Civil Contractors Federation 2002 Annual Conference Hamilton Island

5 October 2002

RELATIONSHIPS IN PROJECT DELIVERY

Alan McLennan Graham Scott





Relationships in Project Delivery

1.0 Introduction

No doubt the 10th Anniversary Conference of the Civil Contractors Federation will bring hope that the construction industry has a better future.

This hope could even extend to a challenging vision where:

- the products of our industry are truly appreciated by the end-users as the best of their kind servicing their needs in full,
- productivity is at best practice levels offering clients significant cost savings and enduring quality,
- supportive client/supplier relations avoid disputes and fine reputations lead to repeat business, and
- the equitable balance of risk and rewards leads to win:win outcomes and prosperity for all.

Unfortunately, this paper demonstrates that the industry is not yet approaching this visionary status and that a step-change or "quantum leap" is required.

Whilst step-change is required generally in the industry, this paper focuses on change required in the fields of people, relationships and alignment, as these are where the greatest rewards are possible.

2.0 Background

To understand human involvement in project delivery and in particular contracting, it is useful to roughly trace the development of contracts over the centuries. The law of contract developed to a large extent out of necessity during the industrial revolution. The idea behind these contracts was that the parties were free to agree on whatever terms they wished. The courts therefore generally enforced contracts strictly, according to their terms, even if these were unfair or oppressive or caused hardship to a party.

Because of this principle of freedom of contract, parties saw contracts as a means to further their own position at the expense of the other party and therefore saw the other party as an adversary.

The right to "freedom of contract" has been "softened" in recent times as a result of the recognition that parties to a contract do not necessarily have equal bargaining power. The courts have recognised principles such as unconscionability and unjust enrichment. In addition, there has been an introduction of legislation such as the *Trade Practices Act* 1974 (Cth) which regulates the conduct of parties, for example, by providing remedies where there has been misleading and deceptive conduct under section 52.

Concepts such as good faith and reasonableness have also been recognised in recent times, and in some circumstances, prevent parties from relying on their strict legal rights.

Recognition of principles such as inequality of bargaining power in the context of contracts is a fairly recent concept as compared with the adversarial nature of contracts. It is this adversarial concept, which has dictated the way business has been conducted to date. It is the long history of the adversarial nature of contracting and the tendency for humans not to adapt readily to change that has prevented parties to a contract from changing their practices.

No doubt, the introduction in recent times of partnering principles (1990s) and later alliance forms of contracts are a result of the "softening" of the traditional approach to contract. Alliancing, however, could be said to be more than just "softening" as some versions of alliance contracts break down the adversarial frame completely, mainly through the alignment of goals of the parties and the balance of risks and rewards. However, some observers say that such alliance contracts are running ahead of the courts (no precedents) and some speak of contracts

that "oust the jurisdictions of the courts". Clearly, breaking down the tradition involves breaking down long established belief systems held right across the industry, including in the courts

The traditional form of contract emphasises the separation of the roles of contracting parties, and the allocation of risks, as depicted in **Fig. 1**.

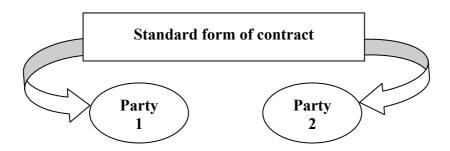


Fig. 1 – Separation of roles in traditional contracts

The standard form contract encourages self-interest and protection of individual positions (subject to the equitable principles mentioned above and the statutory overlay). It is important to note that traditional contracts make no allowance for matters such as people's personalities and behaviour. Traditional contracts deal with matters in a mechanical way, specifying obligations, time limits and notices in writing. Traditional contracts do not deal with attitudes and notions such as trust, good faith and fair dealing.

3.0 Are Our Traditional Delivery Systems Working?

The report by Construction Queensland "Wealth Creation Through Equitable Asset Delivery" states, "that many of the current procurement methods and delivery systems of building and other construction projects are not sustainable. On the contrary, those methods and systems are, in the main, demonstrably inequitable, adversarial, ineffective, and inefficient and consequently fail to achieve the outcomes sought by the major parties involved or those acting for them. As a result, the construction industry is significantly under-performing and its contribution to the economy in general, and to the creation of wealth in particular, is seriously compromised. This situation is in urgent need of a solution."

