Controlling the Project Pipeline: Managing Constraints to Maximize Outputs

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Objectives

- Hear why projects should only be launched at a rate that can be handled by the organizational system
- Understand the value of periodic measurement of project status and performance
- Develop critical parameters for evaluation
Agenda

1. What is Project Portfolio Management (PPM)?
2. The Context of PPM
3. What are Constraints?
4. Managing Constraints in the PPM Process
5. Critical Success Factors for Managing Constraints
1. What is PPM?
Project Definition

- From PPM Point of View:

“A composite of resource investments such as skilled labor and associated salaries”
What is Project Portfolio Management?

- ‘Portfolio Management’ is a technique for:

  “[t]he centralized management of one or more portfolios, which includes identifying, prioritizing, authorizing, managing, and controlling projects, programs, and other related work, to achieve specific strategic business objectives.”

  **Abbreviated as “PPM”**
PPM Objectives

- Translate strategic goals into tangible criteria to select programs/projects that create value for the enterprise
- Select and prioritize projects for competitive advantage
- Perform regular project reviews
- “Unfund” bleeder projects and those no longer strategically aligned
Portfolio Planning Team

- The Executive Team – or a subset thereof
- Decisions from strategic planning become the factors for selecting projects
- Decisions for project investments no longer made within the functional silos
- Investment decisions made collaboratively, with the total enterprise in mind
2. The Context of PPM
The Context of PPM

Strategic Planning
• Define strategy
• Set priorities
• Establish measures

Portfolio Planning
• Selects programs & projects
• Allocates resources
• Manages portfolio

Project Planning
• Launch projects

Project Execution
• Manage projects

Strategic Goals

Business Area & Programs

Individual Project Planning

Resource Allocation
Activities – Teams – Results

• Tie IT strategy to mission and vision of the organization
• Identify key business areas

• Document key business processes needed to achieve strategic goals
• Define potential projects
• Select projects

• Define project scope, benefits, and constraints
• Develop Project Plan

• Assign resources
• Execute, monitor, & control project
The View at 90,000 Feet

Strategic Focus

- Strategic Goals
- Business Case
- Strategic Decisions
- Project Performance

Business Results
Strategic Planning

- Focuses on the reason that the organization exists
- Defines the vision, mission, guiding principles, values, objectives and success measures of the organization
- Provides the foundation to manage the organization’s investments (projects)
- Measures organizational performance against the strategic plan
Strategic Planning Steps

- Vision
- Mission
- Guiding Principles and Values
- Strategy to Implement Vision
- Performance Measures for the Enterprise
Portfolio Planning

Project Selection Goals

- Value Maximization
- Balance
- Strategic Alignment
Project Selection Components

- Opportunity Analysis
- Project Prioritization
- Prioritization Decision Support Tools
- Portfolio Maps
Portfolio Management Process

Project Selection Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Customer Satisfaction</td>
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<td>Business Results</td>
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<td>Employee Satisfaction</td>
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<td>Size of Investment</td>
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Project Launch Review

Control Gate Reviews

Post-Implementation Review

Lessons Learned

End
Project Selection

Assessment of Project’s Strategic Fit

<table>
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<tr>
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INPUT

Project Charter
Includes Business Case and analysis of strategic fit

OUTPUT

Go/No Go Decision

Portfolio Planning Team

Project Manager
Typical PPM Outputs/Tools

**Top Ten Projects**
1. Project A
2. Project B
3. Project C
4. Project D
5. Project E
6. Project F
7. Project G
8. Project H
9. Project I
10. Project J

**Portfolio Map**

- **Value**
  - High
  - Low

- **Risk/Effort**
  - High
  - Low

- **Projects by Division**
  - Div. A
  - Div. B
  - Div. C
  - Div. D

109 Approved & Active Projects by Division
Results

- Strategically-balanced project investments
- Targeted and controlled resource management
- Executive program control
- Business results achieved
- Strategies attained
3. **What are Constraints?**
PMBOK Definition of Constraint

“An applicable restriction or limitation, either internal or external to the project, that will affect the performance of the project or a process.”

Types of Constraints

- Process
- Physical
- Cultural
- Organizational
- Project specific
Process Constraints

- Poorly defined strategic objectives
- Poor business planning – lack of solid business cases for potential projects
- Lack of cross-enterprise view
- Unknown project inventory
- Lack of understanding of existing resource commitments
- Lack of supporting processes
Physical Constraints

- Infrastructure
- Availability vs. project timeframes
  - Computer hardware
  - Other materiel
Cultural Constraints

- Democracy isn’t easy
  - Removes power from business leaders who are used to calling the shots
- It’s hard to make difficult decisions
  - Which projects to undertake
  - Which to cancel
- Any new process will be resisted
Organizational Constraints

- Resources
  - Skills
  - Availability
- Risk
  - Organizational tolerance
Project-Specific Constraints

- Schedule
- Budget
- Scope

Triple Constraint
4. Managing Constraints in the PPM Process
Managing Process Constraints

