

Relationship Contracting in Australia

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Abstract

Trust is the principle foundation of partnering and relationship management. Successful partnering can only be achieved when a cooperative relationship is built between partners. In order to build either a long or short-term relationship, trust is a major component because of the increase in openness it engenders between parties. This paper discusses how procurement methods in the construction industry are changing and moving towards a more relationship-based contracting approach. This paper details the role of trust in facilitating relationship-based contracting from a general perspective to its implications for a construction project. The authors indicate how changes in procurement culture towards sustainable business relationships benefit different parties in the industry and have the potential to achieve empowerment and regional development. This paper is based on research undertaken in the public sector in Queensland, Australia.

Keywords: Culture, public sector procurement, relationship contracting, trust

Introduction

Definitions of Trust

Trust is defined as the willingness to rely upon the actions of others, to be dependent upon them and thus be vulnerable to their actions (Wood and McDermott, 1999). Where there is no vulnerability, there is no need for trust. Trust is also perceived as a result of effective collaborative relationships leading to higher levels of partner/customer satisfaction (Mohamed, 2003; Zineldin and Jonsson, 2000). Moorman, Deshpande and Zaltman (1993) believe that trust is built up over a series of interpersonal encounters, in which the parties establish reciprocal obligations. Yet, Gambetta et al (1998) and his contributors see trust as a precondition of cooperation because partners need some assurance that the other parties will not defect. Thus, in construction contracts employing a relationship management approach the role of trust as an essential element of the approach is explored in this paper.

Implications of Trust

One implication of high trust is that one would be confident and psychologically secure. One is more relaxed, less suspicious and defensive towards the organisation to which one is entrusted

(Westwood, 1993). High trust between parties does not only reduce the transaction costs, it also makes possible the sharing of sensitive information, permit joint projects of various kinds, but it also provides a basis for expanded moral relations in business (Brenkert, 1998). Trust is said to have a direct effect on work group process and performance, and in Dirks' findings (1999), it is shown that better coordination and greater efficiency are found in a high-trust group and hence better performance. Barney and Hansen (1994) believe that a firm characterised by a culture of trustworthy values and beliefs will often behave with a relationship based on a strong trust exchange. Thus, when viewing relationship management contracts exhibiting a high level of trust, one would expect free and frank exchange of information and a significant reduction in transaction costs; if such trust does not exist then the relationship management approach would be compromised.

Wood and McDermott (1999) describe trust from a social perspective by stating:

"Trust is also seen to be a multidimensional (Ganesan, 1994; McAllister, 1995; Sako, 1992) multifaceted social phenomenon (Fukuyama, 1995; Misztal, 1996), which is regarded by some as an attitude (Flores and Solomon, 1998; Luhmann, 1979), by others as a personality trait (Wolfe, 1976) and as a vital social lubricant (Fukuyama, 1995; Gambetta, 1998)." Such a view indicates that trust is part of a culture and leads to a set of trusting attitudes: many recent reports on the construction industry point to a lack of trust and adversarial culture in the industry leading to attitudes which are not attuned to a relationship approach (Latham 1994, Egan 1998)

Nature of Trust

From the literature Wood & McDermott (1999) identified three dimensions of trust, namely competence (behaviour), motives (feelings) and commitment (beliefs). Das and Teng (1998) refer to trust as the expectation of positive motives (behaviour) of the trustee, while Lewicki, Saunders and Minton (1999) see trust as positive conduct. Trust also has a social meaning concerning both individual and organisation. Social trust is described by Earle and Cvetkovich (1995) as a bridge from State A (disequilibrium or non-normal) to State B (equilibrium or normal). It constitutes the in-group and out-group theory where people will behave differently in groups, and is culture specific (Earle and Cvetkovich, 1995; Fukuyama, 1995). If such a view is taken of trust then it is possible to understand how relationship management approaches to contracting may require both education and training and the intervention of a facilitator in order to ensure the ongoing effectiveness of relationship management and the unity of the group.

It is interesting to see how and where trust is implied in different cultures. French negotiators may come to the table mistrusting the other party until they can establish an element of trust while Australian negotiators may come fully trusting the other unless led to believe that the other person is untrustworthy (Jackson, 1993). Japanese tend to have a tolerance of ambiguity and rely on mutual trust while facing internationalisation of business. Westwood (1993) finds this is a way of avoiding making offensive statements. Many managers in Asian countries negotiate in a subtle and indirect manner to avoid confrontation. The Chinese negotiation process is in an order of

preference: compromising, avoiding, accommodating, collaborating and competing (Westwood, 1993), with competing being the last resort (Lau, 1999). In a multi-cultural society such as Australia a recognition of such differences is important.

Trust is described as calculative, with self-interest and vested interests predominating in an economic viewpoint (Williamson, 1975; 1985). Williamson (1993) further suggests two other kinds of trust, namely personal and institutional. Personal trust is suggested to be non-calculative and is irrelevant to commercial exchange; institutional trust refers to the social and organisational context on a contractual basis (Sako, 1992; Williamson, 1993).

One can generalise and say that trust is particularly important when a relationship contains the following elements:

- Entering into any form of contract;
- Exchanging information;
- Uncertainty arising from unforeseeable future contingencies;
- Risk sharing;
- A degree of interdependence between agents;
- The threat of missed opportunities;
- To act as a means of enhancing the effectiveness of a relationship which depends upon extensive cooperation at both inter-organisational and intra-organisational levels;
- To develop the business relationship to a higher level;
- Reaching alternative goals by group members;
- Negotiation to avoid confrontation.

So, as all of the foregoing reflect the facets of relationship management in construction, trust should be an underpinning element of such approaches.

Trust in the Construction Industry

Construction project teams are unique entities, created through a complex integration of factors, with inter-disciplinary players, varying roles, responsibilities, goals and objectives (Goodman and Chinowsky, 1996). Collaboration and teamwork are therefore crucial since sharing up-to-date information between participants leads to minimising errors, reduction of time delays and breaking the widespread rework cycle. Benefits of collaborative, rather than adversarial, working relationships within construction organisations are well documented (Walker and Hampson, 2003).

Successful collaborative relationships rely on relational forms of exchange characterised by high levels of trust. However, it has been shown that the construction industry has a stronger preference for distrust rather than the full benefits of cooperation (Wood and McDermott, 1999). There is a need for culture change to bring about increased cooperation between parties on a long-term basis. With relationship contracting, based on long-term relationships and trust, a win-win situation can be created for both the client and contractor. The development of trust between organisations is seen

as a function of the length of the relationship between them (Bresnen and Marshall, 2000). The construction industry is one which requires trust due to the high uncertainty in the industry.

Partnering, one form of relationship management in construction, has been criticised as benefiting the clients' side only (Green, 1999). Bresnen and Marshall's work (2000) shows that contractors absorb extra costs in the interest of maintaining good relationships with the client and increasing chances of gaining future work. Yet, one may ask why contractors are still involved if they would not gain any benefits? The reason behind this may be the global pressure for change. Partnering is seen nowadays to be a pre-qualification requirement.

Methodology

The research reported here focused on the public sector in Queensland. Working from the premise that the client is the driver of change (Construction Clients' Forum 1998, Construction Industry Board 1997, Construction Industry Institute 1991, Egan 1998), two major public sector organisations, Queensland Department of Public Works and Queensland Department of Main Roads, were asked to nominate professionals who had experience of partnering, alliancing or relationship contracting projects for survey and interview. 48 people participated in the research by means of questionnaires and a 30 to 60 minutes interview. A total of 7 case studies were collected from both organisations. Observations of monthly site and relationship management meetings were carried out in the case studies to examine team dynamics and communication processes in the project teams. Thus, the research adopted a triangulated approach in order to seek out and verify its conclusions.

Relationship Management in Construction

Various authors have suggested that a relational approach to contractual governance entails long-term social exchange between parties, mutual trust, interpersonal attachment, commitment to specific partners, altruism and cooperative problem solving (Blau, 1963; Darwin, 1994; Darwin, Duberley and Johnson, 2000; MacNeil, 1978, 1985; Rousseau and Parks, 1993). Partnering, alliancing, Public Private Sector Partnerships (PPPs) and joint-ventures are examples of relationship contracting approaches and were introduced to the Australian construction industry in the 1990s.

