PROJECT MANAGEMENT
Investments, Planning, Monitoring & Evaluation

Andhra Pradesh
Human Resource Development Institute
What is a Project?

• A project is a temporary endeavor undertaken to create a unique product, service, or result
  – Examples
    • Developing a new pharmaceutical compound for market
    • Construction of a Highway / Flyover
    • Merging two organizations
    • Exploring for oil in a region
    • Development of an IT System
Projects enable business value

- Business value in projects refers to the benefit that the results of a specific project provide to its stakeholders.
- The benefit from projects may be tangible, intangible, or both.
  - Examples of tangible elements include:
    - Monetary assets
    - Stockholder equity
    - Utility
  - Examples of intangible elements include:
    - Trademarks
    - Brand recognition
    - Goodwill
Project Initiation context

• Projects get initiated in response to factors acting upon their organizations
• These factors are classified into four categories

Meet Regulatory, Legal, or Social Requirements

Satisfy Stakeholder Requests or Needs

Create, Improve, or Fix Products, Processes, or Services

Implement or Change Business or Technological Strategies
Why projects need to be managed?

- Well managed projects or Projects using effective project management techniques helps individuals, groups, and public and private organizations to achieve:
  - Meet business objectives
  - Satisfy stakeholder expectations
  - Be more predictable
  - Increase chances of success
  - Deliver the right products at the right time
  - Resolve problems and issues
  - Respond to risks in a timely manner
  - Optimize the use of organizational resources
  - Identify, recover, or terminate failing projects
  - Manage constraints (e.g., scope, quality, schedule, costs, resources)
  - Balance the influence of constraints on the project (e.g., increased scope may increase cost or schedule)
  - Manage change in a better manner
Why projects need to be managed?

- Poorly managed projects or the absence of project management may result in:
  - Missed deadlines
  - Cost overruns
  - Poor quality
  - Rework
  - Uncontrolled expansion of the project
  - Loss of reputation for the organization
  - Unsatisfied stakeholders
  - Failure in achieving the objectives for which the project was undertaken....

Effective and efficient project management should be considered a strategic competency within organizations.
Relationship of Project, Program, Portfolio, and Operations Management

Organizational Strategy

Sample Portfolio

Program A

Program B

Program B1

Program C

Portfolio A

Operations

Shared Resources and Stakeholders

project - 1
project - 2
project - 3
project - 4
project - 5
project - 6
project - 7
project - 8
project - 9
Project Life Cycle—Characteristics

Cost and Staffing levels are low at start, peaks during execution, and drops rapidly during closure.
Project Life Cycle—Characteristics

Planning

Execution

Closeout

Level of Influence (Risk, Stakeholders)

Cost of Change

0%

100%

100%
The Current P.M. Track Record

Did you know...

“Less than XX% of all Project development efforts are completed on time, under budget, and meeting all user requirements.”
Are these figures True

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies that successfully complete 100% of their projects</td>
<td>2.5%</td>
</tr>
<tr>
<td>Average cost overrun of all projects</td>
<td>27%</td>
</tr>
<tr>
<td>Projects that fail due to &quot;breakdown in communications&quot;</td>
<td>57%</td>
</tr>
<tr>
<td>Projects that fail due to lack of planning, resources, and activities</td>
<td>39%</td>
</tr>
<tr>
<td>% of failed projects have a duration of less than one year</td>
<td>60%</td>
</tr>
</tbody>
</table>

Could these be changed through good project management?
The top three reasons for Project delays

- Change(s) in scope mid-project: 41%
- Poor estimates in the planning phase: 39%
- Insufficient resources: 30%
- Weak project planning: 21%
- Lack of change-control management: 15%
- Lack of executive sponsorship: 15%
- Change in strategy: 8%
- Change in environment: 6%
- Ineffective procurement/supplier: 6%
# Project Management Process Group and Knowledge Areas Mapping