The report goes on to say "nothing less than attitudinal and cultural change from top to bottom is required to bring about the necessary changes".

"Confrontation and under-performance have indeed become catchcries not only by clients but of the industry itself. A number of reports, inquiries and ongoing industry development activities have pointed to substantial potential gains in productivity if confrontation could be reduced and performance improved." A wide range of solutions has been proposed to achieve these gains, but their impacts to date have been limited. Prominent among the many reports, inquiries and industry development initiatives have been:

- The national "No Dispute" report (1990)
- The Giles Royal Commission report (1992)
- Various CIDA reports (1995)
- UK Government Construction Taskforce report

Currently the Cole Royal Commission into the building industry is under way.

My own observations of the industry, particularly over the last decade show that:

- Unpredictable and excessive cost over-runs regularly occur and this makes financial management of infrastructure programs very difficult. (40% in some cases; Construction Queensland Report).
- Poor and unacceptable quality outcomes occur and this includes the unreliable management of quality assurance systems and processes.
- Poor and inadequate designs are causing contract management difficulties. (Tilly; CSIRO, 2001)³.
- A low trust, blame culture causes ongoing poor relations, and
- there is a growing waste of emotional and physical energy in adversarial disputes.

The inevitable conclusion is that there remains a powerful need for reforms in the industry.

Whilst the traditional "one size fits all" approach to contracting, e.g. use of AS2124 contract, works quite well on simple straight forward projects in an uncomplicated environment, modern day contracting must deal with complex situations. Complicating circumstances include:

- community involvement; conflicting requirements
- disparate stakeholders and interest groups
- "brown field" sites
- political situations
- heavy traffic interactions
- environmental and heritage issues
- rapid technological advances
- people, IR, expectations
- scope changes
- time constraints
- maximum price objectives.

The relatively inflexible contract form typical of the past is inadequate and we are seeing misfits between the rigid form of contract on one hand, and the changing, shifting scope and nature of work to be performed on the other.

However, experienced clients tend to rely on "tried and tested" methods of contract procurement, seeking merely a satisfactory solution rather than an exceptional solution to a project management problem. As a result, the same difficulties are being experienced project after project.

Our systems and practices are clearly not as effective as they should be. Even with Inquiry after Inquiry acknowledging the serious deficiencies, nevertheless the change mechanisms of the past have tinkered at the edges and involved relatively small changes, e.g. upgrade a standard form of contract or shift from lump sum to Bill of Quantities or vice versa.

Perhaps it is time for some fundamental change. It is time to change some of the basics of contracting – involving the modification and adaptation of the longstanding governing values such as the need for the adversarial frame and the need to adhere to low-bid tendering.

The Construction Queensland report states that "nothing less than attitudinal and cultural change from the top to the bottom" is necessary.

It is certain that there needs to be a re-learning of appropriate ways of developing and managing people relationships. This is the area where reform will best be targeted.

The traditional way of dealing with the human involvement in contract documentation is characterised by:

- master-servant concepts,
- hierarchy of decision-making authority,
- a bureaucratic rules driven outlook,
- responsibilities detailed in a mechanical way e.g. compliance with time limits and other like clauses,
- self-interest, and self-serving provisions.

Perhaps it is time to really investigate a quantum shift in the way humans interact in the contractual setting. Concepts like "good faith", "fair dealing", "trust" and "trustworthiness" need to take on specific meaning within contractual agreements.

4.0 The Missing Ingredient : People

For too long, the complex role that people play in project delivery has not been understood, has been suppressed in contract documentation and has not formed a large part of our belief systems related to contracting. The influences of the industrial age where people merely became an extension of their machines have far outlasted the age itself.

The power of working relationally in groups has not been understood and so it has been underplayed in this industry.

In the end, project delivery is about satisfying the needs of people – fulfilling their expectations.

