

A FRAMEWORK FOR MAXIMIZING THE POWER AND REACH OF THE VALUE METHODOLOGY

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Abstract

There should be no doubt about the tremendously positive impact that a well conducted, Value Methodology (VM) workshop can have on a project's outcomes. Much has been said elsewhere about how to conduct a VM workshop to maximum effect.

In practice, many factors influence the way in which a VM workshop is run. This paper deals with more than a VM workshop. It addresses how a broader framework for applying value improving tools and techniques across the entire lifecycle of both programs and projects can maximize the power and reach of the Value Methodology.

The paper discusses how to ensure that programs and projects can be influenced to start "on the right track" and remain viable in terms of: yielding best value and return-on-investment; delivery within the specified timeframe and allocated budget; stakeholder affordability; and be adjusted, as necessary, to suit changing conditions.

The framework comprises a process for ensuring best overall value through value assurance for a) value identification, and b) value realization over the longer term. This is accomplished through the application of well-focused, strategic value planning, followed by performance monitoring and value enhancement. Typical outcomes include optimum functionality, life cycle cost, return-on-investment and schedule; plus managed risk and stakeholder consensus, along with systematic assurance of best overall value and performance.

The Value Methodology is an integral force within this overarching, scalable and agile approach to managing for optimum value. As well, it nicely accommodates the trend toward shorter workshops / less full team facetime, while maximizing results.

Introduction

Much has been espoused in other publications about overall organizational performance. Various surveys indicate that:

- (i) a high proportion (up to 40%) of payroll is spent on non-value adding items
- (ii) major declines in shareholder value can be attributed to limited project management capacity, supply chain inefficiencies and poor operational control.

It has also been reported that only a very small proportion (2.5%) of organizations deliver their programs & projects on time, on budget, within scope and meeting the benefits expected by the business.

There is a clear need to ensure better outcomes re:

- Identifying optimal concepts and opportunities
- Driving out waste; avoiding / resolving budget overruns
- Enhancing functionality
- Building stakeholder consensus
- Improving implementation timeframes
- Managing strategic risk and value
- Responding to changing circumstances
- Improving organizational efficiencies and effectiveness.

The paper describes how the Value Methodology and related value enhancing methods are an integral part of a wider value and performance assurance framework that is applied across the life cycle of programs and projects.

Background

Reference to old SAVE conference papers will show that 50 years ago, there were comprehensive value engineering programs applied to development of specific products over a period of years. Nowadays, there is a trend toward short, isolated VM workshops.

Over time, the terms value analysis, value engineering and value management have come to have similar and yet varying interpretations in various jurisdictions around the world. However, there is now fairly general agreement that to accomplish the aims of value analysis, value engineering and value management, the Value Methodology (VM) is the process that is used.

Speaking from a long history in the construction sector, along with business applications of the VM, we have found that, at best, value analysis, value engineering or value management may be specified to be applied as an isolated intervention once or sometimes twice during project development. Quite often, the VM effort is seen as an add-on to what is considered as normal project development practice. Even if the requirement for VM is shown on the project activities schedule, the VM workshop may be viewed by some project team members, or their supervisor, with indifference or scepticism and as yet another project stumbling block. Clearly, the message about the true power of VM has not yet been fully received.

The cause for this may be lack of true power of VM or unconvincing experiences with previous VM workshops (for a variety of reasons), or others, ranging from lack of ownership and accountability, and rushed schedules. There is great temptation for staff under budgetary and schedule pressures to circumvent exploratory, divergent thinking by converging too quickly on a set of solutions that has worked elsewhere. It is our contention that the all powerful VM needs to be anchored within a widely accepted, overall analytical, planning, development, execution, monitoring and executive level reporting process.

View From the Top

Most organizations depend on the accomplishment of projects as a source of service delivery, products, profits, or process improvements. To accomplish this, there is often a complex system of programs,

priorities, policies, and practices that shapes the behaviors of organizations, managers and resources. This requires careful guidance and consistent coordination for maximum effectiveness. There must be collective “buy-in” to proposals to ensure that the resulting change delivers the anticipated results.

Let us now look at programs and projects from a business management perspective.

- ❖ How do we demonstrate that our programs or projects are providing best overall value for stakeholders?
- ❖ Is a critical program creeping over budget, behind schedule, out of scope or causing some concern to stakeholders?
- ❖ How effective is our planning, controls, reporting and approvals framework at ensuring efficient delivery of sustaining, competitive and effective business outcomes?
- ❖ How wide is the gap between our stakeholders’ expectations and the performance / value that should be attainable?
- ❖ How are we managing the risk of not meeting our stakeholders’ expectations?