<table>
<thead>
<tr>
<th>Knowledge Areas</th>
<th>Initiating</th>
<th>Planning</th>
<th>Executing</th>
<th>Monitoring &amp; Controlling</th>
<th>Closing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Integration Management</td>
<td></td>
<td>•Develop Project Charter</td>
<td>•Develop Project Management Plan</td>
<td>•Direct and Manage Project Execution</td>
<td>•Close Project or Phase</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>•Manage Project Knowledge</td>
<td></td>
</tr>
<tr>
<td>Project Scope Management</td>
<td></td>
<td>•Plan Scope Management</td>
<td></td>
<td>•Validate Scope</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>•Collect Requirements</td>
<td></td>
<td>•Control Scope</td>
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<tr>
<td></td>
<td></td>
<td>•Define Scope</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>•Create WBS</td>
<td></td>
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<tr>
<td>Project Schedule Management</td>
<td></td>
<td>•Plan Schedule Management</td>
<td>•Define Activities</td>
<td>•Control Schedule</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>•Sequence Activities</td>
<td>•Estimate Activity Durations</td>
<td></td>
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<td></td>
<td></td>
<td>•Develop Schedule</td>
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<tr>
<td>Project Cost Management</td>
<td></td>
<td>•Plan Cost Management</td>
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<tr>
<td>Project Quality Management</td>
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<td>•Plan Quality Management</td>
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<tr>
<td>Project Resource Management</td>
<td></td>
<td>•Plan Resource Management</td>
<td>•Acquire Resources</td>
<td>•Control Resources</td>
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<td></td>
<td></td>
<td>•Estimate Activity Resources</td>
<td>•Develop Team</td>
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<td></td>
<td></td>
<td></td>
<td>•Manage Team</td>
<td></td>
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</tr>
<tr>
<td>Project Communications Management</td>
<td></td>
<td>•Plan Communications</td>
<td>•Manage Communications</td>
<td>•Monitor Communications</td>
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<td></td>
<td></td>
<td>Management</td>
<td></td>
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<td></td>
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<tr>
<td>Project Risk Management</td>
<td></td>
<td>•Plan Risk Management</td>
<td>•Implement Risk Response</td>
<td>•Monitor Risks</td>
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<tr>
<td></td>
<td></td>
<td>•Identify Risk s</td>
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<td></td>
<td></td>
<td>•Perform Qualitative Risk Analysis</td>
<td>•Plan Risk Responses</td>
<td></td>
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<tr>
<td>Project Procurement Management</td>
<td></td>
<td>•Plan Procurement Management</td>
<td>•Conduct Procurements</td>
<td>•Control Procurements</td>
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</tr>
<tr>
<td>Project Stakeholder Management</td>
<td></td>
<td>•Identify Stakeholders</td>
<td>•Plan Stakeholder Engagement</td>
<td>•Manage Stakeholder engagement</td>
<td>•Monitor Stakeholder engagement</td>
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</tbody>
</table>

6 P’s: **Proper Planning Prevents Poor Project Performance**
Process Interactions

- Initiating Process Group
- Planning Process Group
- Executing Process Group
- Monitoring & Controlling Process Group
- Closing Process Group
The Environment in which Projects Operate

EEF : Enterprise Environmental Factors
OPA : Organization Process Assets
Enterprise Environmental Factors

• conditions, not under the control of the project team, that influence, constrain, or direct the project.
• can be internal and/or external to the organization.
• may have a positive or negative influence on the outcome.
### EEFs Internal to the Organization

| Organizational culture, structure, and governance. | • Vision, mission, values, beliefs, norms  
• Leadership styles, hierarchy, authority, ethics, code of conduct |
| --- | --- |
| Geographic distribution of facilities and resources. | • Locations, virtual teams  
• Shared systems, cloud computing |
| Infrastructure. Including IT | • Equipment, IT infrastructure  
• Software tools PMIS etc |
| Resource availability. | • Contracting & purchasing constraints  
• Approved providers |
| Employee capability. | • Human resource expertise, skills, competencies & knowledge |
### EEFs External to the Organization

