Metric-Driven Project Management
Driving Success by Design

How to Identify and Implement the Right KPIs for the Organization
Speaker Profile

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Program Management
Global Sales & Services
Siemens Product Lifecycle Management

Program Management leadership for large product lifecycle management (PLM) implementations in the Aerospace, Defense & Propulsion Industry sectors; driving planning, developing, executing large programs/plans and coordinating resources across multiple global organizations and locations using PMP, Lean Six Sigma, Total Quality Management (TQM), Organization Change Management (OCM), Voice of Customer (VoC) and similar quality disciplines

Education
• Doctorate*, Total Quality Management, KSMB
• Masters of Science, Software Design & Development, University of St. Thomas
* in process
Session Agenda

PMO and Project Management Challenges

Need for Measurements, Metrics and KPIs

Measures, Metrics and KPI Selection

KPI Usage

Measures Library

Summary & Takeaways
Top Project Management Challenges

- Inexperienced Project Managers
- Accurate Project Cost Forecasting
- Poorly Defined Scope
- Collaboration and Communication
- Insufficient Project Management Procedures
- Alignment with Executive Management
- Accurate Project Timeline Forecasting
- Having the Right Software Tools
- Schedule Viability/Schedule Maturity
- Inexperienced Project Control Professionals
- Data Integrity

Source: Deltek Clarity GovCon Industry Study 2014
Industry-Wide Project Statistics

- 18% Fail to Complete or Implement
- 59% Encounter Cost Overruns
- 74% Encounter Time Overruns
- 43% “Challenged” - Late or Over Budget
- 33% Do Not Meet Business Goals
- 69% Completed Scope/Feature / Req’s

Source: Standish Group - CHAOS MANIFESTO 2015
• According to an IBM study, only 40% of projects meet schedule, budget and quality goals. Further, they found that the biggest barriers to success are **people factors**.

• Geneca, a software development company, noted from its studies that ‘fuzzy business objectives, **out-of-sync stakeholders** and **excessive rework** mean that 75% of project participants lack confidence that their projects will succeed.’

• The Portland Business Journal found similarly depressing statistics: “Most analyses conclude that between **65 and 80% of IT projects fail to meet their objectives**, and also run significantly late or cost far more than planned.”

• KPMG New Zealand found ‘…and incredible 70% of organizations have suffered at least **one project failure in the prior 12 months** and 50% of respondents indicated that their project failed to consistently achieve what they set out to achieve.’

• A Forrester Research study published in CRM magazine asked executives where they ran into trouble most often during CRM implementations. **User adoption** topped the list.
Key Market Shifts

- IaaS…SaaS – Cloud-based
- Open Source
- Globalization
- Additive Manufacturing
- Lean…Agile practices
- Integrated Social Media

Driving…

- Faster infrastructure readiness
- Shorter lead times
- Smaller teams
- Quick expansion and scale
- “Talent” expansion and availability
- Lower budget / Cost models

Lowering Entry Level Costs

Accelerating Need Results

Changing Landscape
New Paradigm Shifts Impacting PMOs and Projects
Traditionally, PMO focus has been on “HOW” • Improving Project Management Execution • Supporting Methodology, Definition, Consistency, Controls, etc.

Focus Now is Organization Strategic and “WHY” • Business Relevancy and Value (vs. Cost) • Support of key business strategy and needed results • Advocacy of Critical initiatives • Development of Flexible “smart” Processes • OCM • Prescribed Talent Enrichment

PMO Practices: Focus on Innovation Delivery and Continuous Value Realization

Goal: Predictable and Measureable Results and Speed but more importantly Value and Contribution to Organizational Objectives

Evolving and Moving from ◆ IT Operations to Business Improvement ◆ Program Management (resource control) to Program Leadership (vision/direction)
If Not Challenged Enough....
Need: Definition
Need for Measurements, Metrics and KPIs

Provides Insight to Project Performance
Assess if “hitting” Performance Targets
Provides Early Indication
Allows Earlier Mitigation
Provides Basis to Compare

Project Manager Responsibility
1. Understand what are the relevant measures
2. Measure assessment/evaluation against project success criteria
3. Selection of Key Performance Indicators (KPIs) for project success
What is a Key Performance Indicator (KPI)?