Traditionally, clients have attempted to minimise construction spending, equating price with cost (Egan, 1998); whereas the contractor wants to increase the profit margin as much as possible (Rooke, Seymour and Fellows, 2003) – reflecting human behaviour from an economic point of view, all human beings are selfish. In order for the client to maximise his/her benefits, a choice mechanism is required where the contractors compete for the project. In this case, tendering is the most common approach used in the construction industry. The norm behind the tendering process is the lowest bid wins the contract. The downside of this mechanism is the lower the proposed project cost, the higher risk for work to result in low quality with extra costs incurred during and/or after work. This is clearly enunciated in the vicious circles of the procurement cycle described by Austen & Neale (1984) and Curtis, et al (1991). Indeed, clients generally approach construction

projects and adopt tender processes and contracts that drive contractors to minimise dollar value of bids to win. In order to cover the cost, contractors shift risks back to the owner by seeking out weaknesses in the contract, specification and documentation. They try to increase revenue through speculative, manipulative and exploitative behaviour. During project construction, scope growth change and delays are exploited. Thus, what is most likely to happen is there would be cost cutting on items such as labour cost, affecting the quality of labour (something which is difficult to state in the contract) with also extensive sub-contracting which makes work difficult to supervise and has a great impact on the quality control of work done. Also, the suppliers of materials chosen might be of poor quality with no guarantee on delivery of materials promptly. Such problems have been partially solved by implementing a pre-qualification system – ISO certification. (Oakland and Mortiboys, 1991)

However, there is a continuing debate on the overall benefits of ISO certification and quality assurance in the construction industry. The general perception of ISO certification is that it does not really help the company to achieve a higher standard of quality, but leads to additional bureaucracy and paperwork and increases costs – this was highlighted in the Latham report (Latham, 1994). Yet, contractors and suppliers still work towards a certificate in order to promote greater job opportunities. Indeed, results have proved this strategy on pre-qualification for high quality and productivity has not been too successful (for example, Hong Kong Housing Authority Annual Report 2004). Partnering may well be following the same track. Even though contractors suspect they will not get much benefit from partnering, they still enter into partnering arrangements because many job opportunities will be missed if they do not. In this manner, partnering has even been described as a brand label (Liu and Fellows, 2001).

However, with relationship contracting, it benefits not just the clients but also the contractors because of high chances of future work. Maintaining a good relationship to sustain a long-term relationship is believed to lead to reduced tendering costs, by means of reduction in transaction costs, which benefits both the client and the contractor. The researchers uncovered a cynical view in this research however first generation partnering suits the public sector as it provides no guarantees of future work but commits the contractor to a non-contractual relationship; alliancing suits the private sector as long term business relationships and mutual benefits can accrue – in both cases probity issues can be managed.

Relationship Contracting

Thus, relationship contracting is designed to break down the contractual and commercial walls between owners, contractors, designers and suppliers so that a trusting team is formed which shares the risks when something goes wrong and shares the savings when the team performs exceptionally well. Costs are expected to be reduced and outstanding results in key result areas can be achieved.

Rowlinson and Cheung (2002) give a working definition of relationship contracting:

“Relationship contracting is based on a recognition of and striving for mutual benefits and win-win scenarios through more cooperative relationships between the parties. Relationship contracting embraces and underpins various approaches, such as partnering, alliancing, joint venturing, and other collaborative working arrangements and better risk sharing mechanisms. Relationship contracts are usually long-term, develop and change over time, and involve substantial relations between the parties and development of trust.”

Successful relationship management requires trust, commitment, cooperation, open communication, goal alignment and joint problem solving (Peters, Walker and Hampson, 2001; Howarth, Gillin and Bailey, 1995; Hampson and Kwok, 1997; Rowlinson and Cheung, 2004). In a case study reported elsewhere (Rowlinson et al, 2006), the researchers found that trust between alliance partners creates an opportunity and willingness for further alignment (such as future job opportunities), reduces the need for continuous cross monitoring of one’s behaviour, reduces the need for formal controls, and reduces the tensions created by short-term inequities. It allows the partners to focus on their long-term business development as well as cutting down their cost and time outlays.

Collaboration between partners is essential for a successful project. During collaborations, partners are able to share resources including professional expertise; the higher the frequency of ideas flow – after all, two heads are better than one. Relationship management will not succeed without continuous, open flow of information and communication. Through open and honest communication, foreseeable risks are exposed and parties have a better understanding of each other’s needs. Trust, continuous open communication and knowledge sharing are the keys to successful relationship management.

However, the drawback to such open and sharing behaviour is that other parties become capable of disarming participants (Hamel, 1989). Since alliances between partners are formed in order to contribute to achieving their major goals and objectives for a particular project (Kwok and Hampson, 1996), parties to these alliances have clear objectives and understand that their partner’s objectives will affect their success. Collaboration does not always provide an opportunity to internalise a partner’s skills. A “psychological barrier” may exist between alliance partners caused by the fear that their partners may out-learn or deskill them (Love and Gunasekaran, 1999). Some organisations choose to enter collaborative relations to reduce the complexity of their environment and to gain more control over environmental factors (Wood and Gray, 1991).

It was suggested during this research that all construction contracts are all relational contracts as construction contracts often involve numerous parties and subcontracts with heavy informational exchange in the construction activities. Relationship contracting provides the means to achieve sustainable, ongoing relations in long and complex contracts by adjustment processes of a more thoroughly transaction-specific, ongoing, administrative kind. Relationship contracting is multi-layered.

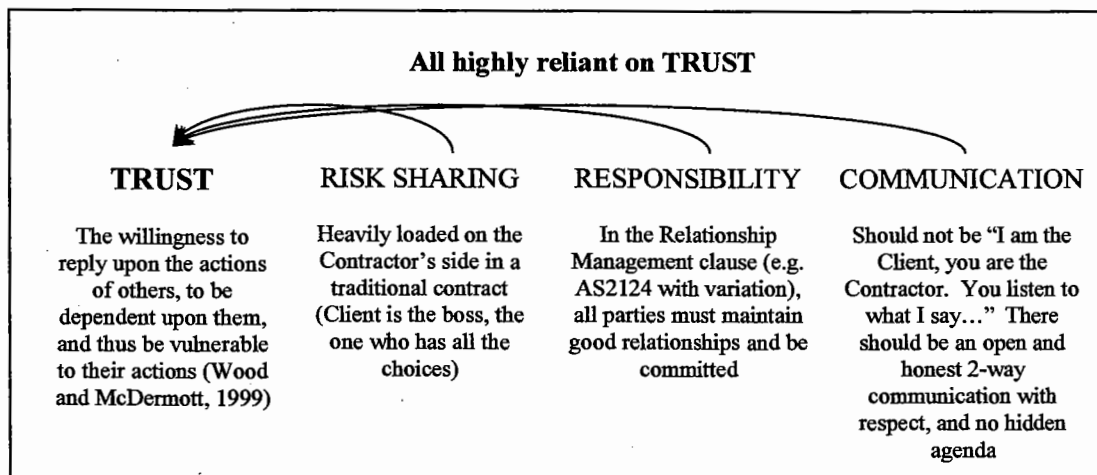


Figure 1 Critical Elements in Relationship Contracting

Through this research in Australia it has been identified that there are four levels at which relationship contracting needs to operate and that each level has its own issues.

Table 1 Issues in Relationship Contracting in a Project Team

Issues	
Inspector / Foremen	<ul style="list-style-type: none"> • Maintaining quality • Appropriate methods of working • Keep the job moving
Superintendent Representative / Engineers (organisation)	<ul style="list-style-type: none"> • Performance measures and claims, yet not empowered to make final decisions on claims or encouraged in the contract to be forthright on quality • Contract administration
(individual)	<ul style="list-style-type: none"> • Quality of work life • Opportunity to act in an "old-fashioned", professional manner
Superintendent / Project Manager	<ul style="list-style-type: none"> • Reduction of claims • Timely completion
Principal / Director	<ul style="list-style-type: none"> • Strategy and claims management

It can be seen from Table 1 that the relationships within the team are focused on completely different issues at these four levels. It is anticipated in the literature that the concepts of relationship contracting will operate in a smooth and seamless manner throughout the length and breadth of a project but in fact the objectives of the various participants are completely different. Because of this, the work of many writers on partnering, such as Bennet and the Reading group (1995), can be

seen to downplay crucial issues: the different levels, and different objectives, at which relationship contracting takes place being an extremely important one. Much of the literature is focused purely on the client's objectives and takes no account of the reality of the situation on site where the Inspectors and Foremen, Engineers from Client and Contractor, Contractor's Project Manager and Superintendent and Director and Principal (Client) all interact at their own levels and across levels on a day to day basis. One of the core elements of relationship contracting is understanding and adapting the fundamental principles of relationship contracting at all levels with continuous open communication. The general view was that all staff in the project team should attend the initial and follow-up relationship management (or partnering) workshops which are facilitated by a partnering facilitator, to understand the different personalities in the project team and the core principles of a relationship contracting project.