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketplace conditions..</td>
<td>Competition, market share, trademarks</td>
</tr>
<tr>
<td>Social and cultural influences and issues.</td>
<td>Political climate, ethics, perceptions</td>
</tr>
<tr>
<td>Legal restrictions.</td>
<td>Local laws</td>
</tr>
<tr>
<td>Commercial databases</td>
<td>Industry data cost estimation data, risk database, benchmarking results</td>
</tr>
<tr>
<td>Academic research.</td>
<td>Industry studies, publications, benchmarking results</td>
</tr>
<tr>
<td>Government or industry standards.</td>
<td>Regulatory, standards related to products, production, environment, quality</td>
</tr>
<tr>
<td>Financial considerations.</td>
<td>Currency exchange rates, interest rates, inflation rates, taxes</td>
</tr>
<tr>
<td>Physical environmental elements</td>
<td>Working conditions, constraints etc</td>
</tr>
</tbody>
</table>
Processes, Policies, and Procedures

Executing, Monitoring, and Controlling:

– Change control procedures,
– Traceability matrices;
– Financial controls procedures
– Issue and defect management procedures
– Resource availability control and assignment management;
– Organizational communication requirements
– Procedures for prioritizing, approving, and issuing work authorizations;
– Templates
– Standardized guidelines, work instructions, proposal evaluation criteria, and performance measurement criteria; and
– Product, service, or result verification and validation procedures.

Closing – Project Closure guidelines
The organizational knowledge repositories for storing and retrieving information include:

- Configuration management knowledge
- Financial data such as budget and actual cost data
- Historical information and lessons learned knowledge
- Issue and defect management data
- Data repositories for metrics
- Project files from previous projects
Project Management Plan

Documents how the project is executed, monitored, controlled and closed. The life cycle of the project.

Subsidiary management plans
1. Scope,
2. Requirement,
3. Schedule,
4. Cost,
5. Quality,
6. Communications,
7. Resource,
8. Risk,
9. Procurement
10. Stakeholder engagement

Baseline
1. Scope Baseline
2. Schedule Baseline
3. Cost Baseline

Additional Components
1. Change Management Plan,
2. Configuration Management Plan,
3. Performance measurement baseline,
4. Project Life cycle,
5. Development approach
<table>
<thead>
<tr>
<th>Project Management Plan</th>
<th>Project Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change Management plan</td>
<td>Activity attributes</td>
</tr>
<tr>
<td>Communications Management plan</td>
<td>Activity cost estimates</td>
</tr>
<tr>
<td>Configuration Management plan</td>
<td>Activity list</td>
</tr>
<tr>
<td>Cost Management plan</td>
<td>Basis of estimates</td>
</tr>
<tr>
<td>Cost baseline</td>
<td>Change log</td>
</tr>
<tr>
<td>Human resources Management plan</td>
<td>Project Charter</td>
</tr>
<tr>
<td>Process improvement plan</td>
<td>Agreements</td>
</tr>
<tr>
<td>Procurement Management plan</td>
<td>Activity duration estimation</td>
</tr>
<tr>
<td>Quality Management plan</td>
<td>Forecasts (Cost and Schedule forecast)</td>
</tr>
<tr>
<td>Requirements Management plan</td>
<td>Issue log</td>
</tr>
<tr>
<td>Risk Management plan</td>
<td>Milestone list</td>
</tr>
<tr>
<td>Schedule baseline</td>
<td>Project funding requirements</td>
</tr>
<tr>
<td>Schedule Management plan</td>
<td>Seller Proposals</td>
</tr>
<tr>
<td>Scope baseline:</td>
<td>Procurement documents</td>
</tr>
<tr>
<td>• Scope statement</td>
<td>Project organizational structure</td>
</tr>
<tr>
<td>• WBS</td>
<td>Quality control measurements</td>
</tr>
<tr>
<td>• WBS dictionary</td>
<td>Quality checklists</td>
</tr>
<tr>
<td>Scope Management plan</td>
<td>Procurement statement of work</td>
</tr>
<tr>
<td>Stakeholder Management plan</td>
<td>Change request</td>
</tr>
<tr>
<td></td>
<td>Project calendars</td>
</tr>
<tr>
<td></td>
<td>Schedule data</td>
</tr>
<tr>
<td></td>
<td>Work performance data</td>
</tr>
</tbody>
</table>
Case Study