Simple Definition:
- Method of measuring how well a project, organization, business, etc. is performing against an identified objective/goal

Analogy: Driving from Minneapolis to Dallas
- Relevant Measures:
  - GPS location *
  - Heading/Direction
  - Average speed
  - Gasoline level
  - Fuel consumption rate
  - Weather information
- Key Performance Indicator Criteria
  - On track? E.g., Budget (e.g., gas, maintenance, food), Schedule (start, arrive)
  - Leading indicator: “Rumble strip”  Lagging Indicator: In the ditch
- Actions
  - Course corrections needed?
  - Support needed? (e.g., money, hotel, etc.)

Allows comparison to Baseline
Evolve Good Practices in Project Management
- Planning…Execution…Reporting…Closure
- Provide more forward-looking (e.g., leading indicators) orientation in reporting

Greater Transparency on Organizational Performance Targets
- How individual projects relate and contribute to establish targets
- How management assesses project performance against the targets
- How management assesses organization performance against the targets
- Establish an economic picture of the organization

Greater Understanding how Individual Projects Affect the Business
- What is the plan?
- What is the value?
- Identify impacts to future deliverables/value:
  How will it look at stages: ¼, ½, ¾ and Closure?
- Predicted value to the organization and customer?

“…predicting the future by looking at the past (e.g., lagging indicators) is like driving a car looking in the rear-view mirror…”
Measurement Selection

**DOGBERT CONSULTS**

YOU NEED A DASHBOARD APPLICATION TO TRACK YOUR KEY METRICS.

**THAT WAY YOU’LL HAVE MORE DATA TO IGNORE WHEN YOU MAKE YOUR DECISIONS BASED ON COMPANY POLITICS.**

**WILL THE DATA BE ACCURATE?**

**OKAY, LET’S PRETEND THAT MATTERS.**
Measures Need to Align to Business Strategy, Objectives and Goals e.g., Value Areas

- Cost – Billing/Revenue, Margin, Discounts, etc.
- Utilization – Labor efficiency
- Quality – Customer Satisfaction
Measures Need to align to Business Strategy, Objectives and Goals e.g, Value Areas

- Cost – Billing/Revenue, Margin, Discounts, etc.
- Utilization – Labor efficiency
- Quality – Customer Satisfaction

Questions: Driving Right Measures & KPIs

- Strategically
  - What do we value?
  - What do our customers value?
  - What will differentiate us?
  - What is our direction – today, tomorrow, future?
- Tactically
  - Will the project be delivered when we expect it?
  - Do we have the budget to complete the project?
  - Will it deliver what the users expect?
  - Will the quality of the final product be sufficient?
Key Value Segments
Defining Goals...Questions...Metrics...Actions

Measures Need to align to Business Strategy, Objectives and Goals e.g., Value Areas
• Cost – Billing/Revenue, Margin, Discounts, etc.
• Utilization – Labor efficiency
• Quality – Customer Satisfaction

Questions: Driving Right Measures & KPIs
• Strategically
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  • What is our direction – today, tomorrow, future?
• Tactically
  • Will the project be delivered when we expect it?
  • Do we have the budget to complete the project?
  • Will it deliver what the users expect?
  • Will the quality of the final product be sufficient?

Identifying KPIs through Identifying Actionable Measures:
• How can we significantly affect? i.e., multiplier
• How can we significantly improve it?
• Is the area is suffering, what is the diagnosis? RCA?
• How can we measure progress/advancement to the goal?
Driven by
- Customer Satisfaction
- Value Proposition
- Services Quality
  • Deliverables Quality
  • Trust
  • Timeliness
- Accuracy
- Solution Clarity
- Product Quality
- Support
- Closure
- Budget
- Competing Offering
Key Value Segmentation Scorecard
Value, Goals, Measures, Weights, and Ranges

