Alliance Coaching: Psychology and sustainable infrastructure development

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Iain A. McCormick PhD (iain@executivecoachingcentre.com)
Managing Director, Executive Coaching Centre Ltd,
26A Bay Rd, St Heliers, Auckland 1071, New Zealand.

Abstract

The building and maintenance of cost effective and sustainable infrastructure, such as water treatment, motorway networks, and power-grid transmission lines, is a critical issue for any developed country. Traditional adversarial models of contract management have been found to be inadequate as infrastructure projects have become more complex and higher risk. Alliance contracting is a collaborative arrangement which integrates the client (e.g. a motorway agency), engineering consultancy and contractor into the same team. The key features of alliances include commercial incentives for the development of a high performance team in a no-blame culture where the focus is on breakthrough project performance. Organisational psychology has a critical role to play in the selection of compatible client, consultant and contractor teams, in the development of the new alliance board, coaching the alliance manager, building the alliance management team and wider project team. The author describes the role of an alliance coach in a range of major projects within this new world of sustainable infrastructure development.

Infrastructure Development

The effective use of public capital investment can increase the productivity of any society (Munnell, 1992). Well-constructed water treatment systems, motorway networks, and power-grid transmission lines, are a critical productivity requirement for any developed country. For example an effective motorway highway allows a truck driver to avoid indirect routes and to transport goods to market in less time. The productivity gains can be beneficial to the driver, the transportation company and the country. Both the network design and maintenance are important in enhancing productivity (Munnell, 1992). Effective infrastructure is an essential element if sustainability is to be achieved (Choguill, 1996).

Traditional and alliance contracting

Over the last forty years infrastructure projects have become more complex and higher in risk (Sakai, 2005). The construction industry has a reportedly unenviable reputation for cost overruns and protracted and expensive litigation (Stephenson, 2000). As a result members of the industry have begun looking for other forms of contract that have more positive outcomes. In the early nineties the concept of "partnering" was introduced to try and build more collaboration between government infrastructure providers and construction contractors. More recently "alliance contracting" or "co-operative contracting" have become commonly used (Stephenson, 2000).

Alliance contracting can be defined as ''A coalition of two or more organizations to achieve strategically significant goals and objectives that are beneficial. These goals can be pursued in either economic or political terms and can be flexible in time orientation'' (Murray and Mahon 1993).

The history of alliance contracting

Sakai (2005) sets out the history of alliance contracting. In the early 1990's British Petroleum (BP) had known oil reserves in the North Sea that had become uneconomical due to their small size and competition from more favourable drilling locations in other parts of the world (Knott, 1996). BP needed to dramatically reduce costs to tap into these reserves and make a profit. They decided to depart from the traditional contract that produced mistrust and conflict between the parties. BP realized that any new contracting strategy would need to create effective teamwork and trust. To achieve this BP developed a new "painshare - gainshare" compensation programme. This involved complete open-book accounting, sharing all "uninsurable" risk between all project participants, and setting an initial target cost that was generated by the whole project team. This target cost would then be compared to the final cost and the under or over-runs would be shared by all project participants. The total team would win or lose financially based on the overall project's performance. Project member selection was also very different and the seven main contractors were not selected competitively based on cost, but on non-cost attributes such as collaborative ability (Sakai, 2005).

The project was a success as it reduced costs from an estimated £450 million to a final cost of £290 million and it began producing oil 6 months before originally scheduled (Knott, 1996).

The nature of alliance contracting

Alliance contracts are based on the following principles:

- A change in culture from a 'master-servant' to a peer relationship.
- All risks and rewards are shared on an agreed equitable basis. Sharing the pain and the gain.
- Outcomes where all parties either win or lose.
- A collective responsibility for the project.
- All parties have an equal say and all decisions must be ones that are the best for the project.
- A 'no-blame' integrated team culture.
- Full access to the resources, skills and expertise of all parties.
- A philosophy of delivering optimum commercial benefits and outstanding outcomes to all parties.
- A high performance culture with encouragement for innovative thinking.
- Open and honest communication with no hidden agendas.
- Support rather than blame and the honouring of all commitments made.
- An express commitment to resolve all issues within the alliance without recourse to litigation except in the case of wilful default (Rooney 2003).

The evidence for alliance contracting

In an early case study approach Bower and Merna (2002) describe the success of alliance contracting after a variety of contract strategies were tried over a 3-year period, between a client and key electrical and mechanical contractors for project work. They suggest that in the long term there are real time and cost savings and also that teamwork benefits and close collaboration are seen.

Davies (2007) has undertaken a study of 108 alliance contracting projects in Australia. The study involved interviews with 27 Australian Federal, State and Local Government officials. The results show a steady increase in the use of alliance contracts since 1998. The main reported reasons for using alliance contracts were: risk reduction, better value for money and more flexibility in the contract arrangements. The major reported risks in alliance contracts were: the integrity of the agreed contract price, conflicts of interest within the alliance and opportunistic behaviour by the parties. About half (46%) of the projects had experienced disputes that had been raised to the alliance board level and all had been resolved satisfactorily. All organisations said they would use alliance contracting again but two organisations said they would use slightly different types of contractor selection procedures next time.

