Mastering Performance Measurement

An Essential Skill for Benefits Realization
Numbers can tell a powerful story. Is a project successful? Is a new process working? Is our investment in training paying off? To insure that your numbers tell the right story, be consistent in the planning, collection, and analysis of those numbers.
Mastering Performance Measurement

Measurement provides you with the information necessary to make intelligent decisions about what you do. It can tell you how well you are doing; if you are meeting your goals; if your customers are satisfied; if your processes are effective; if improvements are necessary and, if so, in what parts of the organization.

A structured measurement program allows you to identify areas for performance improvement, benchmark against industry/competitors, set targets, identify trends for forecasting and planning, evaluate the effectiveness of changes, determine the impact of project management or other processes and tell a story about your organization’s performance.

In a series of interviews with client organizations, spanning over five years, a consistent theme underlying the failure to establish benefits realization programs has been a very basic lack of performance measurement. Companies realize they need to be able to quantify the results from their investments in projects or in training, yet because baseline performance measures have not been delineated, improvement remains subjective. You can’t manage what you don’t measure … and you also cannot tell whether it has improved or not. Particularly when the benefits pertain to process improvement, as in the case of measuring the value realized from project management training or the implementation of a PMO, baseline metrics for performance must be established in advance.

There is a huge buzz around benefits realization today. The days where the projections in your business cases were never truly validated are over. If your organization doesn’t have a performance management program in place, it won’t be able to determine whether the planned benefits of its projects and programs are being realized. Performance Measurement is therefore an essential component in Benefits Realization Management, as shown in Figure 1 (page 4).

Most organizations are looking to measure for performance in order to meet one or more of these goals:

- To drive revenue
- To make strategic investment
- To reduce operating expenses.

Generally, the benefits in your business cases fall into one of these three buckets. But, no matter what the goal is, a measurement program will help you identify, prioritize, and select measures that will be effective in monitoring your performance in meeting these goals and delivering the value projected in your business case.

For companies that depend on the execution of projects for business success, project portfolio tracking is all about measurement. When accurate data is available, strategic decision makers can decide where to invest more, or less, effort. The data used to value each project must be accurate and current.
The same is true for those companies that expend large budgets on training. Is it making a difference? How do we know? What do we need to do to find out?

Is it worth the effort to engage in developing a performance measurement program? The answer is a resounding Yes! Unless you are capturing, baselining, and continuously improving performance measurement practices, you’ll never get an accurate picture of whether or not the organization is actually realizing the value it has projected in its business cases or from its investments. And the measurement results can be impressive. For example, our 2016 State of the PMO research study measured the value delivered by high-performing PMOs in the following areas:

» Improvement in projects delivered under budget: 33%
» Improvement in customer satisfaction: 27%
» Improvement in productivity: 25%
» Improvement in alignment of projects with firm’s objectives: 43%
» Decrease in failed projects: 25%
» Cost savings per project (US $): $175K
» Project quality: 28.3%
» Project employee satisfaction: 21.8%
» Project alignment to business strategy: 28.7%

Figure 1. Benefits Realization Management is the “connective tissue” that flows across all levels and phases of strategy execution when managing projects for strategic impact. It comprises both a cultural mindset/focus and a set of tools — some new, many familiar. It is unique in that it extends past the usual closing of projects to determine impacts to processes, portfolios, and strategies over the life of the benefit(s).
Further findings from *The State of the PMO 2016* show that 100% of “Best-in-Class” PMOs monitor PMO performance, and they report that measuring and reporting on PMO value is one of their top priorities. It’s not surprising that they also all perform benefits realization analysis and reporting.

Additionally, looking at PMOs within high-performing organizations (see Figure 2), we find that organizations that excel have project management functions that stress performance measurement and reporting. Not only do these organizations’ PMOs perform a wider range of performance management functions, but they also list improving those functions during the next year among their top priorities. For example, 46% plan to focus on benefits realization (as opposed to only 28% of low performers).

One encouraging note in the study is that, far more than in previous years, we see PMOs in low-performing companies saying they plan to improve performance measurement in the next 12 months: 47% of low performers report they will implement or enhance a performance management process in 2017.