Make Project Selection and Decisions using Consistent, Objective Criteria
Following Clear Methodology Removes 'gaming' from the Prioritization Process
No Ambiguity which Programs are Strategically Important and of Value to the Organization
Strengthens Sponsorship and Stakeholder Relationships

<table>
<thead>
<tr>
<th>Performance Metric</th>
<th>AIM/Objective</th>
<th>KPI Goals</th>
<th>Metric</th>
<th>Weightage</th>
<th>Range-L</th>
<th>Range-H</th>
<th>Actual</th>
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<tbody>
<tr>
<td>Profit</td>
<td>Operating Margins</td>
<td>Maintain and Strengthen Margins</td>
<td>Gross/Net Margin</td>
<td>20%</td>
<td>1</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Budget</td>
<td>Expense Expenditures</td>
<td>keep resource expenditure at or below x% of revenue. Helps keep focus and frees up</td>
<td>Annual PS revenue growth, Annual Revenue per</td>
<td>20%</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Schedule</td>
<td>Resource utilization</td>
<td>Achieve and maintain strong resource utilization</td>
<td>Utilization Rate, Unstaff hours</td>
<td>20%</td>
<td>70%</td>
<td>80%</td>
<td>75%</td>
</tr>
<tr>
<td>Quality</td>
<td>High Customer Satisfaction</td>
<td>Reduce ECOs, Left-shift discovery</td>
<td>Nbr ECOs, Defects in Prod w/190-Days</td>
<td>20%</td>
<td>98%</td>
<td>100%</td>
<td>95%</td>
</tr>
<tr>
<td>Risk Avoidance</td>
<td>Low Risk Profile</td>
<td>reduce/mitigation risk-issues</td>
<td>Program Selection, Skill set coverage</td>
<td>20%</td>
<td>92%</td>
<td>100%</td>
<td>98%</td>
</tr>
</tbody>
</table>
### Key Value Segments

**Need to 1) align to Business Objectives 2) select key significant measures**

#### Budget
- % Deviation Planned Vs. Actual Margin
- % Hours billed vs. project hours completed
- % of actual project hours completed / estimated Project hours
- % unplanned hours / total hours
- Cost Deviation From Planned Budget (VAC)
- Estimate to Complete (ETC) (cost)
- Value at Completion (VAC)
  - Budget at Completion (BAC)
- Number Of CR's or ECO's

#### Schedule
- % Or Number Of Milestones Missed
- Deviation From Project / Program Time Schedule
- Planned Vs. Actual Project End Date
- Schedule Variance

#### Risk
- Number Of Identified Risk & Issues (With/Without Plans)

#### Quality
- Number of Issues Found By Customers (During / After Project)

#### Governance/PMO
- % or Number Of Overdue Projects Tasks
- Project Close Review With Lessons Learned Documented And Shared
- % Milestones On Time
- Amount Of PM Time Vs. Overall Effort Hours
- % Of Understaffed Projects

#### Resources
- % Or Number Of FTEs Working But Not Planned
- Deviation From Planned Hours Worked
- Project Resource Utilization

#### Process/Compliance
- Weekly Project Dashboard Updates Achieved Every Friday
- Monthly Health Check of Projects By Sr. Management
Questions in Determining KPIs

How many KPIs are Needed?
- Diminishing Returns
- Choose simplification over quantity

What is the Decision this KPI is to Support?

How often Measured?

Who will be accountable for the KPI – owner?

What Really is the Item being Measured by the KPI
Why/How does this item matter to the decision?
What is known now? Will it change?

Will the KPI serve as a benchmark?

What is the value to measuring today? Tomorrow?

