



KURSUS PENGENALAN KEPADA PENGURUSAN NILAI
(Awareness & Understanding Principle)
18 - 19 Ogos 2015, Tingkat 18, Menara PJD, KL



Jadual Kursus

ATURCARA

KURSUS VALUE MANAGEMENT MODULE 1 SIRI 1/2015

Tarikh	Masa	Perkara	Penceramah	Fasilitator
18/08/2015 (Selasa)	8.00pg - 8.30pg	Pendaftaran Kursus		
	8.30pg - 9.00pg	Pre Course Assessment	Pn. Rohanis Abd. Ghani	
	9.00pg - 10.30pg	Introduction & Background of Value Management	Pn. Rohanis Abd. Ghani	
	10.30pg - 11.00pg	Minum Pagi		
	11.00pg - 1.00ptg	Value Management in Construction and Implementation in Public Projects	Pn. Rohanis Abd. Ghani	
	1.00ptg - 2.30ptg	Makan Tengahari & Solat		
	2.30 ptg - 4.30 ptg	VM Body of Knowledge <i>- VM Opportunity Points</i>	Pn. Rohanis Abd. Ghani	
19/08/2015 (Rabu)	8.00pg - 8.30pg	Pendaftaran Kursus		
	8.30pg -10.30pg	VM Body of Knowledge <i>- VM Study Process</i> <i>- VM Worksyop Process</i>	Pn. Sh Muna Sy Murtadza	
	10.30pg - 11.00pg	Minum Pagi		
	11.00pg - 1.00pg	Value Management Methodology and Process (phases) <i>- Information Phase</i> <i>- Function Analysis Phase</i>		
	1.00ptg - 2.30ptg	Makan Tengahari & Solat		
	2.00ptg - 4.00ptg	Value Management Process - con't <i>- Creativity Phase</i> <i>- Evaluation/Judgement Phase</i> <i>- Development Phase</i> <i>- Recommendation Phase</i>	Pn. Sh Muna Sy Murtadza	
	4.00ptg - 4.30 ptg	Post Course Assessment	Pn. Sh Muna Sy Murtadza	

Cawangan Pengurusan Projek Kompleks, JKR

Our Vision

"To lead project management in Malaysia"

Our Initiatives

- ❖ 3PO (Portfolio, Program, Project)
- ❖ Project Management Toolkits
- ❖ Acquisition Categorisation (ACAT) Framework
- ❖ Project Health Check (PHC)
- ❖ Risk Management
- ❖ Strategi Perolehan Alternatif (SPAf)
- ❖ Gerbang Nilai (GN)
- ❖ Scheduling
- ❖ Project Management Competency
- ❖ Value Management
- ❖ Partnering
- ❖ VACCINE
- ❖ Enterprise Content Knowledge Management (ECKM)

value management
unit VM JKR



FUNGSI UTAMA:

- 1 Membangunkan sistem, proses, tools, techniques bagi pelaksanaan VE dalam projek kerajaan.
- 2 Membangunkan kompetensi dalaman bagi VE di JKR
- 3 Melaksana Kajian VE (fasilitator) bagi program/projek Kerajaan (JKR dan Kementerian/Agensi lain)



INTRODUCTION & BACKGROUND OF VALUE MANAGEMENT



contents

Lecture Objectives

History & Evolution of VM

The VALUE concept

The PRINCIPLES of Value Management



contents

Lecture Objectives

History & Evolution of VM

The VALUE concept

The PRINCIPLES of Value Management



Lecture Objectives

- ❖ Attain BASIC knowledge on VM best practices.
- ❖ Strengthen FUNDAMENTALS of VM practice .



What is

Value Management ?

- ❖ A methodology
- ❖ A structured process
- ❖ Function orientated
- ❖ Involves Multidiscipline



Why do we need

Value Management ?

Because...

