Decision Management ROI

Measuring the value of Decision Management initiatives

The application of ROI can be traced back as early as the 1920's when it was used to calculate the monetary return of investments. Throughout time it was refined and enhanced to not only measure the return of investments, but also the value derived from strategic projects of improvement in a number of industries and disciplines.

The *ROI Methodology* is the formal fruition of the processes, practices and guidelines that facilitate the valuation of investments. Use and application of the ROI Methodology consistently appears atop executive management agendas, most notably in the IT field. Yet many IT practitioners struggle to apply the methodology for transformational implementations such as Decision Management.

This document presents guidelines for applying the ROI Methodology for assessing the value created from Decision Management initiatives. It begins with a brief introduction to the methodology and follows with guidelines, thoughts and challenges in applying the methodology for Decision Management valuation.

Perspective:

Measuring the value of Decision Management initiatives

technology**blue**

An information technology strategy firm

INTRODUCTION

Many books, articles and case studies have been published on the use of the ROI Methodology, which is fortunate for those who are new to its application. Although there are minor variations to the methodology, the fundamental tasks remain solidly rooted in the intended and proven approach. Unfortunately however, the variations have notoriously created conflict and confusion among methodology adopters, causing some IT practitioners to lose faith in its viability to accurately assess value.

When approached from a structured and organized perspective, ROI measurement can be broken down into understandable and manageable components of an overall plan that enables meaningful assessment of value.

The ROI Methodology is more than a calculation. It defines a perspective, process and specific tasks that facilitate a meaningful view of the return of investments. As we present the applicability (and necessity) of applying the ROI Methodology to Decision Management initiatives, we will follow a structure that has been historically proven for IT projects of many types.

WHY MEASURE?

Business transformation projects are those which seek to apply information technology to improve the way a company conducts business. BPM transforms the way companies manage and leverage their processes, Event Management transforms the way companies manage and leverage their events, and Decision Management transforms the way companies leverage and manage their decisions.

Transformation is familiar to most everyone. Many of us begin the new year with a plan for personal transformation. We set objectives, create a plan and commit to a path of success. Yet for many, meeting objectives proves elusive and often results in questioning the value of our efforts.

Whether you equate this situation to personal or professional life it should sound familiar. Many business transformation efforts conclude with identical results. Although pinpointing the exact problems can be difficult, the list commonly includes an underestimation, or outright oversight of the importance of measurement. If we don't plan for measuring progress we won't truly understand the return of our time, energy and monetary investment. Equally important, we won't have an opportunity to continually adjust our plan to better meet objectives.

Within the context of IT projects, ROI measurement and evaluation should be critical components of the delivery process. IT spending is scrutinized under the financial microscope more than ever before, and without meaningful ROI evaluation it is difficult to prove the value created from the project initiative. As a result, IT projects are cut and budgets reduced in response to the perception of low value.

IT executives around the world are responding by formalizing, standardizing and implementing the ROI Methodology to assess and maximize the value of every IT asset.

THE BENEFITS OF ROI

ROI not only influences executive and stakeholder support. Progressive ROI measurement also:

- Increases employee commitment and motivation by showing how their contributions impact, or will impact the business.
- Helps organizations prioritize projects that

will impact the business most.
- Encourages a results-oriented environment
- Helps transform the perception of IT from a supporting, "cost of doing business" function to one that creates measurable and sustainable business value.
- Enables management to keep plans and tasks aligned with business objectives.
- Assists in internal marketing efforts for future implementations

DECISION MANAGEMENT AND ROI

Decision Management adoption can be classified in one of four levels:

- *Level 1 – Planning*
  Adopters gain management support, perform readiness assessments, benefits analyses and create a high-level strategy.
- *Level 2 – Localized implementation*
  Initial project is launched with a focus on a localized business process and initial governance is established.
- *Level 3 – Re-usable decision services*
  Decisioning deployed as services with multiple business processes re-using decisions.
- *Level 4 – Enterprise implementation*
  Decision Management creates market differentiation and drives new processes.

