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

Keith Hampson and Tom Kwok School of Construction Management, Queensland University of Technology, Australia

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. uptum, 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 Lorrange 1988) beat competitors (Roberts 1992, Lindsey 1989) spreading financial risk and sharing costs (Spekman and Sawhney 1990, Contractor and Lorrange 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.

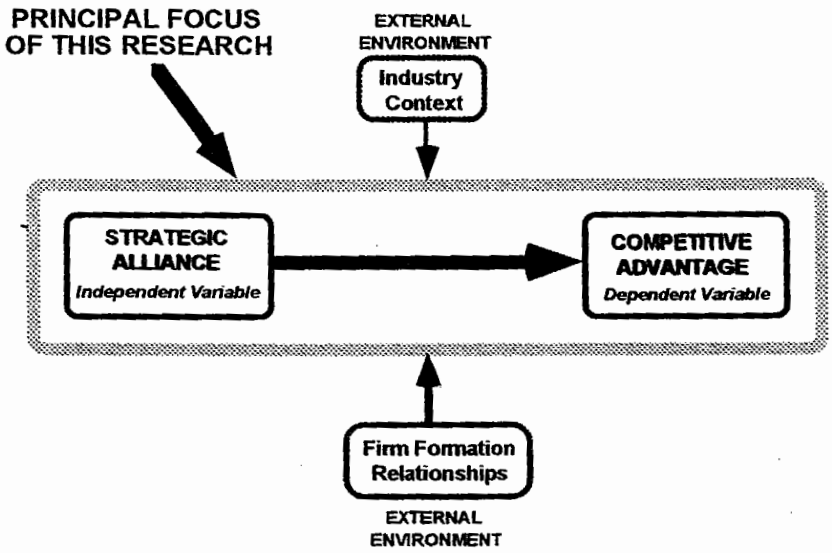

Figure 1: Research Model (Source: Adapted from Hampson 1993)

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.

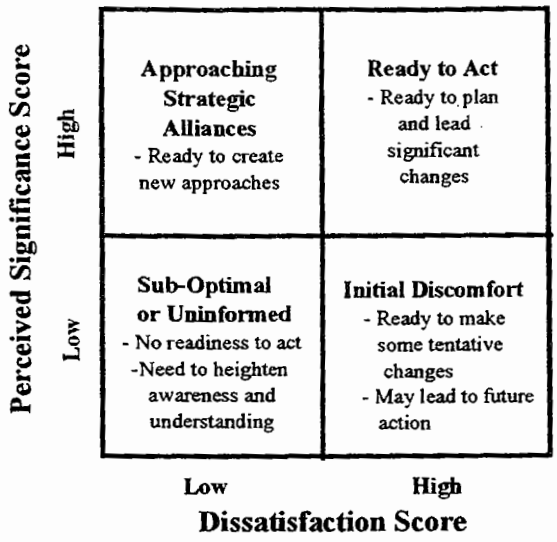

Figure 2: Management Readiness Grid
(Source: Adapted from Construction Industry Development Agency 1993)

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.

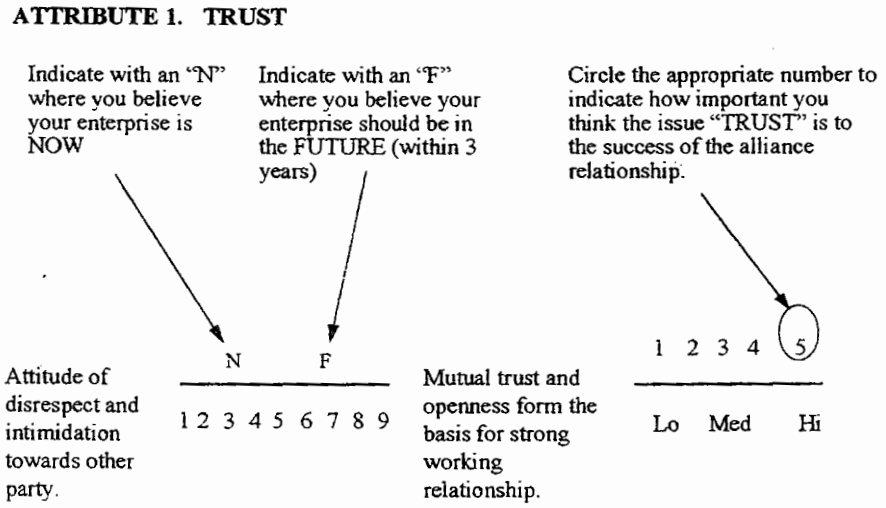

Figure 3: Completing the questionnaire
(Source: Adapted from Construction Industry Development Agency 1993)

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

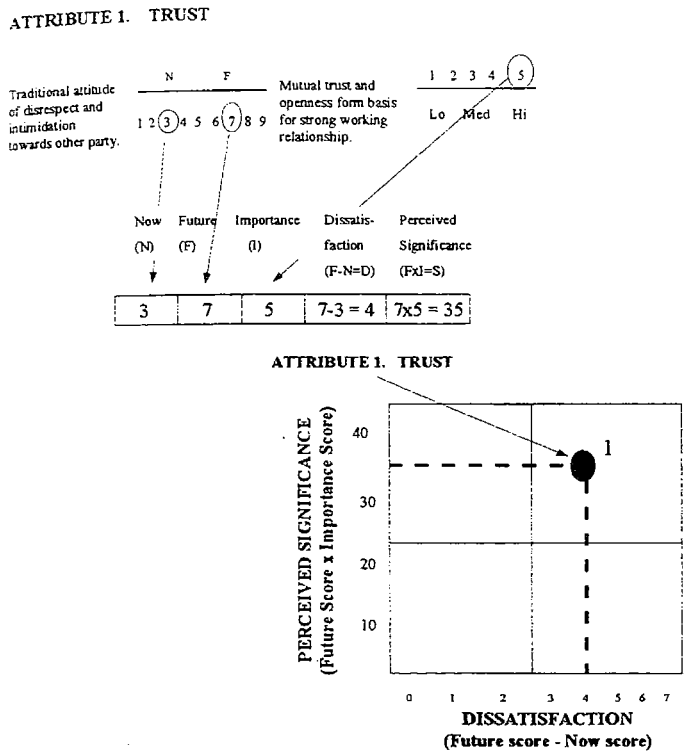

Figure 4: Analysing the Questionnaire Results
(Source: Adapted from Construction Industry Development Agency 1993)

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 OGJ 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, Illinios, 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