SHOW ME THE MONEY: THE USE OF ROI IN PERFORMANCE IMPROVEMENT, PART 1

Jack J. Phillips | Patricia P. Phillips, CPT

This first of a two-part series presents the evolution of value, moving from activity-focused value to the ultimate value, return on investment (ROI). This feature clearly shows that the ROI methodology is not only appropriate for the performance improvement field, but is designed with a variety of performance improvement solutions in mind. The next article in this series will describe issues and challenges that those using this methodology face, along with a brief case study.

"SHOW ME THE MONEY." There's nothing new about that statement, especially in business. Organizations of all types value their investments. What is new is the method that organizations can use to get there. While "showing the money" may be the ultimate report of value, organization leaders recognize that value lies in the eye of the beholder; therefore, the method used to show the money must also show the value as perceived by all stakeholders. Just as important, organizations need a methodology that provides data to help improve investment decisions. This article presents an approach that does both: it evaluates the value that organizations receive for investing in performance improvement programs and projects and develops data to improve those programs.

VALUE REDEFINED

The Value Shift

In the past, program, project, or process success was measured by activity: number of people involved, money spent, days to complete. Little consideration was given to the benefits derived from these activities. Today the value definition has shifted: value is defined by results versus activity. More frequently, value is defined as monetary benefits compared with costs. The following examples illustrate this paradigm shift:

- The U.S. Air Force developed return on investment (ROI) for data security to prevent intrusion into its databases.
- Apple Computer calculated ROI for investing in process improvement teams.
- Sprint/NEXTEL developed ROI on its diversity program.
- The Australian Capital Territory Community Care agency forecast the ROI for implementing a client relationship management system.
- Accenture calculated the ROI on a new sales platform for its consultants.
- Wachovia developed forecast and actual ROI for its negotiations program.
- A major hotel chain calculated the financial value and ROI of its coaching program.
- The cities of New York, San Francisco, and Phoenix showed the monetary value of investing in projects designed to reduce the number of homeless citizens on the streets.
- Cisco Systems is measuring ROI for its key meetings and events.
- A major U.S. Defense Department agency has developed ROI for a master's degree program offered by a major university.

From Motorola's Six Sigma quality improvement process to project management, to learning and development, to meetings and events, to public policy, organizations are showing value by using the comprehensive evaluation process described in this article.

Although this methodology to show the money had its beginnings in the 1970s, it has expanded and is now the

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most comprehensive and broad-reaching approach to demonstrating the value of project investment.

Types of Values

Value is determined by stakeholders' perspectives, which may include organizational, spiritual, personal, and social values, and it is defined by consumers, taxpayers, and shareholders. Capitalism defines value as the economic contribution to shareholders. The Global Reporting Initiative, established in 1997, defines value from three perspectives: environmental, economic, and societal. But even as human performance technology (HPT) projects, processes, and programs are implemented to improve the social, environmental, and economic climates, the monetary value is often sought to ensure that resources are allocated appropriately and that investments reap a return. No longer is it enough to report the number of programs offered, the number of participants or volunteers trained, or the dollars generated through a fundraising effort. Stakeholders at all levels—executives, shareholders, managers and supervisors, tax project designers, and participants—are looking for outcomes—and in some cases, the monetary values of those outcomes.

The Importance of Monetary Values

Many people are concerned that there is too much focus on economic value. But it is economics, or money, that allows organizations and individuals to contribute to the greater good. Monetary resources are limited and can be put to best use—or they can be underused or overused. Organizations and individuals have choices about where to invest these resources. To ensure that monetary resources are put to best use, they must be allocated to programs, processes, and projects that yield the greatest return.

For example if a process improvement initiative is begun to improve efficiencies and it does have that outcome, the assumption might be that the initiative was successful. But if the initiative cost more than the efficiency gains are worth, has value been added to the organization? Could a less expensive process have yielded similar or even better results, possibly reaping a positive ROI? Questions like these are, or should be, asked routinely. No longer will activity suffice as a measure of results. A new generation of decision makers is defining value in a new way.

THE "SHOW-ME" GENERATION

Figure 1 illustrates the requirements of the new show-me generation. "Show me" implies that stakeholders want to see actual data (numbers and measures) to account for program or project value. But financial results alone do not provide evidence that projects add value. Often a connection between performance improvement projects and

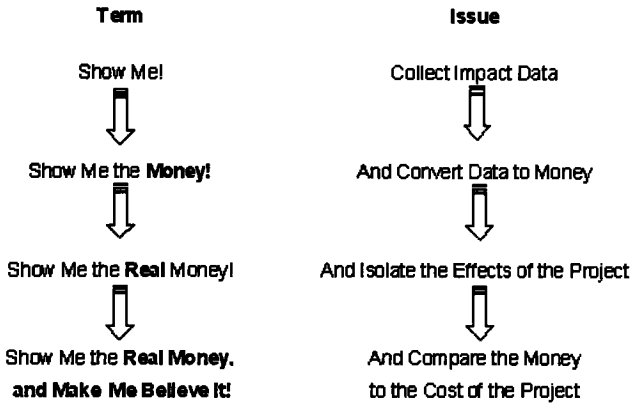

FIGURE 1. THE "SHOW-ME" EVOLUTION

value is assumed, but that assumption soon must give way to the need to show an actual connection. Hence, "show me the real money" was an attempt at establishing credibility. This phase, though critical, still left stakeholders with an unanswered question: "Do the monetary benefits linked to the project outweigh the costs?" This question is the mantra for the new show-me generation: "Show me the real money, and make me believe it." But this new generation of project sponsors recognizes that value is more than just a single number: value is what makes the entire organization system tick—hence, the need to report value based on people's various definitions.

