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Alliancing within a Public–Private Partnership

Jacobsson, Mattias* and Walker, Derek H.T.°

*Umeå School of Business and Economics, Umeå University, 901 87 Umeå, Sweden

°School of Property, Construction and Project Management, RMIT University, Vic 3001, Melbourne, Australia

Email of the Corresponding Author: mattias.jacobsson@usbe.umu.se

Abstract

Relationship-focused procurement forms have lately attracted extensive attention. Here, a first of its kind attempt of Alliancing within a Public–Private Partnership (PPP) is examined through a case study of the largest Australian infrastructure project ever. The project was set up as a PPP between a consortium and the state government where the project is situated. The consortium, that consisted of two of Australia's largest construction companies, and a major project financing company, was to finance, design and construct, operate, and maintain the Oz1Airportlink until 2053. In the design-construct phase, part of the undertaking was however set up as a project alliance (PA). Through the case study it is revealed that this allowed the contractor joint venture, and a major specialist subcontractor (SERV1), to form an alliance that allowed more flexibility in the work allocation and risk/uncertainty management. It can also be concluded that the choice was base on the need for close collaboration, team integration, knowledge, and perspective sharing. The major driver was complexity on both a technical and relational level. The paper makes three contributions. Primarily, it contributes with a, first ever, analysis of a project alliance within a PPP. Secondly, it provides with important insights into the reasons and emergence of the mentioned configuration – knowledge that should be of interest for both practitioners and academics. Finally, it provides an understanding of an emergent form of early contractor involvement with a PPP special purpose ownership vehicle that combines competition and collaboration for the PPP end-owner.

Keywords

Project, Alliancing, Public–Private Partnership (PPP), Construction, Relational contracting (RC)

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Introduction

The last couple of decades have seen an ever-increasing interest, among both academics and practitioners, in various forms of Relational Contracting (RC) (see e.g. Walker et al. 2002; Nyström 2005; Bygballe et al. 2010; Davis and Love 2011; Lahdenperä 2012). These procurement forms are often described as a counter reaction to frustration felt towards opportunism and adversarial conduct inherited in traditional contractual forms. The common denominator, to advocate cooperation, encourages participants to engage in “best for project” behavior, and promotes commitment and trust, rather than building on a traditional competitive approach (Bygballe et al. 2010; Davis and Love 2011; Yeung et al. 2012; Lahdenperä 2012).

In the contemporary literature, different type of RC has been described and analyzed with an often overlapping and varying terminology (Yeung et al. 2012; Lahdenperä 2012; Lloyd-Walker and Walker 2013). The acknowledged variety is explained by the difference in heritage, varying interpretations, and how different types of RC have been formed and diffused around the world (Lahdenperä 2012). Within the literature, the various types of RC have also, most often, been analyzed and discussed separately as case studies, focused literature reviews, or conceptual assessments. Some exceptions are Walker et al. (2002), Rowlinson and Cheung (2002, 2004), Yeung et al. (2012), Lahdenperä (2012), and Lloyd-Walker and Walker (2013) who have compared and contrasted some of them in order to understand their similarities and differences. In practice, the various types of RC have also been applied individually to both small and large projects. But, to the best of our knowledge, there have been no attempts to, in parallel, apply more than one of these contractual forms to one specific project. In this paper a unique, first of its kind, attempt of Project Alliancing (PA) within a Public–Private Partnership (PPP) is however reported and analyzed. With such a novel and previously untested configuration, one might ask; what was the reasoning for choosing a PA within a PPP procurement arrangement?

The paper is empirically based on a case study of the largest Australian infrastructure project ever – the construction of the AUD\$4.8 billion, 6.7-kilometer dual tunnel toll road – we will refer to the project as the Oz1Airportlink project. The project was set up as a PPP ‘design-construct-operate-maintain contract’ between the Oz1Airportlink consortium and the local state government. The consortium, consisted of two of Australia’s largest construction companies (Huge1 and Huge2), and a major project financing company, to finance, design and construct, operate, and maintain the Oz1Airportlink until 2053. In the design-construct phase, part of the undertaking (around 15% by cost) was however set up as a Project Alliance (PA). The unique case study provides an understanding of how the internal dynamic relational mechanisms operated with such an innovative procurement form. We will refer to this PA as the SOCK alliance (as fitted inside the PPP BOOT-style procurement form). The aim of the paper is consequently to describe and analyze the reasons and emergence of a PA within a PPP.