Integrated Finance Management System (IFMS)

IFMS Case Study
Stakeholder Management

Who is a Stakeholder

• Individuals, Groups, or Organizations
  – who are (actively) involved in the project
  – who affect / influence the outcomes of the project positively or negatively
  – whose interests may be positively or negatively affected by the performance or completion of the project
Project Stakeholder Management

- Processes required to identify the people, groups or organization that could impact or be impacted by the project, to analyze stakeholder expectations and their impact on project.
- Develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution.
- Continuous communication with stakeholders to understand their needs and expectations addressing issues, managing conflicting interests, etc.,
Stakeholders in IFMS

**Finance Department**
- Budget
- Treasury
- Pension
- Debt Management

**Planning Department**
- Annual Development Plan
- Plan Scheme Monitoring and Tracking

**Admin. Departments**
- Expenditure Management
- Plan, non-plan budget Utilization

**AG Office**
- Audit - Voucher level
- Generation of Finance and Civil Accounts

**Drawing and Disbursement Officer**
- Bill Preparation and submission
- Monitoring and controlling Grant

**Banks**
- Collection of Taxes through Challan
- Payment against Advice

**RBI**
- Ways and Means
- Overdraft
- Govt. Investments

**Employess**
- Reimbursement claims
- Advances and Loans
- Pay Fixation
- Pay verification
- Building permanent database of employess
Project Scope Management

- Project Scope Management is meticulous Planning, Monitoring and Controlling of the work necessary to complete the project.
- The project scope will cover all the work and only the work required to complete the project successfully.
Plan Scope Management

Scope Management Plan

– How the Scope will be defined, developed, monitored, controlled and verified.
– Process for preparing a detailed Project Scope statement
– Process that enables the creation of the WBS from the detailed Project Scope statement
– Process that establishes how the WBS will be maintained and approved
– Process that control how requests for changes to detailed Project Scope statement will be processed
– Formal or informal, broadly framed or highly detailed based on the needs of the Project.
Project Requirements

- Requirements Documentation
  - Business requirement
  - Stakeholder requirements
  - Solution requirements
  - Project requirements
  - Transition requirement
  - Requirements assumptions
  - Dependencies and constrains

Documents
- Request for Proposal
- Statement of Work
- Contract/Task Order
- Proposal
- Standards
- Other Documents
Requirements Traceability

Requirement traceability matrix

– Helps to trace a requirement throughout the life cycle.
– Helps tracing requirements with respect to business needs, Project Scope, Project objectives, WBS, deliverables, product design, product development and product testing.
– Will consist of
  • A unique identifier for each requirement
  • Description of the requirement
  • Rationale behind inclusion
  • Requirement owner
  • Source of origination
  • Priority
  • Version no.
  • Current status - etc…. 
Change Requests

A change request is a formal proposal to modify any document, deliverable, or baseline.

- Request for Change may include
  - Corrective action
  - Preventive action
  - Defect Repair – to modify non conforming product or component
  - Updates to controlled project documents
- to be processed through the project integrated change control process.
Scope Management in IFMS

Scope

- Real time financial position of state by online updating and consolidation of receipts and expenditure
- To integrate major functions of Finance department, Directorate of accounts & Treasury, Directorate of Pensions and Provident Fund, Treasury and sub treasury offices spread across the state
- Business Process Re-engineering (Study As-is process, Perform Gap Analysis, Produce To-be Process)