Is there an explicit process for dealing with the important issue areas above? An environment of many projects can generate competing priorities for project resources and managers alike, and can make the requisite results difficult to achieve.

The VM, suitably tweaked and adapted, is well-placed to provide the basis of a suitable framework.

Pre-Requisites

To guide sustaining decisions, participants should view the whole picture before focusing on specifics. From the outset there needs to be a framework for understanding what constitutes end-to-end program value, along with a system for managing risk and change. Closing the value & performance gap is achieved through a continuing series of pre-emptive management actions that are conducted throughout the life cycle –from the investment decision phase, through development and execution, to routine operation and then through strategic re-alignment, refurbishment, reinvestment or ultimate disposition. Explicit consideration of best overall value, cash flow, risk, readiness to proceed, realism of cost and scheduling estimates, along with quality management and attention to cross-program impacts or collateral is critical.

Value is often inadequately defined and hence may appear somewhat elusive. It is important that the following key aspects are addressed:

- Alignment of programs and projects to business priorities and goals
- Analysis by function
- Focus on outcomes
- Management of project performance for delivery of the expected value.

While project selection is often made based on largely economic or financial terms, it has become extended to include aspects such as environmental friendliness and certainty of performance. In this regard value drivers, which are project characteristics that are important to stakeholders, are critical to identify and apply. Use of value drivers brings issues into sharp focus. Strategies focused through value drivers bridge, or eliminate, the performance gap and guide the implementation of effective change programs.

Utilizing a combination of value and risk assessment enables comparison and prioritization of competing proposals, as well as formulation and management of the portfolio. Logically, an organization would give priority to the higher value programs and projects that have manageable risk.

A value-focused framework addresses where value and performance may be inhibited or slipping away from the organization. A particular challenge exists when programs and projects are promoted and approved for purely political purposes, without being subjected to the rigors of a formal appraisal, selection, planning and resourcing process.

Focusing Value Strategies

Key management areas and characteristics of successful organizations include attention to: governance, leadership, planning, customers, employees, work processes, systems thinking and delivery, performance measurement, suppliers & partners, resource management, communications, continuous improvement, societal commitment and emergency preparedness. Value and performance improvement deals with a range of situations, complexities and philosophies. Inclusive, multi-functional, group problem-solving defines the most appropriate options, builds consensus and overcomes implementation hurdles quicker than the traditional routing back and forth between isolated departmental viewpoints.

Management of a portfolio for strategic change should drive a path toward achieving stated objectives and, ideally, the route of continuing improvement gains across the whole enterprise. Programs and projects should clearly support attainment of the corporate vision statement and principles.

Closing the performance/value gap successfully is not just a “quick fix”. The gap may exist at a number of organizational levels. Organizations / enterprises require alignment of expectations, robust program & project management and assurance of results.

Most performance / value enhancement gains are made strategic decisions and in conjunction with stakeholder input. This typically involves the pro-active management of several interfaces and complex relationships. It is becoming well accepted that tomorrow’s high performing organizations will be those that utilize the problem-solving and decision-making capabilities of their entire teams. The key to aligning performance is through recognition and appropriate attention of stakeholder perspectives and values.

Significant attention must be paid to proper definition and adequate description of the success criteria, which translate into project performance / evaluation criteria. It is ultimately conformance to these criteria that determines interim approvals and overall success. It is important to orchestrate change with both confidence and control.

The process of thinking through value parameters, linked to the business case, and thinking by function is a powerful, structured process that can produce incredible results in a remarkably short time.

Systematic and continuing assurance of a) value and b) ongoing performance comprises objective, independent, review of functions and relative worth, along with confirmation of compliance with overarching, approved plans and crucial interfaces. This is accomplished through the two-part, value assurance approach:

- ❖ Strategic Value Planning through **Value Assurance Reviews (VAR)**. Consensus building on options for resolution of complex issue areas. Program turnaround and project realignment. Establishment of key decision points and criteria.
- ❖ Performance Monitoring and Value Enhancement through **Performance Assurance & Reporting (PAR)**. Milestone reviews to diagnose, adjust and report from inception through development and execution to operation. Performance improvement during delivery of programs and projects previously not meeting business expectations.

