A CLIENT'S PERSPECTIVE OF CRITICAL SUCCESS FACTORS IN PROJECT ALLIANCES

Dina Mistry[1] and Peter R Davis[2]

1 Water Corporation of Western Australia, Perth, 6000, Australia

2 Curtin University of Technology, School of the Built Environment, GPO Box U1987, Perth, Western Australia 6845

Project alliances have become an attractive option for delivering large, complex infrastructure construction projects in Australia. The development of relationships in cost competitive project alliances is central to performance and achievement of project objectives. Critical success factors in relationship development of alliance projects that improve performance were investigated. Conclusions indicate that the most critical success factors that enhance relationship development are trust and the provision of appropriate resources. Trust appeared dominant in the formation phase of alliances. These attributes provide a better understanding between partners. Alliances may facilitate the development of stronger relationships over traditional contracting as the parties' work closely developing a target outturn cost (TOC) in the preliminary phase of the project. Collectively developing the TOC helps the partners assess and understand each other's 'culture and abilities'. These in turn assist clients to select a compatible non-owner participant organisation. In sum these actions increase the probability of a successful alliance and its delivery.

Keywords: alliance project delivery, Australia, critical success factor, procurement, relationship.

INTRODUCTION

Alliances have been implemented by organisations to improve the delivery of infrastructure construction projects. This form of relationship based contracting is being increasingly used by organisations in high visibility complex projects that are better managed through a collaborative and cooperative strategy.

Infrastructure construction projects involve a high degree of integration between design, construction and operations groups. Based on fundamental principles of collaboration and cooperation, the alliance relationship contracting strategy has been found to be more successful than the traditional, transactional approach in effecting integration between the diverse groups involved in delivering projects. Relationship development is critical to alliance performance in terms of meeting project objectives and delivering project outcomes. Consequently, the need to identify the critical factors in the successful development and management of the alliance relationship is a priority as more and more organisations enter into these collaborative arrangements. The objectives of the research are; Identify the key critical success factors in the relationship development of a project alliance; study the impact of the key critical success factors on the initial relationship phase in a project alliance.

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[1] p.davis@curtin.edu.au

ALLIANCES

A project alliance is a cooperative arrangement between two or more organisations working towards achieving common goals and objectives for a specific project (Yeung, Chan *et al.* 2007). It is a form of relationship contracting in which the establishment and management of relationships between partners removes barriers maximising partner contributions and success (Ross 2003). Unlike traditional (transactional) types of procurement where the focus is on maximising individual outcomes, alliances work on the principles of mutual trust, commitment and communication (Lee and Cavusgil 2006) to reduce conflict and enhance productivity and overall performance (Lambe, Robert *et al.* 2000; Lee and Cavusgil 2006).

Although attributed with many advantages, some authors such Beach, Webster and Campbell (2005) are not convinced that alliances are universally accepted in the construction industry. Their belief is that the project environment, characterised by one-off contracts and short-term gain, is incapable of supporting a concept founded on mutual trust and long-term collaboration. Studies also show that whilst the rate of increase in corporate alliances is around 25 percent a year the failure rate for alliances is over 50 percent (Inkpen and Ross 2001; Judge and Ryman 2001; Hughes and Weiss 2007).

Project Alliance Relationship Development

The relationship development process is fundamental to alliance performance and success (Davis 2004; Africa, José de la *et al.* 2005). According to Africa *et al.* (2005), an organisation's capacity to develop and sustain good inter-organisational relationships is key to building business efficiency, developing competitive advantage and making the organisation more desirable as a partner.

Alliances relationship development changes behaviours and attitudes, and develops an appropriate culture of common interest and mutual goals (Davis 2004; Marshall, Nguyen *et al.* 2005). The development process is an iterative, evolving progression (Boddy, Macbeth *et al.* 2000) in which the benefits to the partners increase as the relationship develops (Thompson and Sanders 1998).

Project Alliance Phases

A three-phase alliance relationship development model is the most commonly identified model (Table 1).

Table 1 Summary of the three Phase Alliance Development Models

Author	Phase 1	Phase 2	Phase 3
Ring and Van de Ven (1994)	Negotiation	Commitment	Execution
Das and Bing-Sheng (2002)	Formation	Operation	Outcome
Wohlstetter, Smith and Malloy (2005)	Initiation	Operation	Evaluation
Cheng and Li (2002)	Formation	Application	Completion or Reactivation

The focus of this paper is Phase 1; alliance formation. Further papers in press explore the subsequent two phases (Love, Davis *et al.* 2009).