Theoretical perspective

The main traditional approach of project delivery is one in which the project owner (PO) or its representative (POR) commissions a design team who first develop a design then call bids on it to be build (DBB) or alternatively call for a design and construction (D&C). This adopts a sequential method where the POR maintains contractual and relational control influencing and deciding upon team appointments (Masterman, 2002). Many mega-projects are however undertaken as PPPs where the POR takes a greater arms-length approach and calls for proposals from a pre-qualified consortium of companies that form a special purpose vehicle (SPV) entity that provide the necessary skill sets to design (based upon the POR brief) finance, build and operate the facility for a set period of time (Akintoye, Beck and Hardcastle, 2003). PPPs are similar to what is often referred to as Build Own Operate Transfer (BOOT) schemes (Tam, 1999). A third approach, in which the POR maintains

hands-on influence but allows the advantage of a traditional POR ability to approve and influence with the flexibility of design and construction detailing for whole-of-life operations and maintenance as well as more fully engaging the skills and creativity of the range of design and delivery team, is a projects alliance (PA).

An alliance agreement is usually made between two or more entities who, in good faith, commit to working cooperatively, sharing the risk and rewards of the project in order to achieve the stated outcomes (Jefferies, Brewer, Rowlinson, Cheung and Satchell, 2006). Trust and transparency are important components of a PA; therefore, ensuring that the most compatible possible partners are chosen is important for success (Jefferies et al. 2006). In 2001, when describing the National Museum of Australia project alliance Walker, Peters, Hampson and Thompson (2001, p212) used the phrase ‘sink or swim’ together. In an alliance, participants are jointly and severally bound together through performance of the project delivery outcome (rather than individual team performance). Overall project performance outcomes determine a PA pain-sharing or gain-sharing performance allocation. Thus all PA participants are bound together and treated as a single entity within a particular ambience of collaboration and willingness to provide innovative solutions to problems and opportunities to improve upon the design solution (Lloyd-Walker and Walker, 2012).

This has significant impact on the way they are likely to collaborate. As has been highlighted in a recent report on skills required of PA managers and team members (Walker and Lloyd-Walker, 2011), PAs demand significant relational and collaborative skills of not only the POR but also other project delivery participants. PPP require less demanding collaborative skills of the POR but there are advantages for PORs engaging in a PA style arrangement within PPPs (Clifton and Duffield, 2006). We argue that several valuable features of a PA may still be possible to be gained from PPP delivery projects. Amongst these are: close and free collaboration towards a best-for-project attitude by all project participants; more intense cross-team knowledge sharing through using the project as a learning opportunity; improved quality of communication between parties; more intelligent ways in which the project is designed for constructability and operation; and reduced energy expended on countering opportunistic behaviours that cause disputation, blame and litigation.

Literature relating to PA has been slowly emerging from that of general relationship based procurement such as partnering, which has been steadily gaining attention over the last two decades. Table 1 traces some of the major sources and themes that have been evolving within those sources.

Table 1. Selected Partnering and Allied Literature Sources

Authors	Context and Themes	Relevance to this Research
(Larson, 1995; CII, 1996)	Early studies in the USA	Historical and seminal work.
(Green, 1999a; Green, 1999b; Bresnen and Marshall, 2000; Bresnen, 2003)	Critical evaluation of partnering.	Provides insights into negative aspects and unintended consequences
(American Institute of Architects - AIA California Council, 2007; Cohen, 2010; Aapaoja, Herrala, Pekuri and Haapasalo, 2013)	Integrated project delivery (IPD) in the USA	IPD has been recently emerging in the USA as a variation on the theme of project alliancing
(Lahdenperä, 2012)	Evolution of relationship based procurement forms globally	Traces project alliancing historically back from the 1980s linked to partnering
(Manchester Business School, 2009)	European study of various forms of voluntary arrangements for collaborative working	Historical review of evolution of various forms of partnering and alliancing in Europe
(Eriksson, Dickinson and	Partnering in Nordic countries	Illustrates higher order relationship

