Value Analysis, Value Engineering & Waste Elimination

28 June – 2 July 2027
Malé (Maldives)

UK Traininig
PARTNER



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Introduction

Value engineering VE and value analysis VA are powerful methodologies designed to enhance competitiveness by maximizing the value of a product process, project while minimizing its cost. The approach is systematic, involving a multi-step job plan that utilizes various tools to conduct product or process analysis. VE and VA focus on ensuring that a product or process meets the client's needs at the lowest possible cost without compromising functionality or quality.

This training offers a comprehensive overview of the entire VE job plan, covering each phase and its respective techniques. It explains when and how to apply VE, the different goals that can be achieved, and the benefits of conducting a cost-value analysis in project management.

Course Objectives

By the end of this course, participants will be able to:

- Gain in-depth knowledge of value engineering and understand its application in different projects.
- Understand the objectives, methodology, and techniques of value engineering.
- Classify practical applications of value engineering, including cost-value analysis CVA, CIAPB, cost model preparation, and function analysis.
- Apply value engineering techniques to products, processes, and projects.
- Identify and measure the needs that products and processes must fulfill to deliver optimal value.
- Understand and select the best value solutions for all stakeholders involved.



Course Outlines

Day 1: Introduction to Value Engineering

- Objectives of Value Engineering VE: Learn the primary goals of VE and why it is essential in cost-effective project management.
- Reasons for Unnecessary Costs: Understand the root causes of cost inefficiencies and how VE can help eliminate them.
- When to Apply VE: Know the optimal stages of the project lifecycle where VE should be applied.
- VE Methodology and Techniques: Explore the key techniques used in VE, such as cost-value analysis and function analysis.
- Interface with Other Programs: Learn how VE integrates with other project management tools and methodologies.
- Proven Impact of VE: Review real-world examples and case studies demonstrating the effectiveness of VE.
- Practical Application of Project Scope and Budget: Apply VE techniques to define project scope and manage the budget effectively using cost-value analysis.

Day 2: Capitalized Income Approach to Project Budgeting CIAPB & Cost Models

- CIAPB Objectives: Understand the principles behind the capitalized income approach to project budgeting CIAPB.
- Measuring Property Value: Learn the methods for evaluating property and asset value in construction projects.
- Capitalization Process: Understand how capitalization works in cost analysis.
- Preparation of Cost Models: Get hands-on experience in creating and applying cost models in project planning.
- Types of Cost Models: Explore different types of cost models, including construction cost models and resource models, to optimize project budgets.

Day 3: Planning for Value Engineering Services & Function Analysis

- VE Objectives: Learn how to set clear objectives for VE within the context of project management.
- Level of Effort in VE: Understand the necessary effort and resources for successfully implementing VE.
- VE in Total Project Management: Discover how VE fits into the overall project management framework.
- Team Selection for VE: Learn how to choose the right team to execute VE successfully.
- The VE Job Plan: Get a detailed overview of the VE job plan, its phases, and its application in projects.
- Function Analysis: Master the process of function analysis, including the use of FAST Function Analysis System Technique diagrams to identify critical project components.



Day 4: Creativity, Interpersonal Skills & Life Cycle Costing LCC

- Creativity and Fixation: Explore the role of creativity in VE and how to overcome fixation during problem-solving.
- Interpersonal Skills: Develop essential interpersonal skills required to collaborate effectively in VE teams.
- Human Factors in VE: Learn how human factors influence the VE process and decision-making.
- Idea Generation and the Delphi Technique: Master creative techniques, including the Delphi method, to generate innovative solutions.
- Life Cycle Costing LCC: Understand the principles of life cycle costing, including its impact on project cost estimation and long-term financial planning.
- LCC Terminology and Examples: Explore real-world examples of how LCC is applied in building projects to assess long-term costs and benefits.

Day 5: Integrating Value Engineering in the Construction Industry & Risk Assessment

- Planning and Design: Learn how to integrate VE in the planning and design phases of construction projects.
- Construction Phase: Understand how VE applies to the construction process, from budgeting to execution.
- Maintenance and Operations M&O: Discover how VE can improve ongoing maintenance and operational cost-efficiency.
- VE Applications in Risk Assessment: Learn how to incorporate VE into risk assessment and risk analysis to ensure cost-effective project delivery.
- Evaluating Risks and Scenarios: Use VE techniques to assess project risks and make data-driven decisions.

Why Attend this Course: Wins & Losses!

Attending this course will significantly enhance your ability to optimize project value while reducing unnecessary costs. Value engineering is an essential tool for professionals seeking to maximize the value of their projects by addressing both cost and quality aspects. Whether you're involved in construction projects, product development, or process optimization, VE provides a systematic approach to achieving superior outcomes.

Key Benefits of Attending:

- Enhance Project Value: Learn how to achieve the best value for your projects through cost-value analysis and function analysis.
- Cost Reduction: Apply value engineering techniques to eliminate waste and reduce unnecessary costs in your projects.
- Better Decision-Making: Gain the skills to make informed decisions that balance cost and value, delivering optimal outcomes for all stakeholders.
- Comprehensive VE Knowledge: Master the principles and applications of value engineering, including life cycle costing LCC, creative thinking, and risk management.
- Practical Applications: Learn how to apply VE in real-world scenarios, improving project planning, execution, and post-completion phases.



Conclusion

In conclusion, this course will equip you with the necessary skills to apply value engineering and cost-value analysis in your projects, enabling you to optimize costs and maximize value. Whether you're in construction, manufacturing, or product design, mastering VE techniques will improve your decision-making, enhance efficiency, and ensure the delivery of high-value outcomes. With a strong foundation in function analysis, life cycle costing, and risk management, you'll be well-prepared to lead projects that are both cost-effective and high in quality.