This first phase involves negotiation and familiarisation of partners (Ring and Van de Ven 1994) where joint expectations are developed around motivation, potential

investments and perceived uncertainties of the potential joint business (Ring and Van de Ven 1994; Doz 1996; Das and Bing-Sheng 2002). Key features are:

- Trust not developed, the relationship is fragile and good management of the partnership is critical (Marshall, Nguyen *et al.* 2005). A facilitator can build trust between the partnering team members (Cheng and Li 2001).
- Performance targets not well defined; the alliance experiences high information asymmetry between partners (Doz 1996). To encourage greater openness and better communications, Bresnen and Marshall (2002) suggest co-location and shared offices. Team building sessions, such as field trips, help build social bonds (Hutt, Stafford *et al.* 2000).
- Effective coordination through continual discussions and negotiations helps to establish the alliance team and get agreement on the goals to be achieved (Bresnen and Marshall 2002).
- Support from top management is important as it assures the provision of adequate resources to form the partnering team (Cheng and Li 2001).
- Adequate resources are not critical, but are still necessary as they are linked to certain aspects in the formation of the alliance, such as attending meetings and workshops
- Informal relationships, written agreements are often signed by all the partners, to show commitment to the relationship (Cheng, Li *et al.* 2004). This agreement also states common goals and strategies for all partners (Cheng, Li *et al.* 2004).

CRITICAL SUCCESS FACTORS IN ALLIANCE RELATIONSHIP MANAGEMENT

The most commonly identified critical success factors in the development of alliance relationships are; (Cheng and Li 2001; Chen and Chen 2007; Black, Akintoye and Fitzgerald 2000; Whipple 2000; Hoffman and Schlosser 2001; Chen *et al.* 2004; Body and Macbeth 2000; Li *et al.* 2001); Mutual Trust; Top Management Support; Open Communications; Adequate Resources; Effective Coordination; Creativity and Compatible goals

Analysis of Critical Success Factors

For ease of discussion, CSF's have been 'clustered' into three groups and are presented in Table 2. Each cluster represents a set of critical success factors that support; Collaboration and cooperation; Resourcing and Consistent objectives.

Table 2 Clusters representing critical success factors in alliance.

Collaboration and Cooperation	Resourcing	Consistent Objectives
Mutual trust	Top management support	Creativity
Open communications	Adequate resources	Goal Alignment
Effective coordination		

Collaboration and Cooperation

The factors that support collaboration and cooperation in the relationship include mutual trust, communications and coordination. Trust was identified in the field study as a CSF.

Mutual Trust
In relationship development, trust is important as it reduces tensions and helps build confidence (Cheng and Li 2000). Clegg *et al.* (2005) and Africa, Jose de la and Smith (2005) concur and suggest that trust and flexibility facilitates innovation and skills sharing that delivers significant benefits to the alliance partners. Trust also has an added positive impact on alliance outcomes by improving the level of communication (Das and Bing-Sheng 2001; Dirks and Ferrin 2001) and commitment (Howarth, Gillin *et al.* 1995). Where trust is strong, the relational quality improves and managerial processes and decisions become more prompt and easier to make (Africa, José de la *et al.* 2005). According to Ness and Haugland (2005), trust also enables integrative behaviour such as the use of problem solving techniques.

Resourcing

Resourcing includes top management support and the provision of adequate resources. Adequate resources were identified in the field study as a CSF.

Adequate resources
Project participants must have the ability to provide the best resources for the project; being able to work collaboratively and cooperatively (Walker, Hampson *et al.* 2002). As expertise and capital, has a significant effect on the outcome (Boddy, Macbeth *et al.* 2000). Actual resource allocation, compared to anticipated allocation is a leading indicator of potential problems (Segil 2004).

Consistent Objectives

Consistent objectives can be achieved through the alignment of goals and creative processes that improve performance. Clear objectives were identified as a CSF in the field study.

Goal Alignment
Goal achievement is based on the interdependence theory which recognises that the alliance relationship provides benefits greater than what either partner could achieve alone (Lambe, Robert *et al.* 2000). Goals are achieved through effective coordination and communications (Cheng and Li 2000). Partners in an alliance are dependent on each other for their success and therefore if the organisation is to achieve their individual goal, other partners in the relationship must also achieve their goals (Lambe, Robert *et al.* 2000). According to Thomson (1998), by working towards the project goal, individual goals can be realised.

RESEARCH METHOD

Twenty-five potential participants or respondents were initially identified and contacted individually by the researcher to assess their willingness to participate in the study. From these, only fifteen that had experience in alliances were subsequently involved.