<table>
<thead>
<tr>
<th>Metric</th>
<th>Complexity to Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost – profit, margin</td>
<td>Easy, quantifiable</td>
</tr>
<tr>
<td>Resource / Capacity Utilization</td>
<td>Easy, quantifiable</td>
</tr>
<tr>
<td>Schedule – tasks, deliverables, milestones</td>
<td>Easy, quantifiable</td>
</tr>
<tr>
<td>Requirements – inclusion, acceptance</td>
<td>Medium, quasi quantifiable</td>
</tr>
<tr>
<td>Quality</td>
<td>Medium, quasi-tangible</td>
</tr>
<tr>
<td>Process (in-process/end-of-process)</td>
<td>Medium, time &amp; quasi quantifiable</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>Hard, intangible</td>
</tr>
</tbody>
</table>

Consider that metrics may need to change over the life of the project
## Example KPI Selection Characteristics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Predictive</th>
<th>Quantifiable</th>
<th>Actionable</th>
<th>Relevant</th>
<th>Understandable</th>
<th>Automatable</th>
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</thead>
<tbody>
<tr>
<td>Unstaffed hours (Number)</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
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<tr>
<td>Missed Milestones (Number or %)</td>
<td>yes</td>
<td></td>
<td>yes</td>
<td>yes</td>
<td></td>
<td></td>
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<tr>
<td>Management Support Hours % of Budget</td>
<td>yes</td>
<td></td>
<td>yes</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of work packages on budget</td>
<td>yes</td>
<td></td>
<td>yes</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scope changes (Number)</td>
<td>yes</td>
<td></td>
<td>yes</td>
<td>yes</td>
<td></td>
<td></td>
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<tr>
<td>Changes in the risk profile (trend)</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
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<tr>
<td>Assumptions changed (# or %)</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer loyalty/Satisfaction (Rating)</td>
<td>yes</td>
<td></td>
<td>yes</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turnover of Key personnel (Number or %)</td>
<td>yes</td>
<td></td>
<td>yes</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over allocated resources (Number or %)</td>
<td>yes</td>
<td></td>
<td>yes</td>
<td>yes</td>
<td></td>
<td></td>
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<tr>
<td>Schedule Variance (SV)</td>
<td>yes</td>
<td></td>
<td>yes</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost Variance (CV)</td>
<td>yes</td>
<td></td>
<td>yes</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schedule Performance Index (SPI)</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td></td>
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<tr>
<td>Cost Performance Index (CPI)</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from: *Project Management Metrics, KPIs, and Dashboards: A Guide to Measuring*  By Harold R. Kerzner
KPI Usage

MAKE A POWERPOINT DECK SHOWING OUR PROGRESS ON PROJECT.

THERE HASN'T BEEN ANY PROGRESS.

THAT'S OKAY, USE A LARGE FONT.

STYLE IS NOT A SUBSTITUTE FOR SUBSTANCE.

YOU'RE THINKING LIKE A WORKER BEE. THERE'S NO TIME FOR SUBSTANCE WHEN YOU'RE AT THE TOP.

EXECUTIVES ONLY RESPOND TO FAMILIAR COLORS AND SHAPES.

CLOUDS, DOLLAR SIGNS... THAT SORT OF THING.

.... AND IN CONCLUSION.

COME ON SLOW CLAP.

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Measures, Metrics and KPIs

- Efficiency
  - Money saved
  - Process steps and touchpoints reduced
  - Element reuse
  - Resource onboarding (employee, contractor)
- Satisfaction (e.g., NPS)
  - Customer
  - Employee
- Quality
  - Errors reduced from previous i.e., Release
  - Errors found; comparing to benchmark / best in class
  - Errors discovered earlier in cycle
- Strategic
  - Time to Market/Customer (e.g., weeks/days)
  - Time saved/reduced

Tying KPIs Bonus
- Choosing the right incentive and best KPIs
- Not allowing “gaming”
- E.g., schedule SPI --- rebaselining prior to bonus “blackout” date
Execution KPIs

Measuring Effectiveness
• Hours Expended / Billed
• Schedule / Milestones met
• Quality / Defects
• Complaints / Escalations

Measuring Efficiency
• Cost per deliverable / Project phase
• Time per project task / Phase
• Resources needed per project task / Phase
• Project costs

Non-quantifiable Measurements
• Feedback from Team and Client Satisfaction*

Quantifiable Measurements
• Deliverables planned Vs Actually Delivered
• On-time Project Completion
• Projected Vs Actual Man-hours (per week/month/Project)
• Number of Issues Raised & Resolved
• Project Cost Control vs. Estimates
• Multiple Projects Results