The evidence for the success of alliance contracting is promising but is in a very early stage of development.

The contribution of psychology

With a much greater need for careful contractor selection and team development a number of alliances have used organisational psychology to assist in the processes (Preston, 2009). Psychology's contribution to alliance contracting is in the three main areas: selection, team development and executive coaching. Each is considered below.

In the area of selection a review of current practices by Taylor, Keelly, & McDonnell (2002) demonstrated a substantial increase in the use of psychological tests, greater structure of selection procedures and linking of selection methods to pre-determined job competencies.

The area of psychological testing has the greatest relevance in alliances. Research over the last decade indicates that there is increasing agreement that personality can be organised and classified within a 'big five' factor framework (Black, 2000). The five factors are neuroticism or emotional reactions, extraversion or interpersonal patterns, openness, agreeableness, and conscientiousness or work ethic (Costa & McCrae, 1992). There is also a growing body of research demonstrating the link between the big five factors and leadership behaviour and performance. Judge, Bono, Ilies, and Gerhardt (2002) suggested that the big five trait approach to leadership is strongly supported by meta-analytical research. Judge et al. found leadership (as measured by others' rankings, ratings, or nominations) was positively correlated with extraversion, openness, and conscientiousness, and negatively correlated to neuroticism. Other research indicates a useful relationship between the same big five factors and transformational leadership, which was defined by Avolio and Bass (2004) as encouraging other people to perform and develop beyond what is normally expected of them. This performance level is highly desirable in alliances and so use of the big five personality assessment tools is highly desirable.

Psychological testing can be effectively used in alliance contracting to assess the suitability of the individuals within contractor teams who are bidding for the contract, to help select and coach the alliance manager and to select and develop the alliance management team.

Team development is a second major contribution from psychology and is critical to the building of effective alliances (Rooney 2003). The current author bases his alliance team development on the seven constructs of effective teaming as described by Adams et al. (2002, cited in Ross, Jones, & Adams 2008). These are: clearly defined goals, common purpose, role clarity, psychological safety, mature communication, productive conflict resolution, and accountable interdependence.

Adams et al. (p. 4) described these constructs as:

(1) Common purpose is the main objective of the team. All team members must agree that the common purpose is the successful completion of the

team's goal. The team members also need to share a commitment to the necessity of completing the tasks to accomplish the objective. Consequently, there needs to be a direct relationship between the main objective and the team's goals.

(2) Clearly defined goals are quantifiable and commonly agreed statements that define the tasks to be accomplished by the team. Clear and common goals help team members maintain their focus on the team's objective. They help the team to manage the scope of the tasks, and thereby increase the probability of team success.

(3) Role clarity is the team members' common understanding of each individuals' expected role. Each team member's understanding of his/her own role and the roles of the other team members minimizes misunderstandings. Thus, task assignments are understood and not duplicated and also role ambiguity is avoided. When each team member understands her/his role, the expectations of each team member and of the team as a whole can be clearly defined.

(4) Psychological safety is the shared belief that the team is safe for interpersonal risk taking. If the team climate is characterised by interpersonal trust and mutual respect, team members will be comfortable being themselves. In this environment, team members are confident that the team will not embarrass, reject, or punish them for speaking up. This provides an environment accepting of questions. When questions are safe to ask, clear communication exists. Such a safe, fertile environment nurtures creativity.

Additionally team members are more likely to affirm each other for specific contributions, thereby encouraging individuals to perform more creatively and effectively.

(5) Mature communication refers to team members' ability to articulate ideas clearly and concisely. Additionally, each team member needs to listen without interrupting, clarify what others have said, and provide and receive constructive feedback. Team members need the ability to express compelling reasons for their ideas.

(6) Productive conflict resolution refers to the procedures and actions taken by team members when a conflict arises. When these actions lead to results such as facilitating the solution of the problem, increasing the cohesiveness among team members, exploring alternative positions, increasing the involvement of everyone affected by the conflict, and enhancing the decision-making process, the team will have successfully managed the conflict.

(7) Accountable interdependence is the last of the seven constructs. The accountability for the output of the team is the responsibility of each team member. Accountable interdependence refers to each team member's understanding the mutual dependence of all team members' responsibility for the quality and quantity of the team's work.

Team development work using this framework can include sessions to integrate the client and contractor into a single unified team, to build the alliance board of directors into a cohesive entity and to build the wider alliance team.