RESEARCH ANALYSIS

The respondents were from various functional areas, which helped to get a broader perspective on alliances. Table 3 shows the distribution of the respondents' roles in project alliances.

Approximately half of respondents had between one and five years experience working in construction project alliances. The balance had five to ten years of

experience and a small proportion had extensive experience of over eleven years. The majority of participants had worked on up to three project alliances.

Table 3 Distribution of respondents' role in project alliances

Role	General description of role	Respondents
General Manager	Client Representative	1
Project Director	Manage projects	3
Company Director	Alliance facilitation	1
Principal Project Manager	Administration of alliance agreement on behalf of client	2
Principal Engineer	Design interface between client and non-owner participants	2
Relationship/ Project Manager	Interface between client and non-owner participants	5
Engineering Manager	Manager engineering interface	1
Total		15

The majority of respondents had worked on alliance projects with a value of over $100 million.

Alliance Relationship Success Factors

Closed questions consisting of statements that related directly to success factors from the literature (trust, open communications, effective coordination, top management support, adequate resources, creativity and goal alignment) were scored.

The data from each of the statements was collated under each of the success criteria and the mean and standard deviation were determined for each success criteria (Table 4). If the criteria had a mean greater than 3 (neutral), it was considered to be a critical success factor in the alliance relationship.

The scores for nearly all the success factors were high. This may suggest that there was a conscious effort by the alliance parties to build relationships and apply alliance principles with an enthusiasm in the new initiative where the pressure on delivering outcomes was relatively low.

A series of open questions identified three or more factors perceived to be the most critical to the success of the alliance and three regarded as impeding the alliance. The open questions provided depth of information and provided a perspective based on collective experience. The most commonly identified factors are shown in Table 5

Alliance relationships

All respondents associated the success of an alliance with building good relationships. The relationship was what respondents believed differentiated an alliance from a business as usual client-contractor transaction. According to respondents, personal relationships were important in encouraging frank discussions without the fear of any lingering grudges and good relationships at the organisational level helped decisions to be made quickly and easily.

Some respondents felt that the culture of the partner organisation was as important as the individuals in terms of alliance behaviours (Davis and Walker 2009). The consistency between the culture of the organisation and the individual was believed to

be important to the decision making process (Dainty, Raiden *et al.* 2004; Kingshott 2006).

Table 4 Mean and standard value for Critical Success Factors

Critical Success Criteria	Mean	Std dev
Trust	3.60	0.54
Adequate resources	3.83	0.67
Open Communications	3.85	0.54
Effective coordination	4.10	0.74
Creativity	3.96	0.53
Top management support	4.00	0.71
Goal alignment	3.76	0.43

Table 5 Commonly identified critical success factors

Critical Success Factor	Number of respondents
Trust	8
Adequate Resources	8
Open Communications	3
Effective Coordination	3
Creativity	3
Clear Objectives*	6
Integration*	4
Leadership*	3

* Indicates factors not identified in the literature review.

Some respondents believed that the short time between partner selection and alliance implementation did not allow for relationship development. The interviews indicated that as in most alliances strong relationships had developed in relatively short time frames. This suggests that relationships in alliances may be primarily related to the ability and culture of individuals and organisations to form relationships rather than the period of association. The impact of time on relationship development is an area for further research (Davis 2008).

Trust

Although trust had a low mean score in alliance formation, almost all respondents identified trust as one of the most important factors in the open questions, where trust was considered a success factor and mistrust as an impediment to the alliance. This suggests that the low score for trust may be more representative of mistrust caused by hidden agendas. The majority of respondents associated trust with the target outturn cost, for example, if the client thought that the target outturn cost signified value for money, they imparted more confidence in the alliance partner which consequently built trust.

Analysis of the responses also highlight that the more time spent building trust in the early formation phase helps to draw on this trust to carry the alliance through the hard times later in the relationship. In the absence of trust, it was believed that the decision making process slowed down and making the right decisions was at risk, as partners did not have confidence in one another. Lost opportunities were a consequence of a lack of trust; "…when an idea is put forward and you do not trust it, you lose opportunities".

Adequate Resources

Almost all respondents suggested people had a major impact on alliance success. From the responses it was observed that as project alliances involve a number of different activities that include planning, designing, procuring, building and commissioning, the right people in all these areas helps to get an efficient flow of work.

Some respondents identified important attributes as; good technical skills; experience; the ability to form and maintain good relationships; and 'live the alliance principles.'

