defines the authority by means of a graphical illustration called an organization chart.

A properly designed project organization chart is essential to project success. An organization chart shows where each person is placed in the project structure. An organization chart is drawn in pyramid form where individuals located closer to the top of the pyramid have more authority and responsibility than members located toward the bottom.

It is the relative locations of the individuals on the organization chart that specifies the working relationships, and the lines connecting the boxes designate formal supervision and lines of communication between the individuals.

The Project Management Structures



Fig, Project Organization Chart (use another example)

Creating the project structure is only a part of organizing the project; it is the actual implementation and application that takes the most effort. The project organization chart establishes the formal relationships among project manager, the project team members, the development organization, the project, beneficiaries and other project stakeholders. This organization must facilitate an effective interaction and integration among all the major project participants and achieve open and effective communication among them.

The project manager must create a project structure that will meet the various project needs at different phases of the project. The structure cannot be designed too rigid or too loose, since the project organization's purpose is to facilitate the interaction of people to achieve the project

ultimate goals within the specified constraints of scope, schedule, budget and quality. The objective in designing a project structure is to provide a formal environment that the project manager can use to influence team members to do their best in completing their assignment and duties. The structure needs to be designed to help develop collaboration among individual team members; all in a cost effective way with a minimum of duplication of effort and overlaps. The organization chart has a limited functionality; it only shows the hierarchical relationship among the team members but does not show how the project organization will work, it is for that reason that the design should consider factors that will facilitate the operation of the structure; these include communications, information flows, coordination and collaboration among its members.

- ***Integrating project work and project organizational structures***
- ***Team management***

## **Managing a Project Team**

In managing a project team, a Project Manager needs to possess excellent analytical and organizational skills. A technical proficiency in the specialist area of their project is also a distinct advantage. Remember, though, that projects achieve their outcomes through people - a variety of people working together in a coordinated way to produce the desired results.

How are you encouraging peak performance from your project team? As with any manager getting the best out of their people, you will need to pay attention to your general leadership and management skills. Some of these skill areas that you will need to pay attention to are:

- clarifying project team member roles
- setting team and individual goals
- monitoring and measuring team and individual performance
- feeding back team and individual performance
- resolving conflicts between team members constructively
- delegating responsibilities and tasks
- motivating using a combination of intrinsic and extrinsic rewards
- developing the skills of team members
- coaching team members

Effective teams are so much more productive than groups working on the same task because they are able to leverage off each other's strengths and compensate for each other's weaknesses. Making sure that you have the right mix of team members in your project team is therefore an important consideration. Conducting a team profiling exercise is also an effective method for getting each project team member to appreciate their respective strengths and weaknesses.

## **Team Ground Rules**

If your project team gets stuck in a rut with lots of unproductive conflict, there are a number of things you can try. If you haven't already done so, get your team together to clarify and agree the



THIS IS A SAMPLE  
COMPLETE NOTES ARE IN **SOFT** AND IN **HARD COPY**  
CALL/TEXT/WHATSAPP **0728 776 317**  
OR  
Email: **info@masomomsingi.co.ke**

## TOPIC 7

### IS PROJECT COMMUNICATION MANAGEMENT

**Communications management** is the systematic planning, implementing, monitoring, and revision of all the channels of communication within an organization, and between organizations; it also includes the organization and dissemination of new communication directives connected with an organization, network, or communication technology. Aspects of communications management include developing corporate communication strategies, designing internal and external communications directives, and managing the flow of information, including online communication.

#### **Communication management and project management**

In project management, communication management must address the following questions:

- What information needs to flow in and out of the project?
- Who needs what information?
- When is the information needed?
- What is the format of the information?
- Who will be responsible for transmitting and providing the information?

#### **Weekly reporting method**

One simple and popular communications method is called the weekly reporting method: every employee composes an e-mail report, once a week, including information on their activities in the preceding week, their plans for the following week, and any other information deemed relevant to the larger group, bearing in mind length considerations. Reports are sent to managers, who summarize and report to their own managers, eventually leading to an overall summary led by the CEO, which is then sent to the board of directors. The CEO then sends the board's summary back down the ladder, where each manager can append an additional summary or note before referring it to their employees.

Eventually, each employee will receive a long e-mail, containing many or all of the above-mentioned summaries, from every level of management; reading the full result is rarely a requirement. Curious or ambitious employees are considered more likely to read the result; task-centered employees, however, are not.