Executive coaching is the third major area of contribution to alliance contracting from organisational psychology. Executive coaching is a process for developing individuals and teams in order to enhance performance and productivity. It is a method of learning by understanding and implementing ideas. It involves clarifying goals, feedback and support (McCormick 2005). It has a rapid, tailor-made, person-centred development focus and is clearly the choice of many organizations and forms a part of development programmes in many of the world's leading companies (Kilburg, 2007). Executive coaching has become very popular, and it has been estimated in 2004 that $1 billion is spent each year in the United States on coaching (Sherman & Freas, 2004). Executive coaching is highly relevant in alliance contracts to develop the management team.

Joo (2005) sets out a useful conceptual approach for executive coaching that has great relevance in the current context. The model is for successful coaching summarised below:

1. Antecedents
   a. Coach characteristics – successful coaching depends on the coach having the relevant experience, skills, insight and academic background to work effectively with alliance members.
   b. Coachee characteristics – success depends upon the coachee having the right motivation, readiness and commitment to the process.
   c. Organisational support – the alliance board and management team must value the coaching process and be convinced of the links to the business imperatives of the alliance.
2. Coaching process
   a. Coaching approach – matching the style of coaching with the need of the individual is critical to success. The individual may want advice, counsel, training, feedback or just a sounding board – the coaching approach must meet any of all of these needs.
   b. Coaching relationship – effective interaction between the coach and coachee is critical for success. There must be the right personal chemistry, trust and rapport to allow development to take place.
   c. Feedback receptivity – the provision of feedback to the coachee on his or her behaviour is a very common element in the coaching process. The willingness of the coachee to listen, digest and act upon feedback is critical for success.

3. Proximal outcomes of coaching
   a. Self-awareness – smart successful people often do not spend much time considering their own behaviour and its consequences. This is especially so in an alliance where there is a strong emphasis on breakthrough performance achievement. Coaching encourages individuals to slow down, gain awareness and understand the impact and influence of their verbal and non-verbal behaviour.
   b. Learning – successful coaching places an emphasis on two areas of learning: increases in strategic and procedural knowledge and changes in values and motivation e.g. improved work-life balance.
4. Distal outcomes of coaching
   a. Individual success – this can include greater innovation, better relationship, enhanced leadership and so on.
   b. Organisational success - in the case of the alliance this will mean exceeding the KPIs and achieving breakthrough performance in a wide range of financial and non-financial areas.

McCormick & Burch (2008) suggest that psychological testing, and the big five factors in particular, can be a valuable input into executive coaching. They argue that the results of personality tests have an important contribution in coaching as they assist with the assessing and facilitating behavioural change. This is because personality profiles provide an important indicator of the coachee's propensity for certain behaviour within particular situations (Burch & Anderson, 2008). Personality-focused coaching is based on the idea that an assessment of personality can be an excellent place to start coaching.

Executive coaching is highly relevant in alliance to develop both individual members of the alliance board and the alliance management team.

The alliance coach

Organisational psychologists in alliances often perform the role of alliance coach. Alliance coaching involves the use of an independent professional typically trained in psychology to assist in the development of the high performance alliance team in a wide range of areas. The alliance coach can have the following involvement:
- Client training
- Contractor non-cost selection
- Alliance project team selection
- Alliance governance board start up and development
- Alliance management team start up and development
- Alliance manager coaching
- Alliance team health checks.

Client training involves providing contractors and clients with interactive sessions so they can understand the range of alternative contracting agreements and the advantages and disadvantages of each.

Contractor non-cost selection involves:
- Training for assessors in the client organisation to maximise reliability of contractor selection
- Developing simulations designed to replicate real life challenges that the contractor team would face
- Developing rating scales for simulation scoring and for assessing contractor presentations
- Providing independent assessments of contractor potential for collaboration.

Alliance project manager selection can involve the use of:
- Psychological testing – especially the use of the big five factor personality traits to assess collaboration and leadership potential
- Role competency definition and assessment
- Behavioural interview guide development
- Candidate debriefing after the selection process.

Alliance governance board start-up and development can involve facilitated sessions in:
- Setting up the board's Terms of Reference
- Assisting the board to understand its role and to set individual members' expectations
- Board performance evaluation and feedback based on observations in board meetings.

Alliance project team start up and development includes:
- Introductory training on alliance contracting and developing the alliance charter (vision, mission, values)
- Team and trust development sessions with the alliance management team
- Development with the wider alliance to develop collaborative high performance teams that are open, direct and maximise cooperation
- Training on building and sustaining innovation
- Training in measuring value for money.

Alliance manager coaching involves working on a one-to-one basis with the alliance manager to develop leadership skills and maximise his or her effectiveness in the role.

Alliance team health checks include:
- Full-board evaluations, chair and individual member evaluations
- Facilitated feedback from the board to the project management team
- Alliance management team self evaluations
- Wider project team evaluations of the project management team
- Wider project team cultural evaluations

Conclusion

Alliance contracts aim to align economic incentives with sound psychological principles to foster collaborative high performance teams that are open, direct and maximise cooperation and innovation. These teams can provide improved quality, delivery

time and reduce cost for the client. Organisational psychology has an important role to play in this area and it can assist in the development of sustainable infrastructure.

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