There are many ways to
waste

TIME, MONEY, & EFFORT

Source: Abdulaziz S. Al-Yousefi (2008)



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PROJECT MANAGEMENT EXCELLENCE



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Lecture Objectives

History & Evolution of VM

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The PRINCIPLES of Value Management



History & Evolution of VM



1940s (During WW II)

- Conceived by **Lawrence D. Miles**, purchasing engineer in GEC(General Electric Company), a major defense contractor in US.
- Running at maximum capacity, shortage of key raw materials & components.
- ***“if I cannot obtain the product I must obtain an alternative which perform the same function.”***
- From the observation he proposed a system called **“Value Analysis”**



History & Evolution of VM

1950s

- US Department of defense Bureau of Ships, the 1st US Government to implement VA.
- Name change to **Value Engineering** due to administration reason that engineer were considered the most appropriate personnel to undertake the task.
- Extensive development of VE through US Public Sector and emerged into service and projects.
- “Society of American Value Engineers” was incorporated in Washington ,DC.



History & Evolution of VM

1960s

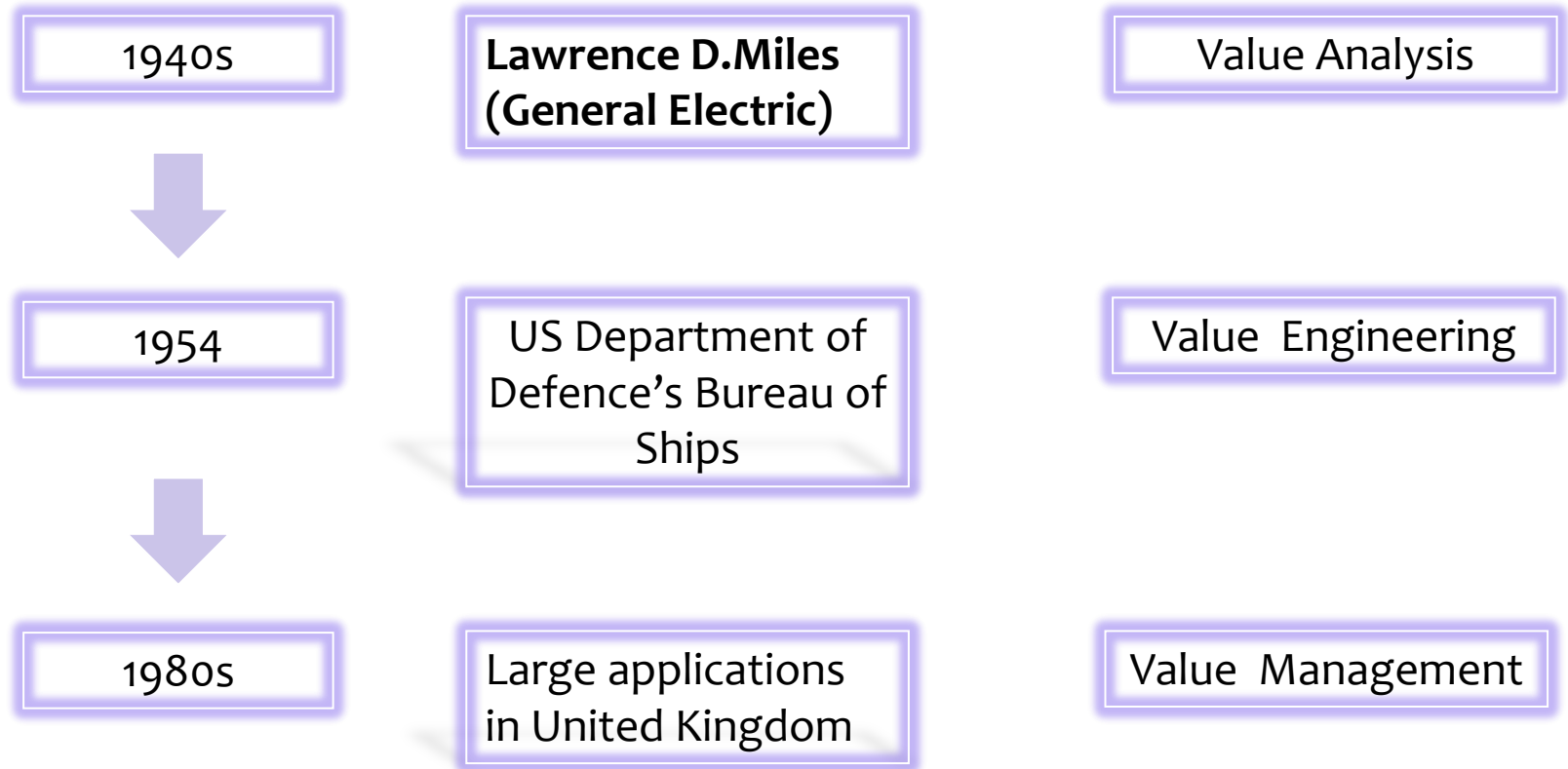
- Value Engineering (VE) began in UK manufacturing sector
- Established Value Engineering Association – 1966
- Change name to Institute of Value Management
- and later expanded to Europe, Australia, New Zealand & Hong Kong