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The New Definition of Value

The changing perspectives on value and the tremendous shifts that are occurring in organizations have all led to a new definition of value. Value is not defined as a single number. Rather, its definition is composed of a variety of

data points. Value must be balanced with quantitative and qualitative data, as well as financial and nonfinancial perspectives. The data sometimes reflect tactical issues such as activity, as well as strategic issues, such as ROI. Value must be derived using different time frames and does not necessarily represent a single point in time. It must reflect the value systems that are important to the stakeholders. The data composing value must be collected from credible sources, using cost-effective methods. And value must be action oriented, compelling individuals to make adjustments and changes.

The processes used to calculate value must be consistent from one HPT project to another. Standards must be in place so that results can be compared. These standards must support conservative outcomes, leaving assumptions to decision makers.

The ROI methodology presented in this article meets all of these criteria. It captures six types of data that reflect the issues contained in the new definition of value: reaction and perceived value, learning and confidence, application and implementation, impact and consequences, return on investment, and intangible benefits.

WHY NOW?

In the past decade, a variety of forces have driven additional focus on measuring the impact of HPT programs or solutions, including measuring the financial contribution and ROI. These forces have challenged old ways of defining program or solution success.

Project Failures

Almost every organization encounters unsuccessful performance improvement projects—projects that go astray, costing far too much and failing to deliver on promises. Project disasters occur in business organizations as well as in governments and nonprofit organizations. Many critics of these projects suggest that the failure could be avoided if (1) the project is based on a legitimate need from the beginning, (2) adequate planning is in place at the outset, (3) data are collected throughout the project to confirm that the implementation is on track, and (4) an impact study is conducted to detail the project's contribution. Unfortunately, these steps are unintentionally omitted, not fully understood, or purposely ignored; hence, greater emphasis is being placed on the processes of accountability.

Project Costs

The cost of performance improvement solutions continues to grow. As costs rise, the budgets for these initiatives become targets for others who would like to have that money used for their own projects. What was once considered a mere cost of doing business is now considered an investment, and one to be wisely allocated. Consider the field of learning and development in the United States. Learning and development is, of course, necessary, particularly to introduce new skills and technology to employees, but 20 years ago, it was regarded by some company executives as a frivolous expense. Now the annual direct cost of organizational learning and development is estimated to be over $100 billion in the United States, and a few large organizations spend as much as $1 billion every year on corporate learning and development. With numbers like these, learning and development is no longer considered a frivolous expense; rather, it is regarded as an investment, and many executives expect a return.

The same is true for information technology (IT). Years ago, it seemed a necessary but minor part of most organizational structures. Clearly that is not so today. Consider, for example, Federal Express. Casual observers may not regard FedEx, which apparently consists of trucks and airplanes moving packages, as a high-tech company. Yet FedEx handles and keeps track of more than 6 million packages daily, coordinates the work of 200,000 employees, and operates 677 airplanes and more than 90,000 vehicles in over 190 countries. Seconds and minutes count with FedEx. A technology glitch could amount to a public relations disaster (Colvin, 2006). Because of the importance of IT, the company gives it an annual budget of $1 billion, a significant amount that catches the attention of many executives.

Accountability Trend

A consistent and persistent trend in accountability is evident in all types of organizations across the globe: almost every function, process, project, or initiative is judged based on higher standards than in the past. Various functions in organizations are attempting to show their worth by capturing the value they add to the organization. As the performance improvement function competes for funds, showing value becomes critical if the function is to survive and thrive.

Process Improvement Mandate

The use of ROI and the need to show monetary value have increased because of the organizational improvement processes that have dominated many organizations, particularly in North America, Europe, and Asia. These process improvement efforts have elevated the need to show value in two important ways. First, processes themselves often create or enhance a measurement culture within organizations. Second, the quest to show the value of these change processes has created the need for tools to show their monetary impact, up to and including ROI.

Support of Managers' New Business Focus

In the past, managers of many support functions in government, nonprofit, and private organizations lacked business experience. Today many of these managers have a business background, a formal business education, or a business focus. These new, enlightened managers are more aware of bottom-line issues in the organization and are knowledgeable of operational and financial concerns. They often take a business approach to their processes, with ROI being part of that strategy. Because of their background, *ROI* is a familiar concept. They have studied its use in their academic preparation, where they used the ROI methodology to evaluate purchasing equipment, building new facilities, or buying a new company. Consequently, they understand and appreciate ROI and are eager to apply it.

The Growth of Project Management

Few other processes in organizations have grown as much as project management. Just two decades ago, it was considered a lone process attempting to bring organizational and management structure to projects. Today, the Project Management Institute, which offers three levels of certification for professional project managers, has more than 200,000 members in 125 countries. Jobs are being restructured and designed to focus on projects. With the growing use of project management solutions, tools, and processes, a corresponding need to show the accountability for investing so heavily in performance improvement projects and processes has developed.

Evidence-Based or Fact-Based Management

An important recent trend is to move to fact-based or evidence-based management. Evidence-based management proceeds from the premise that using better, deeper logic and facts to the extent possible helps leaders do their jobs better. It is based on the belief that facing the hard facts about what works and what does not work, and understanding and rejecting the total nonsense that often passes for sound advice, will help organizations perform better (Pfeffer & Sutton, 2006). This move to fact-based management supports the expansion to a comprehensive set of success measures, including financial ROI, and leads to better organizational decisions regarding people, products, projects, and processes.

Overhead Reduction

Support functions are often regarded as overhead, a burden on the organization, and an unnecessary expense. The approach of many managers is to outsource, automate, or eliminate the overhead. Great strides have been made in all three approaches. Now staff support departments must show value to exist as viable support functions or administrative processes.

Benchmarking Limitations

Many managers have been obsessed with benchmarking, using it to compare every type of process, function, and activity. But benchmarking has limitations. First, the concept of best practices is sometimes elusive. Not all participants in a benchmarking project or report necessarily represent the best practices. In fact, they may represent just the opposite: many benchmarking studies are developed by organizations willing to pay to participate. Also, what is needed by one organization is not always needed by another. A specific benchmarked measure or process may be limited in its actual use. Finally, the benchmarking data are often devoid of the financial aspects, reflecting few, if any, measures of the actual financial contributions with ROI values. Therefore, managers have asked for more specific internal processes that can show these important measures.

