KNOWLEDGE, SKILLS AND ATTRIBUTES OF PROJECT ALLIANCES MANAGERS IN AUSTRALASIA

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Project Alliances (PAs) demand particular knowledge skills, attributes and experiences of alliance managers (AMs) and key team members of non owner participants (NOPs) in PAs. The ambience of a PA is quite different to that of other relationship-based procurement types such as partnering or public private partnerships (PPPs). Therefore, AMs and their senior team members need to be not only technically competent and have sound project management (PM) skills but they also need high-level advanced PM skills to create, nurture and develop a culture of collegiality, shared responsibility and commitment to a best-for-project outcome. This paper draws upon extensive PA literature, several recent Australasian studies on PAs (predominately undertaken in Australia), and others elsewhere as well as results from a recent research project undertaken with the Australasian Alliancing Association in which 10 Alliance managers and 3 of unit managers they report to were interviewed. The study generated 13+ hours of taped interviews and over 200 pages of transcription that were analysed using NVivo within a grounded theory approach to make sense of the results. Results were used to develop a profile of the skills, attributes and experience needed of AMs and were able to develop a framework to differentiate between new and inexperienced AMs, emerging proficient and expert levels of preparedness for the AM role. A capability maturity model was developed to not only profile AM stages of development but to also be used as a developmental tool by those pursuing careers in alliancing. While results may be specific to Australasia and for AMs, the profile and results presented may form the basis for wider application.

Keywords: culture, HRM ,project alliances.

INTRODUCTION

The purpose and aim of forming project alliances is to achieve best value for a range of stakeholders involved in the delivery and use of project outcomes (Department of Finance and Treasury Victoria, 2010). The argument made for justifying the project alliancing procurement form is that if the best team available (and this team is energised to be committed for best-for-project outcomes) is assembled and adequately resourced by a project owner then it is likely to deliver best value outcomes for not only the project owner but its ultimate end-users, those involved in delivering the project, and society in general (Walker and Hampson, 2003b). It is an ambitious aspiration requiring high level AMs with particular skills, attributes and experience. There is an underlying assumption that these required AM qualities are additional to the high level technical skill expected of project managers and that 'people' or 'relational' skills are key to this. Results from a recent study on AMs are presented

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with a focus on the knowledge, skills and attributes (KSA) that demonstrate the full range of capabilities required of successful AMs. The scope of this paper is limited so we cite publications from that study to enable readers to access a fuller picture of the study results and we only present and discuss findings of one part of that study.

Our paper is structured as follows: first we outline some literature that helps define what an alliance is and how it compares to other forms of partnering from which it evolved; this is followed by a brief overview of the research approach; we then present our results followed by a discussion of the salience of these results and finally we conclude our paper.

UNDERPINNING CONCEPTS

What is an alliance? How does it differ from partnering? Why has it become so popular in several countries? What is the KSA profile required of alliance managers? These are important questions that this section addresses to clarify concepts and to establish the context for this study.

Alliances in general have been around since humans realised that cooperation was in many cases more productive that competing against each other. Many initial alliances were military in nature; groups banding together in a common defence cause or to achieve a common goal. Commercial alliances have grown popular for a variety of reasons (Doz and Hamel, 1998) and these vary from joint-ventures that combine groups with unique strengths or where they have similar and complimentary strengths to share risk. We refer to other additional sources for a fuller discussion of this topic (Lendrum, 1998; Porter, 1998;2001; Walker and Hampson, 2003a).

A PA is a special sub-set of general commercial alliances. This has attracted particular attention within Australia where alliancing has become an accepted and popular approach to deliver complex infrastructure projects (Walker and Hampson, 2003b; Cheung *et al.*, 2005; Davis, 2006; Walker and Rowlinson, 2008; Love *et al.*, 2010). A project alliance definition provided by the Department of Finance and Treasury Victoria follows (2010, p9): "… a method of procuring (and sometimes managing) major capital assets, where a state agency (the Owner) works collaboratively with private sector parties (Non-Owner Participants or NOPs). All parties are required to work together in good faith, acting with integrity and making best-for-project decisions. Working as an integrated, collaborative team, they make unanimous decisions on all key project delivery issues. Alliance agreements are premised on joint management of risk for project delivery. All parties jointly manage that risk within the terms of an 'alliance agreement', and share the outcomes of the project (however, the financial outcomes are not always shared equally between the Owner and the NOPs)".