Khalfan, 2007; Eriksson, Nilsson and Atkin, 2008; Jacobsson, 2011)		based collaboration that appears greater than partnering but informal compared to alliancing
(Voordijk, Van Leuven and Laan, 2003; Lahdenperä, 2009;2010; Laan, Voordijk and Dewulf, 2011)	Alliancing in the Netherlands and Finland	Alliancing seems to be used in the UK, Netherlands and Finland
(Brady, Davies, Gann and Rush, 2007; Doherty, 2008; Caldwell, Roehrich and Davies, 2009; Davies, Gann and Douglas, 2009; Gil, Miozzo and Massini, 2012)	The London Heathrow Terminal 5 project's procurement form of integrated supply chain management.	The Doherty book provides an historical account from a senior executive. The other papers provide deep insights into the T5 contract form and its operation.
(Walker, 2002; Walker and Hampson, 2003; Cheung, Rowlinson, Jefferies and Lau, 2005; Anvuur and Kumaraswamy, 2007; Blismas and Harley, 2008; Walker and Rowlinson, 2008; Wood and Duffield, 2009; Love, Mistry and Davis, 2010; Mills and Harley, 2010; Walker and Harley, 2013)	Alliancing as experienced in the Australian context	These provide both historical context of PA emergence and also the scope and development of PAs in Australia.
(Sidwell and Mehertns, 1996; McGeorge and Palmer, 2002; Mosey, 2009; Rahman and Alhassan, 2012; Walker and Lloyd-Walker, 2012)	Early contractor involvement (ECI), buildability, constructability	The book by Mosey provides detailed insights into ECI and the McGeorge and Palmer and Sidwell and Mehertns provide details on buildability and constructability processes and their application.

Table 1 provides an abbreviated indication of literature on partnering IPD, alliancing, ECI and their evolution and practice that informed our coding of data gathered for our study. We have read and considered far more references from the literature than those indicated in Table 1, but these provide an indication of how our coding was influenced by the literature.

Contingency theory and institutional theory provided us with two ways to make sense of what we were observing from the data and in making sense of the transcripts and additional web-accessed content about the case study project. Sauser, Reilly and Shenhar (2009, p666) state when they used contingency theory in a project management (PM) context that "... the theory suggests that organizational effectiveness is dependent upon the organization's ability to adjust or adapt to the environment, and that there is a need for congruency between the environment and structure". The idea is quite simple and relevant. Planning and action should take into account the environment in which they occur and the desired outcomes anticipated from plans and actions. The effectiveness of a plan must match the 'reality' of the situation otherwise unintended (and probably unwanted) consequences will most likely occur. Institutional theory, according to Scott (2007, p460) "... considers the processes by which structures, including schemas, rules, norms, and routines, become established as authoritative guidelines for social behaviour. It inquires into how these elements are created, diffused, adopted, and adapted over space and time; and how they fall into decline and disuse". Thus any project is subject to a wide range of cultural norms and expectations; from the host organization, from participating organizations, national and regional cultural norms, expectations both specified in a contractual sense as well as implied behavioral expectations. Both contingency and institutional theory provided us with lenses with which to view the data.

While we could make a great deal of sense out of the data captured and our analysis of that in terms of the case study's PA context we also needed a guiding framework to use and adapt to answer our

three research questions. The seminal paper by Engwall (2003) provides a useful model on making sense of projects in a broader context acknowledging both institutional and contingency factors. His model explains what he terms ‘project interior process dynamics’ as being influenced by pre-project politics, experiences from the past, technical content of the project mission, ideas about the future. Additionally, process dynamics are impacted by and impact upon parallel courses of events evolving in the context surrounding the project as well as institutional norms, values and routines of the context. The model by Engwall (2003) provided us with a useful starting point for analyzing our data and we provide our model as it emerged in the next section.

