"BUILDING RIVANS" WORKSHOP

Boosting VALUE by Building RIVANS
(Relationally Integrated Value Networks)

K.K. Leung Building, HKU

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**CENTRE FOR INFRASTRUCTURE &
CONSTRUCTION INDUSTRY DEVELOPMENT**
THE UNIVERSITY OF HONG KONG

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1   INTRODUCTION TO RIVANS

Integration and value stream optimisation initiatives in the construction industry have usually focused on ad hoc, short-term and less extensive linear supply chains. This inhibits a common value focus and integration of dispersed, but potentially synergistic construction supply networks.

The RIVANS (Relationally Integrated Value Networks) research project aims to develop a holistic conceptual framework for 'relational' integration of hitherto mutually suspicious project participants into cross-linked 'value networks'. Jointly identifying and then focusing on 'network values' (common value objectives) is expected to empower the optimal integration of project teams, and thence to synergies through relationally integrated processes. This goes well beyond the mere 'structural integration' in procurement modalities such as DB (Design-Build) and even PPPs. It also goes beyond the common expectations of 'partnering' or even 'alliancing'. RIVANS should also help to channel potentially divergent value streams towards a confluence of consolidated high-performance levels.

2   WORKSHOP BACKGROUND

The aim of this 'Building RIVANS' Workshop (May 2008) was to build upon the outcomes of the 'RIVANS' Workshop (Dec. 2007) in moving towards basic implementation templates for building 'RIVANS'. The skeletal framework of a RIVAN as discussed at the 1st Workshop, was built upon between the Workshops and key focus areas for the 2nd Workshop were identified. These included both strategic and operational issues associated with kick starting a 'RIVAN' and managing it. This 2nd Workshop brought together 8 researchers and 33 experts comprising 9 from construction client organisations, 6 from consulting firms, 7 from contractor firms and 11 from academia.

3 WORKSHOP ACTIVITIES

3.1 Introductory session

The first session set the scene with four presentations titled as below:

(1) 'Why Build RIVANS?' by Mohan Kumaraswamy

(2) 'How do we Build RIVANS?' by Aaron Anvuur

(3) 'Performance Evaluation for RIVANS' by Gangadhar Mahesh

(4) 'Developing Human Capital Value from Relational Procurement Strategies - Projects as Learning Organisations' by Derek Walker

The general discussions that followed the above presentations centered on (1) comparisons with other industries (2) learning from best practices in other industries (3) working with sub-contractors and suppliers lower down the supply chain and (4) recent concerns about collusion vs. competition e.g. as under investigation by the Office of Fair Trade in UK, and the Hong Kong scenario in general.

3.2 Brainstorming session

Participants were briefed by Mohan Kumaraswamy before breaking into four groups to focus on four RIVANS themes, as identified for this Workshop and informed in advance. It was stressed that groups could add or de-emphasise sub-themes.

Notes: Group composition had been proposed in advance, in order to maintain a balance within each group in terms of both parent organization type (client, consultant, contractor, academia) and experience levels (e.g. top/ senior management). A facilitator for each group had also been mobilised in advance.

The proposed themes & sub-themes (as developed pre-workshop) were:

1. VALUE OBJECTIVES (NETWORK VALUES)	• Image; Reputation; (Corporate Image; Public Service Recognition)
	• Effectiveness; Competitiveness; (Business/ Commercial success/ viability; Efficiency)
	• Customer Satisfaction (Explicit Client requirements; End-User needs)
	• Public well-being
	• Employee well-being
	• Environmental Concerns
	• ………
2. NETWORK MANAGEMENT (in RIVANS)	• Network Size (optimising Layers, nos. in each Layer/ Group, Reach/ Spread …)
	• Selecting new Network partners (based on past & potential performance; and past & potential relationships)
	• Designing & assembling specific Project Teams (based on complementary core competencies; past

performance & relationships)

- Problem Solving & Dispute Resolution
- Network Steering (sustaining & improving network structures & operations)
- Interfacing with Non-network partners and projects
- ………

3. NETWORK LEARNING (in RIVANS)

- Knowledge Management (capture, sharing, use, development ..)
- Creativity & Innovation
- Up-skilling (in hard & soft technologies)
- Human Capital (Core Competencies: e.g. cognitive, job knowledge, task proficiency, interpersonal skills, emotional intelligence, self-regulation, self-facilitation …)
- Social Capital (Teamworking, Social relations: e.g. in groups, networks; trust, collective action & solidarity, culture, social inclusion, info. & communication)

4. NETWORK EVALUATION (in RIVANS)

- Evaluating Partners (on core competencies, performance, relationships...)
- Performance evaluation set-up (transactional building block – projects, relational building block – firms); and evaluation and aggregation tools
- Benchmarks, Criteria, Indicators and Measurement Tools
- Feed back mechanisms – e.g. incentive structures, penalizing opportunism
- …..

3.3 Consolidation Session

Each group presented its findings after the brainstorming session. This was followed by discussions on key common issues. Discussions arose mainly on (1) the best ways to move forward with RIVANS; (2) a desire for more detailed deliberations on the group themes at follow-up fora; (3) further comparisons with related research work elsewhere, e.g. CIB; (4) upgrading competitiveness of the HK construction industry in dealing with the huge surge in work volumes in the near future and (5) potential to develop new procurement options to facilitate network sourcing. The salient features of the presentations are summarised in the next section.