Project alliancing appears superficially similar to partnering which is a collaborative form of procurement where parties agree a partnering charter that stipulates how they will behave to each other and how to resolve disputes that inevitably arise (CII, 1996; Bresnen and Marshall, 2000). However, there is a real and subtle defining difference. In project alliancing (and programs of projects) all parties share the risk and rewards; they sink or swim together (Walker and Hampson, 2003a). This has been the case from early forms of alliancing in the petrochemical sector (Jeffries *et al.*, 2001) to building construction projects such as the National Museum of Australia (Walker and Hampson, 2003b) and more lately with infrastructure projects in Australia (Davis, 2006; Rowlinson *et al.*, 2006; Love *et al.*, 2010). The level of collaboration is a step change in behaviour between team members regardless of which profession or

business entity they come from and the core values of the alliance model are trust, mutual respect, knowledge sharing and transparency of both issues and proposed solutions (Department of Finance and Treasury Victoria, 2010, p9).

There is, therefore, an institutional differentiation between project alliancing and partnering. Bresnan and Marshall (2011) argue that there is a prevailing industry experience-logic that has institutionalised highly competitive behaviours in the construction industry. This has led to many of the ills highlighted by Egan (1998) and Latham (1994). On the positive side, partnering has been institutionalised as a service-logic with commitment to a customer focus. An analysis by Murray and Langford (2003) of a series of reports into the UK construction industry conducted since 1944 indicates a cultural shift where the industry is demonstrating a genuine desire to turn its back on the past and at least seriously consider the value of closer relationship-based procurement approaches. In Australia a similar trend, starting with the 'No Dispute' report (NBCC, 1989), led to a more recent move towards the current situation where, according to a recent report (Wood and Duffield, 2009, p7), "The total value of alliance projects in the road, rail and water sectors in New South Wales, Victoria, Queensland and Western Australia, over the period 2004 to 2009 was $32 billion". This represents a significant institutional shift in attitudes and practice that is a necessary precursor to acceptance of partnering and alliancing. Therefore, project owners (POs), as institutionally being represented by major corporations, and government clients with the consultants and contracting firms representing NOPs to an alliance, all have now oriented their focus on the need for a best-for-project culture being both desirable and necessary for project alliances.

This prompts the need to understand what a PA requires of an AM to fulfil its goals. Alliancing implies that there are additional or different KSA required for managing project alliances compared to more traditionally procured construction infrastructure projects. Knowledge is embodied in processes, texts, papers and tacitly through lived practice. Skills gained from formal and informal knowledge acquisition and training are acquired though study and apprenticeship. Attributes are personality traits that are innate, developed or adopted from role models. Experience represents practice and learning from reflection on practice. We are interested in how AMs develop KSA and so we used a capability maturity model (CMM) approach adapted from existing CMM models (Paulk *et al.*, 1993; Judgev and Thomas, 2002; PMI, 2003) and the concept of maturity development in professionals from novice to expert virtuoso (Cicmil, 2003; Dreyfus and Dreyfus, 2005) as well as reference to work on PM competencies (Dainty *et al.*, 2005; Lopez-Cabrales *et al.*, 2006; PMI, 2007). This literature framework led us to the development of a four level maturity profile of AMs.

The four levels AM profile comprises—1) Foundational, 2) Nascent, 3) Developing Intermediate and 4) Mature Experienced levels. Foundational AMs are comfortable and highly competent in structured traditional 'tame' situations (Hancock, 2010) and may be proficient in briefing and scoping to help narrow down operational options. They need to have divergent thinking and an appetite for ambiguity to be able to influence team thinking to consider wider approaches, more innovation etc. They may however, lack confidence in prompting divergent thinking and have some limitations in recognising and understanding some of the systems that problems and situations are located in. They may be recent graduates, new to the role and under close tutelage perhaps in an acting role or assistant AM role. They have as a 'given' high level knowledge of the technology dominating the PA scope.