Interviewees in general found relationship contracting to be about stimulating communication and breaking down barriers. It is about opening up communication, getting discussions going and overcoming problems or issues faster, but not focusing on the money aspect of the project. In addition, the key focus is on developing a trusting environment. Relationship contracting is often seen as a longer term marketing "tool" in which the Contractor has the opportunity to enhance its reputation and future work prospects.

Employees found it more rewarding and enjoyable to go to work under a relationship contracting project delivery system. Issues raised by project team members were acknowledged and treated with respect. The adversarial nature of the conventional contract is replaced by collaborative, proactive working. They enjoy going to work in an atmosphere which allows each to make a positive contribution to moving the project forward. Good relationships are established and participants are committed to the project with a sense of ownership and a belief that their contributions will be appreciated and issues raised treated in a blame-free manner.

By building a high level of trust and being convinced of the contractors' competence and trustworthiness, the organisation personnel can be freed from the chore of being on the spot all the time in order to conduct supervision. When the situation arises, when the organisation personnel can trust the contractor to carry out the job with integrity, not only is work more enjoyable but time can be spent on more creative issues and more focus can be given to creating an excellent project. Similarly, the contractor can usefully make savings also, for the organisation is capable of providing assistance on the technical and knowledge aspects of the project. Relationship contracting is about cooperation and collaboration. Knowledge and resources are shared, and under a relationship contracting approach, faster, better and more solutions are provided to construction problems. More harmonious working relationships allow both parties to focus on work issues rather than other contractual issues. The "protective barrier" of "paper warfare" is broken down by a collaborative approach. During the process, a level of trust is built. There is less paperwork for the need to formalise and document every discussion or event disappears and the traditional, contract specified route for resolution of discrepancies is circumvented.

Discussion

Relationship contracting is about developing a long-term relationship and building up trust. The importance of individual personality and the right mix of people were identified by almost all interviewees as being crucial factors for a successful relationship contracting project. Two difficult issues were raised in discussing the choice of the project team: only those who believe in relationship contracting should be part of the team; and unsuitable project participants should be removed as soon as identified. However, should the wrong type of person happen to be involved in the project team, it is difficult to remove this person at the initial workshop. Then again, it was pointed out that senior managers should know their own crew! The important issue arising from this is that selection procedures and protocols need to be established which define personnel and position specifications and define the nature of the skills, experience and attitudes required to fulfil the organisation's expectations. To this end the participating organisations have developed a toolkit to assist in this training and education process.

To maintain and develop non-adversarial attitudes and a collaborative, cooperative culture, the relationship contracting process, such as the relationship selection workshop and relationship foundation workshop, provide an ice-breaking platform for project participants. It was pointed out by interviewees that regular relationship contracting workshops should be used throughout the life of a project, ensuring open and continuous communication in the project team and reminding the project team of the philosophy of relationship contracting. Through relationship contracting, the adversarial nature of the conventional contract was replaced by collaborative, proactive working; the trusting relationship amongst project team members was maintained and further developed. It was pointed out by various interviewees that in relationship contracting, work was found more rewarding and enjoyable - people enjoy going to work in an atmosphere which allows each to make a positive contribution to moving the project forward; where a sense of accomplishment is obtained.

Conclusions

Relationship contracting brings about more harmonious working relationships. Other than at the operational level, relationship contracting at a state level has the potential to deliver on government priorities such as regional and industry development, empowerment, work life balance and a sustainable industry. Problems may be overcome by training, education and experience, which can facilitate the cultural move from adversarial to proactive, trusting relationships in the project team. By making the management of relationship contracting part of industry training, tertiary education and internal management policy, project team members can be predisposed to buying into the relationship contracting philosophy, even those who have not attended one or any of the workshops. A good facilitator is crucial for the success of a relationship management contract. However, the right attitude and strong commitment of senior management in both client and contractor organisations are also important.

Relationship contracting can provide a positive contribution to sustainability and help to satisfy client and stakeholder interests. It is a sustainable approach to the industry in terms of people, environment and economics. Clients and contractors can potentially make savings in their

operations under a relational contracting regime through sharing and exchanging technical knowledge of the project. The development of trusting relationships also encourages a more proactive working manner – more harmonious working relationships allow both parties to focus on work issues rather than other contractual issues, saving both cost and time.

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References

- Austen, A.D. and Neale, R.H. (eds) (1984) "Managing Construction Projects: A Guide to Processes and Procedures", International Labour Office (ILO), Geneva. Barney, J. B., and Hansen, M. H. (1994) Trustworthiness as a Source of Competitive Advantage. *Strategic Management Journal*, 7, 175-190.
- Bennett, J., and Jayes, S. (1995) "Trusting the Team: The Best Practice Guide to Partnering in Construction". Reading, England: Center for Strategic Studies in Construction/Reading Construction Forum.
- Blau, P. M. (1963) "The Dynamics of Bureaucracy", University of Chicago Press, Chicago, IL.
- Brenkert, G. G. (1998) "Trust, Morality and International Business". *Business Ethics Quarterly*, 8(2), 293-317.
- Bresnen, M. and Marshall, N. (2000) "Partnering in Construction: A Critical Review of Issues, Problems and Dilemmas". *Construction Management and Economics*, 18(5), 229-237.
- Confucius, (1979) "Confucius: the Analects" (Lun Yu). London, Penguin.
- Construction Clients' Forum. (1998) "Construction Improvement" London: Construction Clients' Forum.
- Construction Industry Board. (1997) "Partnering in the Team". Report by Working Group 12 of the Construction Industry Board, London: Thomas Telford.
- Construction Industry Institute. (1991) "In Search of Partnering Excellence". Austin, TX: Construction Industry Institute.
- Curtis, B., Ward, S. and Chapman, C. (1991) "Roles, Responsibilities and Risks in Management Contracting", special publication 81, Construction Industry Research and Information Association, London.
- Darwin, J. (1994) "Networks, Partnerships and Strategic Alliances". Unpublished Working Paper, Sheffield Business School, Sheffield Hallam University.
- Darwin, J., Duberley, J., and Johnson, P. (2000) "Contracting in Ten English Local Authorities: Preferences and Practice". *The International Journal of Public Sector Management*, 13(1), 38-57.
- Das, T. K., and Teng, B. S. (1998) "Resource and Risk Management in the Strategic Alliance Making Process". *Journal of Management*, 24(1), 21-42.
- Deming, W. E. (1994) "The New Economics for Industry, Government, Education", Massachusetts Institute of Technology, Center for Advanced Engineering Study, Cambridge.