1980 - 90s

- Value Management became popular and widely emerged into the Construction Industry



History & Evolution of VM



VM in Malaysia

1986

VM introduced to Universiti Teknologi Malaysia (UTM)



2000

Institute Value Management of Malaysia (IVMM) was registered and formalized with 20 founding members.



29th December
2009

Circular on Value Management institutionalizing VM Application for Federal Government projects of RM50million and above had been issued by Economic Planning Unit, Prime Minister's Department.



2011

Value Management Guideline

Source : 1998-2011 MCM



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Value Definition

Value is a measure expressed in currency, effort, exchange or on a comparative scale, which **reflects the desire** to obtain or retain **an item or service**:

- **Use value** (measures function of the item)
- **Exchange value** (amount an item may be sold)
- **Esteem value** (amount to pay for prestige)

Source : Kelly and Male (2003)



Cost and Worth

Cost is the price paid or to be paid
(note: one man's price is another man's cost)

Worth is defined as the least cost to perform the required function

Source: Kelly and Male (2003)



Function

Function is a characteristic activity or action for which a thing is specifically fitted, used or for which something exists.

Source : Kelly and Male (1993)

Types of function:

BASIC FUNCTION:

The primary purpose or most important action performed by a product or service. The *basic function* must *always exist*, although *methods* or *designs to achieve it may vary*.

SECONDARY FUNCTION:

A function that *supports* the basic function and results from the specific design approach to achieve the basic function. As methods or design approaches to achieve the basic function are changed, secondary functions may also change.

Source: SAVE VM Standard

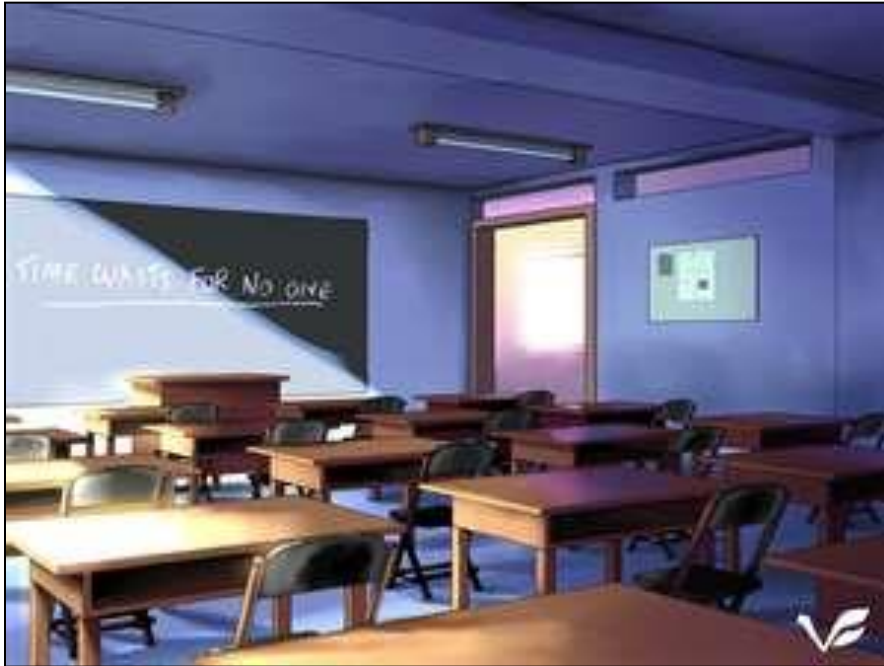
REQUIRED SECONDARY FUNCTION:

A function that must be achieved to *meet codes, standards* or *mandatory other requirement*.