Organizations implementing a performance measurement program need a reliable accounting system that collects and accounts for resources (expenditures, revenues, and manpower). For example, information from the accounting system may be necessary to forecast project and/or training costs and benefits. The organization should have reliable, up-to-date market, technical, manufacturing, and professional development information, and be able to monitor the status of ongoing project and/or training activity.

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**Figure 2: Top Performance Management Functions in High-Performing Organizations**

<table>
<thead>
<tr>
<th>The State of the PMO 2016 reveals what PMOs in top organizations are doing about performance measurement. (Low performers score 20-40 points lower in all areas)</th>
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<tbody>
<tr>
<td>Function</td>
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<tr>
<td>Dashboard/scorecard implementation/management</td>
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<tr>
<td>Portfolio performance monitoring/controlling</td>
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<tr>
<td>Project performance monitoring/controlling</td>
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<tr>
<td>PMO performance monitoring/controlling</td>
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<tr>
<td>Key performance indicator/performance measurement development</td>
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<tr>
<td>Project auditing</td>
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<td>Continuous improvement initiatives</td>
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<tr>
<td>Portfolio/project/program management benchmarking</td>
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<tr>
<td>Performance measurement process implementation/management</td>
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<td>Benefits realization analysis/reporting</td>
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There are numerous ways to determine the performance and success of your programs; however, measures necessary to one organization may not apply to another. That’s why it’s critical to plan for measurement and to clearly understand the needs and goals of the organization in determining what to measure and why. The organization should seek to balance and streamline its measurement activities to ensure the measures it chooses will result in strategic organization-level improvements.

Where Do You Begin?

First, if you start a measurement program, you want it to be successful. You need to realize that it takes time and commitment. There needs to be a clear understanding of what you are trying to accomplish; have senior management sponsorship; make sure employees are onboard with the project; decide upon a measurement framework to use; have someone accountable for the accuracy of the measures; have a sense of urgency for the results; and make sure you have the resources to gather and analyze the data.

The reason for measuring should always be about goals and objectives. You can never stop asking, “Why are we doing this?” Value is in the eye of the beholder: so the first step is to identify what’s most important to the organization. When strategy is clear, this should be relatively easy. Common goals and objectives to measure include:

» Reducing costs
» Improving timing
» Improving quality
» Measuring effectiveness
» Improving productivity

Once you start measuring performance, you can begin to start measuring value, and seeing if you are realizing the benefits of your strategic initiatives.

For example, improving schedule performance for all your projects over a period of a year can be translated into improvement in average project cycle time, which can be translated into improvement in time to market, resulting in an increase in the number of new products your organization produces, which can add significant value to your organization through increased market share. Value measures, therefore, provide information on the performance of the organization rather than the performance of a project. They must be collected over a longer period of time (no more than quarterly) and over your portfolio of projects. This example also demonstrates how good measures should align with organizational objectives. (See Figure 3)

Once schedule performance has been linked to increased market share, the value of training project personnel in scheduling becomes calculable. In this same

A Formula for Performance and Value Reporting

» Measure current status (baseline)
» Measure new status (periodically)
» Difference = Performance Change
» Cumulative Performance Change should be translated into a value metric. (e.g. improvement in schedule performance yields an improvement in time-to-market)

Convert performance gains into financial metrics if possible. If not possible, link to some other organizational value measure. Tell a story that links performance changes to business outcomes.
way, it is possible to work backward from any strategic goal, drilling down to those measurable tasks that have an impact on goal achievement, and then developing training plans that directly impact those tasks. Using a measurement program of this type, the training function will always have a “hard” answer ready to the question: Does this training pay off? And, by how much?

So, once you decide WHAT you want to measure and WHY, the next question is will the data for this measure be easily accessible? You’ll want to make the electronic capture of data a part of normal business operations. For example, time stamps on electronic documents or actuals reported through project plans and financial systems are captured through standard systems. This type of data collection reduces the amount of effort required to gather data and ensures a greater level of compliance. It also allows for ongoing access to information, allowing for the periodic reporting of metrics from the systems without the need for mobilizing a search team to track down information.