Method

With an aim to describe and analyze the reasons and emergence of a PA within a PPP, we take on a constructivist ontological position which means that ‘truth’ or ‘reality’ is constructed by people who struggle to make sense of situations through the lens of their past, experiences, and cultural conditioning. Our epistemological stance is that the various perceptions of ‘what really happened’ can be best gained from discourse and probing actors’ recollections about incidents, impressions, feelings and processes that they took part in. Evidence is thus presented through an open interview process in which general questions are asked for participants to respond to in relating their perceptions of what happened, how and why. We value these perceptions as legitimate data to be interpreted and we chose to use senior managers engaged in the project that were most likely to have both a detailed knowledge of the dynamics of the project delivery as it unfolded through design to construction as well as having deep insights into the relational and behavioral aspects of team member interactions. Our interest is in what happened on this particular (and unique) project and so a single case study (Creswell, 2009; Yin, 2009) with a purposeful sampling of participants (Patton, 2002) was appropriate.

Both researchers have direct experience in the construction industry. One researcher has over 15 years in the UK, Canada and Australia and the other 2 + 5 years in Sweden. Both researchers have undertaken research and published in the area of project management in large-scale infrastructure projects. This study is part of two wider studies being undertaken into relationship based procurement in practice and so we are also informed from well over a decade of undertaking studies in this topic area. Based on our practice and research experience and our ontological and epistemological positions we chose a qualitative case study research method and we chose to interview six senior managers who had deep and insightful knowledge about this case study project as illustrated in Table 2 below.

Table 2. Interviewees Details

Interview Ref	Organization	Rationale
SPV-A	The SPV Oz1Airportlink’s POR	He had insights on both the PA and broader PPP project as the overall Oz1Airportlink PPP project director.
Facilitator1	PA Facilitations	He helped set up the PA contract and held the PA workshops.
Huge1-A	Huge1	He was on the Alliance Leadership team and also a senior manager for the PA for the whole project.
Huge1-B	Huge1	He was commercial manager and procurement manager, and he was on the alliance management team for the whole project.
Huge2-A	Huge2	He helped established the PA and was bid manager for the successful Oz1Airportlink consortium and was the Project Director for the first five months of the alliance project.
SERV1-A	SERV1	He was commissioning manager for the project’s services and alliance management team member.

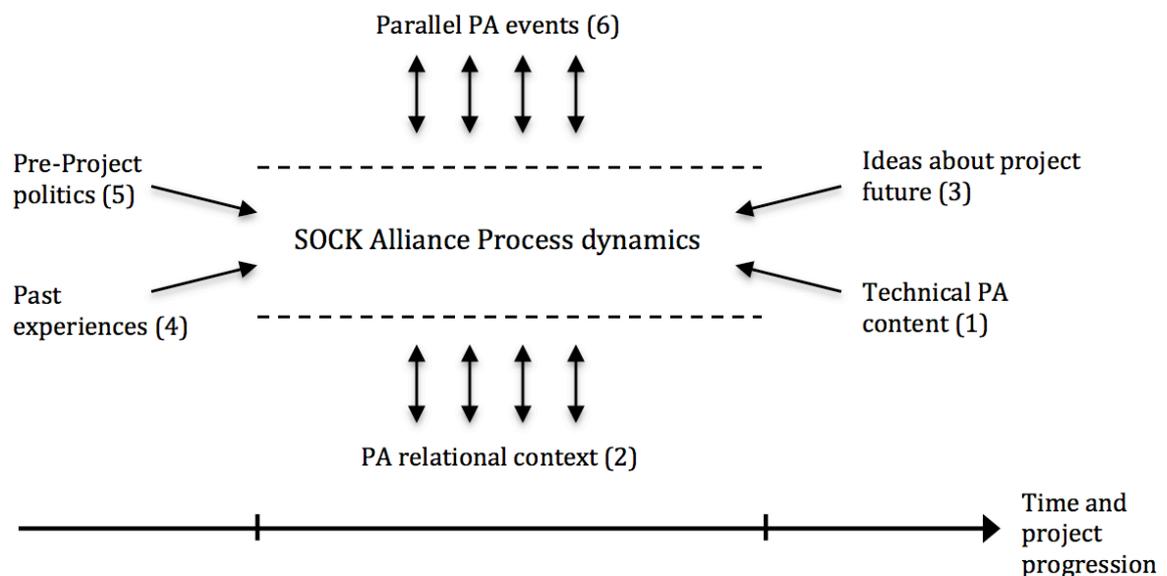
The scope for Oz1Airportlink project can be summarized as the construction of an AUD\$4.8 billion, 6.7-kilometer dual tunnel toll road. The SOCK PA scope included all the fit out activities of a tunnel and comprised about AUD\$620 million completed over an approximately 4-year period. This meant that the six senior executives interviewed could provide deep and relevant insights into the inner workings, scope and scale of SOCK. Each was interviewed for about 60 minutes; the interview was recorded and transcribed, checked for any transcription errors and sent to the interviewees for any corrections or amendments. The transcripts, recordings and other background data gathered from the participating companies' websites and other sources were imported into an NVivo10 project file and analysed using that software by the two researchers.