• **Communication management**

What is Project Communications Management?	<ul style="list-style-type: none"> <li>- Includes the processes required to ensure timely and appropriate generation, collection, distribution, storage, retrieval and ultimate disposition of project information.</li> <li>- Project managers report that they spend 90% of their time communicating, which is not surprising since they are achieving results through the effort of others</li> <li>- Communication is the glue that connects the project stakeholders</li> </ul>
Identify Stakeholders.	<ul style="list-style-type: none"> <li>- This is the process of identifying all people or organizations impacted by the project, and documenting relevant information regarding their interests, involvement, and impact on project success.</li> <li>- Remember that stakeholders can have either a positive or negative influence on a project; both are important to identify.</li> </ul>
Why should you identify stakeholders early?	<ul style="list-style-type: none"> <li>- It is critical to identify stakeholders as early as possible in the project, because each stakeholder is a potential source of project requirements</li> <li>- Failure to identify a stakeholder may well lead to so-called "scope creep" that in this case is really a failure to properly identify all requirements in the beginning</li> <li>- We also need a strategy for dealing with each stakeholder</li> </ul>
What are the INPUTS of the process - Identify Stakeholders?	<ol style="list-style-type: none"> <li>1. Project charter, which as an initial list of stakeholders</li> <li>2. Procurement documents, which indicate parties to a contract that become stakeholders</li> <li>3. Enterprise environmental factors, including organizational culture and structure, and any relevant governmental or industry standards</li> <li>4. Organizational process assets, including stakeholder register templates, and historical information, including lessons learned.</li> </ol>
What are the TOOLS AND TECHNIQUES of the process - Identify Stakeholders?	<ol style="list-style-type: none"> <li>1. Stakeholder analysis</li> <li>2. Expert judgment</li> </ol>
What are the OUTPUTS of the process - Identify Stakeholders?	<ol style="list-style-type: none"> <li>1. Stakeholder registers</li> <li>2. Stakeholder management strategy</li> </ol>
Describe Stakeholder Analysis.	<ul style="list-style-type: none"> <li>- Identify all potential stakeholders and relevant information about them, such as their roles, departments, interests, knowledge levels, expectations, and influence levels. Key stakeholders are those in decision making or management roles. Also identify other stakeholders during interviews with stakeholders.</li> <li>- Identify the potential project impact or support the stakeholder could provide, classifying them to help define an approach strategy. Prioritize them.</li> <li>- Assess how keep stakeholders are going to react or respond to various project situations and issues, to plan how to influence them to enhance their support and mitigate their negative impact.</li> </ul>
Describe Stakeholder	Classification models include power/interest grid, power/influence grid,

THIS IS A SAMPLE  
COMPLETE NOTES ARE IN **SOFT** AND IN **HARD COPY**  
CALL|TEXT|WHATSAPP **0728 776 317**  
OR  
Email: **info@masomomsingi.co.ke**

## TOPIC 8

### IS PROJECT RISK MANAGEMENT

**Project risk management** is an important aspect of project management. According to the Project Management Institute's PMBOK, Risk management is one of the ten knowledge areas in which a project manager must be competent. Project risk is defined by PMI as an uncertain event or condition that, if it occurs, has a positive or negative effect on a project's objectives.

Good Project Risk Management depends on supporting organisational factors, clear roles and responsibilities, and technical analysis skills.

Project risk management in its entirety, includes the following six process groups:

- Planning risk management
- Risk identification
- Performing qualitative risk analysis
- Performing quantitative risk analysis
- Planning risk responses
- Monitoring and controlling risks

Project Risk management is the identification, assessment, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities.

#### **Identifying Project Risks**

Every project has risks that threaten to cause project failure. Project risk management involves firstly identifying the risks that impact your project. These could be:

- a reliance on new and untried technology
- project funds contingent upon future profits
- inexperienced project team members
- late arrival of specialized equipment

You don't know everything, so it's best to get as many people involved in the risk identification process as possible. The most efficient and effective process for identifying risks is to get your key stakeholders together for a risk identification exercise all at one time. One person's idea will then trigger a thought in someone else. Running this kind of brainstorming session gives you the best chance for capturing all of the most important risks without them coming back to bite you and your project team when you least expect.

## Analyzing and Mitigating Risks

Your next task as Project Manager is to analyze the risks. Risk analysis can take many forms. However, it usually revolves around providing answers to three key questions:

1. What is the probability of the risk event occurring?
2. What would be the impact on the project if the risk event were to occur?
3. What steps can be taken to minimize the impact of the risk event if it did happen?

Answering the third question provides your risk mitigation strategy for each risk. You then need to decide for each risk who will implement the strategy and by when.

Don't forget to review risks continuously throughout your project. Previously identified risks may disappear and new ones emerge. Don't be caught off guard! We recommend you maintain a *Risk Register* to keep your project team updated on current risk status.

