

## Value Analysis And Value Engineering Basics For

A company with effective cost reduction activities in place will be better positioned to adapt to shifting economic conditions. In fact, it can make the difference between organizations that thrive and those that simply survive during times of economic uncertainty. Reducing Process Costs with Lean, Six Sigma, and Value Engineering Techniques covers

In this hyper-connected world, the key to success/excellence is Value Analysis/Value Engineering (VA/VE). But the VA/VE discipline has been stagnant even though new books continue to be published by that title. This book revitalizes and reinvents VA/VE, and this re-engineered value engineering can positively disrupt the fragmented status quo of the value improvement/change management tools such as Six Sigma, Lean Thinking, Total Quality Management, Kaizen, and Project Management. This book connects the dots among these management tools by integrating them into VA/VE's scientific method of the value methodology, based on the multi-disciplinary and whole-system thinking approach of VA/VE.

This book presents a new technology, first developed in Japan by Sato, for improving existing products and creating new and better products. It combines traditional tear-down with the technologies of value analysis and value engineering.

This invaluable reference teaches effective and practical techniques to improve the overall performance and outcome of design projects in various industries. Value Engineering highlights the application of value methodology to streamline current day operations, strategic planning in company or business segments, and everyday business decisions in the private sector. The book shows how to maximize budgets, reduce life cycle costs, improve project understanding, and create better working relationships. It explains how to gather information for the creation, evaluation, development, and presentation of new project ideas and shows how to design an appropriate task agenda and timeline.

Value engineering is a systematic and organized procedural decision-making process, which is designed to ensure the maximum value for the client or the end consumer. At a time when success in business is critically dependent on the value attached to a product, this concept provides any enterprise with a result-driven framework for delivering better products and services at the lowest possible cost. This book is a comprehensive and in-depth exposition of the basic concepts, techniques and applications of value engineering. Simple and jargon-free, it is divided into three parts. The first part: - Deals with the basic conceptual framework of value engineering and its key parameters. The author highlights its relevance in the Indian scenario. The second part: - Examines both general and special techniques specifically developed and applied to value engineering. The final part: - Critically discusses the application of the techniques discussed in the second part; and - Is peppered with short cases. The discussion is peppered with short cases and the book itself is copiously illustrated to give the reader a holistic understanding of the concepts.

This jargon-free book demystifies all the concepts required for a well rounded understanding of the theory of Value Engineering (VE) and Value Engineering Certification Programmes. Value Engineering Mastermind: From Concept to Value Engineering Certification helps the readers to: " Understand VE concepts. " Practise VE

concepts and acquire the Society of American Value Engineers (SAVE) International Certifications-accorded in India by the Indian Value Engineering Society (INVEST). A special feature of this book is a set of questions at the end of every chapter to test the knowledge acquired, with answers at the end of the book. Since the book provides insights into the development of managerial traits through VE, it will be an important resource for companies that have begun to provide VE training to their employees, besides students of engineering and MBA courses. It will also be of much use to professional societies like the Indian Value Engineering Society, the Society of Indian Value Management, SAVE International, etc.

Value Engineering (or Value Analysis) is widely used to study and apply cost-saving techniques during a product's life cycle; from design and development to purchasing and manufacturing. The implementation of Value Engineering results in "more for less", and it is rapidly becoming the favored method of planners and engineers to design parts, equipment, and products in a way that will provide the lowest possible cost without sacrificing reliability. In *Value Engineering: A Blueprint*, James Brown uses his vast experience to explain fully every aspect of the subject from its history to application. It takes the novice or experienced engineer through every phase of the process, step by step, and even explains how to write a VE report. Value Engineering is so important that Armed Services Procurement Regulations specify that all contracts over a stated dollar value must include either a VE program or incentive clause. Read this important book and discover how Value Engineering can contribute to your company's success.

This book, along with an instructor's guide (available at [www.valuefoundation.org](http://www.valuefoundation.org)) was developed to support a 3-credit hour university course on Value Engineering principles. The objective of the course is to introduce the concept of value engineering and demonstrate its techniques and application. The course of study provides practical knowledge in specialized techniques that comprise the value engineering methodology and the manner in which they are applied through a systematic job plan approach. Whether you are interested in enhancing your own applications of VE and LCC – or you need to understand the current methodology in order to hire a practitioner and oversee the process – this unique publication will provide the information you are seeking. The book shows you: How to organize and apply VE and life cycle costing for maximum benefit Real-life VE demonstration projects – professionally organized reports, with recommendations you can apply right now Project workbook with forms to conduct a complete VE study

Outlines a systematic process for improving the value of a project through the analysis of its functions while explaining how to reduce costs and maximize quality in products, processes and services in manufacturing, construction and management.