The Executive Appetite for Monetary Value

Providing monetary contribution and ROI is receiving increasing interest in the executive suite. Top managers who watch budgets continue to grow without appropriate accountability measures are frustrated, and they are responding to the situation by turning to ROI. They now demand ROI calculations and monetary contributions from departments and functions that previously were not required to produce them. For years, function managers and department heads had convinced executives that their processes could not be measured and that their activities should be taken on faith. Executives no longer buy that argument; they demand the same accountability from these functions as they do from the sales and production areas of the organization. These major forces are requiring organizations to shift their measurement processes to include the financial impact and ROI.

TYPES OF DATA

The richness of the ROI methodology is inherent in the types of data monitored during the implementation of a particular performance improvement project or solution. These data are categorized by levels. Figure 2 shows the levels of data and describes their measurement focus.

Level 0 represents the input to a project and details the numbers of people and hours, the focus, and the cost of the project. These data represent the activity around a project versus the contribution of the project. Level 0 data represent the scope of the effort, the degree of commitment, and the support for a particular program. For

Level	Measurement Category	Current Status Coverage	Recommended Coverage	Comments About Status
0	**Inputs/Indicators** Measures inputs into projects, including number of projects, audience, costs, and efficiencies	100%	100%	Being accomplished now
1	**Reaction and Perceived Value** Measures reaction to, and satisfaction with, the medium, content, and value of the project or program		80–100%	Need more focus on content and perceived value
2	**Learning and Confidence** Measures what participants understand or learned from the project or program — information, knowledge, skills, and contacts (take-aways)		50–60%	Must use simple learning measures
3	**Application and Implementation** Measures progress after the program implemented — the use of information, knowledge, skills, and contacts		15–25%	Need more follow-up
4	**Impact and Consequences** Captures changes in business impact measures such as output, quality, time, and cost linked to the project or program		10%	The connection to business impact
5	**ROI** Compares the monetary benefits of the business impact measures to the costs of the project		5%	The ultimate evaluation

FIGURE 2. DATA TYPES AND EVALUATION LEVELS

some, this equates to value. However, commitment as defined by expenditures is not evidence that the organization is reaping value.

Reaction and Perceived Value (level 1) marks the beginning of the project's value stream. Reaction data capture the degree to which the participants involved in the project, including the stakeholders, react favorably or unfavorably. The key is to capture the measures that reflect the content of the project, focusing on issues such as usefulness, relevance, importance, and appropriateness. Data at this level provide the first sign that project success may be achievable. These data also present project leaders with information they need to make adjustments to help ensure positive results.

The next level is Learning and Confidence (level 2). Every process, program, or project has a learning component. For some—such as projects for new technology, new systems, new competencies, and new processes—this component is substantial. For others, such as a new policy or new procedure, learning may be a small part of the process but is nevertheless necessary to ensure successful execution. In either case, measurement of learning is essential to success. Measures at this level focus on skills, knowledge, capacity, competencies, confidence, and networking contacts.

Application and Implementation (level 3) measures the extent to which the project or program is properly applied and implemented. Effective implementation is necessary if bottom-line value is the goal. This is one of the most important data categories, and most breakdowns occur at this level. Research has consistently shown that in almost half of all performance improvement projects, partici-

pants and users are not performing at desired levels following solution implementation. Evaluation at this level involves collecting data about such measures as the extent of new knowledge or information used, task completion, frequency of use of new skills, success with use, and actions completed—as well as barriers and enablers to successful application or on-the-job performance. Data captured at this level provide a clear picture of how well the organizational system supports the successful transfer of desired knowledge, skills, and attitude changes. This is in acknowledgement that a lack of performance improvement may be due to a number of barriers, including policies, consequences (incentives and disincentives), lack of valid feedback, and lack of required resources.

Level 4, Impact and Consequences, is important for understanding the business consequences of the performance improvement intervention. Here, data are collected that attract the attention of the sponsor and other executives. This level shows the output, productivity, revenue, quality, time, cost, efficiencies, and level of customer satisfaction connected with the project. For some, this level reflects the ultimate reason the project exists: to show the impact within the organization on various groups and systems. Without this level of data, they assert, success cannot be measured. Once this level of measurement is achieved, it is necessary to isolate the effects of the program on the specific measures. Without this extra step, alignment with the business cannot occur.

The ROI (level 5) shows the monetary benefits of the impact measures compared with the cost of the project. This value is typically stated in terms of a benefits-to-costs ratio, the ROI as a percentage, or the payback period. This level of measurement requires two important steps: first, the impact data (level 4) must be converted to monetary values; then the cost of the project must be captured.

Along with the five levels of results and the initial level of activity (level 0), there is a sixth type of data—not a sixth level—developed through this methodology: the intangible benefits—that is, benefits that are not converted to money but nonetheless constitute important measures of success.

THE INITIAL ANALYSIS

Our research suggests that the primary reason for HPT project failure is the project's lack of alignment with the business. The first opportunity to obtain business alignment is in the initial analysis. Several steps are taken to make sure that the project or program is absolutely necessary. As shown in Figure 3, this is the beginning of the complete, sequential model representing the ROI methodology. The first step in this analysis is to examine the