Nascent AMs recognise how technical systems interact with other systems in messy situations (Hancock, 2010). They have good convergent thinking and are capable of encouraging divergent thinking. They have as a 'given' high levels of baseline traditional project management knowledge, skills and experience. Developing Intermediate AMs can effectively use divergent thinking to see innovative solutions and to be able to switch to convergent thinking. They may still be uncomfortable with or unable to be effortlessly effective in highly messy situations. They are good systems thinkers and have wide enough experience to be aware of systems and sub-systems that nascent AMs would miss. They have as a 'given' high levels of advanced project management knowledge, skills and experience with well tuned 'people-related' skills, such as stakeholder engagement. Mature Experienced AMs have true helicopter vision of situations and so are confident to act-sense-respond in highly messy situations. The defining difference is their ability to effortlessly move from systems to real world views, trigger divergent thinking in others, be able to achieve rapid and effective reflection, sensemaking and consequence-coping strategies so that they can successfully turn highly messy situations into complex situations (Hancock, 2010) and then simplify them into tame and routine situations. They often have advanced chief executive officer or board level general management experience. It is this higher level of working confidently that we believe separates top level from mid-level AMs.

THE RESEARCH APPROACH

This paper is based upon a report with more expansive aims. The Alliance Association of Australasia (AAA) commissioned the authors to undertake a study to profile professional excellence in alliance management. We used interviews focused on AMs as the unit of analysis with workshops to canvass a 360 degree view of AM KSA.

In this study 10 AMs and 2 unit managers who alliance managers report to were interviewed with one of the AMs also being a unit manager. Each interview was recorded and transcribed. Interviews took on average just over one hour so over 13 hours of recording was gathered and over 200 pages of transcript analysed. We further validated results through two workshops with AMs, PA team members and those that AMs report to with a further 50 pages of transcript analysed. The first validation workshops involved a further 2 people who AMs report to and the second a group of 7 comprising AMs, their reports and those that report to the AMs. Both workshops took around 2-3 hours and were recorded and transcribed. Transcripts and sound files were imported into NVivo9 as a grounded theory development tool and we analysed data for themes, then linked nodes of categories to make sense of the data (Weick, 1989; Weick, 1995; Strauss and Corbin, 1998).

This report provides only a small part of results, which have been published elsewhere (Walker and Lloyd-Walker, 2010; Lloyd-Walker and Walker, 2011; Walker and Lloyd-Walker, 2011). Readers can refer to those publications for further details. The scope of this paper is restricted to required AM attributes. AM attributes are critical in developing culture, attitudes and effective ways of working within a PA. From our synthesis of the data we distilled a set of seven critical attributes that we then mapped against the quotes and data gathered to enable a picture of how these attributes present themselves across the AM maturity levels.

THE RESULTS

The following Table 1 summarises the seven attributes of AMs by maturity level.