There were conflicting responses in terms of adequate resources from the client and non-owner participants. From the respondents that identified resources as a critical success factor 50% had experienced a lack of commitment from the client organisation in providing adequate resources. Equal representation suggests that all parties are committed to the alliance and ensures that they contribution equally in terms of alliance activities.

Clear Objectives

More than one third of respondents believed clear objectives to be a critical success factor in alliance relationships. A review of the literature had not identified this factor.

Clear objectives and communication of these objectives in the early phase may help to save time and cost of re-work. Respondents indicated that from a Client's perspective, savings in time and cost could also be a achieved by being clear on what is expected of the alliance and having upper and lower bounds on these expectations.

SUMMARY AND CONCLUSIONS

The research findings support the general hypothesis in the existing literature regarding the importance of relationships in alliances and identification and management of critical success factors in alliance relationship development.

Measures of Alliance Performance

It is suggested that an alliance contracting strategy is generally used to manage risks, particularly where the scope of the project is not well defined or if the project is complex. These findings match the literature on the use of an alliance strategy to control risk in large, complex projects.

From a client's perspective, project success measures such as time, cost, quality, safety and operator satisfaction were used more extensively than the subjective measures in terms of partner satisfaction, commitment and learning which were acknowledged but not generally applied. Having said this it should be acknowledged there were contradictions between the interviews and questionnaire survey.

Key critical success factors in relationship development in cost competitive alliances.

The findings indicate that all the critical success factors identified in the literature (trust, resources, communications, coordination, top management support, creativity and goal alignment) were important.

For the client organisation trust and resources were perceived to be the most critical factors. Trust was seen to be generally associated with the target outturn cost and delivering value for money and if these criteria were met, it manifest in high levels of trust between parties.

The right resources were considered to be more important than adequate resources. It suggests that good technical skills are more effective in maintaining the flow of work and improving project performance. Adequate resources were required but it was suggested that more resources provided by non-owner participants may not always add value to the alliance and may in some cases be an additional cost to the alliance if they did not have the right expertise.

One additional critical success factors was identified that had not been established through the literature. This was Clear Objectives.

Clear Objectives was considered a critical factor as a focus on what was required helps to define the work that is required which could save time and cost from re-work. This factor can be linked with alignment of goals in which a targeted or focused approach can help the achievement of goals.

Impact of critical success factors in the relationship phases

It was perceived that the critical success factors were more important in the formation phase, which suggests that there may be a conscious effort, by parties in the early stages to develop the relationships. As the activities intensify in the operation phase and the pressure to deliver increases, the alliance relationship issues may have been overlooked. This suggests that alliance maintenance is an area that may be often neglected and this may be what leads to the failure of some alliances.

The findings also suggest a correlation between some of the critical success factors that were identified. Trust seemed to be a central factor in the development of relationships. For example, good communications were important to build trust and for the alignment of goals. Having the right resources also built the trust between parties as having a competent team increased the chances of delivering a quality product under less supervision, which would save time and cost and improve the overall performance of the alliances.

REFERENCES

Africa, A., T. José de la, *et al.* (2005) Relational quality and inter-personal trust in strategic alliances. *European Management Review* **2**(1) 15.

Beach, R., M. Webster, *et al.* (2005) An evaluation of partnership development in the construction industry. *International Journal of Project Management* **23**(8) 611-621.

Boddy, D., D. Macbeth, *et al.* (2000) Implementing collaboration between organisations: An empirical study of supply chain partnering. *Journal of Management Studies* **37**(7) 1003.

Bresnen, M. and N. Marshall (2002) The engineering or evolution of co-operation? A tale of two partnering projects. *International Journal of Project Management* **20**(7) 497-505.

Cheng, E. W. L. and H. Li (2000) Establishment of Critical Success Factors for Construction Partnering. *Journal of Management in Engineering* **16**(2): 84.

Cheng, E. W. L. and H. Li (2001) Development of a conceptual model of construction partnering. *Engineering Construction and Architectural Management*, **8**(4) 292-303.

Cheng, E. W. L. and H. Li (2002) Construction Partnering Process and Associated Critical Success Factors: Quantitative Investigation. *Journal of Management in Engineering* **18**(4) 194.

Cheng, E. W. L., H. Li, *et al.* (2004) Strategic alliances: a model for establishing long-term commitment to inter-organisational relations in construction. *Building and Environment* **39**(4) 459-468.

Clegg, R. S., S. Burdon, *et al.* (2005) The outsourcing debate: theories and findings, *Journal of Management and Organisation* **11**(2) 37.