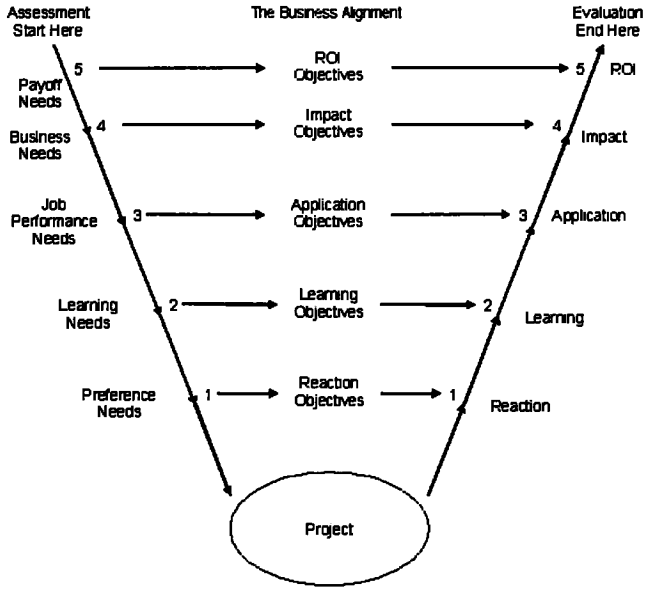


FIGURE 3. THE ROI METHODOLOGY MODEL

potential payoff of solving a problem or taking advantage of a performance improvement opportunity. Is this a problem worth solving, or is the HPT project worthy of implementation? For some situations the answer is obvious: the project is worthy because of its critical nature, its relevance to the issue at hand, or its effectiveness in tackling a major problem affecting the organization. A serious customer service problem, for example, is worth pursuing.

The next step is to ensure that the HPT project or solution is connected to one or more business measures that will reflect overall systemic success of the intervention on organizational, process, and performer levels, respectively.

Next, the job performance needs are examined with the question: "What performance or process must change on the job to influence the business measures previously defined?" This step aligns the performance improvement project with the business and may draw on a series of analytical tools and questions to solve the problem, analyze the cause of the problem, and ensure that the project is connected with business improvement in some way.

After job performance needs have been determined, the learning needs are examined by asking, "What specific skills, knowledge, or perceptions must change or improve so that job performance can change?" Every HPT solution has a learning component of some sort, and this step defines what the participants or users must know to determine that the project is successful. The needed knowledge may be as simple as understanding a policy or as complicated as learning new competencies.

The final step is identifying the instructional or noninstructional design of the solution. How best can new

information be presented to ensure that needed knowledge will be acquired and job performance will change to solve the business problem? This level of analysis looks at issues surrounding the scope, timing, structure, method, and budget for HPT project implementation and delivery.

Collectively, these levels define the issues that led to initiating the project. When these preliminary steps are completed, the project can be positioned to achieve its intended results.

Understanding the need for an HPT project is critical to positioning that project for success. Positioning a performance improvement program or project requires the development of clear, specific objectives that are communicated to all stakeholders. Objectives should be developed for each level of need and should define success, answering the question, "How will we know the defined need has been met and the performance gap has been closed?" Developing detailed objectives with clear measures of success will position the project to achieve its ultimate objective.

Before an HPT project is launched, forecasting the outcomes is important to ensure that adjustments can be made or alternative solutions investigated. This forecast can be simple, relying on the individuals closest to the situation, or it can be a more detailed analysis of the situation and expected outcome. Forecasting has become a critical tool for project sponsors, who may need evidence that the performance improvement project will be successful before they are willing to plunge into a funding stream for it.

The ROI Process Model

The next challenge for many HPT project leaders is to collect a variety of data along a chain of impact that shows the project's value. Figure 4 displays the sequential steps that lead to data categorized by the five levels of results (Colvin, 2006). This figure shows the ROI methodology, a step-by-step process beginning with the objectives and concluding with the reporting of data. The model assumes that proper analysis is conducted to define need before the steps are taken.

PLANNING THE EVALUATION

The first phase of the ROI methodology is evaluation planning. This phase uses several procedures, including understanding the purpose of the evaluation, determining the feasibility of the planned approach, planning data collection and analysis, and outlining the details of the project.

Evaluation Purpose

Evaluations are conducted for a variety of reasons:

- To improve the quality of projects and outcomes
- To determine whether a project has accomplished its objectives
- To identify strengths and weaknesses in the process
- To enable the cost-benefit analysis
- To assist in the development of marketing projects or programs in the future
- To determine whether the project was the appropriate solution
- To establish priorities for project funding

The purposes of the evaluation should be considered prior to developing the evaluation plan because the purposes often determine the scope of the evaluation, the

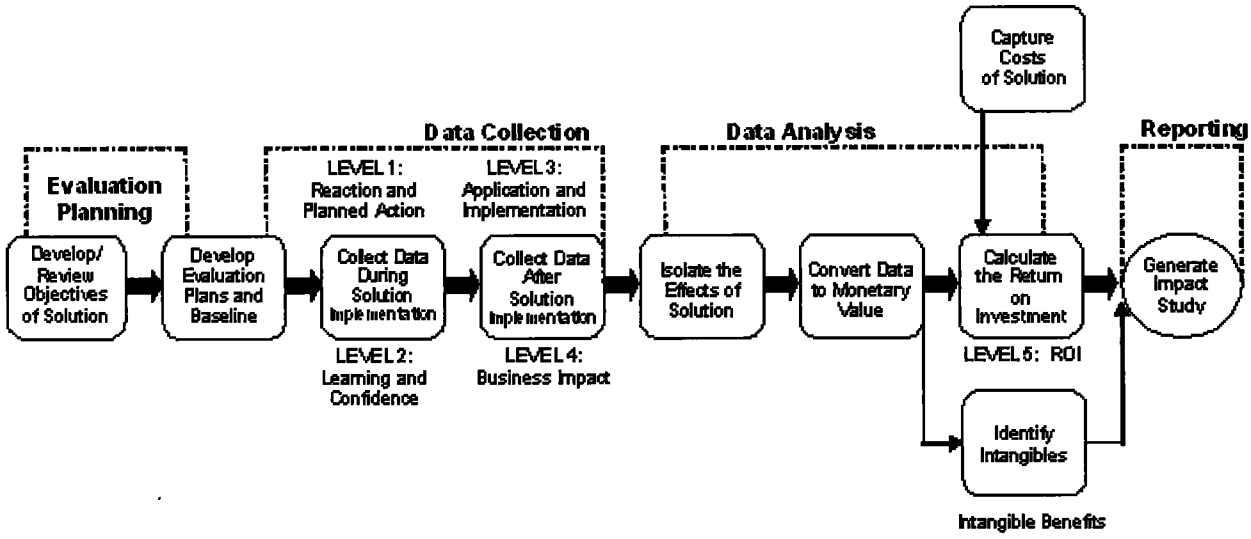


FIGURE 4. THE ROI METHODOLOGY

types of instruments used, and the type of data collected. Understanding the purpose of the evaluation will give it focus and also help it gain support from others.