Developing Performance Measures

While there is general agreement that “you can’t manage what you can’t measure,” the actual measurements themselves usually prove to be a source of conflict. What are we measuring, and why? What should we be measuring? What’s the connection between the performance measures we collect regarding individuals and their tasks and the ultimate performance of the company—if any? And what, in reality, does “performance” mean, on an organization-wide scale? Is it merely making money? And if so, how much? Measures are the easy part—knowing what you want to measure, and why, is hard.

Therefore, following a structured process helps to develop less fuzzy measures, while engaging a wide variety of the people who actually do the work in the process prevents the chosen measures from diverging too far from reality or ease-of-use.

There is no single set of measures that universally applies to all companies. The appropriate set of measures depends on the organization’s strategy, technology, and the particular industry and environment in which they compete. Like any aspect of any “living company,” measures cannot be static: they cannot be chosen once and locked into place. Along with strategy, they evolve and are refined as the organization becomes more focused on, and skilled at, meeting strategic goals.

Figure 3

<table>
<thead>
<tr>
<th>Objective</th>
<th>Measure</th>
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<tbody>
<tr>
<td>Increase Market Share</td>
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<td>Number of New Products</td>
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<td>Time to Market</td>
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<td>Projects on Schedule</td>
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<td>Schedule Performance</td>
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Measurement Planning

Planning your performance measurement program begins with identifying the measurement program team and their roles and responsibilities, and defining measurement program goals. Next, identify what, if any, current performance measurement systems are in place. What will be your implementation approach? Like any program, a measurement program needs a program plan and a clear understanding of terminology among the team. Some suggested roles on the measurement team include:

- Sponsor
- Representatives from stakeholders
- Project manager
- Data collection coordinator
- Data analyst
- Communications coordinator
- Measurement analyst

Establishing and Updating Measures

To develop a list of potential measures, start by brainstorming all the possible measures that would be meaningful to the goals you are trying to achieve. Measures flow from goals and objectives and are developed collaboratively with the measurement team and stakeholders. Explore the inventory of common measures (see the “Top Ten Measures” on page 10), and follow these criteria for effective measures:

A Model for Performance Measurement

Now that you have committed to a measurement program, have appropriate sponsorship and know what your ultimate objectives are, you’ll need a Performance Measurement Framework to begin implementing. The PEMARI model established by PM Solutions has been proven to work well in dozens of organizations. This model integrates a number of processes:

- **Planning**: a process for understanding key success factors, identifying stakeholders and roles and responsibilities, identifying performance management goals, and developing a program plan.

- **Establishing metrics**: a process for identifying and selecting performance measures, developing measurement scorecards (high-level measures defined at the Governance level; specific metrics that roll up into these identified at the departmental or program level)

- **Measurement**: a process for planning for data collection, including data source and information technology required; collecting data and ensuring data quality (a joint responsibility of IT and the Strategic Project Office as owner of the portfolio processes)

- **Analysis**: a process for converting data into performance information and knowledge; analyzing and validating results; performing benchmarking and comparative analysis (a joint responsibility of IT and the SPO)

- **Reporting**: a process for developing a communications plan and communicating performance results to stakeholders (a responsibility of internal communications)

- **Improvement**: a process for assessing performance management practices, learning from feedback and lessons learned, and implementing improvements to those practices (a joint responsibility of the SPO as portfolio owner, and executives responsible for governance).
» Does this measure provide meaningful information?
» Is it supported by valid, available data?
» Is it cost effective to capture?
» Is it acceptable to stakeholders?
» Is it repeatable? Actionable?
» Does it align with organizational objectives?

M Measuring

Next, prioritize and select a critical few measures, keeping the number of measures at each management level to a minimum and start measuring. A few criteria for prioritization of measures might include their importance to the execution of goals; the ease of accessing the data; and the ease of acting to change the performance.

This process leads to the development of a scorecard of vital measures, with each measure clearly defined as a “measure package” that details the “what, why, when, who, and how”:

» What is the measure?
» Why do we measure it?
» How will the data be captured?
» When will the data be captured?
» Where does this information reside?
» Who is the process owner for this data?

