PM 2.0: The Future of Project Management

By Harold Kerzner, Ph.D.
Material in this presentation has been taken from the following book:

Harold Kerzner; *Project Management 2.0: Leveraging Tools, Distributed Collaboration, and Metrics for Project Success*

John Wiley & Sons and I I L Co-publishers; 2015.
PART 1: CHANGING TIMES: GROWTH OF PROJECT MANAGEMENT 2.0
## Comparison of PM 1.0 and PM 2.0

<table>
<thead>
<tr>
<th>Factor</th>
<th>PM 1.0</th>
<th>PM 2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project approval process</td>
<td>Minimal PM involvement</td>
<td>Mandatory PM involvement</td>
</tr>
<tr>
<td>Types of projects</td>
<td>Operational</td>
<td>Operational and strategic</td>
</tr>
<tr>
<td>Sponsor selection criteria</td>
<td>From funding organization</td>
<td>Required business knowledge</td>
</tr>
<tr>
<td>Overall project sponsorship</td>
<td>A single person acting as a sponsor</td>
<td>Committee governance</td>
</tr>
<tr>
<td>Planning</td>
<td>Centralized</td>
<td>Decentralized</td>
</tr>
<tr>
<td>Project requirements</td>
<td>Well-defined</td>
<td>Evolving and flexible</td>
</tr>
<tr>
<td>WBS development</td>
<td>Top down</td>
<td>Bottom up and evolving</td>
</tr>
</tbody>
</table>
## Comparison of PM 1.0 and PM 2.0

<table>
<thead>
<tr>
<th>Factor</th>
<th>PM 1.0</th>
<th>PM 2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of constraints</td>
<td>Time, cost and scope primarily</td>
<td>Competing constraints</td>
</tr>
<tr>
<td>Definition of success</td>
<td>Time, cost and scope</td>
<td>Creation of business value</td>
</tr>
<tr>
<td>Scope changes</td>
<td>Minimized</td>
<td>Possibly continuous</td>
</tr>
<tr>
<td>Activity work flow</td>
<td>In series</td>
<td>In parallel</td>
</tr>
<tr>
<td>Project flexibility</td>
<td>Minimal</td>
<td>Extensive, as needed</td>
</tr>
<tr>
<td>Type of project control</td>
<td>Centralized</td>
<td>Decentralized</td>
</tr>
<tr>
<td>Type of leadership</td>
<td>Authoritarian</td>
<td>Participative and collaborative</td>
</tr>
</tbody>
</table>
## Comparison of PM 1.0 and PM 2.0

<table>
<thead>
<tr>
<th>Factor</th>
<th>PM 1.0</th>
<th>PM 2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall communications</td>
<td>Localized</td>
<td>Everywhere</td>
</tr>
<tr>
<td>Access to information</td>
<td>Localized and restricted</td>
<td>Real time, unlimited access and globalized</td>
</tr>
<tr>
<td>Amount of documentation</td>
<td>Extensive</td>
<td>Minimal</td>
</tr>
<tr>
<td>Communication media</td>
<td>Reports</td>
<td>Dashboards</td>
</tr>
<tr>
<td>Frequency of metrics</td>
<td>Periodically</td>
<td>Continuously, in real time</td>
</tr>
<tr>
<td>measurement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role of software</td>
<td>As needed</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Software tool complexity</td>
<td>Highly complex tools</td>
<td>Easy to use tools</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Factor</th>
<th>PM 1.0</th>
<th>PM 2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of contract</td>
<td>Firm-fixed-price</td>
<td>Cost-reimbursable</td>
</tr>
<tr>
<td>Responsibility for project success</td>
<td>With the project manager</td>
<td>With the team</td>
</tr>
<tr>
<td>Decision making</td>
<td>By the project manager</td>
<td>By the team</td>
</tr>
<tr>
<td>Project health checks</td>
<td>Optional</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Type of project team</td>
<td>Co-located</td>
<td>Distributed or virtual</td>
</tr>
<tr>
<td>Access to stakeholders</td>
<td>At selected intervals</td>
<td>Continuous</td>
</tr>
<tr>
<td>Stakeholder project mgt. experience</td>
<td>Optional</td>
<td>Mandatory</td>
</tr>
</tbody>
</table>
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<tr>
<th>Factor</th>
<th>PM 1.0</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Customer involvement</td>
<td>Optional</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Organizational project management maturity</td>
<td>Optional</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Executive’s trust in the project manager</td>
<td>Low level of trust</td>
<td>High level of trust</td>
</tr>
<tr>
<td>Speed of continuous improvement efforts</td>
<td>Slow</td>
<td>Rapid</td>
</tr>
<tr>
<td>Project management education</td>
<td>Nice to have, but not necessary</td>
<td>Necessary, and part of life-long learning</td>
</tr>
<tr>
<td>Life-cycle phases</td>
<td>Traditional life-cycle phases</td>
<td>Investment life-cycle phases</td>
</tr>
</tbody>
</table>
Necessities for PM 2.0 to Exist

