CONA Case Study:

Identifying communication gaps in a construction project

Client:

A Public Sector Organisation

Business Need:

A publicly funded specialist school construction project was experiencing delays of 49 weeks and significant cost overrun.

How We Helped:

We conducted a network analysis through a structured questionnaire to examine the communication patterns among key project players. The project was under construction at the time of data gathering. The project actors were asked to identify the type of information exchange as formal or informal, the frequency of communication, and the perceived importance of sent and received information. Formal information exchange and informal discussion patterns were studied primarily to examine the level of prominence and connectivity between project actors. Figures 1 and 2 show the formal and informal communication networks among the project’s main actors. The examination of the formal information networks showed low levels of network connectivity in general and high prominence for the quantity surveyor and project contractor. However, despite the project delay, the informal discussion networks recorded the least prominence. The majority of project actors acted in isolation with no direct or indirect ties to the project actors. The ONA maps reflected the dominance of the contractual relationship and a lack of informal discussion between the project actors, which suggests absence of team spirit.

Business Benefits:

The ONA maps were beneficial as they accurately reflected the communication patterns in this project and allowed the early identification of project communication gaps. The maps provided a detailed insight (at the time of the analysis), which, in turn, allowed the project managers to identify the problems overlooked by the focus solely on contractual relationships.
Figure 1: Formal Communication Networks

![Diagram of Formal Communication Networks]

Scope of Work Information Exchange
Cost-related Information Exchange
Time-related Information Exchange

Figure 2: Informal Communication Networks

![Diagram of Informal Communication Networks]

Scope of Work Information Exchange
Cost-related Information Exchange
Time-related Information Exchange

Key: RHA: Architect; HSW: Construction project manager; KRO: Employer’s agent; TWA: Quantity surveyor; CTH: Contractor; HMA: Service engineer; RBA: Structural engineer.

* Findings of this case study were originally published in El-Sheikh, A. & Pryke, S. D. (2010), Network gaps and project success, Construction Management and Economics, Vol. 28, Iss. 12, pp. 1205-1217.

For more information please contact:

Dr Stephen Pryke
Director
Centre for Organisational Network Analysis (CONA@UCL)
University College London

+44 (0) 207 679 5904 (ext: 45904)
s.pryke@ucl.ac.uk
http://www.ucl.ac.uk/cona

Room 250, 2nd Floor
1 – 19 Torrington Place
London, WC1E 7HB

Dr Sulafa Badi
Research Manager
Centre for Organisational Network Analysis (CONA@UCL)
University College London

+44 (0) 207 679 5685 (ext: 45685)
s.badi@ucl.ac.uk
http://www.ucl.ac.uk/cona

Room 249, 2nd Floor
1 – 19 Torrington Place
London, WC1E 7HB