Feasibility

An important consideration in planning the ROI impact study is determining the levels at which the HPT project or solution will be evaluated. Some evaluations stop at level 3, where a detailed report will determine the extent to which participants are using what they have learned. Others will be evaluated to level 4, Impact, where the consequences of on-the-job application are monitored and measures directly linked to the project are examined. If the ROI calculation is needed, the evaluation will proceed to level 5. To reach this level of measurement, two additional steps are required: the level 4 impact data must be converted to monetary values, and the costs of the program must be captured so that the ROI can be developed. Evaluation to level 5 is intended for HPT projects that are expensive, are high profile, and have a direct link to business needs.

The initial analysis, which defines the needs along the five levels, also defines the objectives at these levels. Projects and programs need clear direction, and the objectives provide this clarity. Objectives that are defined precisely provide the participants and other stakeholders with the direction they need to make the project successful. The objectives are defined along the same five levels as the needs assessment:

- Reaction objectives (level 1)
- Learning objectives (level 2)
- Application and implementation objectives (level 3)
- Impact objectives (level 4)
- ROI objectives (level 5)

These specific objectives take the mystery out of what this project should achieve and ensure that desired performance results are clearly defined across organizational, process, and performer levels.

On occasion, the initial analysis may stop with level 2 objectives, excluding the application and impact objectives that are needed to direct the higher levels of evaluation. If application and impact objectives are not available, they must be developed using information from such groups as job incumbents, analysts, project developers, subject matter experts, facilitators, and on-the-job team leaders.

Three simple planning documents are developed next: the data collection plan, the ROI analysis plan, and the project plan. These documents should be completed during evaluation planning and before the evaluation project is implemented—ideally, before the program is designed or developed. Appropriate early attention will save time later, when data are actually collected.

Data Collection Plan

Exhibit 1 shows a completed data collection plan for a project undertaken to reduce bus drivers' absenteeism in a major city. This document provides a place for the major elements and issues regarding data collection. Broad objectives are appropriate for planning. Specific, detailed objectives are developed later, before the program is designed. Entries in the Measures column define the specific measure; entries in the Method/Instruments column describe the technique used to collect the data; in the Sources column, the source of the data is identified; the Timing column indicates when the data are collected; and the Responsibilities column identifies who will collect the data.

ROI Analysis Plan

Exhibit 2 shows a completed ROI analysis plan for the absenteeism reduction project. This planning document captures information on key items that are necessary to develop the actual ROI calculation. In the first column, significant data items are listed. Although these are usually level 4 impact data, in some cases this column contains level 3 items. These items will be used in the ROI analysis.

The method employed to isolate the project's effects is listed next to each data item in the second column. The method of converting data to monetary values is included in the third column. The cost categories that will be captured for the project are outlined in the next column. Normally the cost categories are consistent from one HPT project to another. The intangible benefits expected from the program are outlined in the fifth column. This list is generated from discussions about the program with sponsors and subject matter experts. Communication targets are outlined in the sixth column. Finally, other issues or events that might influence program implementation—for example, the capability of participants, the degree of access to data sources, and unique data analysis issues—are highlighted in the last column.

The ROI analysis plan, when combined with the data collection plan, provides detailed information for calculating the ROI, illustrating how the process will develop from beginning to end.

Project Plan

The final plan developed for the evaluation planning phase is a project plan, shown in Table 1. A project plan consists of a description of the project and brief details, such as duration, target audience, and number of participants. It also shows the time line of the project, from the planning of the study through the final communication

EXHIBIT 1 DATA COLLECTION PLAN

Data Collection Plan: Metro Transit Authority Evaluation Purpose:

Program: Absenteeism Reduction **Responsibility:** Patti Phillips **Date:** January 15

Level	Broad Program Objective(s)	Measures	Data Collection Method/Instruments	Data Sources	Timing	Responsibilities
1	**REACTION AND SATISFACTION** • Positive employee reaction to the no-fault policy	• Positive reaction from employees	• Feedback questionnaire	• Employees	• At the end of employee meetings	• Supervisors
2	**LEARNING** • Employee understanding of the policy	• Score on post test, at least 70	• True-false test	• Employees	• At the end of employee meetings	• Supervisors
3	**APPLICATION/IMPLEMENTATION** 1. Effective and consistent implementation and enforcement of the programs 2. Little or no adverse reaction from current employees regarding no-fault policy 3. Use the new screening process	1. Supervisors' response on program's influence 2. Employee complaints and union cooperation	1. and 2. Follow-up questionnaire to supervisors (2 sample groups) 3. Sample review of interview and selection records	1. Supervisors 2. Company records	1. Following employee meetings, sample 1 group at 3 months and another group at 6 months 2. Three months and six months after implementation	• HR program coordinator
4	**BUSINESS IMPACT** 1. Reduce driver absenteeism at least 2% during first year 2. Maintain present level of job satisfaction as new policy is implemented 3. Improved customer service and satisfaction with reduction in schedule delays	1. Absenteeism 2. Employee satisfaction 3. Delays impact on customer service	1. Monitor absenteeism 2. Follow-up questionnaire to supervisors 3. Monitor bus schedule delays	1. Company records 2. Supervisors 3. Dispatch records	1. Monitor monthly; analyze analysis 1 year preimplementation and 1 year postimplementation 2. Three months and six months after employee meetings 3. Monthly	• HR program coordinator
5	**ROI** Target ROI Δ 25%	**Comments:**				

