VALUE MANAGEMENT
in RMK-10

MESYUARAT ARKITEK KANAN JKR MALAYSIA 2011
18 – 21 Oktober 2011, Pulau Pinang
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the VALUE concept

Value Management

implementation of VM in RMK-10
‘all buildings are capable of good design, whatever their budget. **Good architecture should not be reserve for signature buildings**, ...... important constituents of good design...ideal answer would be excellent **value for money**. That’s not to say that all buildings have to be Volkswagen – they can be Rolls Royce if that’s what the client needs. Buildings must have good life-cycle costs – there’s no point putting up beautiful buildings relatively cheaply only to find they are a nightmare to maintain. They must provide a pleasant environment to work in and should be uplifting experiences and aesthetically pleasing – and they must be capable of being built to programme. But the moist important attribute of a well designed building is that it meets the function it was designed for. **If it’s good design, that will add more value to the function.**’

*Stephen Porter, former head of property with British Airways, interview 1995*
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the VALUE concept
Value Management
implementation of VM in RMK-10
'There is a danger that in the rush to cut costs we lose more than money from our building projects. To avoid diminishing the quality of life that good design brings, it is necessary to identify the value created by thoughtful and responsive architecture........'

Ruth Reed
RIBA President 2009-2011

Good Design

‘Design that resolves problems and answers needs will pay for itself over a building’s lifetime. Good architecture has its price. But bad architecture – or no architecture at all – will cost you more’
the ingredients of Good Design

• delivering **what the client has asked for**
• **inclusiveness** and accessibility for all
• **fitness for purpose**, without expensive add-ons
• **sustainability**, integrated into the fabric and use of the building
• **low-as-possible** running and maintenance costs
• delivering a **return on investment**
• having a **positive impact** on the environment
• completion **on-time** and **on-budget**
• providing the flexibility for a **future change** of use
• **cost effectiveness**: good design always cost less than bad design
• delivering **value over the whole life** of the building

*Source - RIBA report: Good Design – it all adds up*
Good Design

.....and how to get

clear **project objectives**
good **project brief**
genuine **partnership** in design process

good brief

captures all client’s needs from a building – clear and unambiguous
reflects all their aspirations for it
describes the function of the finished project and how it will be used
state expectations and special requirements
indicate design direction
establish a single point of contact on the client’s side
set realistic timeframe and budget

*source* - RIBA report: Good Design – it all adds up
the value concept

VALUE = Function (F) + Quality (Q) + 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
opportunities for value enhancement

\[
\text{VALUE} = \frac{(F) + (Q)}{(C)}
\]

(i) Reducing cost but maintaining the function and quality

(ii) Increasing either the function or quality or both but maintaining the cost

(iii) Reducing the cost and at the same time increasing the function and quality

(iv) Increasing the cost but at the same time improving function and quality at a higher proportion
how value is optimised

understanding business objectives, needs and expected outcomes
aligning project deliverables with functions
eliminating unnecessary costs
seeking innovative solutions
Value Management
implementation of VM in RMK-10
value management
key message

COST CUTTING

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

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

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

wasteful practices in delivering a service or a failure to match the delivered service to customer needs
the definition of Value Management

‘...an organised approach to provide the necessary **functions at the lowest cost** without affecting the quality of the product’;
‘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)
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)
Value Management

Value Methodology

- Value Analysis
- Value Assessment
- Value Planning
- Value Engineering
- Value Review
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
contents

the VALUE concept

Value Management

implementation of VM in RMK-10
value management

1. Pekeliling UPE

GARIS PANDUAN PELAKSANAAN PENGURUSAN NILAI Bil 3
Tahun 2009
(29 Disember 2009 - bagi project > RM50juta)

2. PANDUAN PELAKSANAAN PENGURUSAN NILAI DALAM
PROGRAM/PROJEK KERAJAAN
FUNGSI UTAMA:

1. Membangunkan sistem, proses, tools, techniques bagi pelaksanaan VM di JKR

2. Membangunkan kompetensi dalaman bagi VM di JKR

3. Menyelaras pelaksanaan VE bagi projek Kerajaan yang dilaksanakan oleh JKR
VM implementation in RMK-10

1. **Value Assessment (Asset Creation) - EPU**
   - Strategic Direction On Asset Creation