- Dirks, K. T. (1999) "The Effects of Interpersonal Trust on Work Group Performance". *Journal of Applied Psychology*, 84, 445-455.
- Earle, T. C., and Cvetkovich, G. (1995) *Social Trust: Towards a Cosmopolitan Society*, Westport, Praeger.
- Egan, J. (1998) *Rethinking Construction*. London: Department of the Environment, Transport and the Regions.
- Fisher, R., and Ury, W. (1981) *Getting to Yes: Negotiating Agreement without Giving In*, Houghton Mifflin Company, London.
- Flores, F., and Solomon, R. C. (1998) "Creating Trust". *Business Ethics Quarterly*, 8(2), 205-232.
- Fukuyama, F. (1995) *Trust: The Social Virtues and the Creation of Prosperity*, Penguin Books, Harmondsworth.
- Gambetta, D. (1998) *Trust: Making and Breaking Cooperative Relations*, Basil Blackwell.
- Ganesan, S. (1994) "Determinants of Long-Term Orientation in Buyer-Seller Relationships". *Journal of Marketing*, 58(April), 1-19.
- Goodman, R., and Chinowsky, P. (1996) "Managing Interdisciplinary Project Teams through the Web". *Journal of Universal Science*, 2(9), 597-609.
- Green, S. D. (1999) "Partnering: The Propaganda of Corporatism? *Journal of Construction Procurement*, 5(2), 177-186.
- Hamel, G (1989) "Collaborate with Your Competitors - and Win". *Harvard Business Review*, January-February, 133-9.
- Hampson, K and Kwok, T (1997) "Strategic alliances in building construction: A tender evaluation tool for the public sector". *Journal of Construction Procurement*, 3(1), 28-41.
- Hong Kong Housing Authority (2004) *Hong Kong Housing Authority Annual Report 2003/04*, Hong Kong.
- Howarth, C S, Gillin, M and Bailey, J (1995) "Strategic alliances: Resource-sharing strategies for smart companies". Australia: Pearson Professional (Australia) Pty. Ltd.
- Jackson, T. (1993) *Organizational Behaviour in International Management*, Butterworth-Heinemann, Oxford.
- Kwok, A and Hampson, K (1996) "Building strategic alliances in construction", AIPM Special Publication.
- Latham, Sir Michael (1994) *Construction the Team*, HMSO, London.
- Lau, H. L. (1999) *Trust as a Human Factor in Management in General and in Construction. Profitable Partnering in Construction Procurement: CIB W92/TG23*, 117-126.
- Lewicki, R., Saunders, D., and Minton, J. (1999) *Negotiation*, McGraw-Hill, Boston.
- Liu, A. M. M., and Fellows, R. (2001) "An Eastern Perspective on Partnering". *Engineering, Construction and Architectural Management*, 8(1), 9-19.
- Love, P. E. D. and Gunasekaran, A. (1999) "Learning Alliances: A Customer-Supplier Focus for Continuous Improvement in Manufacturing". *Industrial and Commercial Training*, 31(3), 88-96.
- Luhmann, M. (1979) *Trust and Power*, Wiley, Chichester.
- MacNeil, I. R. (1978) "Contracts: Adjustment of Long-Term Economic Relations under Classical, Neoclassical and Relation Contract Law". *North-Western University Law Review*, 854-905.
- MacNeil, I. R. (1985) "Relational Contract: What We Do and Do Not Know". *Wisconsin Law Review*, 483-525.

- Mayer, R. C., and Davis, J. H. (1999) "The Effect of the Performance Appraisal System on Trust in Management: A Field Quasi-Experiment". *Journal of Applied Psychology*, 84(1), 123-136.
- McAllister, D. J. (1995) "Affect and Cognition Based Trust as a Foundation for Interpersonal Cooperation in Organizations". *Academy of Management Review*, 38(1), 24-59.
- Misztal, B. A. (1996) "Trust in Modern Societies", The Polity Press, Cambridge.
- Mittal, B. (1996) "Trust and Relationship Quality: A Conceptual Excursion". *Contemporary Knowledge of Relationship Marketing, Third Research Conference, Center for Relationship Marketing*.
- Mohamed, S. (2003) "Determinants of Trust and Relationship Commitment in Supply Chain Partnerships". Unpublished working paper, School of Engineering, Griffith University, Australia.
- Moorman, C., Deshpandè, R., and Zaltman, G. (1993) "Factors Affecting Trust in Market Research Relationships". *Journal of Marketing*, 57(January), 81-101.
- Oakland, J. and Mortiboys, R. (1991) "Total Quality Management and Effective Leadership", Department of Trade and Industry, London.
- Parson, T., and Smelser, N. J. (1984) "Economy and Society: A Study in the Integration of Economic and Social Theory", Routledge & Kegan Paul, London.
- Peters, R., Walker, D and Hampson, K (2001) "Case study of the Acton Peninsula development, Australia: Research and Case Study of the Construction of the National Museum of Australia and Australian Institute of Aboriginal and Torres Strait Islander Studies," School of Construction Management and Property, Queensland University of Technology.
- Rooke, J., Seymour, D. and Fellows, R. (2003) "The Claims Culture: a Taxonomy of Attitudes in the Industry". *Construction Management and Economics*, 21, 167-174.
- Rousseau, D. M. and Parks, J. M. (1993) "The Contracts of Individuals and Organizations". *Research in Organizations' Behaviour*, 55, 1-43.
- Rowlinson, S., Cheung, F.Y.K., Simons, R. and Rafferty, A. (2006), "Alliancing in Australia - No Litigation Contracts; A Tautology?" *ASCE Journal of Professional Issues in Engineering Education and Practice: Special Issue on 'Legal Aspects of Relational Contracting'*, Vol. 132, No. 1, 77-81, January.
- Rowlinson, S. and Cheung, F. (2002) "A Review of the Concepts and Definitions of the Various Forms of Relational Contracting" (2002-022-A). CRC for Construction Innovation, Brisbane, Australia, Unpublished Report.
- Rowlinson, S. and Cheung, F. Y. K. (2004) "A Review of the Concepts and Definitions of the Various Forms of Relational Contracting." In: Kalidindi, S N and Varghese, K (Eds.), *Proceedings of the International Symposium of CIB W92 on Procurement Systems*, January 7th-12th, Chennai, India, 227-36.
- Sako, M. (1992) "Prices, Quality and Trust: Interfirm Relations in Britain and Japan", Cambridge University Press, Cambridge.
- Shaw, R. B. (1997) "Trust in the Balance", Jossey-Bass Publishers, San Francisco.
- Walker, D., and Hampson, K. (2003) "Enterprise Networks, Partnering and Alliancing. Procurement Strategies: A Relationship-Based Approach", D. Walker and K. Hampson, eds., Blackwell Science Ltd., UK.

- Westwood, R. I. (1993) "Organisational Behaviour: South East Asian Perspectives", Longmans Asia, Hong Kong.
- Williamson, O. E. (1975) "Markets and Hierarchies: Analysis and Antitrust Implications", The Free Press, New York.
- Williamson, O. E. (1985) "The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting", The Free Press, New York.
- Williamson, O. E. (1993) "Calculativeness, Trust, and Economic Organization". *Journal of Law and Economics*, 36(April), 453-486.
- Wolfe, R. N. (1976) "Trust, Anomie and the Locus of Control: Alienation of U.S. College Students in 1964, 1969, 1974". *Journal of Social Psychology*, 100, 151-172.
- Wong, E. S., Then, D., and Skitmore, M. (2000) "Antecedents of Trust in Intra-Organizational Relationships within Three Singapore Public Sector Construction Project Management Agencies". *Construction Management and Economics*, 18(7), 797-806.
- Wood, D J and Gray, B (1991) "Towards a Comprehensive Theory of Collaboration". *Journal of Applied Behavioral Science*, 27(2), 139-62.
- Wood, G., and McDermott, P. (1999) "Building on Trust: A Co-Operative Approach to Construction Procurement". *Journal of Construction Procurement*, 7(2), 4-14.
- Zineldin, M., and Jonsson, P. (2000) "An Examination of the Main Factors Affecting Trust/Commitment in Supplier-Dealer Relationships: An Empirical Study of the Swedish Wood Industry". *The TQM Magazine*, 12(4), 245-265.

Strategic Alliances in Building Construction: A Tender Evaluation Tool for the Public Sector

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Abstract

Building construction is a highly competitive and risky business. This competitiveness is compounded where conflicting objectives amongst contracting and subcontracting firms set the stage for an adversarial and potentially destructive business relationship. Clients, especially those from the public sector, need broader tender evaluation criteria to complement the traditional focus on bid price. There is also a need for change in the construction industry—not only to a more cooperative approach between the constructing parties—but also from a confrontationist attitude to a more harmonious relationship between all stakeholders in providing constructed facilities. A strategic alliance is a cooperative relationship between two or more organisations that forms part of their overall strategies, and contributes to achieving their major goals and objectives. Strategic alliances in building construction may provide a useful tool to assist public sector construction managers evaluate tenders and concurrently encourage more cooperative relationships amongst construction stakeholders.

This paper begins with an overview of the Australian building construction industry, then reviews the existing strategic alliance literature and describes an analysis framework comprising six attributes of strategic alliances for application to construction organisations—trust, commitment, interdependence, cooperation, communication, and joint problem solving. These attributes are currently being used to collect data from 70 building construction firms in Queensland to assess their respective levels of strategic alliance. Given the trend towards broader indicators of construction firm performance, these attributes are proposed as a tool for use in the tender evaluation process for public works.