Source: Dell 'isola



Example of Function



Classroom

Basic Function
Gather Trainees

Secondary Function
• ***Assure Privacy***

Required Secondary Function
• ***Facilitate Training***

Example of Function



Basic Function
Control Access

Secondary Function
• *Provide Aesthetic*

Required Secondary Function
• *Resist Fire*

Doors

VM Value Concept (i)

SAVE International (USA):

$$\text{Value} = \frac{\text{Function}}{\text{Resources}}$$

Where;

Function = Customer's performance requirements;

Resources = Labour, cost, time etc

Or; as a fair return or equivalent in goods or services or money for something exchanged



VM Value Concept (ii)

BS EN 12973:2000 (UK/Europe):

Value

=

Satisfaction of Needs

Use of Resources

What is necessary for
a desired user



Everything that is required
to satisfy needs



VM Value Concept (iii)


$$\text{VALUE} = \frac{\text{Function (F)} + \text{Quality (Q)}}{\text{Cost (C)}}$$

by Dell 'Isola

- Function** = The specific work that a design or item must perform
- Quality** = The owner's or user's needs, desires and expectations
- Cost** = The life cycle cost of the product or project



Value Enhancement

TECHNIQUES APPLIED TO IMPROVE VALUE

AREAS STUDIED

VALUE IMPROVEMENT (OUTCOME)

1. Cost Reduction Approach

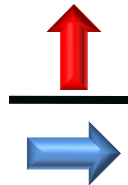


Reducing cost but maintaining the function and quality

- shared facilities
- centralised function
- Opt for cheaper solutions with same function and quality

- Optimized solution / design
- Elimination of redundancies
- Unnecessary cost avoidance
- Cost optimization

2. Function Increase Approach



Increasing either the function or quality or both but maintaining the cost

- Add or improve functionality
- Opt for better quality criteria or characteristic or technology, yet within cost

- Improved functionality
- Improved quality/ characteristic/ technology
- No cost implication

3. Compound Approach

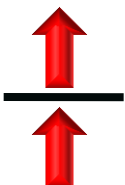


Reducing the cost and at the same time increasing the function and quality

- Eliminate unnecessary function / facility
- Eliminate unnecessary quality criteria or technology
- Refine functional and/or quality at lower cost

- Unnecessary cost avoidance
- Improved functionality
- Improved quality / characteristic / technology
- Elimination of redundancies
- Cost Optimization

4. Expand Growth Approach



Increasing the cost but at the same time improving function and quality at a higher proportion

- Increase sustainable solutions in design
- Increase operations ability in design
- Increase maintenance solutions in design
- Improve constructability
- Opt for better technology

- Improved sustainability
- Improved operations / maintainability
- Improved constructability / technology
- Cost optimization

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VM Definitions (i)

L.D. Miles (1940s) used ‘Value Analysis’:

*‘is an organised approach to provide the **necessary functions** at the lowest cost’;*

and later definition;

*‘is an organised approach to the identification and elimination of **unnecessary costs**’*

*‘....an organised approach to provide the **necessary functions at the lowest cost** without **affecting the quality of the product.***



VM Definitions ..

unnecessary costs

Lack of measurement in value

Lack of information

Lack of time

New process or technology

“costs which do not meaningfully contribute to the function or purpose of the product or service”

Honest but wrong belief

Habits and attitudes

“wasteful practices in delivering a service or a failure to match the delivered service to customer needs”

Reluctance to seek advice

Unrealistic judgement

Human factor



VM Definitions (ii)

‘VM is a proactive, creative way, problem-solving service, using **structured systems** and **multi disciplinary team** orientated approach to generate alternatives with the relationship of **function with value**’

Source : Kelly and Male (1993)



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PROJECT MANAGEMENT EXCELLENCE

VM Definitions (iii)

‘VM (Value Methodology) is a **systematic process** used by a **multi disciplinary team** to improve the value of a project through the **analysis of functions**’

Source : SAVE International (2007 edition)



VM Standards



USA

Value Standard & Body of Knowledge
(SAVE International)

UK/Europe

British / European Standards
BS EN 12973:2000

Australia/New Zealand

AS/NZ Standards

Value Management & TAM 2000 (NSW)



VM Terminologies

VALUE MANAGEMENT

Value Analysis
Value Assessment
Value Planning
Value Engineering
Value Review

VALUE METHODOLOGY



VM Study Vs VE Study

**VM
STUDY**

Why invest?