Address reliability, timeliness, and accuracy issues for each measure. One hurdle you may run into early is whether your information systems are designed to support the kind of data collection and reporting that will be most useful to your goals. Data collection should be:

» Focused on the organization’s assessment and improvement needs
» Flexible to take advantage of any data source or method that is feasible and cost-efficient
» Simple and aligned with the organization’s needs to provide clear, relevant information
» Consistent to allow comparisons and easy transition from one data set to the next

A Analyzing the Data

Use a scorecard method to organize and aggregate the data, grouping measures by their relationship to key organizational areas of concern, such as financial measures, customer satisfaction measures, process measures and employee satisfaction measures. In order to analyze and validate results, you must formulate precise questions that you are trying to answer. (Example: “Where is the most costly resource bottleneck in the organization?”) Then, collect and organize the data and facts relating to those questions. Analyze the data to determine the fact-based answer to the questions, and present the data in a way that clearly communicates answers to the questions. Any measurement program that fails to provide answers to the questions it raises, from an executive buy-in point of view, is doomed.

» How does actual performance compare to a goal or standard?
» If there is significant variance, is corrective action necessary?
» Are new goals or measures needed?
» How have existing conditions changed?

Perform benchmarking and comparative analysis as needed to establish performance in comparison to competitors and companies or organizations that have a similar focus, or to determine whether the performance of the organization is improving.

P Performance Reporting

Like any communications, performance reporting requires early identification of your target audience, in this case:
1. **Return on Investment — (Benefits/Costs) Cost.** This is the most appropriate formula for evaluating project investment (and project management investment). This calculation determines the percentage return for every dollar you’ve invested. The key to this metric is in placing a dollar value on each unit of data that can be collected and used to measure Net Benefits. Sources of benefits can come from a variety of measures, including contribution to profit, savings of costs, increase in quantity of output converted to a dollar value, quality improvements translated into any of the first three measures.

2. **Productivity — Output Produced/Unit of Input.** Productivity measures tell you whether you’re getting your money’s worth from your people and other inputs to the organization. A straightforward way to normalize productivity measurement across organizations is to use revenue per employee as the key metric. Dividing revenue per employee by the average fully burdened salary per employee yields a “Productivity Ratio” for the organization as a whole. Other productivity metrics might be number of projects completed per employee, number of lines of code produced per employee. The key to selecting the right productivity measures is to ask whether the output being measured (the top half of the productivity ratio) is of value to your organization’s customers.

3. **Cost of Quality — Cost of Quality/Actual Cost.** Cost of quality is the amount of money a business loses because its product or service was not done right in the first place. It includes total labor, materials, and overhead costs attributed to imperfections in the processes that deliver products or services that don’t meet specifications or expectations. These costs would include inspection, rework, duplicate work, scrapping rejects, replacements and refunds, complaints, loss of customers, and damage to reputation.

4. **Cost Performance Index — Earned Value/Actual Cost.** The CPI is a measure of cost efficiency. It’s determined by dividing the value of the work actually performed (the earned value) by the actual costs that it took to accomplish it. The ability to accurately forecast cost performance allows organizations to confidently allocate capital, reducing financial risk, possibly reducing the cost of capital.

5. **Schedule Performance — Earned Value/Planned Value.** The Schedule Performance Index is the ratio of total original authorized duration versus total final project duration. The ability to accurately forecast schedule helps meet time-to-market windows.

6. **Customer Satisfaction — Scale of 1-100.** Meeting customer expectations requires a combination of conformance to requirements (the project must produce what it said it would produce) and fitness for use (the product or service produced must satisfy real needs). The Customer Satisfaction Index comprises hard measures of customer buying/

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**Continuous Improvement**

Measurement, like any organizational improvement initiative, cannot be done just once. Having baselined your measurements, you will have to iteratively measure in order to develop trends. In addition, review for factors that impact the program. Some common barriers to success include inappropriate members on the measurement team, changes in organizational strategies and objectives, new measurement best practices, feedback and lessons learned from your baseline efforts. Continually monitor these barriers to success, helping to improve understanding of the measurement process, of the organizational strategies and objectives, of your key business processes, and stakeholder needs. Regular communication will maintain senior management and employee involvement. Linking the measurement program to a system of accountability for results creates a sense of urgency and relevance.
Piloting the Measurement Program

Implementing a new measurement program or measurement improvement initiatives, such as new data collection methods, new scorecards, or new performance measurement information systems, can all benefit from the use of pilots.