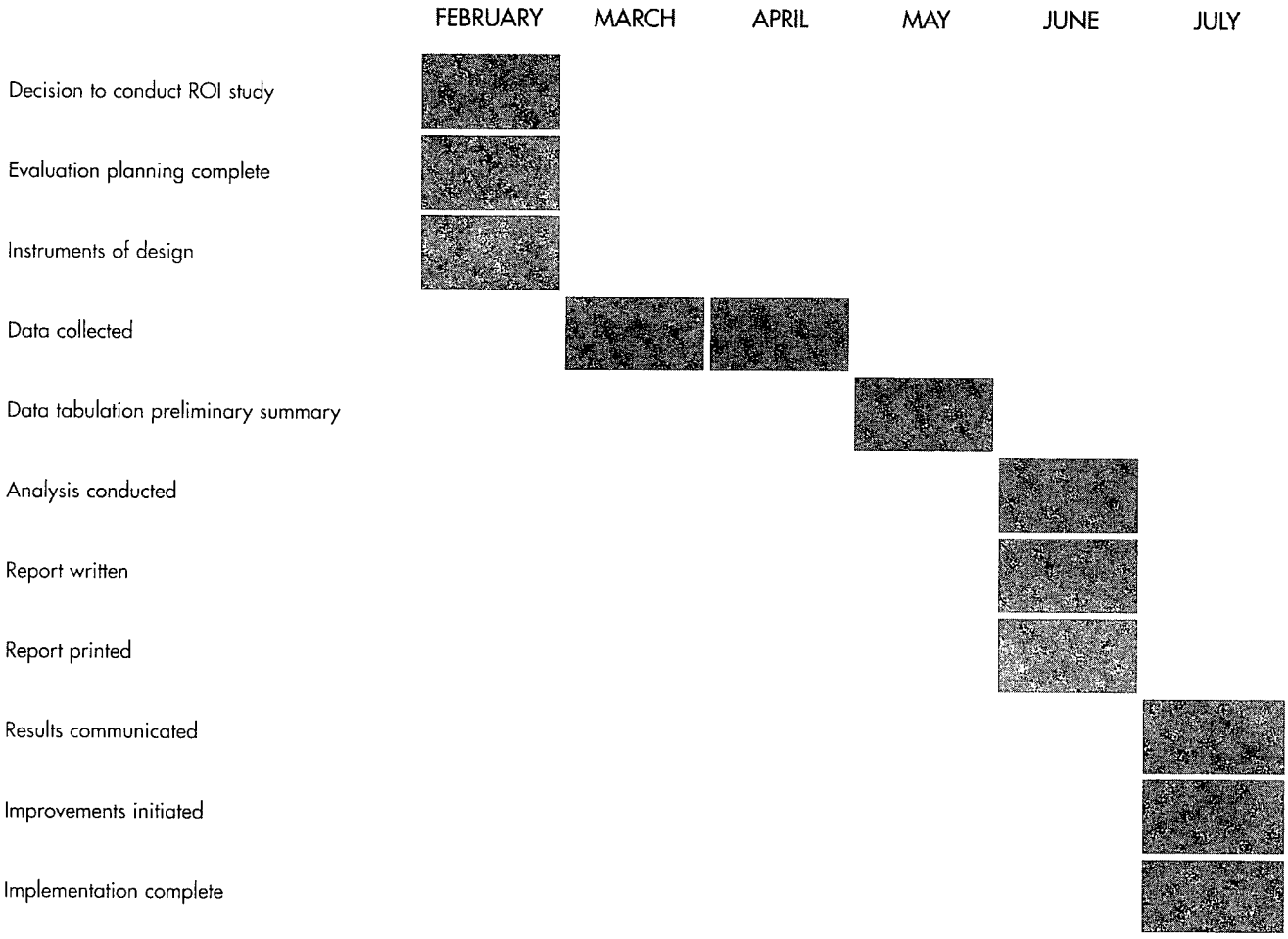
EXHIBIT 2 ROI ANALYSIS PLAN

ROI Analysis Plan – Metro Transit Authority

Program: Absenteeism Reduction **Responsibility:** Patti Phillips **Date:** January 15

Data (Usually Level 4)	Methods for Isolating the Effects of the Program/Process	Methods of Converting Data to Monetary Values	Cost Categories	Intangible Benefits	Communication Targets for Final Report	Other Influences/ Issues During Application	Comments
1. Absenteeism	1. Trend line analysis and supervisor estimates	1. Wages and benefits and standard values	**Screening process** • Development • Interviewer preparation • Administration • Materials **No-fault policy** • Development • Implementation • Materials	• Sustain employee satisfaction • Improve employee morale • Improve customer satisfaction • Fewer disruptive bottlenecks in transportation grid • Ease of implementation by supervisors	• Senior management • Managers and supervisors • Union representatives • HR staff	• Concern about supervisors' consistent administration • Partner with union representatives on how to communicate results of study to employees	
2. Employee job satisfaction	2. Supervisor estimates	NA					
3. Bus schedule delays (influence on customer satisfaction)	3. Management estimates	NA					

TABLE 1 PROJECT PLAN



of the results. This plan becomes an operational tool to keep the project on track.

Sample High-Level Project Plan

Collectively, the three planning documents (the data collection plan, the ROI analysis plan, and the project plan) provide the direction necessary for the ROI impact study. Most of the decisions regarding the process are made as these planning tools are developed. The remainder of the performance improvement project becomes a methodical, systematic process of implementing the plan. This is a crucial step in the ROI methodology, in which valuable time allocated to this process in the beginning will save precious time later.

Collecting Data

Data collection is central to the ROI methodology. Both hard data (representing output, quality, cost, and time) and soft data (including job satisfaction and customer satisfaction) are collected using a variety of methods:

- Surveys
- Questionnaires
- Tests
- Observations
- Interviews
- Focus groups
- Action plans
- Performance contracts
- Business performance monitoring

The important challenge in data collection is to select the method or methods appropriate for the setting and the specific program, within the time and budget constraints of the organization. (Data collection methods are covered in more detail in Phillips & Phillips, 2007.)