Assets are provided to service the needs of end-users. Clients are people in business who own the manage assets. Designers and project managers are people with skills to support clients, and constructors are people with the skills to build assets to the designers' plans that fulfil the client's need to provide services to people.

So, all along the asset supply chain, from turning ideas into concepts, concepts into plans, plans into assets, assets into services- it is primarily about people interacting with people, about moving from one set of relationships to another set of relationships.

My proposition is that the primary ingredient in moving from idea to service is people and their relationships. Technical systems such as design systems, construction systems, are secondary and are the tools of those people working together relationally, and therefore efficiency, improvement and performance are governed in the first instance by the type and quality of those relationships.

This explains why numerous inquiries that focussed on systems and processes in the construction and building industry have had only a small impact on the industry. They have not focussed in the primary ingredient, people/relationships, and how these are integrated with the work to be done.

Significant and lasting improvement will come from:

- A general shift in mindset in the industry, starting with clients, away from the adversarial frame which threatens relationships almost before they begin to the relational frame.
- A sound working understanding of the psychology of people and the nature and complexity of human relationships in the industry.
- Skills in the management of relationships so as to optimise the whole system, which includes people, systems, structure, performance targets, etc.

In summary, there is a need to shift from an old adversarial paradigm to a new relational paradigm. This shift is portrayed in Fig. 2.

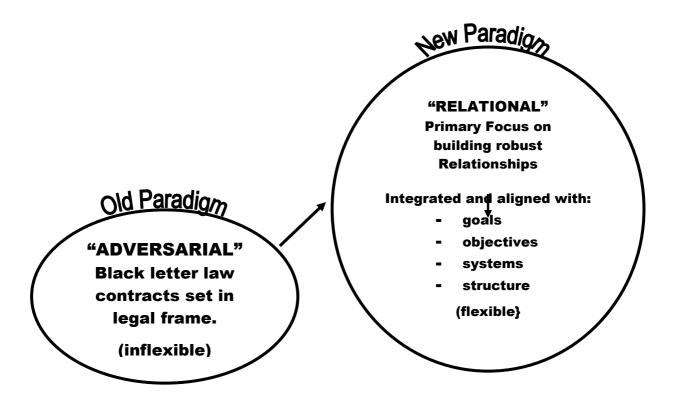


Fig. 2 – A Shift in Paradigms

5.0 Another way to deliver projects

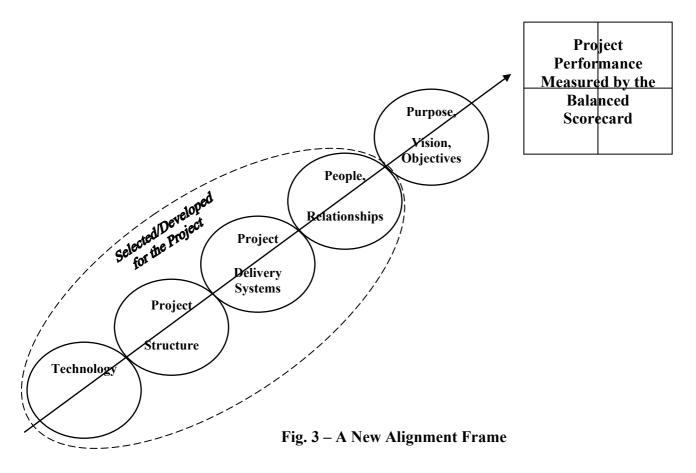
By embracing the new philosophy, the sequence of critical elements in project delivery will change to:

- 1. Shared purpose, vision, and objectives of the project.
- 2. People and relationships. The people and how they work together.
- 3. Project Delivery Systems (contract system, construction management system).
- 4. Project Delivery Structure (putting the elements together including roles and responsibilities).
- 5. Technology

That is, a common shared understanding of the purpose and vision for the project precedes any other consideration. The way people relate and work together is the next in line, followed by the contract agreement, systems, etc.