### • Risk identification process

**Definition:** Risk identification is the process of determining risks that could potentially prevent the program, enterprise, or investment from achieving its objectives. It includes documenting and communicating the concern.

**Identifying and Managing Project Risk** by Tom Kendrick is a book about identifying and managing risks on projects. It was published on April 25, 2003 by American Management Association. The book is geared to be used by a junior Project Manager and Kendrick aligns the chapters of the Book to the Project Management Institute's (PMI) Guide to the Project Management Body of Knowledge, (PMBOK) 2000 edition.

## Analysis

The introductory two chapters lay the groundwork for people that are new to project or risk management. He starts with the definition of risk as the "loss multiplied by the likelihood" and expands from there. He explains that this relates to uncertainty in estimates for duration and cost. He identifies the benefits as:

- Lowering cost and confusion
- Prioritization and stakeholder support
- Input for portfolio management
- Mitigation
- Setting expectations and establishing reserves
- Communication and control

## Project Risk Planning

Key Ideas: Project Risk Planning
Risk should be a primary driver for project selection
Project planning and definition are the foundation to controlling risk
Risk management should be maintained in a Project Risk Plan

He continues the introduction by justifying project planning and the challenges one might encounter in an organization that feels a project planning methodology is not needed. He describes ways one can address the need to set up a planning process and that the implementation should be scaled to the size of the projects being performed.

The PERIL database is described and qualified while some of the biases in it are enumerated. Within the three primary constraints on a project, the database shows the risk elements in the order of frequency of occurrence as 1) schedule, 2) scope and 3) resource. Implicitly the reader can determine the database classifies each risk with a description, Project type (IT, Product development, etc.), schedule impact, cost impact, class (scope, resource, and schedule) and subcategory.

## Scope Risk

Key Ideas: Scope Risk
Clearly define deliverables
Ensure the value of the deliverables exceeds the scope of work
Define a work breakdown structure small enough to ensure work is understood
Assign ownership and determine reasons any items are not accepted
Note all risks, including non-quantifiable risks due to size or complexity of project

Using the PERIL database Kendrick cites that even though the number of risks classified as scope related are one-third of the entries, they account for approximately half of the cumulative schedule delay. He enumerates the ranked sources as:

1. Scope creep
2. Hardware defect
3. Software defect
4. Scope gap (ill-defined scope)
5. Dependency change (unexpected legal, regulatory, etc.)
6. Integration defect (change due to unexpected behavior)

Kendrick describes a variety of methods for arriving at and defining deliverables and hence defining the scope. He suggests using the "is/is not" method of bounding the scope.

Three high-level risk assessment tools are discussed — Risk Framework, Risk Complexity Index and Risk Assessment grid. Risk Framework looks at the project's technology, the market and the manufacturing effects and uses the relative change to each of these to determine the risk level of the project. Risk Complexity Index looks at the technical aspects of the project (technology, architecture and system) and generates a number from 0-99 to quantify risk. Risk Assessment creates a grid of technology, structure and size to estimate the risk.

The risk issues addressed by a work breakdown structure (WBS) are then discussed. Often considered only a project planning task Kendrick points out the uncertainty and risk introduced into a project when the WBS is not fully defined and understood. A WBS at too high a level can leave scope ill-defined not allowing for proper estimates or definition of work to be performed. Often WBS elements that are defined at too high a level indicate work that is not understood and indicates significant risk due to uncertainty on the project.

THIS IS A SAMPLE  
COMPLETE NOTES ARE IN **SOFT** AND IN **HARD COPY**  
CALL|TEXT|WHATSAPP **0728 776 317**

OR

Email: [info@masomomsingi.co.ke](mailto:info@masomomsingi.co.ke)

## TOPIC 9

### IS PROJECT PROCUREMENT MANAGEMENT

#### What is a Procurement Management Process?

A Procurement Management Process, or *Procurement Process*, is a method by which items are purchased from external suppliers. The procurement management process involves managing the ordering, receipt, review and approval of items from suppliers. A procurement process also specifies how the supplier relationships will be managed, to ensure a high level of service is received. This is a critical task in Procurement Management. In essence, the procurement process helps you "get what you have paid for".

#### When do I use a Procurement Management Process?

You need to implement a Procurement Process any time you want to buy items from external suppliers. By using Procurement Management Process, you can ensure that the items provided meet your need. It also helps you manage the supplier relationship, ensuring that any issues are resolved quickly. By implementing a Procurement Process, you can ensure you get the maximum value from your supplier relationship.

#### The process for managing procurements in 5 steps

- 1 Specification
- 2 Selection
- 3 Contracting
- 4 Control
- 5 Measurement.