Table 1 - Seven Characteristics/Attributes Required of AMs

Seven required authentic leadership characteristics/attributes	Foundational Aspiring	Nascent Recent	Developing intermediate	Mature experienced
REFLECTIVENESS being a systems thinker, strategic think-aim-act V act-think-aim Reflectiveness level is contextual and knowing the context is the key.	Highly reactive to challenges and dependent upon formal learning, textbook advice, manuals and established procedures. Demonstrates a sense of uncertainty and is restricted to highly traditional responses. Probably unaware of wider or deeper situational context. Sees challenges more simplistically.	Reactive to challenges, while somewhat dependent upon formal learning, textbook advice, manuals and established procedures; balances this with learning from recent experience. Demonstrates a sense of certainty based on traditional responses. Aware of potential complexity of the situational context. Unclear on how systems overlap or interface.	Contemplates and reflects before taking action to challenges based upon past experience and advice from others. May at times be overwhelmed and struck with 'paralysis through analysis'. Values facts over hunches or intuition. May overcomplicate the context. Seeks explanatory patterns to justify action based on discussions and advice from experienced and trusted mentors.	Contemplates and reflects while taking action to challenges based upon embedded past experience and critiqued advice from others. Able to take decisive action-based heuristics and comprehensive repertoire of past experience. Values intuition over lengthy analysis of situations. Can simplify complexity in context through rapid pattern matching and holistic solutions. Influences framing of situations and solutions.
PRAGMATIC gets on with the job, is politically astute, works within constraints. Interpreting and re-framing rules to context and way in which action is justified is the key.	Decision-making governed by ability to narrow options based on available knowledge and approaches. Frames problems and solutions to immediate resolution of issues.	Decision-making dominated by narrowing options based on available knowledge and approaches. Frames problems and solutions to short term resolution of issues.	Decision-making dominated by widening consideration of options based on available and potentially available knowledge and approaches. Frames problems and solutions to medium term resolution of issues.	Decision-making governed by screening many options based on a few narrow but salient criteria. Frames problems and solutions to medium/long term resolution of issues while addressing immediate demands. Shapes and influences interpretation of the 'rules'.
APPRECIATIVE EI rating, understanding the motivations	Tends to be unaware of how contextual pressures influence	Grapples with how contextual pressures influence the	Has a strong sense of personal identity and influence in	Has a strong sense of personal identity and expertly shapes

and value proposition of all involved. Being able to judge the most effective response to teams and individuals about their value is the key in influencing others and being influenced by them.	the motives and actions of others. Has a passive approach to attempting to influence others with strong opinions. Lacks awareness of the need to probe to find out what others need or want. Lacks confidence to impose closure on decision making.	motives and actions of others. Lacks confidence to negotiate an agenda when attempting to influence others with strong opinions. Tends to allow discussion to drift when decision making or closes off discussion too soon. Lacks self-justification to know when to enact closure on decision making.	leading the opening up or narrowing of discussions. Understands the agendas and value proposition of others and appreciates demands placed upon them. Yet to develop total confidence in defending their own agendas and preferred position as short cuts to action when facing strong opposition from others.	the agenda in effectively opening up or narrowing discussions. Responds to the agendas, value proposition and demands upon others by crafting priorities. Transforms strong opposition from others into innovative proposals through resolving paradoxes via an uncompromising 'third way'.
RESILIENCE adaptability, versatility, flexibility and being persistent. Able to effectively learn from experience. The repertoire of skills and attributes that can be drawn upon is crucial. This is related to absorptive capacity to learn and adapt. Attitude to how to deal with a crisis 'next time' is critical.	Shows great promise in rapidly absorbing new ideas and approaches and demonstrates examples of initiative and hard work. Is able to cope with disappointment and set backs as part of a learning experience. Actively seeks advice from others to make sense of experience, especially unexpected outcomes from action.	Readily absorbs new ideas and approaches and seeks out opportunities to apply them. Uses disappointment and set backs as part of a learning experience. Contributes to and shares with others making sense of experience, especially in developing explanations for unexpected outcomes from action.	Seeks new ideas and approaches and how to apply them. Assumes that the purpose of dealing with disappointment and set backs is to learn from experience. Leads a process with others to make sense of experience, especially unexpected outcomes from action and embeds lessons-learned as a personal continuous improvement initiative.	Proactively leads the implementation of new ideas and approaches and how to apply them. Champions the outcome of set backs and disappointment as learning experiences. Supports creation of learning repositories for those developing leadership skills. Leads a culture of transforming set-backs into positive results and for others to find problem solutions that lead to sustainable contextual learning.
WISDOM being the person with opinions and advice that is valued, consistent and	Generally, advice and information is not sought of this person about technical or PM aspects unless in a narrow	Proactively and enthusiastically shares knowledge and insights to clarify context and gain	Has highly respected technical and either business or PM knowledge/skills that others	Has highly respected technical, business and PM knowledge and skills from others actively tap into as