This is different to the traditional approach, which places the legal constraints and liabilities of the contract first. In this case, the contract determines the roles of the parties, the allocation of risk and largely determines the quality of the outcomes achieved. It also influences the structure and encourages a master-servant relationship approach. For the most part human relations are left to sort themselves out, with the contract referring to mechanical aspects such as time limits, etc.

Apart from this sequence, alignment is critical if exceptional performance is to be achieved. That is to say, the purpose and vision of the project will be achieved in full when there is total alignment of the purpose, the people (relationships), the delivery system, the project structure and the technology to be used. Hence, it is critical to select the <u>best</u> people/team with right attitudes/approach for the project at hand. The delivery system and the contract agreement, similarly, must be worked up by the teams to align with the needs of the project and the people delivering it. This alignment issue is shown in **Fig. 3**.



Relationship Contracting is the general term used for this alternative way of delivering projects.

Relationship Contracting harnesses the full potential of all the project's people through co-operation, collaboration, and the innovative spirit of open minds, so that outcomes exceed client and community expectations and that social, professional and financial rewards are earned commensurate with performance.

Relationship management, how well it is understood and executed, is critical to success with relationship contracting.

Relationship Contracting, then, is about recognising the critical significance that human relationships play in successful project delivery and in understanding how to integrate and align people with the systems and processes that deliver the project.

It is important to document in passing that traditional project delivery has been very successful in the past and remains so for many projects. However, the immense complexity of even "ordinary" projects such as urban road construction is one important reason why the relationship management must be prominent in any effective project plan.

6.0 The Relationship Frame

The world or relationships is rich and complex. In some cases, people and personalities are unpredictable and unanalysable. Different settings and people evoke different qualities and responses in us. In each relationship, we are different, new in some way. Clearly, the role people play in project delivery is not just a mechanical one, that can be succinctly described in contract documentation up front. We need a relationship frame that allows us to deal with the complexity of human relations within the overall project delivery system.

Daniel Katz and Robert Khan in "The Social Psychology of Organisations" and Peter Senge in "The Fifth Discipline" suggest that organisations (and parts or elements) are dynamic systems where there is flow between systems in the organisation and to and from the external environment. Process is the movement within and between these systems.

A process model that provides the frame within which to manage relationships in the project delivery setting is required.

The Relational Management Model

This model proposed by co-author, Graham Scott, suggests that process (flow) occurs at three levels

- technical
- inter-personal, and
- intra-personal

and that these 3 levels are interdependent. Process can be impeded within each of the levels or between levels and to achieve maximum performance, we need the skills to manage the processes so as to remove any troublesome blockages and to facilitate the growth of positive interactions that lead to exceptional project performance.

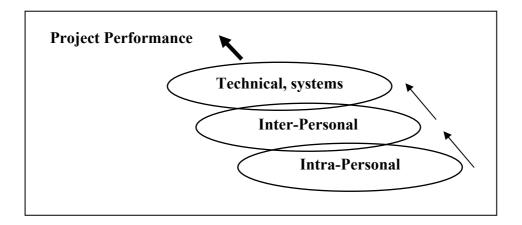


Fig. 4 - The Relational Management Model

Project management is enhanced when positive interactions are occurring freely between all three levels and when these interactions are aligned fully with the technical and relationship goals for the project. That means that project performance depends on how well the intrapersonal processes allow the inter-personal process to work, and in turn, how well the interpersonal processes allow the technical systems and process to work to deliver the project.

Fig 5 - The Process Model

Level 1	Level 2	Level 3
Technical	Inter-Personal	Intra-Personal
Sample elements: - designing - tendering - constructing - scheduling - supervising -	Sample elements: Communications Conflict Management Negotiation Group Processes Value Management Collaborative problem solving	Sample elements: Definition Anxiety Management Trustworthiness Belief System principles values ethics professionalism assumptions stereo types Personality ego management preferred styles roles

Overall performance on a project will be affected if blockages are occurring anywhere within or between the levels.

For example, at the intra-personal level, if an individual's values were seriously misaligned with those of the project or project team, it will not be possible for that individual to function well within the team – i.e. he would not be able to relate in the inter-personal level and because of this, is not able to achieve in the technical level.