- Stakeholders are expected to make informed decisions rather than just any decision.
- Informed decision-making requires more meaningful metrics.
- The metrics information must be shared rapidly.
PM 2.0 = PM 1.0 + distributed collaboration
PM 2.0 will use much of the social media software that is currently in use.
PM 2.0 and Web 2.0

We can input metric information from any location in the world.
We can select from a world of project-specific apps that can display data for a given project.
We can customize the cell phones and tablets with PM 2.0 apps.
Future of PM 2.0 is transmitting project data on time and from any place with a mobile device, be it phone or tablet, such that value and performance can be verified.
Data can be displayed over cell phone or tablet screens.
With PM 2.0, all project personnel will have metrics at their fingertips.
Can a large metric library cause headaches? (i.e. metric mania)
How difficult will it be to differentiate between a good and bad metric?
Can information overload occur in PM 2.0?
Information overload is an invitation for micromanagement.
PART 2: THE DRIVING FORCES FOR BETTER METRICS
Without good metrics, stakeholders and clients must read through volumes of reports to find the true status and health of a project.
Identifying The Need

- We need to go to paperless project management.
- We need metrics that allow project governance to make decisions based upon evidence rather than guesses.
- The need for more metrics is inevitable.
- Metrics allow us to better manage the competing constraints of time, cost, scope, risk, customer satisfaction, safety, etc...
- Our definition of project success is changing.
**Definition of a Project**

- **PMBOK® Guide definition:** A temporary endeavor undertaken to create a unique product, service or result.

  *PMBOK® Guide – Fifth Edition, Glossary*

- **Future definition:** A collection of sustainable business value scheduled for realization.
Definition of Project Success

- **Traditional definition**: Completion of the projects within the triple constraints of time, cost and scope.

- **Future definition**: Achieving the desired business value within the competing constraints.
Success Through Competing Constraints

Previously

Today

Image/Reputation
Scope
Value
Quality
Cost
Risk
Time

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The *PMBOK® Guide* and Metrics

Adapted from *PMBOK® Guide* - Fifth Edition, Figure 3-1, p. 61

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The PMBOK® Guide and Metrics

- Time Mgt. Metrics
- Cost Mgt. Metrics
- Quality Mgt. Metrics
- H. R. Mgt. Metrics
- Comm. Mgt. Metrics
- Risk Mgt. Metrics
- Scope Mgt. Metrics
- Procure. Mgt. Metrics
- Integr. Mgt. Metrics
- Stakeholder Mgt. Metrics

PMBOK® Guide

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New Developments in Project Management

New Success Criteria

Governance

Metrics and KPIs

Dashboard Design

Measurement

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Selecting the right infographic designer is critical. A knowledge of project management would certainly be helpful.
## Types of Metrics

<table>
<thead>
<tr>
<th>Types of Metrics</th>
<th>Intent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Metrics</td>
<td>Primarily focus on where we are today</td>
</tr>
<tr>
<td>Key Performance Indicators</td>
<td>Extrapolate the present into the future to tell us where we will end up</td>
</tr>
<tr>
<td>Value-Reflective Metrics (also called Value-Based Metrics)</td>
<td>A combination of metrics and KPIs that tell us the growth of value as the project progresses</td>
</tr>
</tbody>
</table>
PART 3

PROJECT GOVERNANCE AND STAKEHOLDER MANAGEMENT
Project Governance

Stakeholders/Client Committee

- Investment Committee
  - External Business Owner
    - Project Sponsor (Internal Bus. Owner)
    - Steering Committee
      - Project Manager

External Stakeholders
Because each stakeholder may have different needs, dashboard reporting systems allow the project manager to prepare customized dashboards to satisfy each stakeholder’s needs.
Stakeholder Relations Issues with PM 2.0

What happens if stakeholders demand specific metrics?
What happens if we do not understand the metrics or cannot comply with their demands?
Stakeholder Relations Issues with PM 2.0

What happens if stakeholders disagree on the meaning of the metric information?
What happens if stakeholders say that they do not want to hear any bad news?
Stakeholder Relations Issues with PM 2.0

What happens if stakeholders want to stretch the truth, see the information before release, and filter it?
PART 4
VALUE METRICS AND PORTFOLIO MANAGEMENT
The Investment Life-Cycle

Idea Generation → Project Approval → Project Planning → Delivery → Benefits Realization → Value Analysis
## Other Metric Categories