4 GROUP OUTPUTS

Network objectives: The conceptualization and prioritization of 'value' varies, depending on power structures and relative power distribution, and also changes from an individual to an organizational perspective, with a focus on the latter in a RIVAN. A public organization's mission is to 'serve the community' whereas a private organisation's purpose is to 'survive and prosper' which are not necessarily aligned at this level of

abstraction. However, these missions when broken down, consist of secondary level objectives such as corporate image, public support and acceptance, accountability to shareholders, effectiveness / efficiency, safety, environment and employee wellbeing which should be clearly aligned. Acknowledging that priorities in regard to these objectives could differ between stakeholders, and managing these was seen as an essential for a successful RIVAN. Public sector acceptance and support was identified as a key barrier in managing these priorities and hence achieving network objectives.

Network Management: Trust is the key to a sustainable network; while contractor performance and client attitude were seen as primary drivers of trust. Key factors influencing network success are capable people, guaranteed payments, good profit margins, value for all, network continuity (at least on the supply side), trust and leadership. Optimum network size for better benefits is dependant on the client; and project type, scope and complexity. Applying limits to multilayer subcontracting and involving only the key subcontractors & suppliers is suggested. Market forces play a key role in determining the optimum network size and hence an optimum network size would be the one which assures continuity of work. Competencies of key staff, organizational capability and past performance are indicators of an organization's suitability while evaluating the potential and planning for networking.

Network Learning: Knowledge sharing and not data sharing should be the goal of a network. Learning is unique for each company and has to acknowledge contextual differences of knowledge. Competition acts as a barrier to sharing of knowledge and is worsened by adversarial cultures, lack of trust and legal boundaries arising from copyrights and patents. Focusing on, and even patenting processes rather then the product is a mature approach to industry development. Breaking down some of these legal boundaries and separation of knowledge in terms of technical, business and human will help in overcoming these boundaries to a certain extent. Knowledge sharing at a project level is easier, compared to, at the network level. Mature relationships as envisaged in a RIVAN should allow intuition, inspirational knowledge, wisdom development, and enlightenment, if they are to enhance knowledge sharing. Awareness and empowerment are requisites for facilitating network learning.

Network Evaluation: Explicit evaluation of network partners is challenging and requires open and transparent forums of evaluation and supporting institutional frameworks. Top down, client led, all-inclusive approaches with 360 degree input are suitable for a network. Objectives need to be categorized as short term / medium term / long term and evaluation setups and benchmarks should reflect the needs over a timeline. An industry supported policy initiative to allow the creation of currently absent long term benchmarks is required. However, it is not the individual evaluation scores that matter but the improvement / change / divergence over timeline which is important. Measurements of transaction costs and monitoring tangible indicators such as cost, time, and quality issues are helpful indicators of trust. Soft indicators such as from satisfaction surveys are also considered as important in developing core competencies and improvement levels. The target of incentive structures tied to performance evaluation should be overall network maturity instead of narrow benefits.

5   MOVING FORWARD WITH RIVANS

Three main action thrusts have been identified for moving forward with RIVANS, as below:

(1) Continued development of RIVANS concepts and potential strategies, templates and protocols; drawing on relevant multi-disciplinary knowledge sources and best practice elements, including from other countries and disciplines.

(2) Focus group sessions to discuss and develop specific facets such as [a] network co-opetition (vs. cartels or self-defeating competition); [b] network evaluation protocols; [c] translating RIVANS principles into procurement practice (in specific organizations) and [d] other implementation templates for RIVANS *– suggestions are welcome*.

(3) A 3rd RIVANS Workshop. This could be titled 'Implementing RIVANS' and focused on refining the proposed templates and formulating implementation strategies. It could lead to a platform with pointers for construction industry stakeholders to develop their own organization specific RIVANS.

For updates, visit http://www.hku.hk/cicid/ from time to time. Also, those interested in participating and benefiting from any of the above RIVANS initiatives are welcome to convey their interest area(s) to Prof. Mohan Kumaraswamy at mohan@hkucc.hku.hk

6   FUTURE DIRECTIONS & POTENTIAL COLLABORATION WITH CICID

Apart from the above RIVANS-specific development, other suggestions for, and potential inputs into CICID activities (see below) are also welcome, especially those based on relevant experiences and/or initiatives that may be compared and developed further. Please send suggestions or expressions of interest (for comparisons or participation e.g. through case-studies), to Prof. Mohan Kumaraswamy: mohan@hkucc.hku.hk

WORKSHOP ORGANISING COMMITTEE

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CENTRE FOR INFRASTRUCTURE & CONSTRUCTION INDUSTRY DEVELOPMENT (CICID)

The Centre for Infrastructure & Construction Industry Development (CICID) is based in the Department of Civil Engineering of The University of Hong Kong, and was established in November 2002. The aims include fostering continuous improvements, while targeting excellence in the construction industry in general and infrastructure development in particular, through the development of innovative strategies and techniques. The Centre aims to establish close links with the industry and other research institutes through collaborative research and consultancy. Those interested in joining CICID activities may contact:

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