(Getting the right project)

**VE
STUDY**

**Invest in the right
technical solution**

(Getting the project right)



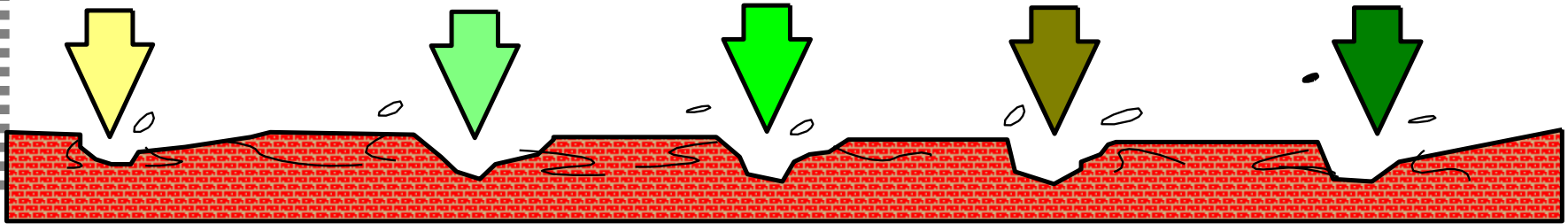
VM Applicability

Can be applied during any stage of a project's development cycle

- ❖ Construction projects: Concept development, preliminary design, final design, procurement, and construction phases.
- ❖ Products, consumer, industrial, or defense :
 - focus on the design or manufacturing process
- ❖ Business systems and processes: Business plans & Organizational
- ❖ Service organizations : Medical industry (Operating rooms, Emergency rooms and etc.) ; Legal system (police system)

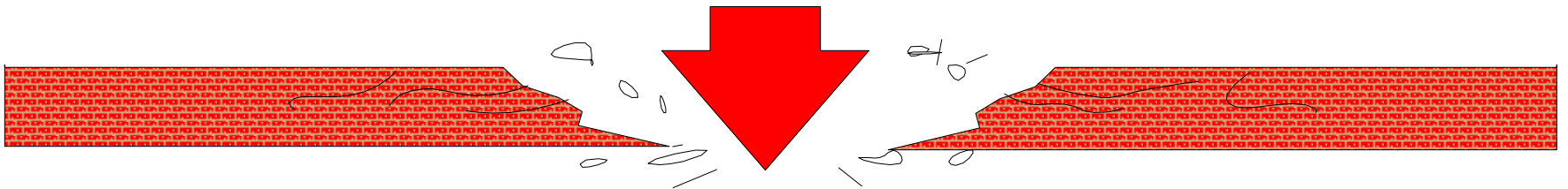
VM Team Approach

INDIVIDUAL EFFORTS



VM APPROACH

VM TEAM EFFORT



SOLUTION

VM benefits

- ❖ Better investment decision
- ❖ Improved products or services
- ❖ Robust management style
- ❖ Vehicle for innovation & change
- ❖ Effective methods and tools
- ❖ Enhanced competitiveness
- ❖ Improved communication
- ❖ Positive human dynamics



Challenges in VM

- ❖ Misconceptions about VM
- ❖ Misconduct of VM practices
- ❖ Confusion in VM terminology and process
- ❖ Lack of commitment and support
- ❖ Negative attitudes and rejections
- ❖ Unreliable information and data been provided
- ❖ Time schedule & cost expenses for VM workshop
- ❖ No financial incentive for contractors (VECP)



Misconceptions about VM



Just another cost cutting tool



Eliminates unnecessary cost whilst retains or enhance quality or performance



Equals to “Design Reviews” or “Cost Planning”



More systematic, disciplined and far reaching, function orientated, structured decision making tool, emphasizes on audits and a range of alternatives