<table>
<thead>
<tr>
<th>Project Mgt. (Micro Metrics)</th>
<th>Traditional PMO (Macro Metrics)</th>
<th>Portfolio PMO (Macro Metrics)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Time</td>
<td>• Growth in customer satisfaction</td>
<td>• Business profitability</td>
</tr>
<tr>
<td>• Cost</td>
<td>• Number of projects at risk</td>
<td>• Portfolio health</td>
</tr>
<tr>
<td>• Scope</td>
<td>• Conformance to the methodology</td>
<td>• Portfolio benefits realization</td>
</tr>
<tr>
<td>• Quality</td>
<td>• Ways to reduce the number of scope changes</td>
<td>• Portfolio value achieved</td>
</tr>
<tr>
<td>• Resource usage</td>
<td>• Growth in the yearly throughput of work</td>
<td>• Portfolio selection and mix</td>
</tr>
<tr>
<td>• Stakeholder satisfaction</td>
<td>• Validation of timing and funding</td>
<td>• Resource availability</td>
</tr>
<tr>
<td>• Project performance</td>
<td>• Measuring project closure rates</td>
<td>• Capacity utilization</td>
</tr>
<tr>
<td>• Number of deliverables</td>
<td></td>
<td>• Strategic alignment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Business performance</td>
</tr>
</tbody>
</table>
## Matching Projects to Strategic Objectives

<table>
<thead>
<tr>
<th>Strategic Objectives:</th>
<th>Project 1</th>
<th>Project 2</th>
<th>Project 3</th>
<th>Project 4</th>
<th>Project 5</th>
<th>Project 6</th>
<th>Project 7</th>
<th>Project 8</th>
<th>Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Superiority</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Reduced Operating Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Reduced Time-To-Market</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Increase Business Profits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Add Manufacturing Capacity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td><strong>Column Scores</strong></td>
<td><strong>4</strong></td>
<td><strong>0</strong></td>
<td><strong>6</strong></td>
<td><strong>7</strong></td>
<td><strong>4</strong></td>
<td><strong>5</strong></td>
<td><strong>0</strong></td>
<td><strong>6</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Scoring Guide

- **1**: Supports Objective
- **2**: Fulfills Objective
Project Scoring Categories

- Project’s Deliverables
  - Time
  - Cost
  - Scope
- Project’s Value
  - Strategic Value
    - Competitive Position
    - New Business Opportunity
    - Image and Reputation
  - Financial Value
    - ROI
    - Benefit/Cost Ratio
    - Payback Period
Example of a Project’s Score

Project Score 80 of 100 points

Project’s Deliverables 23 of 30 points
- Time 8 of 10 points
- Cost 10 of 15 points
- Scope 5 of 5 points

Business Value 57 of 70 points
- Strategic Value 32 of 40 points
  - Competitive Position 10 of 15 points
  - New Business Opportunity 12 of 15 points
  - Image and Reputation 10 of 10 points
- Financial Value 25 of 30 points
  - ROI 10 of 12 points
  - Benefit/Cost Ratio 8 of 10 points
  - Payback Period 7 of 8 points

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Yearly Benefits/ Value Achieved

Percent of Yearly Benefits/ Value Received

- 2014
- 2013
- 2012

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PART 5

BENEFITS OF PM 2.0
Benefit: EPM Methodologies to Frameworks

PM 1.0

EPM Methodologies: based on rigid policies and procedures

PM 2.0

EPM Frameworks: forms, guidelines, checklists and templates combined with metrics
Dashboard reporting of metrics allows us to get closer to “paperless” project management practices.
With good metrics and using dashboards, less time and cost are incurred for report preparation.
Benefit: Reduction in Project Cost

With good metrics, project cost may be significantly reduced.
<table>
<thead>
<tr>
<th>Scope</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Cost</td>
</tr>
</tbody>
</table>

With good metrics, it is easier to evaluate the impact of tradeoffs if a change in direction is needed.
Benefit: The Right Target

With good metrics, it is easier for the stakeholders to focus upon and agree to the right target and business alignment.
Benefit: Project Direction

It is easier to get a unified agreement on the direction of the project when you have the correct metrics.
Benefit: Better Snapshot of Status

With good metrics, stakeholders have a much more accurate snapshot of project status now and possibly in the future.
With good metrics, we have more meaningful project health checks.
Without effective metrics, we tend to wait until the project is way off track before taking action. By that time, it may be too late to rescue it and the only solution is to pull the plug and cancel a project that possibly could have been saved.
Effective metrics allow stakeholders to make informed decisions rather than merely seat-of-the-pants decisions.
Benefit: More Productive Meetings

There will be fewer meetings with stakeholders, and the required meetings will be more productive.
With good metrics, the number of conflicts among team members and with the various stakeholders are expected to decrease.
Benefit: The Speed of Decisions

Effective dashboards can significantly reduce the time for consensus decision making.
Effective dashboard communications makes it easier to get cooperation when using virtual teams. This includes stakeholder relations management.
Benefit: Reduction in Meddling

With good performance metrics information, stakeholder meddling is reduced significantly.
Benefit: Responding to Questions

With good metrics and dashboards, the project team should not have to dig through piles of questions from stakeholders.
Good metric management programs can increase the chances for successful project completion.
Thank You