Change Management
# Scope Management in IFMS

<table>
<thead>
<tr>
<th>AS IS process</th>
<th>TO BE process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual verification of Grant during expenditure</td>
<td>Online checking of Grant during Bill processing</td>
</tr>
<tr>
<td>Unable to track expenditure against grant released and</td>
<td>Integrated solution which tracks budget, grant released and actual expenditure</td>
</tr>
<tr>
<td>budget estimate</td>
<td></td>
</tr>
<tr>
<td>Delay in Accounting of State Receipts (Tax/Non-Tax)</td>
<td>Online payment of taxes (Real-time accounting of State Receipts)</td>
</tr>
<tr>
<td>Inconsistent Data</td>
<td>Database consistency maintained with Centralized RDBMS</td>
</tr>
<tr>
<td>Data entry at multiple level</td>
<td>Data entry at source only</td>
</tr>
<tr>
<td>Offline consolidation of accounts at DAT level</td>
<td>Online consolidation of accounts</td>
</tr>
<tr>
<td>Delayed consolidation of sub-treasury accounts in</td>
<td>Real-time consolidation of sub-treasury accounts with Treasury accounts</td>
</tr>
<tr>
<td>Treasury accounts</td>
<td></td>
</tr>
<tr>
<td>Data Transfer using media which is prone to data</td>
<td>No need for manual data transfer as it is centralized system with online consolidation of data of all offices</td>
</tr>
<tr>
<td>corruption</td>
<td></td>
</tr>
<tr>
<td>Client Server based system</td>
<td>Open standard and centralized web based architecture</td>
</tr>
</tbody>
</table>
Requirements Management
Schedule Management

- Process of establishing the Policies, Procedures, documentation for planning, developing, executing, controlling the project schedule
- Provides guidance and direction on how the project schedule will be managed throughout the project
Cost Management

• Includes the processes involved in planning, estimating, budgeting, financing, funding, managing and controlling costs
40% of work is complete
Cost incurred = ₹1000

ACWP : Actual Cost of Work Performed = ₹1000
BCWP : Budgeted Cost of Work Performed = ₹800
BCWS : Budgeted Cost of Work Scheduled = ₹1200

Cost Performance Index = BCWP / ACWP
>1 :-) <1 :-(
=800/1000 = 0.8

Cost Variance = BCWP - ACWP
>0 :-) <0 :-(
=800-1000 = -200

Schedule Performance Index = BCWP / BCWS
>1 :-) <1 :-(
=800/1200 = 0.67

Schedule Variance = BCWP - BCWS
>0 :-) <0 :-(
=800-1200 = -400
BCWP > ACWP, CPI >1 :- )

BCWP > BCWS, SPI >1 :- )
### Control Costs

#### Tools and Techniques

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Term</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV</td>
<td>Planned Value</td>
<td>As of today, what is the estimated value of the work planned to be done?</td>
</tr>
<tr>
<td>EV</td>
<td>Earned Value</td>
<td>As of today, what is the estimated value of the work actually accomplished?</td>
</tr>
<tr>
<td>AC</td>
<td>Actual Cost</td>
<td>As of today, what is the actual cost incurred for the work accomplished?</td>
</tr>
<tr>
<td>BAC</td>
<td>Budget at completion</td>
<td>How much did we budget for the total Project effort?</td>
</tr>
<tr>
<td>EAC</td>
<td>Estimate at Completion</td>
<td>What do we currently expect the total Project to cost?</td>
</tr>
<tr>
<td>ETC</td>
<td>Estimate to complete</td>
<td>From this point onwards, how much MORE do we expect to cost to finish the Project?</td>
</tr>
<tr>
<td>VAC</td>
<td>Variance at Completion</td>
<td>As of today, how much over or under budget do we expect to be at the end of the Project?</td>
</tr>
</tbody>
</table>
### Control Costs

#### Tools and Techniques

<table>
<thead>
<tr>
<th>Name</th>
<th>Formula</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Variance</td>
<td>CV = EV – AC</td>
<td>Negative if over budget, positive if under budget</td>
</tr>
<tr>
<td>Schedule Variance</td>
<td>SV = EV – PV</td>
<td>Negative if behind schedule, positive if ahead of schedule</td>
</tr>
<tr>
<td>Cost Performance Index</td>
<td>CPI = EV/AC</td>
<td>&gt; 1 is good for the Project, Less than 1 is bad.</td>
</tr>
<tr>
<td>Schedule Performance Index</td>
<td>SPI = EV / PV</td>
<td>&gt; 1 is good for the Project, Less than 1 is bad.</td>
</tr>
<tr>
<td>EAC</td>
<td>AC + (BAC-EV)</td>
<td>Actual cost to date plus remaining budget</td>
</tr>
<tr>
<td>ETC</td>
<td>EAC – AC</td>
<td>How much more will the Project cost</td>
</tr>
<tr>
<td>VAC</td>
<td>BAC – EAC</td>
<td>As of today, how much over or under budget do we expect to be at the end of the Project?</td>
</tr>
</tbody>
</table>
Risk Management