reliable that others instinctively refer to. To be effective, the key is to be influential based on providing sound advice and being respected for that advice or being an effective broker of wise advice. Judgement of the person brokering advice is crucial.	specialisation field. Seeks to become a 'goto' person by actively learning as much as possible about the 'system' project details etc. and offering to assist others in research or finding out about relevant issues.	confidence from others in their judgement and job-specific knowledge. Could be a sub-cultural representative that others seek their views from eg. as a 'younger' AM or as somebody with valuable outside-group perspectives.	actively tap into. Knowledge and advice offered is consistently seen as valuable, reliable and influential.	being pivotal to sound outcomes. Often strong business knowledge is the crucial differentiator as well as strong understanding of the strength of other team members to action plans and decisions.
SPIRITED having the courage to effectively challenge assumptions Confident in the value of refining context knowledge through questioning the status quo or assumed realities is vital to better understand contexts.	Lacks confidence in getting others to openly discuss contentious issues or to 'rock' the boat. Assumes that prevailing assumptions must be correct for the context experienced.	Confident in getting others to openly discuss contentious issues or to be sceptical and question the status quo. Tests whether prevailing assumptions may be correct for the context experienced.	Adept in facilitating team members to be courageously sceptical when doubting the majority opinion. Challenges assumptions to inspire and facilitate innovation. Has the courage to make unpopular decisions when circumstances warrant it.	Provides stretch targets for interpreting the business case to arrive at an optimal solution. Encourages and demands 'devils advocate' positions and evidence-based challenges so that groupthink does not automatically prevail.
AUTHENTIC approachable and trustworthy and being seen as open to ideas, collaboration, discussion and new ways of thinking. To be an effective broker and 'go to' person it is vital that this person must be open-minded and be available when needed. The must be collaborative, have integrity and being therefore perceived as trustworthy.	Has a reputation for being open to something new, adventurous and easy to collaborate with and to discuss ideas with. Is assumed to be trustworthy but not yet had the opportunity to demonstrate this in difficult situations.	Is good at collaborating with others, engenders trust and commitment. Having an 'open-door' policy, acknowledging the need for diversity in views when trying to understand issues. Seen as somebody who will listen to 'bad news' without blame or cover up.	Is respected as somebody who has an open mind and is swayed by solid evidence or reasoned argument. Collaborates as a natural style and is trusted for the quality of judgement and integrity of approach. Holds several concurrent conflicting views of a situation and inviting challenges to any of these to obtain a clearer understanding.	Has high standards of integrity and a natural collaborator with others. People trust them and they are known for constancy of their action with their rhetoric. Has wide business and life experience to have learned how to resolve paradoxes through seeing complementarities (combines opposites through re-framing dimensions to accommodate a pragmatic 'third way').

DISCUSSION

The key difference in PAs compared to other relationship-based procurement approaches is shared risk and reward; all participants sink or swim together. This imposes a totally new dynamic for the project management competencies required of AMs. The nature and ambience of PAs demand of AMs that the entire alliance leadership team and alliance management team transparently and work collegially to identify, discuss and solve problems. AMs need to not only take a more relational approach to PM, they also have to be more collegial and less aggressive in achieving 'iron triangle' goals of time/cost/quality at the expense of taking a service rather than product delivery perspective. PAs depend on this milieu so the attributes of AMs need to reflect these characteristics. Table 1 shows many desirable attributes of project managers in any type of project. It also demonstrates an absence of the need for a 'killer-commercial' attitude to representing the AM's home base employer's specific interest; instead the wider alliance interest is paramount. All innovation or cost containment efforts are directed towards 'best-for-project' and benefits delivery effectiveness. Table 1 also presents the primacy of so-called 'soft-skills' as being essential and more completely refined in increasing AM maturity levels. The rationale of a service-logic as Bresnan and Marshall (2011) describe the institutionalisation of culture, becomes obvious in PAs. Table 1 also illustrates the gradation of KSA across the maturity levels.