For example, a designer who has been engaged on the design of a waterfront development has, unknown to the project team, fundamental and uncompromising beliefs that all mangroves must be preserved for sustainability reasons. Because it is not possible to proceed with the development without some loss of mangroves, this designer, because of his hidden intrapersonal beliefs and values, is quite unable to rationally negotiate and communicate at the interpersonal level and as a result is unable to perform as a designer.

Intervention by a skilled process manager at the intra-personal level- i.e. to uncover, to rationalise and to alter the designer's fundamental belief system is the only way to achieve a win:win outcome for the project and for all those involved.

In our current contracting environment, an issue such as described above is dealt with judgementally as a breakdown in communication or a breakdown in technical process (i.e. the design process in this case). This is the extent of the usual repertoire for dealing with relational issues. If there is a recognition, however, that the problem is at a deeper level, there is firstly a reluctance to try to resolve it and secondly, a belief that it is "too far gone" or impossible to do anything with. This inability to deal effectively with relationships at either the intra-personal or the inter-personal level can be the cause of gross inefficiency and financial loss for the project – and is the single greatest impediment to sustainable improvement in the construction industry.

Skilled relationship managers can employ a range of techniques to improve alignment between the behaviours of project people and the project delivery systems. To take another example, and to introduce another model, the problem solving/anxiety solving model.

Problem Solving/Anxiety Solving Model

This model first proposed by Robert Dick in "Values in Action" suggests that when we are threatened either physically, emotionally, or egotistically we respond. The first response is some sort of arousal, which is like a natural protective device that prepares us for action. Following this arousal, we either become excited or anxious. This is dependent on our level of confidence. The more confident we are, the more likely to become excited. When we are anxious we tend to "anxiety" solve. We try to reduce or get rid of the anxiety rather than solve the problem. Anxiety solving is an irrational process where we may deny that we are irrational.

After denial, there is often a rationalisation of the denial or the process. This then drives the issue deeper into the intangible chasms that rational argument can rarely get to.

The model is simply a process flow-chart:-

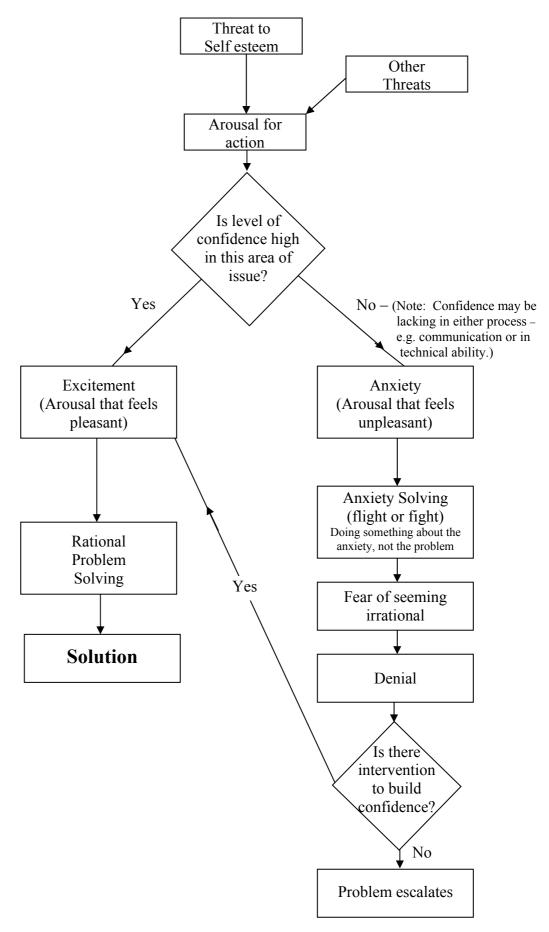


Fig. 6 - Problem Solving/Anxiety Solving Model

An astute process manager is aware that there is process going on at all levels and that for effective issue resolution there has to be both skill and will to intervene at any level. For example, in the Anxiety Solving Model (above) intervention is important when it is noticed that the response to the threat is anxiety. The intervention is aimed at addressing the cause of the anxiety, building up confidence in the matter at hand and allowing the problem to be solved rationally.