- For a new measurement program, execute a pilot that involves ad hoc collection of data for a few select measures. This means no data collection processes are established. Also collected are characteristics of the measures such as data quality and collection difficulty.
- Deliver a draft version of a scorecard to an appropriate audience.
- Collect feedback from data sources, audience, and measurement team members.
- Formally document what was learned from the pilot. Focus on issues that will provide you information about the measurement process and how to improve it.
- Depending on the results, launch a new pilot, or launch your new or more robust measurement program.

Conclusion

- Never lose sight of WHY you are measuring performance
- Mitigate potential barriers for success
- Establish the right measures
- Remember measuring takes time and commitment
- Pilot and show value
- Align your measurement with your strategic objectives
- Communicate results effectively.

use behavior and soft measures of customer opinions or feelings, weighted based on how important each value is in determining customer overall customer satisfaction and buying/use behavior. Includes measures such as repeat and lost customers, revenue from existing customers, market share, customer satisfaction survey results, complaints/returns, and project-specific surveys.

7. Cycle Time. There are two types of cycle time—project cycle and process cycle. The project life cycle defines the beginning and the end of a project. Cycle time is the time it takes to complete the project life-cycle. Cycle times for similar types of projects can be benchmarked to determine a Standard Project Life-Cycle Time. Measuring cycle times can also mean measuring the length of time to complete any of the processes that comprise the project life-cycle. The shorter the cycle times, the faster the investment is returned to the organization. The shorter the combined cycle time of all projects, the more projects the organization can complete.

8. Requirements Performance. To measure this factor you need to develop measures of fit, which means the solution completely satisfies the requirement. A requirements performance index can measure the degree to which project results meet requirements. Types of requirements that might be measured include functional requirements (something the product must do or an action it must take), non-functional requirements (a quality the product must have, such as usability, performance, etc.). Fit criteria are usually derived some time after the requirement description is first written. You derive the fit criterion by closely examining the requirement and determining what quantification best expresses the user’s intention for the requirement.

9. Employee Satisfaction. An employee satisfaction index determines employee morale levels. The ESI comprises a mix of soft and hard measures, each assigned a weight based on their importance as a predictor of employee satisfaction levels, for example: percentage represents weight): climate survey results (rating pay, growth opportunities, job stress levels, overall climate, extent to which executives practice organizational values, benefits, workload, supervisor competence, openness of communication, physical environment/ergonomics, trust) (35%), focus groups (to gather in-depth information on the survey items) (10%), rate of complaints/grievances (10%), stress index (20%), voluntary turnover rate (15%), absenteeism rate (5%), and rate of transfer requests (5%).

10. Alignment to Strategic Business Goals. Most project management metrics benchmark the efficiency of project management—doing projects right. You also need a metric to determine whether or not you’re working on the right projects. Measuring the alignment of projects to strategic business goals is such a metric. Survey of an appropriate mix of project management professionals, business unit managers, and executives. Use a Likert scale from 1-10 to rate the statement: Projects are aligned with the business’s strategic objectives.
References

PM Solutions Research. Internal qualitative research study, conducted over three years with 12+ training and consulting clients. Glen Mills, PA: PM Solutions.


PM College Training Courses

Measuring the Performance of Project Initiatives

This two-day course offers a comprehensive introduction to measurement. Participants will learn how to assess what’s performing well and what needs improvement to build a business case for project management improvement initiatives. Become proactive in implementing measurement strategies aimed at improving your organization’s project management performance.

Benefits Realization: How to Demonstrate Tangible Value Against Your Business Case

This two-day course demonstrates that benefits are not just another dimension of portfolio management, but are the basic rationale for any investment of funds. As such, benefits should drive those investment or change decisions from initiation through implementation and beyond. This course, built on a wealth of real world experience and lessons learned.

For more information on PM College’s full course list, visit pmcollege.com/courses/. To schedule a class now, contact us at info@pmcollege.com or call us at 800.983.0388.