Space limitations prevent us from describing the attributes in greater depth. However, Table 1 presents a useful model that can be adapted to more 'competitive' and 'combative' project procurement situations. Some attributes will fall to the background in non-PA situations because they potentially expose the project manager to the risk of being disadvantaged, for example, by openly sharing ideas and solutions. These actions can be a source of wisdom but can provide others with a potentially competitive knowledge advantage. Other characteristics such as being pragmatic, spirited, resilient and reflective can improve decision making and be therefore universally valuable. Being authentic is important in partnering and has some transaction cost economics value in team interactions but the extra required effort for consensus is lacking in partnering and certainly other forms of project procurement.

CONCLUSIONS

The purpose of this paper was to highlight the attributes required of AMs within a PA context. We presented in Table 1 results from our findings. We acknowledge that space constraints for this paper results in there being much unsaid, unexplained and teasingly brief in content. We indicated sources where further in-depth explanation can be found. PAs are gaining in popularity in Australasia in particular and have been born out of a rejection of the conflict-ridden approaches to project delivery in the past and as such the PA provides a useful laboratory for study. They require, as Table 1 suggests, a higher level of client and project delivery team sophistication and commitment and this is a recognised constraint to its more general application.

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REFERENCES

Bresnen, M. and Marshall, N. (2000), "Partnering in construction: a critical review of the issues, problems and dilema", Construction Management and Economics, **18** (2) 229-238.

Bresnen, M. and Marshall, N. (2011), "Projects and Partnerships Institutional process and Emergent Practice", in Morris P.W.G., Pinto, J.K. and Söderlund, J., *The Oxford Handbook of Project Management*, Oxford University Press, Oxford, 154-174.

Cheung, F.Y.K., Rowlinson, S., Jefferies, M. and Lau, E. (2005), "Relationship Contracting in Australia", *Journal of Construction Procurement*, **11** (2), 123-135.

Cicmil, S. (2003), *From Instrumental Rationality to Practical Wisdom*, Simon de Montfort, Leicester, UK.

CII (1996), *The Partnering Process - Its Benefits, Implementation, and Measurement, Austin, Texas*, CII, Bureau of Engineering Resources, University of Texas at Austin,USA.

Dainty, A. R. J., Cheng, M.-I. and Moore, D. (2005), "A Comparison of the Behavioral Competencies of Client-Focused and Production-Focused Project Managers in the Construction Sector", *Project Management Journal*, **36** (2), 39-49.

Davis, P. R. (2006), *The Application of Relationship Marketing to Construction*, PhD, School of Economics, Finance and Marketing, RMIT University, Melbourne, Australia.

Department of Finance and Treasury Victoria (2010), *The Practitioners' Guide to Alliance Contracting*, Department of Treasury and Finance, Melbourne, Australia, 161.

Doz, Y. L. and Hamel, G. (1998), *Alliance Advantage - The Art of Creating Value Through Partnering*, Harvard Business School Press, Boston, USA.

Dreyfus, H. L. and Dreyfus, S. E. (2005), "Expertise in Real World Contexts", *Organization Studies*, **26** (5), 779-792.

Egan, J. (1998) *Rethinking construction: the report of the Construction Task Force to the Deputy Prime Minister, John Prescott, on the scope for improving the quality and efficiency of UK construction*, Department of the Environment, Transport and the Regions Construction Task Force, London, UK.

Hancock, D. (2010), *Tame, Messy and Wicked Risk Leadership*, Farnham, Gower, UK.

Jeffries, M., Gameson, R. and Chen, S. E. (2001), "The Justification and Implementation of Project Alliances - Reflections from the Wandoo B Development", *Journal of Construction Procurement*, **7**(2), 31-41.

Judgev, K. and Thomas, J. (2002), "Project Management Maturity Models: The Silver Bullets of Competitive Advantage?", *Project Management Journal*, **33** (4), 4-14.

Latham, M. (1994) *Constructing the team: final report of the government/industry review of procurement and contractual arrangements in the UK construction industry*, HMSO, London, UK.

Lendrum, T. (1998), *The Strategic Partnering Handbook*, McGraw-Hill, Sydney, Australia.