- Risk is an uncertain event or condition that, if it occurs, has an effect on at least one project objective, such as scope, schedule, cost and quality.
- Negative risks (threats) vs positive risks (opportunities)
- Known risks vs. Unknown risks

Plan Risk Management
Identify Risks
Perform Qualitative Risk Analysis
Perform Quantitative Risk Analysis
Plan Risk Responses
Implement Risk Response
Monitor Risks
What is RISK?

- Risk is an uncertain event (May or May not occur) resulted in Impact which are negative (threat) and positive (opportunity).
- Risk can be classified as known and unknown and impact also classified as known and unknown.
Definitive Plan

Contingency Plan

Management Plan

Project Risk
Sources of Project Risk

- Integration
- Communication
- Resources
- Cost
- Procurement
- Schedule
- Quality
- Scope

Life cycle
Environment
Variables

Expectation
Feasibility

Requirement
Standards

Time, Objectives
Restraints

Services, Materials,
Performance

Costs, Objectives,
restraints

Availability
Productivity

Ideas,
Derivatives, Info
exchange

Products,
Materials,
Performance

Requirements
Standards

Period,
Objectives
Restraints

Integration

Project
Risk

Sources of Project Risk
Strategies for negative risks or threats

<p>| | |</p>
<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Escalate</strong></td>
<td>If the threat is outside the scope of the project or the response exceeds the project manager’s authority. Handled at the appropriate level portfolio, program or relevant part of the organization</td>
</tr>
</tbody>
</table>
| **Avoid** | Eliminate the threat or protect the project from its impact  
Eg. Extending the schedule, reducing the scope |
| **Transfer** | Shifts the impact of a threat to a third party  
Eg. Outsourcing work to a company that possess skills |
| **Mitigate** | Reduce the probability of occurrence or the impact  
Eg. designing redundancy in a system, prototype development, conducting rigorous tests, choosing more stable supplier etc |
| **Accept** | Active acceptance involves creating contingency reserve etc  
Passive acceptance involves documenting the same and leave the project team to act |
### Plan Risk Responses

**Strategies for positive risks or threats**

<table>
<thead>
<tr>
<th>Escalate</th>
<th>If the opportunity is outside the scope of the project or the response exceeds the project manager’s authority. Handled at the appropriate level portfolio, program or relevant part of the organization</th>
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<tbody>
<tr>
<td>Exploit</td>
<td>Eliminate the uncertainty associated with the upside risk Eg. Assigning most talented resources in critical activities</td>
</tr>
<tr>
<td>Share</td>
<td>Taking advantage of an opportunity to share benefit between all parties Eg. Sharing growth opportunities between partners</td>
</tr>
<tr>
<td>Enhance</td>
<td>Increase the probability and / or positive impact Eg. Adding more resources to ensure such an activity is finished early</td>
</tr>
<tr>
<td>Accept</td>
<td>willing to take advantage but not pursuing actively</td>
</tr>
</tbody>
</table>
## Plan Risk Responses

### Risk Response strategies - Examples

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Response Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remove a task from the project</td>
<td>Avoidance</td>
</tr>
<tr>
<td>Assign a team member to visit the sellers place to know about the delivery problems ASAP</td>
<td>Mitigation</td>
</tr>
<tr>
<td>Notify management of major cost increase as no action is taken to prevent the risk</td>
<td>Acceptance</td>
</tr>
<tr>
<td>Remove a troublesome resource from project</td>
<td>Avoidance</td>
</tr>
<tr>
<td>Ask a Vendor to handle some work</td>
<td>Transference</td>
</tr>
</tbody>
</table>
Risk Management in IFMS