When collecting measurements for a KPI, it is not necessary to strive for perfection.
• “It is better to be approximately right that to be precisely wrong” - Warren Buffett
## Value Metrics with Weight Focus

Adapted from Harold Kerzner Project Management Metrics, KPIs, and Dashboards

<table>
<thead>
<tr>
<th>Measure</th>
<th>Measurement Difficulty</th>
<th>Normal</th>
<th>min</th>
<th>max</th>
<th>Improved Quality</th>
<th>Features Focus</th>
<th>Schedule Slippage</th>
<th>cost overrun</th>
<th>Measure Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>sampling, PV; Number of defects; accepted vs. rejected</td>
<td>20%</td>
<td>10%</td>
<td>40%</td>
<td>30%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>3</td>
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<tr>
<td>Cost</td>
<td>direct measurement; CPI; reserve used, remaining</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk/Safety</td>
<td>simulation, accident count</td>
<td>20%</td>
<td>10%</td>
<td>40%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>40%</td>
<td>2</td>
</tr>
<tr>
<td>Scope/Features</td>
<td>direct observation, PV; number of CR/ECOS</td>
<td>30%</td>
<td>20%</td>
<td>40%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>2</td>
</tr>
<tr>
<td>Time/Schedule</td>
<td>direct measurement; SPI, late vs. on-time</td>
<td>20%</td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

### Performance

- **Very Favorable Exceeding Target**
- **Exceeding Target**
- **Performance Target**
- **Unfavorable Expectations**
- **Risk of Project Failure**

- **Target +20%**
- **Target +10%**
- **Target -10%**
- **Target -20%**

- **4 Superior**
- **3 Good**
- **2 Normal**
- **1 Caution**
- **0 Urgent Attention**
Project KPI
Example: Earned Value

Method for Quantifying Project Performance
• Compares planned to actual for costs and schedule
• Estimates final project costs

Integrates
• Project scope, schedule, cost, resources and technical milestones
• Value of work performed = Percent complete x Total Budget

Provides
• Forecast of project cost at completion
• Forecast of project schedule at a future time
• Identification of projects execution efficiently
• Identification of project execution effectiveness
• Comparison of project performance
Earned Value Management

Key Elements
1. WBS time-phased budget (BAC or BC or PV)
2. Actual Costs by period e.g., monthly (AC)
3. Estimate complete by period e.g., monthly (Est%C)

<table>
<thead>
<tr>
<th>Formula</th>
<th>Calculation</th>
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<tbody>
<tr>
<td>Earned Value</td>
<td>BAC*Est%C</td>
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<tr>
<td>CPI</td>
<td>EV/AC</td>
</tr>
<tr>
<td>SPI</td>
<td>EV/BC or EV/PV</td>
</tr>
<tr>
<td>CV</td>
<td>EV-AC</td>
</tr>
<tr>
<td>SV</td>
<td>EV-BC or EV-PV</td>
</tr>
<tr>
<td>CV%</td>
<td>CV/AC</td>
</tr>
<tr>
<td>SV%</td>
<td>SV/BC</td>
</tr>
<tr>
<td>EAC</td>
<td>BC/CPI</td>
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<td>VAC</td>
<td>BC-EAC</td>
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<tr>
<td>VAC%</td>
<td>VAC/BC</td>
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<tr>
<td>ETC</td>
<td>BC-EV/CPI</td>
</tr>
<tr>
<td>TCPI</td>
<td>BC-EV/BC-AC</td>
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<tr>
<td>Duration</td>
<td>AD/Est%C</td>
</tr>
</tbody>
</table>

Cost Performance Variance
- Yellow Zone: -10% to +10%
- Red Zone: -20% to -10%
- Green Zone: -10% to 0%
- White Zone: 0% to +10%

Forecast Overrun/Underrun
- $8,000
- $7,000
- $6,000
- $5,000
- $4,000
- $3,000
- $2,000
- $1,000
- $0

Cost (Project)
- $7,059
- $200
- $300

Projects
- SPI
- CPI
- TCPI

Timeline
- April
- May
- June
- July
- August

Duration
- AD/Est%C
Measures Library

ALL OF OUR DATA IS GROSSLY INACCURATE... BUT I NEED DATA IN ORDER TO MANAGE.