Framework for Value Assurance

As part of an overall portfolio value assurance process, a program and project performance oversight framework is established. This complements traditional project management systems through high level monitoring and reporting of progress.

A basic premise of the value assurance framework is that any VM review is part of a longer term system of reviews. Collectively these that encompass the whole program or project from beginning to end. The value assurance approach provides both a forward-looking management framework and an on-going auditable trail of the basis of key decisions and changes, as well as a mechanism for achievement and external certification of “best value”.

As well, risk (which may be present across the entire enterprise or within individual programs, projects and integrated supply chains) is managed at the appropriate comfort level for the organization, along with key stakeholder issues and changing internal / external conditions.

Four key points of application of reviews during a long-term value assurance oversight program are illustrated in Figure 1. Table 1 describes example key aspects of each VA review stage.

Two reviews are conducted during the **value identification and planning** part of the overall cycle. Two further reviews are conducted during the following **value realization & optimization** part of the cycle.

- The starting point is review 1 which **appraises** the overall performance of established operating system(s) and **identifies** parameters and potential projects for improvement or re-sizing.
- Review 2 examines the front-end formulation of a program or project and **assesses & selects** the new concept.
- Review 3 focuses on the design proposals for **definition and execution**.
- Review 4 analyzes the **operation** of the recently installed system(s) for effective performance in line with the original business case and subsequently changed conditions.