In the analysis inspiration were drawn from a grounded theory approach (Glaser and Strauss, 1967; Strauss and Corbin, 1998; Corbin, Strauss and Strauss, 2008) where by data relating to concepts (such as the scope or scale of the project) can be grouped into sub-categories (such as SOCK's technical scope and scale) that are grouped into high level categories. These in turn aided the development of a theory about what was occurring in this case study from a specific perspective. We used open coding initially as recommended by Corbin and Strauss (1990, p12) who state that "...in open coding, events/actions/interactions are compared with others for similarities and differences" and then axial coding in which "categories are related to their subcategories, and the relationships tested against data" (Corbin and Strauss, 1990, p13). Various theories from the literature guided our analysis in sense making to construct a model of how the data could be reasonably interpreted in a meaning way (see for example Engwall 2003). Thus evidence matched to theory that is adapted with added input from our own experience and knowledge from research into this area forms the basis of our findings.

Results

After carefully coding the transcripts from the six interviewees comprising some 330 minutes of recorded interview, we developed a set of categories and sub-categories from the data.

Figure 1. Outline of Categories for the Case Study Results (adapted from Engwall 2003)



In figure 1, six categories are outlined.

1. This groups quotation selections related to the PA technical content. We identified three sub-categories within that category: SOCK alliance innovation concept quotes; SOCK quotes about the PA scope and scale; and SOCK technical complexity issues.

2. This relating to the PA relational context with sub-categories relating to concepts about: SOCK behavioral concepts; Alliance Leadership Team (ALT) and Alliance Management Team (ATM) relationships; best-for-project aspects; evidence of perceptions about collaboration; incentivization aspects; skills; trust; and workplace culture aspects.
3. This was about learning from the PA experience and ideas for the future.
4. This was about past experienced that influenced plans, attitudes, behavior and action. This was split into two categories one about experience gained from non-alliance procurement forms such D&C etc. and the other sub-category relates to experiences from previous PAs. The Experience from General Contractual arrangements was then broken up into 3 further sub-categories; about attitudes and behaviors; past experiences of conflict and issues resolution approaches; technical complexity.
5. This was about pre-project politics, the agreement policy and its design and the various participants' policy perspectives on the PA. This had two sub-categories, one about PA behaviors (and this was mainly sub-categorized to perspective taking) and the other about PA-Policy. The PA-Policy sub-category deals with concepts about value for money, motivation and policy about how PAs are perceived to be frames and thirdly there was a set of concepts that related to the PA facilitator advisor.
6. This category relates to parallel events, contexts and influences from outside the PA. It should be remembered that this PA was nested within a PPP and in that sense it posed an unusual situation in that the SPV as PO also comprised the two contractors Huger 1 and Huger 2 and this introduced some additional complexity to influences of the PA to and from the Oz1Airportlink SPV PPP project. Three sub-categories were developed: SOCK actual performance; SOCK financial context; and SOCK being a PA but also part of the whole Oz1Airportlink PPP project.

As the paper is subject to a strict word-count limitation, we are unable to provide further details on the categories, sub-categories and concepts, however, we do focus on now the research question and illustrate with quotes and evidence from the analysis of transcripts to illustrate and support our response to those questions.

Much of the answer to this question can be found in the analysis of past experience, the technical content and PA policy. All interviewees were clear about one determining factor— complexity both technical and relational. This particular part of Oz1Airportlink, fit out of the tunnels, was extraordinarily complex in technical and relational terms and past experience of all participants had been that such work is prone to serious conflict between the general contractor and the services sub-contractor. We present several illustration of evidence in Table 3 to provide salient examples to substantiate our analysis and to also provide an indication of how we undertook the analysis phase of the research that resulted in Figure 1.