Clearly, understanding and skill in relationship management can be enormously beneficial and has the potential to shift project delivery to a new, higher plane of efficiency and co-operation.

So, these models and examples demonstrate that a project will under-perform at the delivery end (the technical systems) if blockages, constraints or conflicts are occurring in either the intra or inter-personal levels.

It behoves management to develop or engage the capacity to work with people at these relationships levels, and to achieve the degree of alignment in all cases necessary to allow maximum performance at the technical level (delivery).

Dealing with issues at the intra-personal level is undoubtedly the most difficult. Few people in our industry have a good understanding of their own emotional states, belief systems (attitudinal) and personality types, let alone how to deal with those of others. That is to say they usually can't articulate their own feelings on particular matters. It is critical, therefore, that the organisation provides a supportive culture – one that encourages openness, disclosure and feedback and provides training and development in such intra-personal areas as professionalism, ethical and other attitudinal values, etc. There is little doubt that a modern organisation striving for excellence will call for professional support to provide it with the where-with-all to be effective in efforts to align at the intra-personal level.

Whilst a little more is generally understood about the elements in the inter-personal level - i.e. communication, issue resolution, group processes such as value management, it will be imperative for an organisation to call on professionals to impart knowledge about the elements but also to achieve efficient application and alignment at this level. This is already starting to happen at this level. It is not uncommon for organisations to especially train in-house personnel or to engage specialists to facilitate risk management, value management sessions and other group problem solving processes.

So there are two critical aspects to consider when working at the intra and inter-personal levels:

- awareness by all in the project team of the relationship goals for the project and of the need to align all intra and inter-personal behaviours to those goals, and
- skill in the application of techniques needed to ensure the alignment of goals and behaviours that ultimately allows efficient delivery through effective use of technical systems.

Whilst **Fig. 5** provides a generic list of elements which are significant in relationship management, it is useful to identify a more complete set which is relevant to relationship contracting in particular.

Traditional (Adversarial): Attitudes and Behaviours: (Old Paradigm)		Relational Attitudes and Behaviours Suitable for Relationship Contracting: (New Paradigm)	
★ self-serving			customer service view best-for-project outlook
mindless adherence to t	raditional outputs	✓	breakthroughs, learning and creative outcomes
little feedback		✓	open feedback
shunning change; avoid	ling creativity	✓	eager to improve yesterday's solutions
* "turf" protection		✓	best person for the job
cautious, mistrustful		✓	trust and trustworthiness
★ blame culture			accept responsibilities supportive, learning culture
* "them and us" attitude		✓	co-operative; partnering
adversarial outlook		✓	sharing, supportive
x power and status		✓	professionalism and ethical values
risk; contract out all ris	ks	✓	equitable sharing of risk
prescriptive solution dininput focussed	rected		outcomes based/performance outcome focussed
resist client involvement	t	✓	client involvement sought
* dispute resolution proce	esses	✓	issue resolution that manages disputes
need-to-know basishierarchical communica	ntion	✓	open communication
★ projects administered		✓	client leadership of change
check-the checkers mer	itality	✓	self-regulation
★ bureaucratic adversaria	processes	✓	co-operative processes for problem solving
★ QA inspection			continuous improvement total quality approach
dependence on legal proproblems		✓	desire to prevent problems and to avoid legal processes
* fear of legally untested	processes		
* delegation			empowered project team members
profit undesirable		✓	profit necessary for all
low-bid selection		✓	selected on outcomes

Fig. 7 – Attitudes and Behaviours

Successful relationship contracting demands a focus on the attitudes and behaviours listed on the right-hand column of **Fig. 7**. The application of these concepts requires the project Relationship Manager to be alert for the behaviours in the left-hand column and when detected, to intervene to change the behaviour to that indicated in the right-hand column.