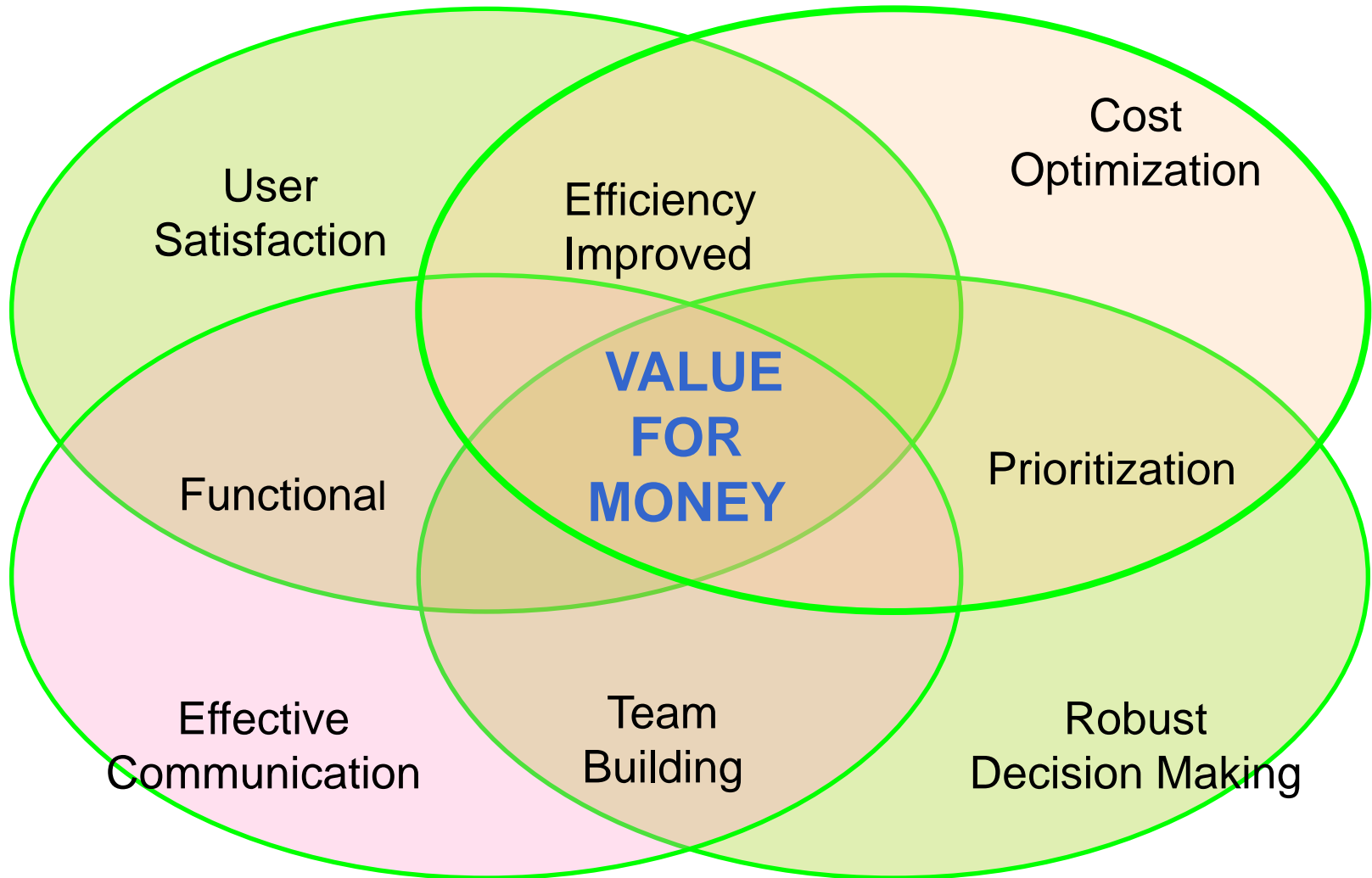
Additional “Road Block” & time consuming



Set strategic interventions along the project life cycle to improve delivery efficiency and whole development time



Outcomes of VM



Value management key message



COST CUTTING



**maximising
PROJECT VALUE**





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