

VALUE MANAGEMENT AND VALUE ENGINEERING

Key lessons learnt	Value Management (VM) and Value Engineering (VE) share the same overall methodology but techniques and timing differ. It is important that both forms of analysis are applied to projects through the development phase and outputs recorded through the business case process.
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Introduction

Value Management is applied at the Concept Development stage of a project to ensure all stakeholders' expectations and objectives are aligned, especially with respect to scope.

'Optioneering' is when viable options within the agreed scope and expectations are identified and a preferred option is selected using value ratios, on a consensus basis.

Value Engineering is applied as soon as a preferred option is agreed and at the Detailed Design stage.

Key considerations

It is important for all project stakeholders to possess and implement a consistent understanding of what is required of VM and VE. It has an established methodology with European, USA and Australian mandated standards in place. To satisfy VM/VE requirements within a business case in NSW it must be demonstrated it complies with the Australian Standard Value Management (AS 4183-2007).

Some key considerations for VM studies are:

- ▶ A prescribed VM work plan developed before the collaborative, consensus driven, facilitated workshop.
- ▶ The mix of the workshop members in terms of technical expertise, experience and relevant creative and decision making ability.
- ▶ Selection of an effective facilitator well versed in the VM methodology.
- ▶ Key stakeholder and senior management commitment to the VM process.

- ▶ A detailed brief with the client prior to the workshop indicating the objectives of the VM workshop/study and a clear definition of the workshop's scope, including an agenda.
- ▶ A clear indication of whether the study is in fact a VM study or a derivative such as Value Engineering or 'Optioneering'.
- ▶ Understanding the 'Job Plan' (as it is called in The USA and Europe) or any other term used to summarise the key elements of the VM methodology best described as:
 - Information Stage: relevant information pertinent to the project is presented.
 - Analysis Stage: project data is 'functionally' analysed using a variety of techniques and deconstructed into functional elements.
 - Creativity Stage: project is reconstructed 'functionally', looking at which functions can be deleted, combined, minimised etc. with all participants adding their creative thoughts.
 - Evaluation Stage: functions suggested for modification are evaluated against criteria.
 - Development Planning Stage: actions with accountabilities and due dates are clearly articulated to ensure viable workshop ideas for project improvement are carried out.

Note: this methodology is user friendly and at the same time a very cogent driver of creative decision making if carried out correctly.

Some further considerations

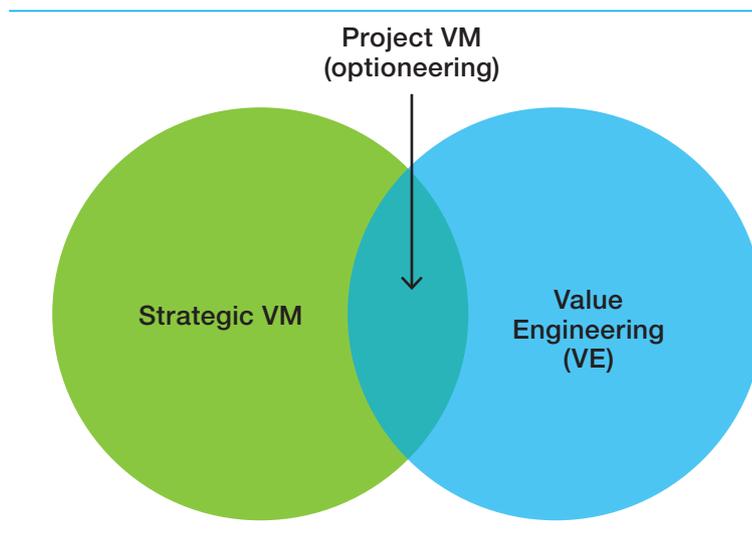
It is well established in industry there is a distinction between VM and VE. It is worth understanding the simple distinctions as described below.

► Definition: Value management

- Value management is a process that uses consensus driven, collaborative decision making to achieve optimal design while controlling the development of a project in accordance with all stakeholders' needs
- Value management should occur before definite design is in place
- It is essentially a strategic tool

► Definition: Value engineering

- Value engineering is a process that establishes specific engineering objectives to maximise the efficiency of design and cost reduction
- Generally, value engineering focuses on the best design from among available options.
- It is tactical



The diagram above places 'optioneering' at the intersection of VM and VE. While the options are being developed, and evaluated it is VM. Once the preferred option has been selected it is VE.

Source material

Stevens, David (1997) Strategic Thinking: Success Secrets of Big Business Projects. McGraw-Hill Sydney.

Stevens, David (1990) Participatory Business Planning: Recession Proofing Your Company. Wright Books Brighton
Australian Standard Value Management (AS 4183-2007)

► **About the author:**

Dr Stevens is an organisational psychologist, facilitator, counsellor and author specialising in optimising human effort on major infrastructure projects globally (www.profstevens.com). He was Chairman of the Standards Australia Committee for the ANZ Value Management Standard and is a Fellow of the Hong Kong Institute of Value Management. He has carried out over a thousand workshops including multibillion dollar complex projects like Panama Canal, Cross Rail (London), Taiwan High Speed Rail, Kuala Lumpur International Airport, \$10B Roy Hill.