Isolating the Effects of the Project

An often overlooked issue in evaluation is the process of isolating the effects of the HPT project or solution. In this step, specific strategies are explored that determine the amount of output performance directly related to the intervention. This step is essential because many systemic factors influence performance data. The specific strategies of this step pinpoint the amount of improvement directly related to the HPT project, resulting in increased accuracy and credibility of ROI calculations. Organizations have used the following techniques to address this important issue:

- Control groups
- Trend line analysis
- Forecasting models
- Participant estimates
- Managers' estimates
- Senior management estimates
- Experts' input
- Customer input

Collectively, these techniques provide a proven, comprehensive set of tools to handle the important and critical issue of isolating the effects of projects.

Converting Data to Monetary Values

To calculate the return on investment, level 4 impact data are converted to monetary values and compared with project costs. This operation requires that a value be placed on each unit of data connected with the project. Many techniques are available to convert data to monetary values:

- Output data
- Cost of quality
- Time savings converted to participants' wage and employee benefits
- Historical costs
- Internal and external experts
- External databases
- Participant estimates
- Manager estimates
- Soft measures mathematically linked to other measures

The specific technique selected depends on the type of data and the situation.

This step in the ROI model is important and absolutely necessary in determining the monetary benefits of a project or solution implementation. The process is challenging, particularly with soft data, but can be methodically accomplished using one or more of the strategies listed.

Tabulating Project Costs

An important part of the ROI equation is calculating HPT project costs by monitoring or developing all of the related costs of the project targeted for the ROI calculation. Among the cost components to be included are these:

- Initial analysis costs
- Cost to design and develop the project
- Cost of all project materials
- Costs for the project team
- Cost of the facilities for the project
- Travel, lodging, and meals costs for the participants and team members
- Participants' salaries (including employee benefits)
- Administrative and overhead costs, allocated in some convenient way
- Evaluation costs

The conservative approach is to include all these costs so that the total is fully loaded.

Calculating the Return on Investment

The return on investment is calculated using the program benefits and costs. The benefits-to-costs ratio (BCR) is calculated as the project benefits divided by the project costs. In formula form, BCR = Project benefits/Project costs. Return on investment is based on the net benefits divided by project costs. The net benefits are calculated as the project benefits minus the project costs. In formula form, ROI = (Net project benefits/Project costs) × 100. This is the same basic formula used in evaluating other investments, in which the ROI is traditionally reported as earnings divided by investment.

Identifying Intangible Benefits

Intangible, nonmonetary benefits also accrue to most HPT projects. Intangible benefits include items such as:

- Increased job satisfaction
- Increased organizational commitment
- Improved teamwork
- Improved customer service
- Fewer complaints
- Reduced conflict

During data analysis, every attempt is made to convert all data to monetary values. All hard data, such as output, quality, and time, are converted to monetary values. The conversion of soft data is attempted for each data item. However, if the process used for conversion is too

subjective or inaccurate and the resulting values lose credibility in the process, then the data are listed as an intangible benefit with an appropriate explanation. For some projects, intangible, nonmonetary benefits are extremely valuable and often carry as much influence as the hard data items.

Reporting

The final step in the ROI process model is reporting, a critical step that is often deficient in the degree of attention and planning required to ensure its success. The reporting step requires developing appropriate information in impact studies and other brief reports. At the heart of this step are the techniques used to communicate to a wide variety of target audiences. In most ROI studies, several audiences are interested in and need the information. Careful planning to match the communication method with the audience is essential to ensure that the message is understood and that appropriate actions follow.

Operating Standards and Philosophy

To ensure consistency and replication of impact studies, operating standards must be developed and applied as the process model is used to develop ROI studies. The results of the study must stand alone and must not vary with the individual who is conducting the study. The operating standards detail how each step and issue of the process will be handled. Exhibit 3 shows the 12 guiding principles that form the basis for the operating standards.

The guiding principles serve not only to address each step consistently, but also to provide a much needed conservative approach to the analysis. A conservative approach may lower the actual ROI calculation, but it will also build credibility with the target audience.

Implementing and Sustaining the Process

A variety of environmental issues and events influence the successful implementation of the ROI evaluation process:

- A policy statement concerning results-based projects
- Procedures and guidelines for different elements and techniques of the evaluation process
- Formal meetings to develop staff skills with the ROI process
- Strategies to improve management commitment to and support for the ROI process
- Mechanisms to provide technical support for questionnaire design, data analysis, and evaluation strategy
- Specific techniques to place more attention on results

The ROI process can fail or succeed based on these implementation issues, which must be addressed early with specific topics or actions.

EXHIBIT 3 ROI STANDARDS

Guiding Principles

1. When a higher-level evaluation is conducted, data must be collected at lower levels.
2. When an evaluation is planned for a higher level, the previous level of evaluation does not have to be comprehensive.
3. When collecting and analyzing data, use only the most credible sources.
4. When analyzing data, select the most conservative alternative for calculations.
5. At least one method must be used to isolate the effects of the project.
6. If no improvement data are available for a population or from a specific source, it is assumed that little or no improvement has occurred.
7. Estimates of improvements should be adjusted for the potential error of the estimate.
8. Extreme data items and unsupported claims should not be used in ROI calculations.
9. Only the first year of benefits (annual) should be used in the ROI analysis of short-term solutions.
10. Costs of a solution, project, or program should be fully loaded for ROI analysis.
11. Intangible measures are defined as measures that are purposely not converted to monetary values.
12. The results from the ROI methodology must be communicated to all key stakeholders.

In addition to implementing and sustaining ROI use, the process must undergo periodic review. An annual review is recommended to determine the extent to which the process is adding value. This final element involves

checking satisfaction with the process and determining how well it is understood and applied. Essentially this review follows the five levels of data, including "the ROI on the ROI."