Keywords: Australia, public sector, Queensland, strategic alliances, tender evaluation.

Introduction

Building construction contracting is regarded as a very competitive and high risk business (Uher 1994). This competitiveness is largely due to cost traditionally being the prime factor in the tender selection process. A recent survey of Australian building constructors (Construction Industry Development Agency 1995) has overwhelmingly indicated that contractors and subcontractors perceive their market success to be determined by their company's ability to be the lowest cost tenderer—75% of respondents ranked submission of the lowest price as the number one reason for tender award success. The more competitive the market, the keener the tender price must be, with a consequent lower profit margin. It is widely understood that traditional lump sum or fixed price tendering can be a cut-throat activity. Contracting firms strive for a competitive edge that gives them a greater share of project awards in the market place.

Park (1979) argues that while the awarding of contracts for building construction work on the basis of competitive bids offers advantages to both owners and contractors, many of the industry's problems can be attributed directly to the practice of making price the sole criterion.

Competitiveness amongst firms is compounded where conflicting objectives amongst contracting and subcontracting firms set the stage for an adversarial and destructive approach. A report by the National Public Works Conference and National Building and

Construction Council Joint Working Party (1990) showed that during the late 1980's, the Australian building and construction industry had substantial increases in the incidence of contractual claims and disputes compared to the previous ten years. This trend continued with increasing disputation and litigation, and win-lose attitudes promoted increasingly with adversarial relationships among project team members—in particular between the head contractor and subcontractors. The report also emphasised that no party benefits from circumstances that cause claims and disputes; and that cooperation should be encouraged in the future. It emphasised the need for industry change. Doing things the same old way is sure to produce the same old results (Kaydos 1991).

The Final Report of the Royal Commission into Productivity in Building Industry in New South Wales (1992) also clearly indicated the need for a change—to a more cooperative approach to build mutual trust, respect and good faith. Simply, it is necessary to change the existing building construction culture to more of a win-win relationship. Strategic alliances are one mechanism for achieving this goal.

Firms have always been forming types of inter-organisational relationships. Ring and Van de Ven (1994) state that recently, an unprecedented number of firms in many industries has been entering into a variety of inter-organisational relationships to conduct their business. Such relationships can be found in many forms—mergers and acquisitions (Nevaer and Deck 1990), joint ventures (Kogut 1988), license agreements and supplier arrangements (Borys and Jemison, 1989), networking (Buttery and Buttery 1994), mentor/protégé (Thompson 1993), partnering (Cowan 1992), and alliances (Lei and Slocum 1992).

Latham (1994) identifies the alliance concept as having the potential to increase the quality of the business relationship between contracting and sub-contracting firms in construction. Targeting alliances (the focus of this research), Takac and Singh (1992) define them as the joining of forces and resources between firms, for a specific or indefinite period, to achieve a common objective. Alliances can broadly be classified as either vertical or horizontal. Vertical alliances are formed between organisations operating in adjacent stages of a value chain (Harrigan 1988) - for example construction contractors and sub-contractor, whereas horizontal alliances may exist amongst like firms involved in different projects. Takac and Singh further explain that the term *strategic* provides an additional dimension to the definition. Strategic issues:

- have a futuristic vision
- have an impact on multi-functional or multi-business environments, and
- necessitate consideration of factors in the firm's external environment.

Industry professionals and researchers indicate that the formation of strategic alliances between firms is becoming an increasingly common way for firms to find and maintain competitive advantage—especially in manufacturing (Mohr *et al* 1994). The growth of alliances is viewed as a key to sustained competitive advantage for industry success (Gulati *et al* 1994).

This paper describes attributes of strategic alliances developed in this research program with the Queensland Government. During 1997, the association between strategic alliances (as the independent variable) and competitive performance of the firm (as the dependent variable) will be further investigated. A research model for this exploratory study is constructed to allow the model to be empirically tested in the context of vertical alliances between firms in the South East Queensland building construction industry.

Significance of Australian Construction Industry

The construction industry occupies a significant position in the Australian economy. The 1993-94 Australian National Accounts (1995) show that the construction industry as a whole represented A\$25 billion of work—6.3% of Gross Domestic Product. (In this context, construction refers to non-residential building and engineering construction.) The industry directly employs 7% of the nation's workforce and exerts a considerable influence over the rest of the economy (Department of Industry 1993). There is also a large number of other industries employed indirectly such as building materials suppliers, components manufacturers and a range of related industries which depend on a vigorous construction sector. Employment figures can also fluctuate due to the cyclical nature of the industry, i.e. upturn, boom, bust and stagnation. It is an industry highly susceptible to booms and busts in the economy and to the *stop-go* policies of government (Harvey and Ashworth 1993).

Government is also a large construction industry client that can affect the volume of construction work by influencing the demand on the industry and more indirectly through its fiscal and monetary policies (Leyland 1994). Building activity for the public sector was maintained at around the A\$3 billion level over the past two years. Table 1 shows the record of building activity by sector from 1992-93, and forecast 1995-96 and 1996-97.

Building Construction in Queensland

The Queensland State Government invests heavily in buildings, services, materials and equipment to support its social and economic programmes. For the past 133 years the Department of Public Works and Housing or its predecessors have played a key role in providing services and buildings for the Queensland Government on behalf of the Queensland community. The value of work for the public sector on non-residential buildings in Queensland is shown in Table 2.

	1992/93	1993/94	1994/95	1995/96	1996/97
Private	\$5.8	\$5.7	\$6.7	\$7.3	\$7.7
Public	\$3.0	\$3.0	\$2.9	\$2.9	\$2.9
Total	\$8.8	\$8.7	\$9.7	\$10.2	\$10.6

Note: 1994-95 prices in A\$ billion

Table 1: Australian non-residential building activity by sector - 1992-1997
(Source: Department of Industry, Science and Technology 1995).

Type of Building	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Offices	\$92.9	\$58.3	\$48.1	\$67.5	\$95.1	\$84.7
Business	\$50.9	\$65.8	\$83.1	\$63.0	\$43.9	\$56.0
Education	\$104.9	\$94.6	\$131.6	\$108.7	\$201.7	\$134.6
Health	\$20.1	\$29.8	\$47.3	\$28.0	\$54.3	\$41.9
Others	\$75.7	\$145.5	\$159.2	\$134.1	\$129.1	\$125.6
TOTAL	\$344.5	\$394.0	\$469.2	\$401.3	\$524.0	\$442.7

Table 2: Value of public sector non-residential building (in A\$million)(Source:Australian Bureau of Statistics 1989-95).

Contracting Firms and Relationship with Subcontractors

Subcontracting is a very common phenomenon in the construction industry (Chau and Walker 1994). The majority of Australian building projects are carried out using the subcontracting system (Uher 1988). This is due to most forms of building contracts (e.g., Joint Contracts Committee - Building Works contract, National Public Works Conference contract, General Conditions of Contract - Australian Standard - AS2124, Lump Sum Contract - Edition 5b-EB5) allow contracting firms to sublet part or even most of the work that they themselves have contracted to carry out. On many building construction projects, it is common for 80-90% of the total work value being performed by subcontractors (Hinze and Tracey 1994). The working relationship between head contracting firm and subcontractors begins during the estimating and bidding process, i.e. tendering stage. It ends when the final payment is made to the subcontractor. Thus, the working relationship between contracting firm and subcontractors is typically on a short term basis—on a project by project basis.

The Final Report of the Royal Commission into Productivity in the Building Industry in New South Wales (1992) highlights in its findings that vertical fragmentation of the development and building process and adversarial relationships which have developed between project team members are well recognised phenomena in Australia and overseas. The Report has also revealed in detail within its study of twenty major projects that such adversarial relationships were not primarily caused by the form of project delivery nor the nature of the contracts, but more fundamentally upon the relationships and understandings between parties.

The Strategic Alliance Research Project

A research team from the Queensland University of Technology, School of Construction Management and Queensland Government, Department of Public Works and Housing is reviewing opportunities for more efficient building industry practices in Queensland. This particular research focused on one important element—that of the relationship between the head contracting firm and subcontractors and suppliers.

Background Literature

Porter (1980) identifies five competitive forces that influence the ultimate profit potential in industry. These five forces are:

- Threat of new entrants
- Bargaining power of buyers
- Threat of substitute products or services
- Bargaining power of suppliers
- Rivalry among existing firms.