Managing project procurements and acquisitions requires the project manager to efficiently collaborate with the purchasing department on the process of planning and managing procurements. **Project procurement management** is a section of the Implementation Plan to determine how —the ordered products necessary for producing deliverables can be delivered on time and within the allocated budget. Note that the —Procurement Management section of the Implementation Plan will be necessary only for projects that have to deal with substantial buy-in of expertise or capital items. For any other projects where there is no high level of procurement expenditure it is enough to include a procurement item list and a vendors list in the project implementation plan.

THIS IS A SAMPLE  
COMPLETE NOTES ARE IN **SOFT** AND IN **HARD COPY**  
CALL|TEXT|WHATSAPP **0728 776 317**  
OR  
Email: **info@masomomsingi.co.ke**

## TOPIC 10

### IS PROJECT IMPLEMENTATION, COMPLETION AND EVALUATION

- ***Managing transition***

Transition Methodology is the process of migrating knowledge, systems, and operating capabilities between an outsourcing environment to an in-house staff.

Transition management starts with the preparation of the outsourced/offshore site to commence client operations through documenting the processes, training process executives to execute the processes, designing, procuring and deploying technology and bandwidth to access client systems as required and finally fulfill the SLA and contract parameters. The overall success of the outsourcing engagement is very much dependent on the effectiveness of the transition.

At an organizational level an outsourcing project would involve the tangible changes in structure, processes, technology, culture that the organization would go through to go from the current state to the desired future state. At the individual level, it would involve the process individuals to the new way of working.

#### **Transition Approach**

Transition Methodology typically employs a four-to-five phased approach, with each phase consisting of one or more tasks producing at least one deliverable and completion criteria that must be met in order to progress to the next phase. The milestones and deliverables produced by these tasks provide an ongoing quality review process that checks that the final product will meet expectations.

1. Discovery/Assessment
2. Solution Design/Planning
3. Testing & Pilot
4. Service Assumption
5. Steady State Turnover/Implementation

The transition team executes a formal hand-off to the steady state PMO and confirms that the service operations are stable and measure and report service performance. Ideally, the transition team remains engaged through the actualization period when service has stabilized. Once in the steady state, optimization efforts should commence to improve and adjust to changing business drivers.



- **Project evaluation**

*It's a systematic and objective assessment of an ongoing or completed **project**. The aim is to determine the relevance and level of achievement of **project** objectives, development effectiveness, efficiency, impact and sustainability.*

**Program evaluation** is a systematic method for collecting, analyzing, and using information to answer questions about projects, policies and programs, particularly about their effectiveness and efficiency. In both the public and private sectors, stakeholders often want to know whether the programs they are funding, implementing, voting for, receiving or objecting to are producing the intended effect. While *program evaluation* first focuses around this definition, important considerations often include how much the program costs per participant, how the program could be improved, whether the program is worthwhile, whether there are better alternatives, if there are *unintended* outcomes, and whether the program goals are appropriate and useful. Evaluators help to answer these questions, but the best way to answer the questions is for the evaluation to be a joint project between evaluators and stakeholders.

The process of evaluation is considered to be a relatively recent phenomenon. However, planned social evaluation has been documented as dating as far back as 2200 BC. Evaluation became particularly relevant in the U.S. in the 1960s during the period of the Great Society social programs associated with the Kennedy and Johnson administrations. Extraordinary sums were invested in social programs, but the impacts of these investments were largely unknown. Program evaluations can involve both quantitative and qualitative methods of social research. People who do program evaluation come from many different backgrounds, such as sociology, psychology, economics, social work, and public policy. Some graduate schools also have specific training programs for program evaluation.

## **Doing an evaluation**

Program evaluation may be conducted at several stages during a program's lifetime. Each of these stages raises different questions to be answered by the evaluator, and correspondingly different evaluation approaches are needed. Rossi, Lipsey and Freeman (2004) suggest the following kinds of assessment, which may be appropriate at these different stages:

- Assessment of the need for the program
- Assessment of program design and logic/theory
- Assessment of how the program is being implemented (i.e., is it being implemented according to plan? Are the program's processes maximizing possible outcomes?)
- Assessment of the program's outcome or impact (i.e., what it has actually achieved)
- Assessment of the program's cost and efficiency



THIS IS A SAMPLE  
COMPLETE NOTES ARE IN **SOFT** AND IN **HARD COPY**  
CALL|TEXT|WHATSAPP **0728 776 317**

OR

Email: **info@masomomsingi.co.ke**

[www.masomomsingi.co.ke](http://www.masomomsingi.co.ke)