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The characteristics of Australian infrastructure alliance projects

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Abstract

The alliance contract method is a relatively new project delivery method that has started becoming popular in recent decades as an alternative to both traditional and other forms of relational contracts. The result of it being so new is that it is still unclear around the world as to when to utilise alliancing. The purpose of this research is to determine a list of project characteristics that identify when an alliance would be a suitable project delivery method. In addition, it identifies how alliancing addresses these characteristics and discusses a number of success factors and barriers.

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Keywords: Alliancing; Infrastructure; Australia; Project Delivery Methods; Contract; Success Factors; Barriers

1. Introduction

The alliance contract method is a relatively new project delivery method (PDM) that has started becoming popular in recent decades as an alternative to both traditional and other forms of relational contracts. In recent years, alliancing has been receiving worldwide attention with more and more countries exploring its use. Having originated in the UK, it has become a booming success in Australia. The success in Australia has shown by example that there are alternative methods to delivering projects in order to move away from the often-adversarial, traditional project delivery methods. As projects become larger and more complicated, and the pressure from various stakeholders increases, alliancing is proving itself as being able to deal with these ambitious targets.

Jefferies, et al. [1] p466 have identified that *"there is a clear gap in Project Alliancing, particularly with regards to identifying factors for its successful implementation in the Australian construction industry"*. As countries and

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industries with no alliancing experience, and in particular, limited to no experience with relational contracting, begin adopting alliancing, they will no doubt face a number of challenges. To help overcome these challenges practitioners will need to be educated in the factors that make alliancing successful.

As the adoption of alliancing in the construction industry has started becoming more prevalent worldwide, knowledge of when alliancing is appropriate could be valuable to practitioners looking at implementing non-traditional forms of contracting. Many countries, particularly in Europe, have recently started adopting alliancing. In addition, Finland, who started using alliancing in 2007, has begun experimenting with the model by adopting lean ideology into their alliance projects [2]. A clear understanding of the current state of alliancing could potentially lead to the creation of improved project delivery models.

The body of knowledge is missing a clear summary of how a project's characteristics influence the choice to deliver the project using an alliance. The purpose of this research is firstly to determine a list of project characteristics that identify when an alliance would be a suitable project delivery method. Secondly, building on the first point, by identifying the way in which the elements of an alliance contribute to addressing the issues associated with the identified project characteristics. This combination will help to remove the ambiguity in this area and aid practitioners in determining whether an alliance could be an appropriate way to deliver their infrastructure projects. Thirdly, this research aims to determine the current success factors and barriers that exist for alliance contracting.

To supplement the body of knowledge, the following research questions have been identified:

What characteristics of a project make it suitable for alliancing?

How do alliance elements address these characteristics?

What are the key success factors and barriers when choosing alliancing?

By addressing these research questions, this study will provide a means for those less experienced with alliance to recognise projects that are suitable for the alliancing PDM. It will provide them with an understanding as to how the model addresses these projects, will give them an insight into how to ensure success, and offer some points of concern when considering whether to choose alliancing.

2. Research methods

The research questions were addressed by performing a literature and document study. The results from this study were compared with the results of a series of interviews with Australian practitioners.

A literature study, following the prescription of [3], was undertaken to develop the theoretical background for alliancing. A combination of both journal articles and conference papers was used to gain a broad perspective of the current views of the topic. A document study was performed on a number of key government and industry publications covering alliancing, for example The National Alliancing Contracting Guidelines [4] and Alliancing: A Participant's Guide [5]. This was undertaken in order to pick up the government and industry perspective on alliancing and to supplement the academic perspective. Thus, the two studies allow us to gain insight into both the theoretical and practical aspects of alliancing.

As part of a larger study on the experiences of Australian infrastructure alliances, twenty-seven semi-structured interviews were undertaken face-to-face with key industry professional in Australia. The interview questions were formulated in line with the three research questions. The interviews ran over a period of three weeks during March and April 2016. Interviewees were contacted based on their experience with alliances. Respondents were chosen among project managers and contract specialists, mostly from client side (government), as in the Australian infrastructure industry, it is the government organisations that own the projects. In addition, a number of respondents from contractors (8), consultants (3), and academia (1) were included to gain a full industry perspective on the current state of alliancing.

The selection of multiple-case design was done in order to check for replication, as described by Yin [6]. Data from thirteen alliance projects was collected during the interview series. Fourteen of the twenty-two interviews were case specific and the remaining eight were general in nature. To ensure that we were gaining reliable information, we chose projects where the practitioners had played a significant role in the alliance. In addition, a limitation of a project value of greater than $50M AUD was chosen to ensure that each project was considered a large infrastructure project. The case projects that were analysed varied in size from $52M up to $1B AUD.

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