Table 3. Evidence supporting the Figure 1 model of the SOCK Process Dynamics

#	Source	Category/Sub-category and Quote
		<i>Technical PA content (1)</i>
1	SPV-A	Bearing in mind the M&E contract, the M & E works on [Oz1Airportlink], were worth in the order about \$600 million. So quite a substantial package of work and, as I say, a limited number of companies that can do that work. When I say limited, I'm talking one or two type numbers.
2	SERV1-A	The idea of being able to do that amount of work in such a short time frame was the challenge that people had to figure out how to achieve.
3	Facilitator1	... one of the key conversations that we had in setting this up was that exact issues that just arose is about the scope of work and back at the start we talked at length about that in one of the workshops, about why limit this to the M&E. And what we did is we actually opened it up so that

		the scope of the target cost included the civil works to be carried out by [Huge1 and Huge2]. That was one of the little breakthroughs we had in the commercial setup.
4	Huge 1 -A	... the original idea was that the tunnellers would go through, they would dig the hole and line the tunnel, and then the [SOCK] alliance will come through after them as one team responsible for both civil fit-out and the mechanical and electrical aspect. Now some of those civil fit-out aspects, the more significant ones, like the smoke duct, which was quite heavy construction ended up staying with the main contractor instead of being part of the alliance. Other than the very major civil work, any civil work, any civil fit-out work in the tunnel was part of the alliance scope.
5	Huge 1 - B	I'll just take you through a couple of the other aspects that relate to the M&E and architectural fit-out. Below the roadway there are a number of sumps that can be as large as a football field; you don't see those because you have a deluge system running throughout the length of the tunnel which can dump four million litres or something (...) in the space of a couple of minutes, and that's got to be then pumped out and treated into a waterway. There are smoke ducts that [Huge 1-A] refers to in the roof which tunnel design has evolved over the last 20 years. They never used to have smoke ducts. They had deluge systems. A lot of Australian tunnels now tend to have smoke ducts and deluge systems.
<i>Past experience (4)</i>		
6	SPVA	So there was a resolve here that we needed to do better this time round - that we needed to come up with a way of ensuring there was integration between the civil works and the M&E works and that some of those disputes or some of those issues could be avoided. So the idea emerged, and it really came from the [Huge 1 and Huge 2] people that perhaps we could look at a collaborative arrangement to do this, along the lines of an alliance.
7	Huge 2 - A	I guess when I set up [Oz1Airportlink] I called upon our experiences from our more recent projects and in particular, the [XXX] project was still underway and there was an enormous amount of conflict occurring on the [XXX] project between the M&E contractor in the tunnel and the civil contractor, which was basically us. And I'm talking serious conflict, so the parties were more or less at war from a contractual point and a commercial point of view, but even worse than that, the project was suffering a time lag because the parties were very misaligned.
8	Facilitator1	If they hadn't had those kinds of experiences in the past, there would have been no catalyst for them to do this. And it's often the way with alliancing is unless people have experienced the bitter problems that they have from normal adversarial contracting, they're not of the mind to try something innovative where they realize that they're actually all better off if they can collaborate, even if that means having to compromise at times in order to support that collaboration.
9	SPVA	The M&E services are always squeezed because, by definition almost, they're the last thing to be finished on these projects. Until the civil work is sufficiently advanced those guys can't start and their equipment that they fit in is the primary focus of the commissioning activity at the end. So almost by definition they're on a critical path for the completion of the project. They come in late, they usually claim they've been – you know, their entry is delayed by the civil guys who take longer than they claimed to, and yet the deadline, the end date, is still there and they have this program. And consequently quite a degree of tension develops between the civil guys and the M&E team.
10	Huge 1 - A	So while the civil fit-out crew are trying to put down pavement and build block walls for equipment rooms, etc., the M&E team are expected to be in there as a subcontractor working amongst and around them in a very limited space putting up urns and lights and running their cables, etc. to rooms that are incomplete, through roadways that aren't complete, etc. It turned into a battle. There were always contractual battles and things relating to access and lack of access. When it comes to the very end of the project, commissioning time, the M&E crew have almost on every project been pushed around quite a lot, but then they're expected to meet the same opening date.