2. **Value Engineering (Design / Construction) - JKR & JPS**
   - Project functional performance & cost optimization

3. **Value Review (Operation) - Audit**
   - Benefits realization review & lessons learned
Cost reduction potential

Opportunity to improve value

Works cost

Source: Guidance No.54 of H.M. Treasury of UK (CUP, 1996)
Design Strategic Planning

VA Planning VE (I) & (II)

GN 1 GN 2 & GN 3

Tender Construct H/over

VECP

Operations

EPU JKR AUDIT

project process flow VM interventions points
value management outcomes

- User Satisfaction
- Cost Optimization
- Functional
- Prioritization
- Effective Communication
- Efficiency Improved
- Team Building
- Robust Decision Making

VALUE FOR MONEY
‘the value of architect to the community does not depend on his skill as a creative artist alone – it does not matter how good the building is in appearance, even in planning and function, if it is not right for the economic requirements of the client. It is for this reason we cannot divorce ‘architecture’ from ‘economics’.’

Rukuts, I.N.A. Managing Director NNN Ltd, July 1999

source - RIBA Future Studies: The Value of Architecture Context and Current Thinking
Well designed schools support teaching and learning and have positive impact on students’ behaviour.

I think that our students are immensely proud of the building. We invited them to bring their parents – and they did in hundreds. That’s evidence that this is something that they care about and also of their confidence and security.”

Micheal Whitworth, headteacher, Wren Academy
Well designed hospitals aid speedier recovery and result in more efficient and contented staff.

Source - RIBA report: Good Design – it all adds up
The Arches Centre Belfast

create by design, a healing and uplifting environment for patients and staff

bright, cheery colours...an airy, day lit, street-like atrium...softly curved walls and balconies...a three storey light based artwork....and a fully grown fig tree in the middle of it all. Not the picture of your typical district health centre, is it?

source - RIBA report: Good Design – it all adds up
OGC case studies

‘case studies which demonstrate how applying VM to public sector construction projects can result in first-class, whole life value-for-money programmes and projects that ultimately lead to better public services’

source - Value Management In Construction Case Studies, OGC 2007

OGC - The Office of Government commerce (OGC)
Hextable Dance achieving feasibility breakthrough
Open University

getting more for less and increasing user satisfaction
Withington Community Hospital
building the team, meeting the budget
‘......memorable buildings result not just from a good designer, but from the personality of the client being expressed in the building .

......a clear focus is needed into the values the client holds, its attitude to its people and the community. Out of this will emerge good design.’

Building Design Partnership, (1998), Expressing Corporate Personality, Edizioni Tecno

source - RIBA Future Studies: The Value of Architecture Context and Current Thinking
TERIMA KASIH
Business, users and key stakeholders’ needs

Benefits or outcomes sought

Required strategic functional performance

Asset creation strategy or other business options

Development of scope and cost

Project development strategies (Timelines; Procurement; Risks etc)

Value Assessment
Value Engineering I

(at concept design stage)

- Validate business needs
- Validate client value systems
- Validate strategic functions
- Optimize functions to facilities’ design
- Optimize spatial efficiency, structural system, energy efficiency performance
- Optimize cost through design options
- Strategies to implement project (Timelines; Procurement; Risks etc)
Optimize designs
Optimize cost to element and component levels
Optimize time, quality and build ability
Validate spatial efficiency, structural system, energy efficiency performance
Life Cycle Costing (LCC) on high value assets
Finalize facilities’ designs
Refine implementation plan
(With Incentive Based Clause)

- Optimize cost to elements and/or component level
- Optimize time, quality, build ability
- Optimize facilities and energy efficiency system
- Life Cycle Costing (LCC) on high value assets
- Innovative construction and operational improvements
Objectives review of completed project

Benefits or outcomes realisation review

Operational efficiency improvement

Lessons learned for future projects