Having identified the five forces driving industry competition, Porter (1980) further states that in coping with these five competitive forces, there are three potentially successful generic strategies to out-perform other firms in an industry—overall cost leadership, differentiation and focus. According to Langford and Male (1991) since the latter strategy can also employ cost leadership or differentiation, there are, in practice, only two major generic strategies—cost or differentiation. Hillebrandt and Cannon (1994) argue that traditional methods of contracting with selective tenders, limits production differentiation. Differentiation is possible only until selection has taken place; thereafter competition is on price alone.

When competitive tendering is the traditional method of securing contract work, the contracting firm has already reduced the overhead and the profit margin to the minimum they believe will allow them to compete on their chosen projects and also obtained the lowest subcontract quotations in the market place. What else can the firm do to gain or sustain that competitive advantage? For a contracting firm to be differentiated from its competitors, it can adopt one or more forms of competitive advantage—strategic management in construction (Male 1991) bidding strategy (Skitmore 1991), technological and organisational innovation (Lansley 1991), technology strategy (Hampson 1993), strategic planning (Betts and Ofori 1992) and strategic alliances (Howarth *et al* 1995).

The Royal Commission into Productivity in the Building Industry in New South Wales (1992) highlights in its report that a balance between cooperation and competition is sorely needed in the Australian building construction industry. This follows decades of mistrust and hostility. The development of attitudinal shifts to one of mutual trust and harmony can only be achieved through full cooperation and alliance between the head contracting firm and subcontractors.

This paper focuses on strategic alliances between the head contracting firm and subcontractors as a competitive weapon. Research on strategic alliances has posited theories addressing the advantages of long-term and closer business relationships: efficiency creation through economies of scale specialisation and/or rationalisation (Lorange and Roos 1993), (Gugler 1992), maximise use of facilities (Lindsay 1989, Powell 1987), complementary capabilities (Henricks 1991), growth and improvement in competitiveness (Spekman and Sawhney 1990, Contractor and Lorange 1988) beat competitors (Roberts 1992, Lindsey 1989) spreading financial risk and sharing costs (Spekman and Sawhney 1990, Contractor and Lorange 1988) each make predictions about when strategic alliances will be formed.

Research Model and Methodology

Figure 1 illustrates the research design model. This research will test a series of measures to evaluate strategic alliance as a competitive weapon for building contracting firms. A framework comprising six elements sourced from the literature describes attributes of strategic alliances. These attributes are trust, commitment, interdependence, cooperation, communication, and joint problem solving. A specific and important industry sector—public building construction in Queensland—was selected as the research setting. Contracting firms having stronger strategic alliances are hypothesised to gain competitive advantages over their industry competitors.

To compare the performance of different contracting firms, measures of competitive performance are being developed. At this stage, the following six performance indicators have been initially selected by the research team to evaluate the nature of the relationship between strategic alliance and competitive performance: task appreciation and method, cash flow, claims and disputations, safety and industrial relations record, utilisation of resources, and skill formation. These indicators are currently being evaluated by the research team to confirm their suitability. Limitations, including access to the necessary data and objectivities of measurement, will influence the final choice. This analysis framework will therefore allow relationships to be examined between strategic alliances and competitive performance.

The research methodology adopted for this investigation initially consists of a survey questionnaire instrument administered to 70 building construction firms throughout

Queensland to determine the level of strategic alliance employed in this industry sector. A number of levels of management in each firm, from both head office and site, is being targeted. The total number of questionnaires distributed to date is 300. This initial phase of the research project took place during the September to December 1996 period. This was followed during early 1997 by in-depth personal interviews and analysis of the relationships between strategic alliances and competitive advantage for ten key contracting firms in the Queensland public building construction sector. Both advantages and disadvantages of alliances will be evaluated. Each of these firms was analysed in detail and form the basis of detailed case studies. The data collection in this phase was primarily via interviews with each firm's key personnel—the General Manager, Construction Manager, Site Project Manager, Chief Estimator and Contract Administration Manager. A structured interview framework provided a consistent method for gathering data that can be used in comparing across firms, together with an unstructured portion of the interviews to pursue relevant issues unique to the firm.

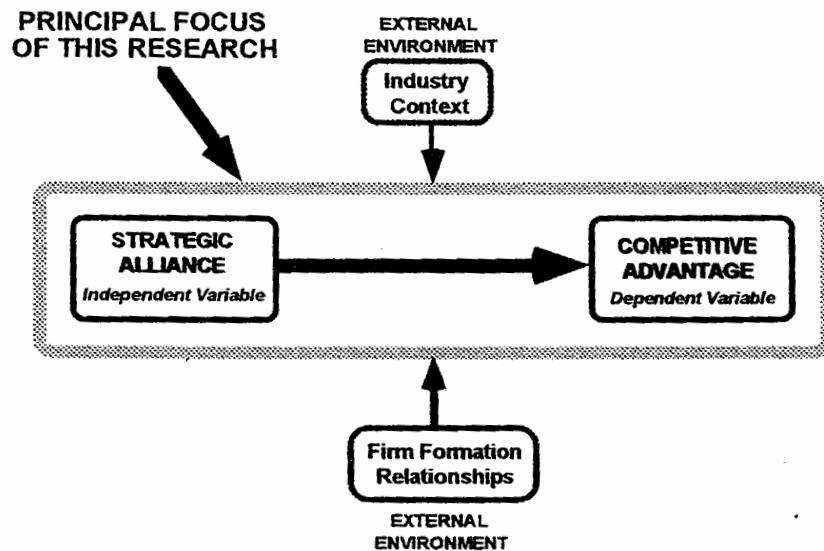


Figure 1: Research Model (Source: Adapted from Hampson 1993)

This paper will now principally examine the independent variable of strategic alliances in the context of the literature.

Strategic Alliance Attributes:

According to Cowan (1992) the philosophy of partnering is underpinned by the following key elements—commitment, equity, trust, mutual goals and objectives, implementation, continuous evaluation and timely responsiveness. Mohr and Spekman (1994) argue that the characteristics of partnership success include attributes of the partnership, such as commitment and trust; communication behaviours, such as information sharing between the partners; and conflict resolution techniques, which tend towards joint problem solving, rather than domination or ignoring problems. In reference to inter-organisational cooperation in buyer-seller relationships, Nielson and Wilson (1994) define cooperation as one firm working with other firms for mutual benefit. Spekman and Sawhney (1990) describe interdependence,

to engage in any exchange is to become dependent on one's trading partner so that each partner can achieve its own objectives as well as the objectives of the partnership.

These authors indicate relevant attributes for the success of business relationships between firms. The QUT - Public Works and Housing research team has selected the following attributes as describing the independent variable of strategic alliances for this research:

- Trust - Larson (1991) illustrates that trust refers to several aspects of behaviour in confidence that the other side could be relied upon, the relationship would not be exploited by the other side, and extra effort would be consistently made.
- Commitment - This type of win-win attitude (Bruce and Shermer 1993) is a necessity if an alliance is to endure: there must be a complete commitment to jointly risking, sharing and winning as a unit.
- Interdependence - As the firms join forces to achieve mutually beneficial goals and objectives, they acknowledge that each is dependent on the other (Mohr and Spekman 1994).
- Cooperation - Not based on altruism, but on the recognition that, with positively related goals, self-interests require collaboration; and cooperative work integrates self-interests to achieve mutual goals (Tjosvold 1991).
- Communication - Mohr and Spekman (1994) indicate that timely, accurate and relevant information is essential if the goals of the partnership are to be achieved.
- Joint Problem Solving - Problems are solved openly. Spekman and Sawhney (1990) indicate that open and honest communication of relevant information leads to constructive resolution of conflict.

Measuring Strategic Alliance Attributes:

A clear perspective of the firms' current business relationships is an important first step in analysing the level of strategic alliances between the head contracting firm and subcontractors. The selected interviewees will be asked to assess their readiness for implementing the concept of strategic alliance by first completing a questionnaire. The research team will then plot the results of the questionnaire on a Management Readiness Grid (adapted from Construction Industry Development Agency, 1993)—relating the results to the interviewees' likely level of readiness. This grid is illustrated in Figure 2.