Lloyd-Walker, B. M. and Walker, D. H. T. (2011), "Project Alliances in Australasia - Differences with other Forms of Relationship Based Procurement", Martinsuo M., Gemünden, H. G. and Huemann, M. (Eds), *EURAM 2011, Management Culture in the 21st Century, Tallinn, Estonia*, June 1-4, European Academy of Management.

Lopez-Cabrales, A., Valle, R. and Herrero, I. (2006), "The contribution of core employees to organizational capabilities and efficiency", *Human Resource Management*, **45**(1), 81-109.

Love, P.E.D., Mistry, D. and Davis, P.R. (2010), "Price Competitive Alliance Projects: Identification of Success Factors for Public Clients", *Journal of Construction Engineering and Management*, **136** (9), 947-956.

Murray, M. and Langford, D. A. (2003), *Construction Reports 1944-98*, Blackwell Science Ltd, Oxford, UK.

NBCC (1989), *Strategies for the Reduction of Claims and Disputes in the Construction Industry - No Dispute*, National Building and Construction Council, Canberra, Australia.

Paulk, M.C., Curtis, B., Chrisses, M.B. and Weber, C.V. (1993), *Capability Maturity Model*, Version 1.1., IEEE Software, **10** (4), 18-27.

PMI (2003), *Organizational Project Management Maturity Model (OPM3) Knowledge Foundation*, PMI, Newtown Square, Pennsylvania, USA.

PMI (2007), *Project Management Competency Development (PMCD) Framework*, PMI, Newtown Square, Pennsylvania, USA.

Porter, M. E. (1998), "Clusters and the New Economics of Competition", *Harvard Business Review*, **76** (6), 77-90.

Porter, M. E. (2001), "Strategy and the Internet", *Harvard Business Review*, **79** (3), 63-78.

Rowlinson, S., Cheung, F. Y. K., Simons, R. and Rafferty, A. (2006), "Alliancing in Australia - No Litigation Contracts; A Tautology?" *ASCE Journal of Professional Issues in Engineering Education and Practice*, 132 (1, Special Issue on Legal Aspects of Relational Contracting), 77-81.

Strauss, A. and Corbin, J. (1998), *Basics of Qualitative Reserach*, SAGE Publications Inc., Thousand Oaks, CA, USA.

Walker, D. H. T. and Hampson, K. D. (2003a), "Enterprise Networks, Partnering and Alliancing", in Walker D. H. T. and K. D. Hampson (Eds), *Procurement Strategies: A Relationship Based Approach*, Oxford, Blackwell Publishing, Chapter 3, 30-73.

Walker, D. H. T. and Hampson, K. D. (2003b), "Project Alliance Member Organisation Selection", in Walker D. H. T. and K. D. Hampson (Eds), *Procurement Strategies: A Relationship Based Approach*, Oxford, Blackwell Publishing, Chapter 4, 74-102.

Walker, D. H. T. and Lloyd-Walker, B. M. (2010), *Profiling Professional Excellence in Alliance Management*, Draft Report, Sydney, Alliance Association of Australasia, 48.

Walker, D. H. T. and Lloyd-Walker, B. M. (2011), "The Ambience of Project Alliances in Australia", Hobbs B (ed), *IRNOP2011 Research Conference - The Expanding Domain of Project Research*, Montreal, Quebec, June 19-22, 22.

Walker, D. H. T. and Rowlinson, S., Eds. (2008), Procurement Systems - A Cross Industry Project Management Perspective. Series Procurement Systems - A Cross Industry Project Management Perspective. Abingdon, Oxon, Taylor and Francis.

Weick, K. E. (1989), "Theory Construction as Disciplined Imagination", *Academy of Management Review*, **14** (4), 516-531.

Weick, K. E. (1995), *Sensemaking in Organizations*, Sage, Thousand Oaks, CA, USA.

Wood, P. and Duffield, C. (2009), *In Pursuit of Additional Value A benchmarking study into alliancing in the Australian Public Sector*, Melbourne, Department of Treasury and Finance, Victoria, 191.