Realistically very few companies have achieved level 4, yet some are well positioned to get there. Their organization, strategies and governance enable them to address barriers to a successful enterprise-wide implementation. However others struggle to move beyond level 2, ultimately either abandoning their initiative or being content with a localized implementation that solves the problems of one business process.

ROI plays a critical role in reaching the higher levels of Decision Management adoption, however conducting a meaningful assessment of value can be challenging. The difficulty exists because Decision Management adoption simultaneously produces both tangible and intangible value. The good news is that the ROI Methodology helps address the difficulties with a sound, proven analysis process.

APPLYING THE ROI METHODOLOGY

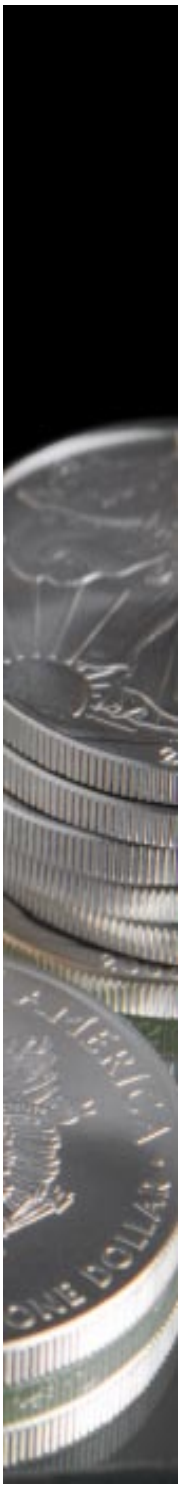
Applying the ROI Methodology for Decision Management initiatives follows the same overall process as a typical technology project. The methodology defines a model of logic steps that enable a process of consistency, precision and effectiveness.

As with any specific case of technology integration, there are enhancements to the foundational methodology that enable better applicability to Decision Management initiatives. However for experienced ROI practitioners the approach will remain familiar.

Planning

Although not desirable, for many organizations ROI planning is less proactive as it is reactive. Ideally the ROI analysis plan will be developed as a part of the overall Decision Management project plan; however it is certainly possible to develop the ROI plan after the project has begun.

Decision Management business objectives help to define how ROI is measured throughout the initiative. The objectives are commonly expressed in



Decision Management objective classifications	Example data collection questions
Reaction objectives – *participant perception of Decision Management and the overall initiative*	Does functionality facilitate job requirements? Are the processes empowering or limiting? Is the technology difficult to use? Is there sufficient organizational support?
Learning objectives – *ensures participants have acquired the necessary knowledge for adopting and implementing Decision Management*	Do participants understand new terms, concepts and processes learned during the project? Can the participants demonstrate the skills at a basic level?
Application objectives – *participant proficiency in applying newly acquired Decision Management skills*	How well are participants applying skills to perform their job? Is participant productivity increased? What is the frequency of use?
Impact objectives –*the expected business outcomes from the Decision Management initiative*	Have claim processing errors reduced? Has revenue increased? Has human decision intervention decreased? Has customer service improved?
ROI objectives – *the expected payoff from the implementation and adoption of Decision Management*	Has ROI met projected or expected levels?

Table 1: Decision Management business objective classifications and example data collection questions

* Interpolated from *ROI for Technology Projects; D. Brian Roulstone and Jack J. Phillips; 2008*

terms of impact to the business: reduced claims processing errors, faster response times to customers or increased profiling accuracy and therefore revenues.

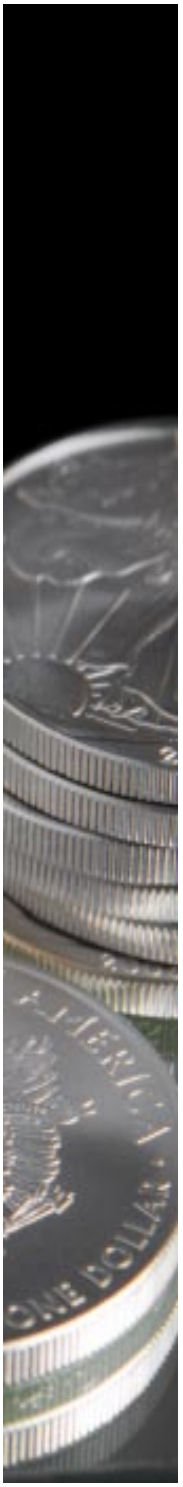
While impact objectives are frequently the most important to executives and stakeholders, it is important to consider additional objectives that are critical to successful Decision Management adoption (Table 1).