Perceived Significance Score	High	Approaching Strategic Alliances - Ready to create new approaches	Ready to Act - Ready to plan and lead significant changes
	Low	Sub-Optimal or Uninformed - No readiness to act - Need to heighten awareness and understanding	Initial Discomfort - Ready to make some tentative changes - May lead to future action
		Low	High
		Dissatisfaction Score	

Figure 2: Management Readiness Grid
 (Source: Adapted from Construction Industry Development Agency 1993)

For each of the six attributes of strategic alliances, there are two key statements—one indicative of traditional practice in the building construction industry, the other indicative of the implementation of strategic alliances. These two statements are presented as the extremes on a nine point scoring scale. Each interviewee is asked to indicate on the scale with an "N" where he believes his firm is NOW and with an "F" where he desires his firm to be in the FUTURE (within three years). The interviewee is provided with a five point scale ranging from low to high on which to indicate the importance of each attribute. Figure 3 summarises the above procedure.

ATTRIBUTE 1. TRUST

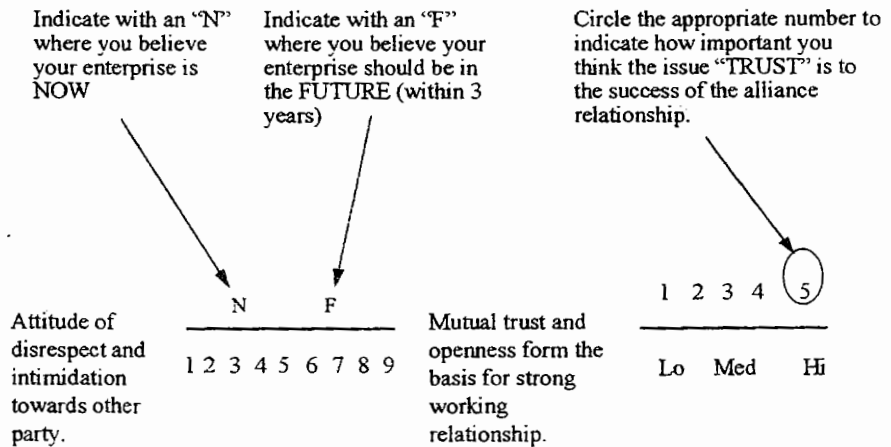
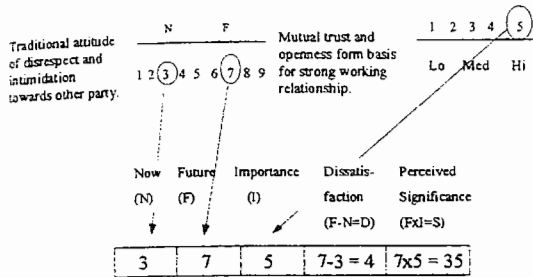


Figure 3: Completing the questionnaire
 (Source: Adapted from Construction Industry Development Agency 1993)

The procedure for collating and analysing the questionnaire results is summarised in Figure 4.

ATTRIBUTE 1. TRUST



ATTRIBUTE 1. TRUST

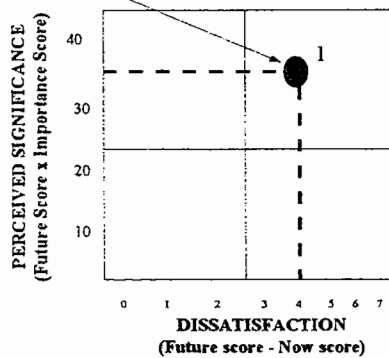


Figure 4: Analysing the Questionnaire Results
(Source: Adapted from Construction Industry Development Agency 1993)

Use of Strategic Alliance Framework as a Tender Evaluation Tool:

In 1992, the Queensland Government (1992) implemented a State Purchasing Policy applying to the procurement of all goods, construction contracts, equipment and services. The Policy is based on five fundamental principles:

- Open and effective competition
- Value for money
- Enhancing the capabilities of local business and industry
- Environmental protection
- Ethical behaviour and fair dealing

The State Purchasing Policy further indicates that in assessing construction tenders, in addition to price, financial capability and technical capability, they must take into consideration tenderers':

- Past performance on contracts, including technical and construction competence
- Quality of work
- Ability to meet construction deadline
- Claims and disputations history
- History of payments to workers, subcontractors and suppliers
- Safety and industrial relations record
- Litigation and arbitration history
- Management skills
- Complexity of work

Since approximately 85 to 90% of the value of work on a construction project is performed by subcontractors (Millman 1990), it is imperative for the head contracting firm to use keen judgement when selecting subcontractors for each project. At the tender evaluation stage, it is logical for the principal or the client to request a list of subcontractors which the head contractor intends to engage on the project. Giles (1995) states that the client is encouraged to require tenderers to name or at least provide a selection of names of proposed subcontractors for major trades.

The Construction Industry Development Agency (1994) states in one of its recommendations relating to the issue of security of payment that for traditional contracts only, each head contractor must state the main subcontractors at the time of tender and be bound to engage those subcontractors unless there are compelling reasons for not being bound. Similarly, each of those subcontractors should be bound to its tendered price.

Based on the results of a survey on the level of satisfaction between contracting firm and subcontractors, Latham (1994) makes the following recommendations:

- Develop better relations through partnership arrangements
- Involve subcontractors earlier to achieve project objectives, and develop greater team involvement through the project life cycle and beyond
- Utilise the skill and knowledge of subcontractors more fully, and recognise that subcontractors can and want to make a greater contribution
- Develop a more structured, standardised and ethical approach to the procurement and management of subcontractors

This background literature review has identified clear opportunities for enhanced cooperative effort by the head contractor and subcontractors, for example including subcontractors' names and prices in the head contractor's tender submission for the client's evaluation. It is imperative for the client to formulate criteria, including evaluation of subcontractors, as one component of the tender evaluation process.

The Queensland Government Department of Public Works and Housing uses a number of methods to assess suitability of a potential tenderer. One method is to establish a Selection Panel to examine and evaluate applications against pre-registration criteria in the assessment of tenderers. Tenders are invited from only those firms that are considered suitable and capable. The selection process is as follows:

- Pre-registration Stage:
 - ⇒ Public call for Expressions of Interest.
 - ⇒ In the notice, call for Expression of Interest by a specified date.
- Tender Screening and Selection Stage:
 - ⇒ Register those who express interest and selectively invite potential tenderers.

This pre-registration selection process rejects unsuitable applications and justifies their exclusion limiting the tenderers to an acceptable number. The report by National Public Works Conference and National Building and Construction Council Joint Working Party (1990) recommends if selective tendering is used, no more than six tenderers be invited to tender.

The composition of the Selection Panel comprises relevant Queensland Government personnel including Department of Public Works and Housing's Project Engineers and Quantity Surveyors, the Government's Internal Financial Officer, the Senior Contract's Officer, and Tender Review Officers.

After adopting pre-registration to qualify tenderers in respect of their capacity and ability to undertake the project, the research team now proposes the following criteria for assessing the public tender:

- Price—value for money (60% of the overall score)
- Quality of the contractor's site personnel committed to the project (15% of the overall score)
- Strength and extent of strategic alliances between the head contractor and major trades subcontractors for the project (25% of the overall score).

Conclusions

The rationale supporting the decision to form strategic alliances is well documented in the literature relating to the manufacturing industry. The concept of partnering has been practised by building construction industry professionals aiming to eliminate conflicts in the building construction industry by removing traditional barriers between the client and contracting firm. However, very little guidance exists regarding the processes used to develop and nurture the relationship in minimising the adversarial approach between the head contracting firm and subcontractors. This research team has drawn on the strategic alliances concept in manufacturing and the philosophy of project partnering in the building construction industry in establishing this research framework.

Having emphasised that the relevant attributes—trust, commitment, interdependence, cooperation, communication and joint problem solving—are key to successful business relationships in accordance with the literature, this research team is focusing on the Queensland Government public building sector to initiate the implementation of strategic alliances as one component of the tender evaluation process. A positive result may encourage contracting firms to implement more cooperative arrangements with their subcontractors to create and enhance competitive advantage in building construction.

