Application of Value Management in a Holistic Approach

- Introduction
- VM in Procurement
- VM in Construction
- VM in Public Engagement
- How to become a VM Facilitator

Date: 26 November 2013
Application of Value Management in a Holistic Approach

- VM in Procurement

Bryan Clifford

Date: 26 November 2013
Can Improve Value In

- Design of construction products
- Process of procurement and delivery
- Organisation structure in which people work
WHAT WE HAVE BEEN GOOD AT

INCEPTION
Client

DESIGNERS

IMPLEMENTATION
Constructors

OPERATION
Users

“Anyone else here?”

WHERE TO STOP

POTENTIAL FOR ALL PARTIES TO ADD VALUE

“THE OLD WAY”

“BUILDING IN WASTE”

“MANAGING THE MESS”

“ LOSING THE LEARNING”

©John Carlisle Partnerships, 2001. Adapted from Baker Hughes Inteq
WHAT WE NEED TO BECOME GOOD AT

THE OVERALL PROJECT

(INCEPTION) (IMPLEMENTATION) (OPERATION & EVALUATION)

Client + Designers + Stakeholders + Constructors + Users

POTENTIAL FOR ALL PARTIES TO ADD VALUE

AREA OF REALISED POTENTIAL

COST OF PUTTING WHAT RIGHT?

ANOTHER WAY

INPUT FROM ALL BEST VALUE SOLUTIONS

RIGHT FIRST TIME JOINT PROBLEM SOLVING

CAPTURE THE LEARNING & USE IT

© John Carlisle Partnerships, 2001. Adapted from Baker Hughes
## Co-operation and Costs

<table>
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<th>Type</th>
<th>Direct</th>
<th>Interaction</th>
<th>Indirect</th>
<th>Total</th>
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<td>Traditional</td>
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<td>40</td>
<td>10</td>
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<td>Early Co-operation</td>
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<td>25</td>
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<td>Developed Co-operation</td>
<td>38</td>
<td>15</td>
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<td>60</td>
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<td>Mature Partnering</td>
<td>35</td>
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University of Reading – UK, research in partnering relationships
Application of Value Management in a Holistic Approach

- VM in Construction – Case Studies

KH Fok

Date: 26 November 2013
4. Typically, the VM process involves the holding of VM workshops. A VM workshop is a tool which can be used to improve the definition of capital works projects, such as for the derivation of a Project Definition Statement or the preparation of a feasibility study report. Alternatively it can also be employed in a specific manner, like comparing design options, evaluating construction methods, choosing sites, deciding on access points etc. Contrary to common belief, a VM workshop can often be most useful when it appears that the problem encountered seems insurmountable or when the difference in opinion sounds irreconcilable.
Framework for VM Study in Construction Projects

**“How” to achieve**

- **Project Objectives**
  - Functional Objectives
    - Functional Objective 1
    - Functional Objective 2
    - Functional Objective 3
    - Functional Objective 4
    - Functional Objective 5
    - Functional Objective 6
    - Functional Objective 7
    - Functional Objective 8
    - Functional Objective 9

**Site Selection**
- Ideas
  - Master Layout
    - Ideas
  - Buildings / Structures
    - Ideas
  - Major Components
    - Ideas
  - Operation and Maintenance
    - Ideas
  - etc
    - Ideas
VM Application

- Procurement
- Scheme Selection
- Design Improvement
- Cost Saving
- Problem Solving
- Enhanced Communication
- ...
- Public Engagement
VM Application – Scheme Selection

- **ArchSD Projects**
  - Multi-purpose Stadium Complex at Kai Tak Kowloon City District

- **HyD Projects**
  - Tuen Mun Western Bypass
  - Tuen Mun – Chek Lap Kok Link
  - Central Kowloon Route and Widening of Gascoigne Road Flyover (West End)
  - Tsing Yi - Lantau Link

- **CEDD Projects**
  - Preliminary Feasibility Study for Container Terminal 10 at Southwest Tsing Yi

- **DSD Projects**
  - Control of Water Pollution at Jordan Valley Box Culvert
Agreement No. CE 40/2006 (HY)
Tsing Yi Lantau Link - Feasibility Study
Value Management Workshop - 5 June 2007
Evaluation of Alignment Options

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<th>Alignment Options</th>
<th>Criteria</th>
<th>Road Traffic</th>
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<th>Engineering</th>
<th>Environmental</th>
<th>Land Use and Planning</th>
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VM Application – Design Improvement

• ArchSD Projects
  – Construction of An Annex Building for Ko Shan Theatre
  – Sports Centre and Community Hall in Tin Shui Wai Area 101
  – Redevelopment of Kwun Tong Swimming Pool Complex and Kwun Tong Recreation Ground
  – Municipal Services Building in Lam Tin North
  – Public Library and Indoor Recreation Centre in Yuen Long
• Housing Projects
  – Post Completion Review for a series of Housing Projects
• HyD Projects
  – Central Wanchai Bypass and Island Eastern Corridor Link – (Reprovisioning Works for FEHD Whitfield Depot)
• CEDD Projects
  – Kai Tak River Concept Study
• Other Projects
  – Renovation Project for ELTC
which summarizes:

1. Review Items
2. Causes of issues
3. Improvement actions undertaken / in place
4. Innovative improvement ideas
5. Benefits of the recommendations
6. Responsibilities and timeframe for implementing the recommended improvement ideas
• Private Developments
  – Venetian Cotai - Parcels 7&8
  – Venetian Cotai - Parcel 3
  – Marina Bay Sands Singapore
  – Venetian Cotai – Parcel 1
  – Venetian Cotai – Parcel 2
  – Venetian Cotai – Parcel 5&6
A series of VE workshops had been held. Over 1,000 ideas were generated and there was potential for savings up to 1,000 million MOP.
VM Application – Problem Solving

- MTRC Projects
  - New International Mail Centre at Kowloon Bay
- CEDD Projects
  - LPM Projects
- DSD Projects
  - Lai Chi Kok Transfer Scheme
  - Harbour Area Treatment Scheme Stage 2A, Sewage Conveyance System
- Other Projects
  - VTC: HKDI and LWL Centre at TKO
HKDI and LWL were VTC developments at TKO. HKDI's design was a French design and won the competition. LWL was to be designed by local Architect. The two developments are adjacent to each other but have to maintain the HKDI and LWL Campus own entities.
• ArchSD Projects
  – District Open Space at Po Kong Village Road, Wong Tai Sin
  – District Open Space, Sports Centre and Library in Area 74, Tseung Kwan O
  – Town Park, Indoor Velodrome cum Sports Centre in Area 45, Tseung Kwan O
  – Phased Reprovisioning of Cape Collinson Crematorium
• Housing Authority
  – Housing Development at Anderson Road (Public Engagement)
• HyD
  – Central Kowloon Route and Widening of Gascoigne Road Flyover (Facilities Reprovisioning and Land Use)
A VM workshop was held on 30 May 2008.

A total of 41 participants including DC Members and representatives from various sports associations attended.

Consensus was reached giving the Consultants a clear direction to develop the design.
VM Application – Others

- CEDD Projects
  - LPM projects (Application of Project Management Tools such as Partnering)
- EPD Projects
  - Organic Waste Treatment Facilities Phase I – Feasibility Study (Exploration of Opportunities)
How to increase the value of "Organic Waste Treatment Facilities"
Summary of where VM is useful in Construction Projects

- **Opportunity to engage stakeholders at key stages in design development to:**
  - Establish a common understanding of the project and functional objectives
  - Agree criteria and constraints for judging a successful outcome
  - Compare options and choose best value solution
  - Test and refine chosen options
  - Resolve design problems and jointly decide the way forward
  - Review options from a constructability and maintainability point of view
  - Compare procurement options and choose best value route
Application of Value Management in a Holistic Approach

◆ VM in Public Engagement

Dr. Jingyu YU

Date: 26 November 2013
Public engagement (PE) has become a popular way for the HK government to collect public opinion and achieve a consensus on construction development projects.
How about the effectiveness of PE?
Demolition / protection of Central Star Ferry

High-speed rail debate

- Fake consultation
- Increase cost
- False representation
- Inappropriately applied
The possible explanation to the puzzling reality is that the process of engaging the public is deficient and ineffective in its current form.

To positively respond to all the challenges of PE, construction professionals and academics are still seeking the logical and systematic PE decision-making process.
Focus Group Study

- Four groups conducted in March 2012
- 34 participants from four stakeholder types
- Four focus groups
  - PE organizer (PO) Group
  - Construction professional (CP) Group
  - Interest group (IG) Group, and
  - Local residents (LR) Group
PE Decision Making Process

- Information sharing
- Information analysis
- Alternative generation
- Alternative evaluation
- Alternative development
- Alternative presentation

Value Methodology

- Information
- Function analysis
- Creativity
- Evaluation
- Development
- Presentation

Dr. Jingyu YU ; Dr. Mei-yung LEUNG
Envisioning
- Involve the broader public at the early stage
- Collect broader public views and visions
- Enhance the understanding of the whole process

Realization
- Identify environmental, social and economic issues
- Develop strategies to achieve visions formed in previous stage
- Evaluate the different options / concept plan

Detailed planning
- Comment on the detailed plan / preferred option
- Build consensus on the final option
- Determine detailed action plan for future construction

PE Stages
- Conceptual plan
- Master plan
- Detail plan

Ref: CEDD (2009)
Summary

- To improve the effectiveness of PE, a logical and systematic VM is strongly recommended for construction projects in Hong Kong.
- By application of VM is PE, each participated stakeholder can express views/opinions, understand the project and analyze project function and stimulate creative ideas, evaluate feasible ideas and develop an integrated design to satisfy stakeholders.
- PE, as VM, consists of 6 phases (information, analysis, creativity, evaluation, development & presentation) which should be conducted in a systematic and logical order.
Application of Value Management in a Holistic Approach