6.1 The Special Cases of Trust, Professionalism & Ethics

In contracting, the issues of professionalism, ethics and trust are frequently raised. How do these concepts fit into the relationship frame?

Clearly, professionalism and ethics are matters of values for the individual at the personal level. They are part of the individual's belief system. Thus, they have to be considered at the intra-personal level.

These matters are regular issues because of the frequent differences between the espoused professional and ethical values and those actually employed.

It is not uncommon on black letter law contracts, where strict master-servant regimes are in force, for site managers to have an acute awareness of the meaning of professionalism and ethics. For example, they believe that professionalism is about:

- high ethical standards
- upholding themselves as possessing special knowledge and skills
- expressing opinions and making decisions in an objective and truthful manner and on the basis of adequate knowledge,

but in action, their behaviours reflect the powerful influence of power and status, i.e. they more likely defer to authority and power and act as they believe they are expected to, and not according to best professional and ethical standards.

Of course, this is strenuously denied and without intervention the denials and irrational debate will only see problems worsen.

Authoritative intervention would narrow the gap between the espoused values of professionalism and ethics and the actual behaviours. If this process is successful then rational debate ensues and solutions follow.

Trust, on the other hand is different. It is not part of the basic belief system. It is a derived value that has to be earned. When an individual consistently responds in an expected way – keeps his word, deed and action, then gradually trust is built up. This trust is positive and desirable when the consistent responses always align with the needs or goals required (relational and technical).

So, it is consistency and dependability in producing the right result that deliver trust.

The process model does not have direct application in this case relating to trust, other than to say it may have been necessary to use interventions to overcome anxiety or to modify basic belief systems in order to achieve consistency, dependability and alignment of objectives that are essential for building trust.

7.0 Group Dynamics

Successful organisations already understand that delivery of complex projects can only occur when people work together in groups. They depend on the positive dynamics to produce much more than what individual group members working alone can produce.

However, exceptional results can only be produced when group members are relationally aware and when the relational processes described above are in constant use and when a high degree of alignment exists.

Groups in the construction industry must be outcome-focussed, and must be prepared to make decisions, solve problems, formulate plans and galvanise action.

Successful groups must satisfy both personal needs (intra and inter) and project task demands, and so they need to develop both a social and a technical structure within the group. That is to say the group has to have a common shared purpose with agreed objectives, which include tasks and relationships.

The productivity benefits resulting from high-performing groups are so large that the organisation must understand the critical significance of the human factors behind excellent group functioning and must provide the leadership to interpret and manage the personal relationships necessary to support the group.

8.0 Achievement and Challenge

As demonstrated earlier in this paper, the industry has a lot of room to improve. Some commentators have attempted to put a percentage figure on the degree of improvement possible. (Construction Queensland has suggested 40%). I have no doubt that the bulk of this improvement must come through the relationship frame. That is, from the extent to which organisational leadership can work at the intra and inter-personal levels to align the attitudes, commitment and efforts of the people involved so they can efficiently operate the technical systems that deliver the goals of infrastructure projects.

And so it is that the industry made up of clients, consultants, contractors, sub-contractors and suppliers, must make a "quantum leap" and shift the mindset from traditional contracting in the adversarial frame, including low-bid tendering to co-operative or Relationship Contracting based on alignment at all levels - i.e.:

- Shared Purpose, Vision, Objectives
- People, Relationships, Attitudes and Behaviours
- Project Delivery Systems, and
- Project Structure
- Technology and Technical Systems

Incremental improvement, prompted by Industry Inquiries and the like, is clearly not enough. Discontinuous change is needed here. "Discontinuous change is different from what went before it. By definition it means we can't foretell the future from the past. It demands step-out thinking and innovation" – (Margot Cairns, IE (Aust) July 02).

Refusal to make the big changes will lead to failure.

So the challenge is for the construction industry to recognise the strictures imposed on it by historical contractual agreements and outdated mindsets, and to move away from its almost complete dependence on the adversarial frame to embrace the new founded on alignment and relationships.