- High level risks were mitigated by GIL prior to the inception phase (Computer literacy, Connectivity, Bandwidth)
- Project specific risks, Technical risks (mitigated by TCS with approval from GIL), Functional risk (mitigated by formation of Domain expert committee under DAT, for complex risks)
- Resource Risks (Users reluctant to adapt changes, mitigated by proper training)
- Rigidness of implemented system (mitigated by changing the implementation environment to open source)
- Data Migration Risk (mitigated phase wise – understanding of legacy data, source data, target data, redundant data, data cleansing)
- Database Integration Risk
Quality Management

• Ensure that the Project deliverables are aligned to both customer and performing organizational quality parameters
• Tailor the applicable processes and activities from the organizational Quality Management Systems as appropriate, to meet the Project and Product requirements
• Provide a framework for Continual Improvements

Plan Quality Management
Manage Quality
Control Quality
Resource Management

Project Resource Management includes the processes to identify, acquire, and manage the resources needed for the successful completion of the project.

Plan Resource Management
Estimate Activity Resources
Acquire Resources
Develop Team
Manage Team
Control Resources
Communication Management

• Includes the processes that are required to ensure timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring and the ultimate disposition of project information

Plan Communications Management
Manage Communications
Monitor Communications
Communications Management in IFMS

- Regular updates to Stakeholders
- Regular project status meeting between TCS and DAT
- With the exception of informal meetings, agendas were prepared and followed for all the status, board and program review meetings. For board and program review meetings, minutes were taken, reviewed and approved.
- Post meeting documented the actionable points with assigned responsibilities and action by date
- Frequency of project status communications defined
- Escalation Path defined
Procurement Management

Plan Procurement
- Make/Buy Analysis
- Make/Buy Decision
- Procurement Mgmt Plan
- Procurement SOW
- RFP/RFQ/RFI/Tender/ITB
- Source Selection Criteria
- Identify Potential Sellers

Conduct Procurement
- Publish RFP
- Receive responses
- Bidders Conference
- Receive Proposals
- Evaluate Proposals
- Choose Best Seller
- Enter into agreement

Control Procurement
- Inspections/Audits
- Delivered Products
- Payments / Claims
- Change Requests
Project Management Institute, USA

• Global, not for profit professional association
• Established in 1969
• Over 4,75,000+ members worldwide*
• 292 Chapters worldwide in 208 countries
• Over 1400+ Registered Educational Providers (REPs)
Globally Recognized Standards
## Certifications offered by PMI

- **Individuals**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Course Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPM®</td>
<td>Certified Associate in Project Management</td>
</tr>
<tr>
<td>PMP®</td>
<td>Project Management Professional</td>
</tr>
<tr>
<td>PgMP®</td>
<td>Program Management Professional</td>
</tr>
<tr>
<td>PfMP®</td>
<td>Portfolio Management Professional</td>
</tr>
<tr>
<td>PMI – SP®</td>
<td>PMI – Scheduling Professional</td>
</tr>
<tr>
<td>PMI – RMP®</td>
<td>PMI – Risk Management Professional</td>
</tr>
<tr>
<td>PMI-ACP</td>
<td>PMI - Agile Certified Practitioner</td>
</tr>
</tbody>
</table>

- **Organizations**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPM3®</td>
<td>Organization Project Management Maturity Model</td>
</tr>
</tbody>
</table>
• Total PMI Members (active) : 5,21,451
• Total PMP® : 8,39,682
• Total CAPM® : 34,859
• Total PgMP® : 2,217
• Total PfMP® : 530
• Total PMI-SP® : 1,801
• Total PMI-RMP® : 4,549
• Total PMI-PBA® : 2,143
• Total PMI-ACP® : 20,087

PMI Data as of 28th February, 2018
• Project Managers sought recognition for Project Management as a profession by mid 20th century
• A consensus on the content of the Body of Knowledge (BOK) called Project Management was initiated
• BOK became the Project Management Body of Knowledge (PMBOK)
• The Project Management Institute (PMI) produced a baseline of charts and glossaries for the PMBOK
• The Complete Project Management Body of Knowledge (PMBOK) includes proven traditional practices that are widely applied, as well as innovative practices that are emerging in the profession, including published and unpublished material.
• As a result, the Project Management Body of Knowledge is constantly evolving with best practices.
• Q & A
• Feedback

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