- How to become a VM facilitator

Leung Mei Yung

Date: 26 November 2013
Identifying Key Competency of VM Facilitators based on International VM Standards

Dr. Mei-yung LEUNG
City University of Hong Kong
How can a facilitator be trained / assessed?

a VM team

Dr. Jingyu YU ; Dr. Mei-yung LEUNG
Improving Value Management practice via International VM Study Process and Qualification System run by the Hong Kong Institute of Value Management the City University of Hong Kong funded by the Professional Services Development Assistance Scheme (PSDAS), CIBD, HKSAR

Dr. Jingyu YU ; Dr. Mei-yung LEUNG
VM Standard ……

Europe - European Standard – BS EN 12973 (BS 2000)

Terminology
Definition

Technology       Skills

↓ ↓ ↓ ↓ ↓ ↓ ↓

Process

↓ ↓ ↓ ↓ ↓ ↓

Tools

↑ ↑ ↑ ↑ ↑ ↑

Outcomes

Dr. Jingyu YU; Dr. Mei-yung LEUNG
- Suggest a detailed job plan activity, including a 3-stage process and a 6-phase workshop

- VM process (job/work plan)
- VM team (dynamic and commitment)

Europe. - European Standard – BS EN 12973 (BS 2000)
- Not mention the VM application and process in detail.
- More concerned with the framework for establishing a value culture and with human dynamics in VM process.
A Research Study …

- They are basically *similar*.
- European VM Std covers *Org’l Strategy and Value Culture*, while SAVE VM Std include a *live project* with using VM method in the training process.
- Australian VM Std emphases *VM team and commitment*.

*Survey*: VM facilitator should equip both technically and human dynamic oriented competencies.

To maintain an international VM practice in HK, an appropriate *training and certification system* should not only the traditional technical focus in VM practice, but also consider the dynamic behaviors of team members in the study.

Dr. Jingyu YU ; Dr. Mei-yung LEUNG
# Int’l Formal Training Courses


<table>
<thead>
<tr>
<th>USA</th>
<th>UK</th>
<th>Australia</th>
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<tbody>
<tr>
<td><strong>Module I</strong></td>
<td><strong>Foundation course</strong> (3 days)</td>
<td>Accredited training program</td>
</tr>
<tr>
<td>(5 days)</td>
<td><strong>Advanced 1 course</strong> (min. 3)</td>
<td>(4 modules / 2 modules)</td>
</tr>
<tr>
<td><strong>Module II</strong></td>
<td><strong>Advanced 2 course</strong> (min. 3)</td>
<td></td>
</tr>
<tr>
<td>(3 days)</td>
<td><strong>Train the Trainer Course</strong> (3 days wksp + 1 assess day)</td>
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Qualifying System for HKIVM’s Facilitators

The following criteria must be met in order to apply for registration onto the HKIVM facilitators List A or List B. All applicants must be full individual members of the HKIVM.

List B VM Facilitators

An applicant must be able to demonstrate attainment of one of the following status, AND must have facilitated or co-facilitated VM workshops worthy of 15 credit points under the supervision of List A Facilitators for at least 2 of the workshops:

- Certified Value Analyst (CVA) of the UK Institute of Value Management; or
- Associate Value Specialist (AVS) plus VM Module II in accordance with the requirements of SAVE International; or
- Equivalent certification under other recognized national VM institutes.

List A VM Facilitators

An applicant must be able to demonstrate attainment of one of the following status, OR must have fulfilled the requirements for List B Facilitators and have facilitated VM workshops worthy of additional 15 credit points including 1 workshop under the supervision of List A Facilitation:

- Professional in Value Management (PVM) of the UK Institute of Value Management; or
- Certified Value Specialist (CVS) of SAVE International; or
- Registered Value Management Facilitator of the Institute of Value Management Australia (IVMA); or
- Equivalent certification under other recognized national VM institutes.

Both List A and List B facilitators must comply with the listing rules which may be enforced by the HKIVM from time to time, maintain the HKIVM membership status, and submit completed client and facilitator feedback forms for each VM workshop completed while on the list.

Note:

Credit points for workshops of the following periods (excluding pre- and post- workshop time):

1. 5-day or more : 7 credit points
2. 4.5-day : 6.5 credit points
3. 4-day : 6 credit points
4. 3.5-day : 5.5 credit points
5. 3-day : 5 credit points
6. 2.5-day : 4.5 credit points
7. 2-day : 4 credit points
8. 1.5-day : 3.5 credit points
9. 1-day : 3 credit points
10. 1/2-day : 1 credit point

Supervision by List A facilitators would be required for 2 workshops only for List B application and an additional 1 for List A application.
Welcome to join our VM world for enhancing the construction performance.

The Hong Kong Institute of Value Management
http://hkivm.org/introduction.htm
Thank You