Each type of objective directly influences the measurements and types of data collected to correctly assess ROI. Although typical Decision Management ROI evaluations include all objectives, it is possible that the evaluation is only performed for a subset, thus changing the amount and types of data required.

The ROI analysis plan should identify what level of evaluation is most important and therefore what objectives are most applicable. This understanding is the basis for defining the data collection approach and methods.

Decision Management data collection

Data collection is simultaneously the most important and most time-consuming step of an ROI analysis. Data collection is required both during the project and after the project has been implemented. Depending on the business objectives identified for inclusion, data collection could continue up to one year after project completion. It makes sense that for many organizations the time requirements lead to a belief that data collection is potentially the most



disruptive step as well. However the benefits of implementing a robust and thorough data collection process far outweigh the challenges with its implementation.

Data is classified as hard (faster time to market, reduced response time to clients, increased revenues and reduced compliance fees) and soft (increased customer satisfaction, level of user adoption and improved business-IT alignment).

There are many methods for collecting data. Each has benefits depending on the audience and purpose.

Data collection methods and descriptions
Surveys and questionnaires help determine participant satisfaction including learning new skills and Decision Management usage.
On the job observation helps assess actual application of Decision Management approaches, tools and technologies.
Action plans and project assignments help assess participant skills with actual implementation tasks.
Performance contracts help to evaluate job performance improvements as a result of Decision Management adoption.

Table 2: Example data collection methods

The amount of time after project completion dedicated to data collection is dependent on the realization of the business objectives; however the most valuable ROI assessments generally do not collect data after the first year following project completion. Collecting data more than one year after project completion leads to diminishing ROI accuracy caused by the difficulty accomplishing the next step of the ROI Methodology: isolating the effects of the technology.

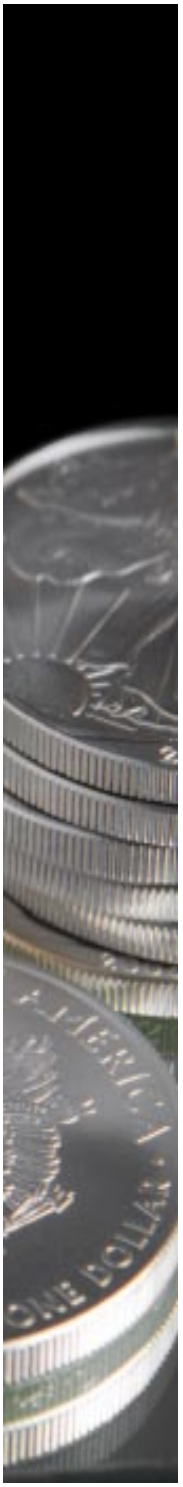
Isolating the effects of Decision Management

Decision Management adoption initiatives are typically part of a larger IT transformation effort (service-enablement, process re-engineering, legacy modernization). It therefore makes sense that the applicability (and reality) of isolating the effects of Decision Management on the business can be challenging, though not impossible.

Depending on the business objectives being considered, isolating Decision Management effects can be easier compared to other technologies. For example, the effects of Decision Management on reducing time to get decisioning changes into production can be isolated using control groups: the time required to make changes before the implementation is compared to the time required to make changes after the implementation.

Isolating Decision Management effects based on other business objectives is not as easily accomplished. For example, consider a legacy modernization initiative designed to increase revenue across lines of business. The solution includes service-enablement of a mainframe coupled with Decision Management adoption for extracting and implementing strategic decisioning logic. The effect of Decision Management on increasing revenue is much more difficult to discern because service-enablement can have an equal influence. Under these circumstances it is sufficient to approximate the effect of Decision Management therefore maximizing the accuracy of the ROI analysis.