This book is about value, about the value of a car you want to buy, a workbench you decide to make, or a house you want to sell. It will be of interest to those industrial managers who must increase gross margins despite higher wages and material costs and to design engineers, buyers, cost accountants, quality specialists, industrial engineers, and those men in Marketing and Finance who have their fingers on the pulse of a product value.

Written for people of various professions and offering a modern approach to using value analysis for product development, this is a structured process that unites interdisciplinary teams in an organization to select and analyze projects in terms of investment potential and to integrate quality and productivity. It contains four sections that describe the nature,

measurement, design and management of value.

Traditionally used for product design, redesign, and manufacturing, the Value Analysis/Value Engineering (VA/VE) process can be applied successfully by both small and large companies to streamline general business processes such as reimbursement for business expenses, hiring, or supply chain management. This book examines and simplifies the VA/VE process and offers the structure and guidelines necessary to organize a team that can align around project definition, scope, outcome, current knowledge and gaps and define a way forward that benefits both the customer and the company.

Lean Six Sigma (LSS), Design for Six Sigma (DFSS), and Value Engineering (VE) have a proven track record of success for solving problems and improving efficiency. Depending on the situation, integrating these approaches can provide results that exceed the benefits of each individual approach. Value Engineering Synergies with Lean Six Sigma: Combining

Every body ought to be interested in Value Engineering (VE)! As wage-earners, the application of VE is helping American industry maintain its economic position in world markets, thereby protecting our jobs and careers. As taxpayers, the Department of Defense (DOD) VE program has come to the defense of the Defense dollar, with audited savings to us of over \$1.1 billion for fiscal years 1963 through 1966. As consumers, we today purchase many products at not only lower prices, but with greater value as well, because the manufacturer of those products is applying VE as an effective management tool. And all of these VE economic benefits have come rapidly. As recently as 1960-the application of this cost saving technique is dated back to 1947-wherever the technique had been intelligently and open-mindedly applied, it had been successful. With this acceptance and practice of the methodology have come rapid developments in the state of the art, and in the point of its application to the product cycle. What was once considered second look, Value Analysis-whereby the methodology was applied only after the entity of the product was well established-began moving back in the product development cycle for a first look into the design aspects of the product. Thus what was originally christened Value Analysis, synonymously became known as Value Engineering (VE)-a confirmation that served to justifiably raise the status of (and respect for) the technique. Value Engineering is therefore no longer on trial. It has proved itself repeatedly. But in spite of its name, its success has not come as a technological technique, but as a potent economic tool for management. Why? Because the record shows, without reservation, that the technique must have the rigorous and unqualified backing of management. Where VE has received this kind of support, management has reaped a return on investment in the order of 15:1. This kind of performance, management understands!

What would happen if everyone in your company followed a disciplined approach to cost reduction? Go ahead -- imagine it. What would it look like? How can it be done? The answer -- smart cost management. Effective cost management must start at the design stage. As much as 90-95% of a product's costs are added in the design process. That is why effective cost management programs focus on design and manufacturing. The primary cost management method to control cost during design is a combination of target costing and value engineering. Target Costing Objectives: Identify the cost at which your product must be manufactured at if it is to earn its profit margin at its expected target selling price. Break the target cost down to its component level and have your suppliers find ways to deliver the components they sell you at the set target prices while still making adequate returns. Value Engineering: The connection to function: An organized effort and team based approach to analyze the functions of goods and services that the design stage, and find ways to achieve those functions in a manner that allows the firm to meet its target costs. The result: Added value for your company (development costs on-line with added value for your company; development costs on-line with selling prices) and added value for your customer (higher quality products that meet, possibly even exceed, customer expectations.)

Thought leader Abate Kassa finds the U.S. government's arbitrary cost-cutting directives of austerity measures or sequestration as a perfect example of moving in the wrong direction. Their system follows rule-sense rather than value-sense. In this book, Mr. Kassa proposes reengineered value analysis/value engineering (VA/VE) as the way to deliver superior service at a minimum cost. By mastering the powerful re-engineered VA/VE problem-solving value methodology (PISERIA) outlined in this book, any organization regardless of industry will be able to self-diagnose problems and self-discover solutions. The book is the product of Abate Kassa's dual lenses of experience and research over four decades. In the book, Mr. Kassa updates and upgrades VA/VE by integrating popular improvement methodologies, including Six Sigma, Lean Manufacturing, Total Quality Management, Kaizen, Business Process Reengineering, and Project Management, into the scientific method of the value methodology he dubbed PISERIA. By so doing, the author hopes to positively disrupt the status quo of the siloed thinking of these fragmented methodologies. If you are engaged in the pursuit of excellence and are ready to make the leap from good to great, while generating an immediate payback, you will want to empower your people with an understanding of the reengineered VA/VE outlined in this book.