Table 3 provides only a small sample of available quotes relating to these two categories that we had to choose from. Table 3 in one sense is of significance in illustrating our research analysis approach. We gathered the quotes using NVivo10 and, based on concept emerging out of the data and being informed by the relevant literature, we categorized them. As illustrated in Table 3 important insights about the technical complexity of the projects and its scope and scale present compelling evidence to choose categories in which these abstracted concepts fit.

Discussion and conclusions

So, to conclude; what was the main reasoning for choosing a PA within a PPP procurement arrangement? It is clear from the analysis and Table 3 that the motivation to establish this PA stems from the following two main factors, the technical content and past experience.

Technically, this was a significantly complex project. The scope and scale of the operations were very extensive. The works required a spend of over \$600million over only about 4 years and in the confined space of a tunnel using large and hazardous equipment and material components with many teams of people. The type of technical complexity encountered included scope and scale, relationships tensions between people over both activity sequencing and goal/priority balance. The skills sets required were limited (refer source1) with only several service contractors available and so the options were narrowed to a small number of potential bidders to tender on a traditional basis. Remington (2011) discusses understanding complexity leadership in terms of understanding the levels of uncertainty, ascertaining levels of inherent trust, and difficulty in linking cause and effects, understanding timing of activities and people interaction for decision making and negotiating goals and priorities. All these issues were present and prompted a compelling case to break with past competitive and often opportunistic approaches to a collaborative arrangement in which the parties could develop a framework and set of protocols to abide. These respect each participant's need for joint concerted action while recognizing flexibility in who did what and when. The alliance carved up the scope of work across the three participants using a single team concept so the SERV1 were responsible for work normally undertaken by either Hugel1 or Hugel2 to facilitate better flow and risk management to avoid needless holdups and inter-team integration and sequencing problems.

Past experience also played a critical role from two directions. First, Hugel1 and Hugel2 had previously worked together in joint ventures and also both had worked with SERV1 on similar past projects. On one particular project the relationships between these parties became acrimonious mainly because under a traditional contractor-subcontractor relationship there had been information and power asymmetry that led to destruction of trust and suspicion about opportunistic behavior. As was specifically cited in source 7 by Hugel 2 –A (who was instrumental with Facilitator 1 in source 8 in setting up the PA) a main problem in recent past contractual interactions had been the presence of both information and power asymmetries and a lack of ability for perspective taking and the need for each party to look after their individual interests as a top priority. A PA has the effect of aligning objectives on a group sink-or-swim together as well as structurally dismantling contractual accountabilities and responsibilities that enforce imbalances of power and information. The PA facilitates better quality collaboration to accommodate the flexibilities required when working as a single team. Past experience taught all parties that a fragmented and linear relationship between the participants had been highly problematic in the past. Each participant had also had experience of successful PAs in the past as well and so they were aware of the advantages to be gained and had experience of how to participate in a PA.

From the case study, it can consequently conclude that Oz1Airportlink chose to create the SOCK PA on the basis of the need for close collaboration and team integration, knowledge and perspective sharing and all the features offered by a PA to combat adverse effects experienced on non-alliance projects that presented similar technically and relationally complex problems to solve. The major drivers can be said to be complexity on a technical and relational level where past experience played a critical role. This was the principal 'why' answer and response to question one. Following this on might also ask how this relationship functioned? Our research findings suggest that this experiment was a success, though naturally there were improvements that could have been made. Also, there are certain preconditions for adapting this collaborative form of procurement approach. However, this will be addressed further in future articles.

These are among many insights gained from this case study but they represent two critical explanatory factors that prompted the use of a PA approach for this part of the work. Many other insights were gained from this study that is beyond the scope of this paper but will be revealed through several other papers that will emanate from this case study.

Based on this, the paper arguably makes three distinct contributions. First, based in the uniqueness of the case itself, it contributes with a, first ever, analysis of a project alliance within a PPP. Secondly, utilizing the framework inspired by Engwall (2003) it provides with important insights into the reasons and emergence of the mentioned configuration – knowledge that should be of interest for both practitioners and academics. Finally, it provides an understanding of an emergent form of early contractor involvement with a PPP special purpose ownership vehicle that combines competition and collaboration for the PPP end-owner.

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