The first step in isolating the impact of strategic technology implementations is to identify all potential factors of improvement. If the specific effects of Decision Management are easily discernable, control groups are a proven approach



for isolation. However other techniques are available when isolation is not as straightforward.

Techniques for isolating Decision Management effects
Control groups are the most accurate approach to isolating the impact of Decision Management. Results are achieved by performing before / after comparisons of performance metrics such as time to change.
Trend line analysis compares new business performance to a projected business performance value. Improvement over the performance prediction is reasonably attributed to Decision Management adoption.
Participant estimation leverages each participant's estimate of the impact of Decision Management. Results are acquired through focus groups or questionnaires.
Customer estimation is valuable when considering business objectives such as increasing customer satisfaction. This is closely related to the isolation of effects on other business objectives such as reducing response time and / or errors.
Expert estimation requires a carefully chosen expert with domain and technology expertise that can approximate the effects of Decision Management on business improvements.

Table 3: Common isolation techniques

Selecting the appropriate technique is influenced by several factors including the level of accuracy needed, the execution costs and resource time required. However the critical point is that the task of isolating effects not be underestimated or undervalued throughout the ROI analysis.

Conversion of data to monetary values

The majority of ROI analysis efforts conclude when the effects of Decision Management are isolated to assess value to the business. However for many organizations this level of detail is not sufficient in truly understanding the monetary benefits of Decision Management adoption.

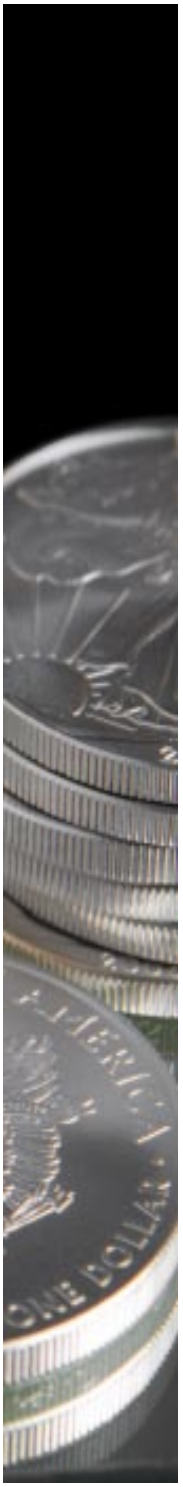
The ROI calculation, in which project benefits are weighed against project costs, requires converting the collected data to monetary values. As with many steps of the ROI Methodology, converting data to monetary values can be challenging. Fortunately there are many techniques that facilitate conversion.

Converting data to estimate project benefits
Output data are converted based on profit contribution or cost reduction. (Profits gained from faster, more accurate decisioning)
Cost of quality is converted to cost savings. (Reduced compliance fees or reduced lending risk)
Participant wages and benefits are used to estimate a value for time. (Cost of maintaining decisioning logic by business versus IT)
Historical costs are used to estimate cost savings. (Cost of changes before versus after Decision Management adoption).

Table 4: Common conversion techniques

Hard data is more easily converted because of its direct correlation to business performance measurements. Hard data examples include increases in claims processed without error, more loans approved and reduced operating costs.

Soft data is more challenging because of its subjectivity and difficulty to measure. Soft data examples include customer satisfaction, improved business-IT alignment and improved management of decisions.



The conversion steps are generally the same regardless of the type of data:

1. *Select a unit of measure*. Claims, loans, development cycle time, number of errors or a change in the customer satisfaction index.
2. *Determine a value for each measure*. Loan value or cost of avoiding human intervention per transaction.
3. *Calculate the change*. Changes to measures directly attributed to improvements.
4. *Determine an annual amount for the change.* Relate the total change to a value per year.
5. *Calculate total improvement value*. This value is compared to the cost of the Decision Management project in the ROI calculation.

Data accuracy is necessary for a meaningful conversion and is critical to performing a trustworthy ROI analysis. Several considerations are required throughout the process to ensure credibility including the data source, analysis assumptions, data realism and types of data.

Tabulating project costs

The final step before the ROI calculation is to tabulate the project costs. Fortunately many IT organizations are closely tracking direct and indirect spending to better address accountability requirements. Therefore tabulating the costs of Decision Management adoption can be a relatively straightforward task.