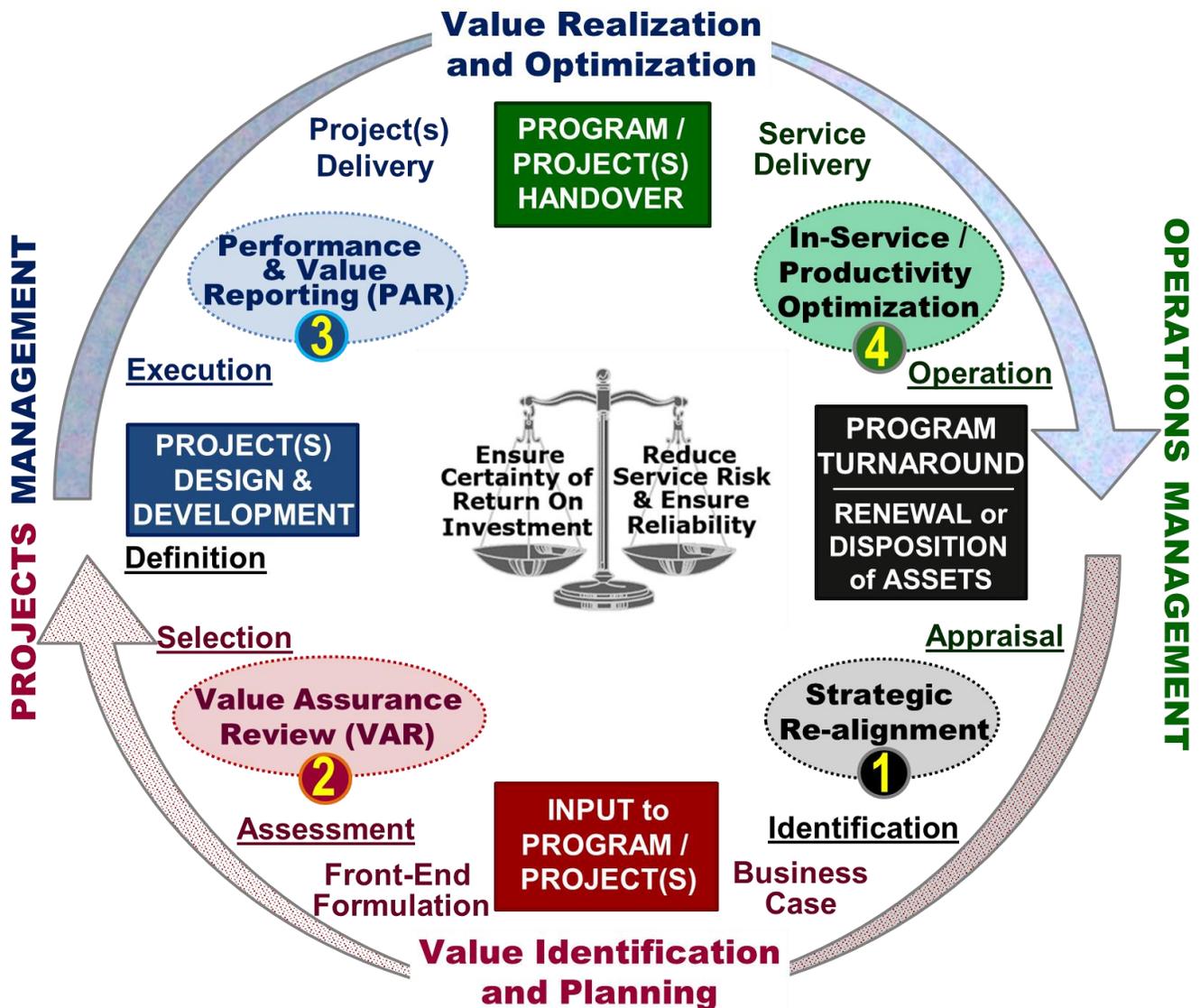


Figure 1, Value Assurance Scope of Application

A. Value Identification and Planning		
Program / Project Stage	Review Focus	Value Methodology Application
Strategic Alignment/Re-alignment of Program or Project(s) Business Refocusing Program Turnaround	1. Value Assurance Review (VAR) - Strategic Diagnosis Agreed stakeholder needs and priorities Assessment of current & predicted performance Business risks identification and mitigation strategy	VM Process Appraisal Initial Value File
Front-End Formulation	2. Value Assurance Review (VAR) - Assessment & Selection Formulation and review of options to meet stakeholder requirements Definition of program / project scope, performance parameters, key milestones and critical timelines	Value Assurance Plan VM Program / Project Innovation Study Updated Value File
B. Value Realization and Optimization		
Program / Project Stage	Review Focus	Value Methodology Application
Design and Development Program & Project Delivery	3. Performance Assurance & Reporting (PAR) - Definition & Execution Consensus and confirmation of best value outline design, phasing and strategies for implementation, contracting & risk management. Implementation/constructability improvement together with elimination of unnecessary cost, while maintaining or enhancing functionality.	Updated Value Assurance Plan VM Proposals Optimization Study Updated Value File
Service Delivery In-service Productivity Service/Systems Optimization	4. Performance Assurance & Reporting (PAR) - Operational Analysis Demonstration to higher management and stakeholders that anticipated business returns are being obtained. Critical review of in-service performance to identify and evaluate potential options for improving operational efficiency and/or cost effectiveness.	Updated Value Assurance Plan VM Operations Review Updated Value File

Table 1, Example Value Assurance Framework

Summing Up

Due to shifting business dynamics, an organization's needs may change before full program development or project completion. Particularly in complex business environments, managers need to have a reference framework for ensuring confidence in program and project delivery to suit changes in circumstances or events. Decisions based on an understanding of the full cost of ownership or other life-cycle implications of an asset and services are to be encouraged.

Assurance for stakeholders is required such that their portfolios and programs and projects remain viable in terms of:

- Business aims (benefits, scope and costs)
- User requirements (availability, serviceability, operability, reliability and compliance capabilities)
- Technical merit (feasibility and fitness-for-purpose)
- Supply chain capabilities and compatibilities
- Likelihood of meeting forecast targets.

Value assurance improves outcomes through:

- ❑ Guiding development and execution of program, project and major systems for maximum effectiveness
- ❑ Analytical review, synergistic value creativity, testing and innovative development for:
 - Functionality enhancement
 - Cost reduction (capital/ life cycle)
 - Schedule acceleration
 - Productivity improvement
 - Organizational efficiencies
 - Optimized asset utilization
 - Increased return-on-investment
 - Stakeholder buy-in
- ❑ Certification of best value.

By being free of the daily issues and activities of the project management team, the third-party assurance process can also provide insight into areas that may not have been fully considered. Particularly for sensitive and complex undertakings, this reinforces the team's efforts and ensures that progress is being made along the right track, thus contributing significantly to the confidence felt by stakeholders. A comprehensive value file is continually updated to provide a readily accessible, high level, set of reference documentation. The detailed VM results are data warehoused and form part of a smart system for reference by other programs and projects – concurrent and future.

The value assurance approach promotes a continual awareness of value and importance of thinking by function. The Value Methodology, its various tools & techniques, and the management of risk and change, are essential to implementing this framework effectively. As well, additional value enhancing methods are accommodated within this framework, with appropriate timing and interconnectivity for optimum use of resources.

Acknowledgements

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