IF I CONCENTRATE HARD ENOUGH I CAN FORGET THAT THE DATA IS BAD, THEN I CAN USE IT.

I HAVE TO GIVE HIM CREDIT; MANAGING IS HARDER THAN IT LOOKS.
Measurement Library

Identify Measure, Metrics and KPIs for the Business, Organization, PMO, and Projects
Identify Measure Characteristics
Identify Formulas and Calculations, with examples
Identify Data Sources and Update/Refresh Frequencies
Define Components, Terms, Usage, Examples, Ranges, Owners…
Provide Use Case and Results interpretations
Identify Actions to be Taken

<table>
<thead>
<tr>
<th>Select</th>
<th>Who</th>
<th>Metric</th>
<th>Frequency</th>
<th>Analysis</th>
<th>Category</th>
<th>Units</th>
<th>Measure</th>
<th>Evaluation</th>
<th>Strategy Direction</th>
<th>Calculation</th>
<th>Score</th>
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<tbody>
<tr>
<td>Yes</td>
<td>PM</td>
<td>Tactical</td>
<td>Monthly</td>
<td>Snapshot</td>
<td>Budget</td>
<td>%</td>
<td>% Deviation Planned Vs. Actual Margin</td>
<td>Quantifiable</td>
<td>Downward, Min, Negative</td>
<td>Planned Margin-Actual Margin</td>
<td>Complete</td>
</tr>
<tr>
<td>Yes</td>
<td>PM</td>
<td>Tactical</td>
<td>Monthly</td>
<td>Trend</td>
<td>Budget</td>
<td>%, $</td>
<td>Cost Deviation From Planned Budget (VAC)</td>
<td>Quantifiable</td>
<td>Downward, Min</td>
<td>(Planned Budget Costs- Actual Costs) / planned Budget Costs</td>
<td>Complete</td>
</tr>
<tr>
<td>Yes</td>
<td>PM</td>
<td>Tactical</td>
<td>@Project Start</td>
<td>Trend</td>
<td>Budget</td>
<td>%, $</td>
<td>Value at Completion Budget at Completion</td>
<td>Leading</td>
<td>Min, Downward</td>
<td>Budget At Completion = Estimate Costs To Complete</td>
<td>Develop</td>
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<td>Yes</td>
<td>PM</td>
<td>Tactical</td>
<td>Weekly</td>
<td>Trend</td>
<td>Governance</td>
<td>#</td>
<td>% or Number Of Overdue Projects Tasks</td>
<td>Quantifiable</td>
<td>Downward, Min, Negative</td>
<td>Number of overdue project tasks</td>
<td>The Inst.</td>
</tr>
<tr>
<td>Yes</td>
<td>PM</td>
<td>Tactical</td>
<td>@Project Close</td>
<td>Snapshot</td>
<td>Governance</td>
<td>R</td>
<td>Achievement Of Initial Project Goals / Objectives / Targets</td>
<td>Qualitative</td>
<td>Max, Positive, Upward</td>
<td>Project = Met project goals = y/n</td>
<td>Aby lead</td>
</tr>
<tr>
<td>Yes</td>
<td>PMO</td>
<td>Tactical</td>
<td>Monthly</td>
<td>Snapshot</td>
<td>Governance</td>
<td>#</td>
<td>Customer Renewal Of Billable Resources</td>
<td>Quantifiable</td>
<td>Max, Positive, Upward</td>
<td>Annual Recurring Revenue</td>
<td>In year</td>
</tr>
</tbody>
</table>
## Example: KPI - % Deviation Planned vs. Actual Margin

<table>
<thead>
<tr>
<th>Measure</th>
<th>Category</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Deviation Planned Vs. Actual Margin</td>
<td>Budget</td>
<td>%</td>
</tr>
</tbody>
</table>

**Description**
Margin variance is the estimated margin for project minus the actual margin achieved at end of project.
Total revenue from services contracts within period.