Typical Decision Management project costs	
Implementation costs	Hardware costs (or % of use)
Software license costs	Costs of consultants / contractors
Facilities costs	Overhead costs
Travel and expenses	Employee salaries and benefits

Table 5: Common Decision Management project costs

Company guidelines generally dictate how costs are tracked, estimated, accumulated and monitored. Decision Management ROI should be calculated based on conservative project costing in which costs are fully loaded and included even when outside of company policy. This approach accommodates the variable nature of cost management and provides the most meaningful view of ROI.

The return on Decision Management investment

Calculating the return on Decision Management investment is simple given the information generated throughout the analysis. ROI is most commonly expressed as a percentage where net project benefits are divided by project costs.

ROI calculation formula
$$\textbf{ROI}\ (\%) = \frac{\textbf{Net Project Benefits}}{\textbf{Project Costs}} \times 100$$
$$\textbf{ROI}\ (\%) = \frac{\$2,375,913}{\$1,231,536} \times 100 = 192\%$$

Table 6: ROI Calculation formula and example

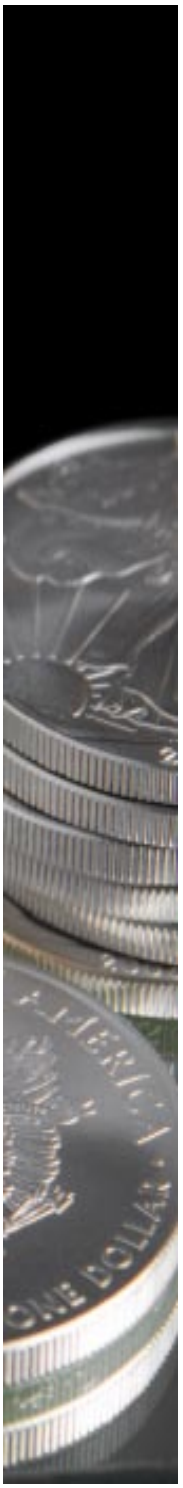


Table 6 shows an ROI calculation for a Decision Management initiative. Net Project Benefits is defined as the project benefits (see Table 4) minus the project costs (see Table 5). The calculation shows that for each dollar invested in Decision Management the company receives $1.92 in return.

Although the ROI percentage is the final deliverable in the methodology, the wealth of information generated throughout the process is invaluable. Leading organizations are analyzing and communicating ROI data to forecast their returns, adapt implementation plans and continually improve their project delivery and execution capabilities.

SUMMARY

The ROI Methodology is a valuable tool for understanding the monetary impacts of Decision Management on the business. Although the intangible effects of Decision Management can increase the difficulty in assessing value, the benefits far outweigh the challenges.

Decision Management adoption initiatives meet the characteristics of projects for which the ROI Methodology is most applicable:

- Projects that have a long life-cycle
- Projects with a strategic impact on meeting organizational goals
- Projects that are expensive to implement
- Projects that are highly visible
- Projects that command the interest of top executives

As budget scrutiny continues to grow, strategic technology initiatives are bound by accountability and expectations. Incorporating the ROI Methodology into project delivery will help create the sustainable momentum required to reach higher levels of adoption, and ultimately maximize the returns on Decision Management investments.

Contact Technology Blue to learn more about implementing the ROI Methodology for Decision Management valuation.

Technology Blue helps bring about meaningful change and lasting success through a broad range of outsourcing services covering:

- Strategy
- Application
- Infrastructure
- Management

Why outsource to Technology Blue?

- Enhance core capabilities in key areas
- Leverage expertise to increase innovation
- Liberate resources to focus on core competencies
- Improve service quality
- Reduce costs
- Speed time to market
- Increase business performance
- Maximize profitability
- Solidify competitive advantage

About Technology Blue

Technology Blue is an information technology strategy firm based in Pittsburgh, Pennsylvania.

With a strong commitment to deliver value through innovative approaches, tools and technologies, Technology Blue partners with its clients to help them transform and modernize to achieve greater competitive advantage. Its home page is www.technologyblue.com.