Dainty, A. R. J., A. B. Raiden, *et al.* (2004) Psychological contract expectations of construction project managers. *Engineering, Construction and Architectural Management* **11**(1) 33.

Das, T. K. and T. Bing-Sheng (2001) Trust, control, and risk in strategic alliances: An integrated framework. *Organisation Studies* **22**(2) 251.

Das, T. K. and T. Bing-Sheng (2002) The dynamics of alliance conditions in the alliance development process, *Journal of Management Studies* **39**(5) 725.

Davis, P. R. (2004) Relationship Development in Construction Partner Selection. COBRA 2004 International Construction Research Conference of the Royal Institution of Chartered Surveyors. Leeds Metropolitan University, Leeds.

Davis, P. R. (2004) Relationship Development in Construction Partner Selection. COBRA 2004: Responding to change, Leeds Metropolitan University, Leeds Metropolitan University.

Davis, P. R. (2008) A Relationship Approach to Construction Supply Chains. *Industrial Management and Data Systems* **108**(3) 310.

Davis, P. R. and D. H. T. Walker (2009) Building Capability in Construction Projects: A Relationship-Based Approach, *Engineering Construction and Architectural Management*, In press.

Dirks, T. K. and L. D. Ferrin (2001) The role of trust in organisational settings, *Organisation Science* **12**(4) 450.

Doz, Y. L. (1996) The evolution of cooperation in strategic alliances: Initial conditions or learning processes?, *Strategic Management Journal* **17,** 55.

Howarth, C., M. Gillin, *et al.* (1995) *Strategic alliances: resource-sharing strategies for smart companies*. Melbourne, Pitman Publishing.

Hughes, J. and J. Weiss (2007) Simple Rules for Making Alliances Work, *Harvard Business Review*, **85**(11) 122.

Hutt, M. D., E. R. Stafford, *et al.* (2000) Case Study: Defining the Social Network of a Strategic Alliance. *Sloan Management Review* **41**(2) 51.

Inkpen, C. A. and J. Ross (2001) Why do some strategic alliances persist beyond their useful life? *California Management Review*, **44**(1) 132.

Judge, Q. W. and A. J. Ryman (2001) The shared leadership challenge in strategic alliances: Lessons from the U.S. healthcare industry. *Academy of Management Perspectives* **15**(2) 71.

Kingshott, R. P. J. (2006) The impact of psychological contracts upon trust and commitment within supplier-buyer relationships: A social exchange view. *Industrial Marketing Management*, In Press, Corrected Proof.

Lambe, C. J., E. S. Robert, *et al.* (2000) Interimistic relational exchange: Conceptualisation and propositional development. *Academy of Marketing Science Journal* **28**(2) 212.

Lee, Y. and S. T. Cavusgil (2006) Enhancing alliance performance: The effects of contractual-based versus relational-based governance. *Journal of Business Research* **59**(8) 896-905.

Love, P. E. D., P. R. Davis, *et al.* (2009) Cost competitive alliance projects: Identification of critical success factors for public clients. In press.

Marshall, S. R., V. T. Nguyen, *et al.* (2005) A dynamic model of trust development and knowledge sharing in strategic alliances. *Journal of General Management*, **31**(1) 41.

Ness, H. and S. A. Haugland (2005) The evolution of governance mechanisms and negotiation strategies in fixed-duration interfirm relationships. *Journal of Business Research* **58**(9) 1226-1239.

Ring, P. S. and A. H. Van de Ven (1994) Developmental processes of cooperative interorganisational relationships. *Academy of Management Review* **19**(1) 90.

Ross, J. (2003) Introduction to Project Alliancing. Alliance Contracting Conference. Sydney, Project Control International Pty Ltd.

Segil, L. (2004) *Measuring the Value of Partnering*. New York, AMACOM.

Thompson, P. J. and S. R. Sanders (1998) Partnering continuum. *Journal of Management in Engineering*, **14**(5) 73.

Walker, D. H. T., K. Hampson, *et al.* (2002) Project alliancing vs project partnering: A case study of the Australian National Museum Project. *Supply Chain Management*, **7**(2) 83.

Wohlstetter, P., J. Smith, *et al.* (2005) Strategic Alliances in Action: Toward a Theory of Evolution. *Policy Studies Journal* **33**(3) 419.

Yeung, J. F. Y., A. P. C. Chan, *et al.* (2007) The definition of alliancing in construction as a Wittgenstein family-resemblance concept. *International Journal of Project Management*, **25**(3) 219-231.