**Interpretation**
A negative margin difference indicates improved margin over estimated margin. If actual margin decreases over milestones, that implies that project costs (expenses and/or discounts) are rising faster than related service.

**Calculation**
Planned Margin-Actual Margin
\[
\frac{(Planned \ Margin - Actual \ Margin)}{Planned \ Budget} \times 100
\]
\[
\frac{(Total \ Services \ Revenue - (Hard \ Costs + Labor \ Costs))}{Total \ Budget} \times 100
\]

**Scenario**
Company A estimated a margin of 28% but calculated 32% at project completion.

**Example**
28%-32% = -4% margin difference
(28%-32%) / 28% x 10 = -14% deviation

**Reference**
Value not set

**Assumptions**
Value not set

**Source**
Value not set

**Risks**
Value not set

**Comments**
Regardless if the 100 hours were applied over one or two

**Weight**
10%

**Limitations**
Value not set

**Actionable**
Value not set
KPI Communications

There's no objective standard for measuring how much I should accomplish in any given day.

Nor can we really know if things would have turned out better had I done things differently.

Do you have a point?

I'm going home early. See if you can tell the difference.

Smarter decisions, better products.
Programs and Project must measure progress, identify risks and tackle the difficult issues changing course where necessary.

Position as “single source of truth”; One Stop View, Definitive Destination

Regular, Consistent & Accurate Information Flow – builds trust

- E.g., Morning “Wall Street Journal” approach - 60 second review

Communicate Performance Measures, Metrics and KPIs

- Project State, Metrics; EVM - Planned vs. actuals
- Schedule Impacts; Corrective actions active & planned
- Risks and Issues

Immediately Usable by Decision Makers

Deliver with visibility, transparency and accountability

Clear measure / status

- What does “yellow” really mean? What actions are needed?
- Answer the natural questions… e.g., When will it be “corrected” / back on track?

Metrics and dashboards are not a substitute for direct stakeholder interaction
Summary

THIS METRIC SHOWS AN EXCELLENT TREND IN THE NUMBER OF DAYS SINCE THE BEGINNING OF MY PROJECT.

THAT GROWTH RATE COMPARES FAVORABLY WITH THE BEST COMPANIES IN OUR TIME ZONE.

I'M WORKING SMARTER, NOT HARDER.

IT'S A WHOLE NEW PARADIGM.

Smarter decisions, better products.
10 Step Measurement Roadmap

1. Understand the Environmental Dynamics – Market, Business, Programs, Projects
2. Identify Business Objectives, Goals, Priorities and KVS
3. Determine Value Components
4. Align & Define Candidate Measures
5. Identify Key Performance Indicators
6. Build and Maintain Measurement Library
7. Deliver Regular & Accurate Information Flow
8. Usable by Decision Makers
9. Periodic Reviews as organization, program and project evolve
10. Drive Continuous Improvement - both in measures & performance
People without information are unable to change; those with information are compelled to change

- M. Kubiak

If the measures don’t change, neither do the results

What gets measured and rewarded, gets done!

“Whenever there is fear, you will get the wrong figures.”

- W. Edwards Deming
References / Sources for More Information….

Project Management Resources - Practices, Tools, and White Papers

• www.projectmanagement.com/
• www.projectsatwork.com/
• www.pmperspectives.org/
• www.pmlinks.com/information/templates/
• www.psmsc.com/
• www.kpilibrary.com/
• www.smartkpis.com/
• www.4pm.com
• www.pmis-consulting.com
• www.pmlvfd.com
• www.gantthead.com

Professional PM Organizations:

• www.pmi.org
• www.asapm.org
• www.ipma.ch
• www.apmg.co.uk
• www.aipm.com.au
What gets measured gets done, what gets measured and fed back gets done well, what gets rewarded gets repeated."

John E. Jones

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