**Issue:**
- Poorly-defined strategic objectives

**Solution:**
- Clarify organizational strategy with Executive Team
Managing Process Constraints

**Issues:**
- Poor business planning
- Lack of solid business cases for potential projects

**Solutions:**
- Require business case preparation
- Train staff on developing them
Managing Process Constraints

**Issues:**
- Lack of cross-enterprise view
- Unknown project inventory
- Lack of understanding of existing resource commitments

**Solutions:**
- Launch an effort to identify all current projects and their assigned staff
- Define an ongoing function to keep the information up to date
Managing Process Constraints

**Issue:**
- Lack of support processes

**Solution:**
- Define a ‘cradle-to-grave’ process to support PPM
- Identify needed support functions, roles, and responsibilities
- Staff the process accordingly
Managing Process Constraints

- Project Selection:
  - Require business cases as input
  - Evaluate constraints in business cases and project selection decisions
# Additional Elements for Project Selection

**STRATEGIC GOALS**

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**CONSTRAINTS**

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<td>Cultural Issues</td>
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Reevaluate Project’s Placement in Portfolio

Portfolio Map

- High Value
- Low Value
- High Risk/Effort
- Low Risk/Effort
Managing Physical Constraints

**Issue:**
- Projects with infrastructure needs that are not part of the enterprise architecture

**Solution:**
- Assess cost of making the required changes in the business case
- Only accept projects whose infrastructure aligns with the enterprise’s infrastructure
Managing Physical Constraints

**Issue:**
- Hard resources are not available as needed by the project

**Solution:**
- Find alternative solution
- Postpone project start until resources are available
Managing Cultural Constraints

**Issue:**
- New processes are always resisted

**Solution:**
- Use a change management approach to deploy PPM
  - Education
  - Persuasion
  - Accountability structure
Managing Organizational Constraints

**Issue:**
- Resources with the necessary skill sets are not available in the project time frame

**Solution:**
- Hire (staff or contract)
- Train existing staff
- Postpone the project until resources are available
Managing Organizational Constraints

**Issue:**
- Building a portfolio with an acceptable level of organizational risk

**Solution:**
- Understand how much risk the organization can tolerate
- Use level of project risk as a selection criterion
Managing Project-Specific Constraints

During Planning:

- Address constraints as part of Scope Definition, Cost Estimating, Scheduling and Risk Management
- Communicate clearly about constraints
- Enlist support of Project Sponsor to navigate constraints
Managing Project-Specific Constraints

During Execution, Monitoring, & Control

- Sponsor Steering Committee Reviews
- Control Gate Reviews
- Portfolio Reviews
- Ongoing Post-Implementation Reviews
Sponsor Steering Committee Reviews

- **Monthly** Project Reviews with Project Sponsor and Team Leaders to:
  - Review Last Month Progress
  - Review Next Month Plans
  - Manage Issues
  - **Manage Scope Changes**
  - **Balance customer objectives with enterprise’s strategic objectives**
  - Remove Barriers
  - Manage Major Risks
  - Approve Approach for next month
  - **Reanalyze Constraints and their impacts**
Control Gate Reviews

- **Periodic** Portfolio Management Team Reviews Projects/Programs at Key Milestones to:
  - Review estimates to complete
  - Revisit competitive situation
  - Re-affirm business benefits
  - **Reanalyze constraints and their impacts**
  - Review scope change decisions
  - Update Project Selection Score to identify ‘drift’ from enterprise’s strategic objectives
  - Approve level of risk
  - Make incremental investments, if appropriate
Portfolio Reviews

- Review/adjust project selection factors as strategies *and constraints* change
- Review Portfolio Maps
- Adjust Portfolio to optimize performance
- Revisit/cancel programs and projects that are not delivering value
Ongoing Post-Implementation Reviews

- Track project value add vs. cost
- Determine if project selection and prioritization was on target
- Learn from project experience
- Find underlying causes of problems
- Make suggestions to correct them
- Minimize problems on future projects
- Use each project as a learning opportunity
- Watch for ‘drift’ from customer and strategic objectives
- Continuously reanalyze constraints and modify plan accordingly
5. Critical Success Factors for Managing Constraints
Critical Success Factors for Managing Constraints

- Presence of:
  - Strategic objectives
  - Decision criteria
- Solid business cases for all opportunities
- Ongoing tracking of:
  - Project inventory
  - Resource capacity
  - Project performance
- Rigorous project management practices

- Ongoing project reviews
- Willingness to make tough decisions
- Change management approach to PPM implementation
Future Directions of PPM & PM

- Enterprise policy, methodology, & tools
- PMO/EPMO establishment
- Project management maturity
- Maturity assessments
- Intensive training
  - Portfolio Management
  - Balanced Scorecard
  - Project Management
  - Team Leadership
  - Team Performance
  - Virtual Teams
- Professional PM career track
- Facilitated project Quickstarts
- Structured team-based planning
- Mentoring
- Executive coaching
- Consistency
- Accountability