REFERENCES:

- Australian Bureau of Statistics, *Queensland Year Book 1989 -1995*, ABS Queensland Office
- Australian Bureau of Statistics, *Australian National Accounts: National Income, Expenditure and Product*, Australian Government Publishing Service, 1995
- Betts, Martin and Ofori, George, "Strategic Planning for Competitive Advantage in Construction" in *Construction Management and Economics*, Vol.10, Iss.6, 511-532, Nov 1992
- Borys, Bryan and Jemison, David B, "Hybrid Arrangements as Strategic Alliances: Theoretical Issues in Organisational Combinations" *Academy of Management Review*, Vol.14, No.2, 234-249, 1989
- Bruce, Gregory and Shermer, Richard "Strategic Partnerships, Alliances used to Find Ways to Cut Costs" in *Oil & Gas Journal*, 74, November 8, 1993 OGI Special
- Buttery, Ewa and Buttery, Alan, *Business Networks*, Longman, Melbourne, Australia, 1994
- Chau, K W and Walker, A, "Subcontracting in the Construction Industry - A Transaction Cost Minimisation Perspective" in *International Building Economics: Proceedings of the 21st Annual Meeting of CIB Working Commission W-55 Building Economics*, 1-12, September 1994
- Contractor, Farok J. and Lorange, Peter "Why Should Firms Cooperate? The Strategy and Economics Basis for Cooperative Ventures" in *Cooperative Strategies in International Business*, eds., F.J. Contractor and P. Lorange, Lexington Books, New York 3-28, 1988
- Construction Industry Development Agency, *Building Best Practice in the Construction Industry: A Practitioner's Guide*, Construction Industry Development Agency, 51-54, Oct 1993
- Construction Industry Development Agency, *Security of Payment - Final Report*, Construction Industry Development Agency, June 1994
- Construction Industry Development Agency, *Measuring Up or Muddling Through*, Construction Industry Development Agency, March 1995
- Cowan, Charles, "Partnering: A Concept for Success" in *Partnering: A Strategy for Excellence - Proceedings of the Master Builders' - Construction & Housing Association of Australia Partnering Conference*, September 1992
- Department of Industry, Technology and Commerce, *Innovation in Australia's Service Industries*, Australian Government Publishing Service, April 1993
- Department of Industry, Science and Technology, *Non Residential Construction Forecasts Short - Term Prospects*, Commonwealth of Australia, 8, August 1995
- Giles, Bob, "Secure Payment: A Right, Not a Lottery" in *Constructing the Future - Proceedings of 1995 CIDA National Conference*, Construction Industry Development Agency, 1995
- Gugler, Philippe, "Building Transnational Alliances to Create Competitive Advantage" in *Long Range Planning*, Vol.25, No.1, 90-99, February 1992
- Gulati, Ranjay, Khanna, Tarun and Nohria, Nitin, "Unilateral Commitments and the Important of Process in Alliances" in *Sloan Management Review*, 61-69, Spring 1994

Hampson, Keith, *Technology Strategy and Competitive Performance: A Study of Bridge Construction*, Unpublished Doctor of Philosophy Dissertation, Stanford University, CA, December 1993

Harrigan, Kathryn Rudie, "Strategic Alliances and Partner Asymmetries" in *Cooperative Strategies in International Business*, eds., F.J. Contractor and P. Lorange, Lexington, NY, 205-226, 1988

Harvey, Roger and Ashworth, Allan, *The Construction Industry of Great Britain*, Butterworth Heinemann, London, 15, 1993

Henricks, Mark, "The Power of Partnering" in *Small Business Reports*, 46-57, June 1991

Hillebrandt, Patricia M and Cannon, Jacqueline, *The Modern Construction Firm*, Macmillan, 24, 1994

Hinze, J and Tracey, A, "The Contractor-Subcontractor Relationships: The Subcontractor's View" in *Journal of Construction Engineering and Management*, ASCE, Vol.120, No.2, 274-287, June 1994

Howarth, Cathy, Gillin, Murray and Baily, John, *Strategic Alliances*, Pitman, Melbourne, 1995

Kaydos, Will, *Measuring, Managing, and Maximising Performance*, Productivity Press, Cambridge, 1991

Kogut, Bruce, "A Study of the Life Cycle of Joint Ventures" in *Cooperative Strategies in International Business*, eds., F.J. Contractor and P. Lorange, Lexington, NY, 169-185, 1988

Langford, David and Male, Steven, *Strategic Management in Construction*, Gower, UK, 1991

Lansley, Peter R., "Organisational Innovation and Development" in *Competitive Advantage in Construction*, eds., S Male and R Stocks, Butterworth Heinemann, London, 128-138, 1991

Larson, Andrea, "Partner Networks: Leveraging External Ties to Improve Entrepreneurial Performance" in *Journal of Business Venturing*, Vol.6, No.3, 177, May 1991

Latham, Michael, *Constructing the Team - Final Report of the Government/Industry Review of Procurement and Contractual Arrangements in the UK Construction Industry*, HMSO, 83, 1994

Lei, David, Slocum Jr., John W., "Global Strategy, Competence: Building and Strategic Alliance" in *California Management Review*, 81-97, Fall 1992

Leyland, Michael, *Business Strategy Development in the Australian Commercial Building Construction Industry*, Unpublished Dissertation for a Master of Project Management degree, School of Construction Management, Queensland University of Technology, October 1994

Lindsay, Jennifer, *Joint Ventures and Corporate Partnerships*, Probus, Chicago, Illinois, 1989

Lorange, Peter and Roos, Johan, *Strategic Alliances - Formation, Implementation, and Evolution*, Blackwell, Cambridge, Massachusetts, USA, 1993

Male, Steven, "Strategic Management and Competitive Advantage in Construction" in *Competitive Advantage in Construction*, eds., S Male and R Stocks, Butterworth, London, 45-104, 1991

Millman, Mert, *General Contracting*, McGraw-Hill, New York, 1990

Mohr, Jakki and Spekman, Robert, "Characteristics of Partnership Success: Partnership Attributes, Communication Behavior, and Conflict Resolution Techniques" in *Strategic Management Journal*, Vol.15, 135-152, 1994

National Public Works Conference and National Building and Construction Council, *No Dispute: Strategies for Improvement in the Australian Building and Construction Industry*, National Public Works Conference, June 1990

Nevaer, Louis E.V. and Deck, Steven A., *Strategic Corporate Alliances - A Study of the Present, A Model for the Future*, Quorum Books, Westport, Connecticut, 1990

Nielson, Charles C and Wilson, Elizabeth J, "Inter-organisational Cooperation in Buyer-Seller Relationships" in *1994 Research Conference Proceedings - Relationship Marketing: Theory, Methods and Applications*, 1, 1994

Park, William R., *Construction Bidding for Profit*, John Wiley & Sons, Inc., New York, 1979

Porter, Michael E., *Competitive Strategy: Techniques for Analysing Industries and Competitors*, Free Press, New York, NY, 35, 1980

Powell, Walter W., "Hybrid Organisational Arrangement: New Form or Transitional Development?" in *California Management Review*, 67-87, Fall 1987

Queensland Government, State Purchasing Policy, Government Printer, Queensland, 1992

Ring, S P and Van de Ven, A H, "Development Processes of Cooperative Inter-organizational Relationships" in *Academy of Management Review*, Vol.19, No.1, 90-118, 1994

Roberts, Roger F., "Competition and Cooperation: The Role of Strategic Alliances" in *Executive Speeches*, Vol.7, Iss.2, 13-15, October/November 1992

Royal Commission Building Industry, *Royal Commission into Productivity in the Building Industry in NSW Volume 1 - 10*, Sydney: South Wood Press Pty Ltd, 1992

Skitmore, R. M., "An Introduction to Bidding Strategy" in *Competitive Advantage in Construction*, eds., Steven Male and Robert Stocks, Butterworth, London, 139-162, 1991

Spekman, Robert E. and Sawhney, Kirti, *Toward a Conceptual Understanding of the Antecedents of Strategic Alliances*, Marketing Science Institute, Cambridge, Massachusetts, USA, 6-7, 1990

Takac, Paul F. and Singh, C.P., "Strategic Alliances in Banking" in *Management Decision*, Vol.30, No.1, 33, 1992

Thompson, Kevin D., "Forging a Perfect Partnership" in *Black Enterprises*, 66-68, 70, Sept 1993

Tjosvold, Dean, *Team Organisation: An Enduring Competitive Advantage*, Wiley, UK, 46, 1991

Uher, T.E., "Australian Subcontracting Practice" in *Australian Institute of Building Papers*, Vol.3, 61-69, 1988

Uher, T. E., "What is Partnering?" in *Australian Construction Law Newsletter*, Iss.34, 49- 60, February 1994