BENEFITS OF THIS APPROACH

The evaluation methodology presented here has been used consistently and routinely by thousands of organizations in the past decade. In some fields and industries, it has been more prominent than in others. Much has been learned about the success of this methodology and what it can bring to the organizations using it.

Aligning with Business

The ROI methodology ensures business alignment by defining desired business results as an up-front planning process at the time the HPT project, solution, or set of solutions are validated as appropriate. Second, by requiring specific, clearly defined objectives at the impact level, the HPT project is managed with a results-focus towards business measures and impact outcomes throughout solution design, delivery, and implementation. Third, in the follow-up data, when the business measures may have changed or improved, a method is used to isolate the effects of the project on those data, consequently proving the connection to that business measure (that is, showing the amount of improvement directly connected to the project and ensuring there is business alignment).

Validating the Value Proposition

In reality, most HPT projects or solutions are undertaken to deliver value. The definition of value may on occasion be unclear or may not be what a project's various sponsors, organizers, and stakeholders desire. Consequently, there are often value shifts. Once the values are finally determined, the value proposition is detailed. The ROI methodology will forecast the value in advance, and if the value has been delivered, it verifies the value proposition agreed to by the appropriate parties.

Improving Processes

The ROI process methodology is a process improvement tool by design and practice. It collects data to evaluate how things are—or are not—working. When things are not where they should be—as when projects are not proceeding as effectively as expected—data are available to the various stakeholders to indicate what must be changed to make the project more effective. When things are working well, data are available to show what else could be done to improve an HPT project or solution. This continuous feedback cycle is critical to systemic process improvement and is inherent in the ROI methodology approach.

Enhancing the Image and Building Respect

Many HPT functions have been criticized for being unable to deliver what is expected, and as a result, their public image and credibility suffer. The ROI methodology is one way to help build the respect that the HPT function or profession needs.

The methodology can make a difference in any function—not just those under fire. Many executives have relied on ROI data to show how HPT projects and programs add value and achieve desired results. This methodology connects an intervention to the bottom line and shows the value that it delivers to stakeholders. Consequently, the use of this methodology can help HPT professionals strengthen the image and perceived value of the performance improvement function within the organization.

Improving Support

Securing support for HPT projects is critical, particularly at the middle manager level. Many projects enjoy the support of the top-level managers who allocated the resources to make the projects viable. Unfortunately, some middle-level managers may not support certain projects because they do not see the value the projects deliver in terms they appreciate and understand. Having a methodology that shows how a project or program is connected to the manager's business goals and objectives can change this support. When middle managers understand that an HPT project is helping them meet specific performance indicators or departmental goals, they usually support the process, or at least resist it less strenuously. In this way, the ROI methodology may improve manager support.

Justifying or Enhancing Budgets

Some organizations have used the ROI methodology to support proposed budgets. Because the methodology shows the monetary value expected or achieved with specific projects, the data can often be leveraged into budget requests. When a particular function (such as the performance improvement function) is under budget review, the amount budgeted is often in direct proportion to the perceived value that the function adds. If few or no credible data support the contribution, the budgets are often trimmed, or at least not enhanced. Such organizations as Black & Decker and Progressive Insurance have reported significant budget increases for an entire function based on ROI projects pursued during the previous year. Bringing accountability to this level is one of the best ways to secure future funding.

Building a Partnership with Key Executives

Almost every function attempts to partner with operating executives and key managers in the organization. Unfortunately, some managers may not want to be partners. They may not want to waste time and effort on a relationship that does not help them succeed. They want to partner only with groups and individuals who can add value and help them in meaningful ways. Showing the results from performance improvement projects will increase the likelihood of building these partnerships, with the results providing the initial impetus for making the partnerships work.

Earning a Seat at the Table

Typically "earning a seat at the table" means being at the strategy- or decision-making table and in high-level discussions at the top of the organization. Using the ROI methodology to show the contribution of the performance improvement function may be the most important action that HPT professionals can take in order to earn a coveted seat at the table. Most executives want to include those who are genuinely helping the business and will seek information that is valuable and constructive.

FINAL THOUGHTS

This article presents elements and steps in the ROI methodology, including the standards and the different concepts necessary to understand how ROI works. It brings the methodology into focus. It also shows how this systemic, research-based evaluation process is ideally suited for the performance improvement field and how it has been designed with a variety of performance improvement solutions in mind.

The second article in this series will present a case study and describe the challenges and issues faced when implementing this methodology.

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JACK J. PHILLIPS, PhD, a world-renowned expert on accountability, measurement, and evaluation, provides consulting services for *Fortune* 500 companies and major global organizations. The author or editor of more than 50 books, he conducts workshops and makes conference presentations throughout the world. His expertise in measurement and evaluation is based on more than 27 years of corporate experience in the aerospace, textile, metals, construction materials, and banking industries. This background led him to develop the ROI methodology, a revolutionary process that provides bottom-line figures and accountability for all types of learning, performance improvement, human resource, technology, and public policy programs. He has written more than 30 books, including, as coauthor, *Show Me the Money: How to Determine ROI in People, Projects, and Programs* (2007). He is chairman of the ROI Institute and may be reached at jack@roiinstitute.net.

PATRICIA P. PHILLIPS, CPT, PhD, is president of the ROI Institute, a leading source of ROI competency building, implementation support, networking, and research. After a 13-year career in the electrical utility industry, she took advantage of the opportunity to pursue a career in a growing consulting business, where she was introduced to training, human resources, and performance improvement from a new perspective. She teaches others to implement the ROI methodology through the ROI certification process, as a facilitator for ASTD's ROI and Measuring and Evaluating Learning Workshops, and as an adjunct professor for graduate-level evaluation courses. She has a PhD in international development and a master's degree in public and private management. She has authored a number of publications on the subject of accountability and ROI, including, as coauthor, *Show Me the Money: How to Determine ROI in People, Projects, and Programs* (2007). She may be reached at patti@roiinstitute.net.