This publication is designed to be part of a University level course on Value Engineering Theory. As Such, it is presented in two sections: Section one of this publication contains an eleven-part reading supplement to Larry Miles' book, "Techniques of Value Analysis and Engineering". Section two contains the reading assignment and content of the eleven basic lectures for the course. The objectives are to introduce the concept of value engineering and demonstrate its application and techniques.

In recent years the situation of production enterprises has been aggravated by the change from a vendors' market to a buyers' market, the globalisation of competition, a severe market segmentation and rapid progress in product and process technologies. Beside cost and quality, time has taken on an increasingly important role, forcing enterprises to become ever more dynamic and versatile. Therefore, in all areas of production management, novel, effective concepts, procedures and tools have been developed in order to meet these new requirements. But beyond these more technical, organisational and information technology related aspects there is certainly another one which has to be considered more closely than ever before, namely that of human resources. Is not group technology also related to group work? Do partners in a global network only operate according to predefined process schemes with no personal contact? Are the mental process models of the programmers of ERP-systems the same as those of the users? What is the impact of human behaviour and what consequences are to be expected if organisational and individual objectives are separated? And finally, how do necessary technological changes affect the workforce and the individual needs and wishes of the employees.

Value Analysis and Engineering Reengineered  
The Blueprint for Achieving Operational Excellence and Developing Problem Solvers and Innovators  
CRC Press

Cost and Value Management in Projects provides practicing managers with a thorough understanding of the various dimensions of cost and value in projects, along with the factors that impact them, and the managerial approaches that would be most effective for achieving cost efficiency and value optimization. This book addresses cost from a strategic perspective, offering thorough coverage of the various elements of value management such as value planning, value engineering and value analysis from the perspective of projects.

Value Management is a philosophy, set of principles and a structured management methodology for improving organisational decision-making and

value-for-money. The second edition builds on the success of the first edition by extending the integrated value philosophy, methodology and tool kit to describe the application of Value Management to the areas of service delivery, asset management, and, Programmes, in addition to Projects, products and processes. Value Management is a well-established methodology in the international construction industry, and in the UK has been endorsed as good practice in a range of government sponsored reports. In this book the authors have addressed the practical opportunities and difficulties of Value Management by synthesising the background, international developments, benchmarking and their own extensive consultancy and action research experience in Value Management to provide a comprehensive package of theory and practice. The second edition retains the structure of the first edition, covering methods and practices, frameworks of value and the future of value management. It has been thoroughly updated, and a number of new chapters added to encapsulate further extensions to current theory and practice. In particular, the new edition responds to: A range of recent UK industry and government publications; and most notably BS EN 16271:2012 - Value management: Functional expression of the need and functional performance specification; the imminent update of BS EN 12973:2000 Value Management; BS EN 1325 Value Management – Vocabulary, Terms and definitions; the changes to "Value for Europe" governing the training and certification of Value Management in European Union countries; the UK Government's Management of Value (MoV) initiative, together with other leading reports, international guidance and standards on Value Management. Research in Value Management undertaken since publication of the first edition. Changes in Value Management practice particularly in Programmes and Projects. Developments in the theory of value, principally value for money measures, whole life value option appraisal, and benefits realisation. Initiatives in asset management initiatives covering the management of physical infrastructure, for example the recent launch of a suite of three standards under the generic title of BS ISO 55000: 2014 Asset Management, and its predecessor BSI PAS55 2008 "Asset Management: Specification For The Optimized Management Of Physical Assets" The second edition contains a dedicated chapter of exemplar case studies drawn from the authors' experience, selected to demonstrate the new areas of theory and practice. An Appendix includes an extensive set of tools and techniques of use in Value Management practice. Construction clients, including those in both the public and private sectors, and professionals such as construction cost consultants, quantity surveyors, architects, asset managers, construction engineers, and construction managers will all find Value Management of Construction Projects to be essential reading. It will also be of interest to researchers and students on construction related courses in Higher Education – particularly those at final year undergraduate and at Masters level. After more than 50 years as a manager and VE pioneer, Richard J. Park presents Value Engineering: A Plan for Invention. Park demonstrates how to

adopt VE as a thinking process that can enable you to increase your problem solving skills, cultivate innovation, reduce costs, improve productivity, and more.

Features

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