9.0 Relationship Contracting

As presented in this paper, project outcomes will be maximised under the following circumstances:

- when full alignment exists between project purpose, the people relationships and behaviours, the delivery systems and the project structure,
- when the interests of the parties are aligned on win:win outcomes (proper balance between risks and rewards),
- when there is awareness by all in the team of relationships at various levels and the critical need for alignment, starting from the intra-personal level, and
- where skill and knowledge are applied to ensure attitudes and behaviours are aligned with the project purpose and goals.

Relationship Contracting is a term applied to contracting arrangements where management of relationships is given precedence over the dictates of a standard form of contract.

For example, project partnering in the construction industry is often defined as ".....a commitment between two contracted organisations to achieve specified business objectives by maximising co-operation".

Project partnering attempts to maximise co-operation and overall project benefit be shifting the day-to-day workings out of the adversarial contract frame (as set up in a traditional "hard-dollar" contract) and into the relational frame where emphasis is placed on effective relationships.

When skill and knowledge are strenuously applied at both the intra and inter-personal levels, to ensure relational behaviours align with project goals superior project performance outcomes can be anticipated. However, project partnering is usually associated with a traditional hard-dollar contract agreement where the interests of the parties are not aligned and win:lose outcomes are a possibility.

The outcome, good or bad, will depend ultimately on whether the relational bonds strengthened by skilled intervention at the intra and inter-personal levels, are strong enough to withstand the forces of self-interest which attempt to use the contract words to maximise one party's position over the other.

The outcome therefore is problematic, but the chances of a positive outcome are always enhanced by focussed relationship building.

Project Alliancing, a more complete form of Relationship Contracting, is usually developed into an agreement where there is not only full alignment between the project goals, the people, the systems and the structure, but the specific interests of the parties are also aligned on win:win outcomes (a balance of risks and rewards).

More than in any other form of contract, successful alliancing depends on human relationships and in-house skills to intervene at intra and inter-personal levels to ensure that behaviours are always aligned with the project purpose and goals. The strength of the relationships and the ability to maintain them is especially critical in alliance contracts when the agreement specifically excludes recourse to third (or outside) parties for issue resolution purposes, and where all decisions must be based on consensus.

10.0 Conclusions

There is much evidence that the construction industry has room for improvement. Some authorities suggest that improvement of up to 40% is possible.

The history of traditional contracting, which extends over some 600 years, has provided a robust set of systems, practices and beliefs that are deeply rooted and resistant to change.

On the other hand, projects and the project delivery environment have become extremely complex over recent decades, and the forces for change are strong and growing stronger. We are now at the point where industry participants (clients, designers, constructors) who do not change will be marginalised.

The old paradigm, which is characterised by low-bid tendering and adversarial relations, will be replaced by a new paradigm characterised more by human relationships and alignment of objectives. The greatest opportunity for improvement in the industry will result from a focus on human relationships at all points along the supply chain, i.e. from the concept planners, through project developers to the project constructors. Relationship Contracting as a concept will develop much further than the special cases of partnering and alliancing, as it is known today. We will see a major culture change across the industry.

In the first instance, there will be a re-alignment in the delivery process. Relationships and behaviours will be aligned with the delivery and project systems, with the organisational structure, and with the technology; and all of these will align with the shared project vision and the common objectives of all the parties.

The primary focus, however, will fall on people and relationships. Relationships will be understood and managed at the intra-personal level. This means that relationship management will involve intervention at the personal level to align attitudes, values and behaviours with the goals and performances required for project success. These interventions go well beyond those which are usually aimed at improvements in inter-personal areas, such as communication, cooperation and group processes.

A new set of skills to make the difference at both relationship levels is required in the industry. In the first instance, expert guidance in relationship management is necessary if genuine improvement in project performances is to happen, and if learning at deeper levels is to occur across all stakeholder groups, i.e. client, developer, designer, and constructor, and for industry efficiency to be raised permanently to a new level.

The multi-faceted nature of modern projects and the increasing complexity of the delivery environment make the shifts described in this paper imperative for each industry sector to survive and proper. There is not going to be a choice, it is not a matter of either/or – it is the way forward.

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