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Strategic partnering motives of clients, contractors, and subcontractors in the Dutch retrofit market

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Abstract. This study investigates the motives of clients, contractors and subcontractors and underlying conditions favoring strategic partnering formation in the Dutch retrofit market. In-depth interviews were conducted with six clients, six contractors, and two subcontractors concerning four cases in the Netherlands. To identify motives, the data from the 14 interviews were coded with Atlas TI based on a theoretical framework. The thematic analysis revealed the main motives. The main finding of this study was that clients and contractors form strategic partnerships for different reasons: clients unite to exploit the knowledge and capabilities of their supplying partners, while contractors and subcontractors unite to improve their market position. Both motives may be exchanged when clients offer contractors and subcontractors a long-term perspective. This finding shows managers in the construction industry that, to maintain a strategic partnership, it is important to understand and discuss the motives of each partner and how they can be exchanged.

1. Introduction

Recent decades have seen a growth of various forms of inter-firm collaboration and integration in designing and delivering building projects [1]. Each form aims to improve performance by establishing close relationships and aligning activities and goals between upstream and downstream actors in the supply chain [2,3]. Creating a more integrated and efficient supply chain is costly and takes time to become beneficial [4]. Therefore, building long-term relationships between actors in a chain is seen as a key success factor [4], as it reduces the need to learn in every new project [5] and enhances opportunities for continuous improvements [6].

While the importance of long-term relationships for the integration of supply chains is being recognized in the construction industry, it is generally supposed that long-term inter-organizational relations in construction are a rarity [4]. Long-term and close relationships between two (or more) independent parties which share the benefit created by the joint activity are called strategic alliances or partnerships, in management literature [6,7,8]. Strategic partnering is seldom referred to in construction literature and only a few examples of studies on strategic partnering in construction can

be found [4,9,10]. Furthermore, there is a tendency to focus on dyadic relationships between clients and main contractors [4]. However, long-term and multi-actor relationships aimed at aligning activities between supply chain actors do exist in particular niche markets in the construction industry [11]. For instance, in the housing refurbishment market, owners with large building stocks can offer a continuous stream of work for several consecutive projects. This continuous stream of projects gives owners the opportunity to build long-term relationships with actors in the chain [2,4,20].

Research outside and within the construction industry shows that strategic partnerships are plagued with problems of instability or even premature termination [11]. Failure rates can be as high as seventy percent (Das and Teng 2000). Overcoming high failure rates of strategic partnerships requires a better understanding of the factors involved in their establishment and maintenance [12]. The strategic motives for partnership formation play an important role and influence the outcomes and lifespan of strategic partnerships [13]. Although there have been several studies that examined the motives behind the formation of strategic partnerships [14,15], none of them have been in the construction industry. Therefore the purpose of this paper is to examine the motives and underlying conditions favoring strategic partnership formation in this sector.

Sambasivan et al. [12] argued that studies on strategic partnerships should adopt a multi-disciplinary perspective because there are many different theories to explain the motives for strategic partnership formation. To cope with this complexity, the authors used a grounded theory approach with a framework of sensitizing concepts that acted as a starting point for this qualitative study. Four cases concerning strategic partnerships in the Dutch construction industry were analyzed. To explore the perspectives of both first-tier (e.g. contractor and architects) and second-tier (e.g. subcontractors) actors, 14 key informants from different partners were interviewed about their motives for strategic partnership. The interviews were transcribed verbatim and coded for further analysis.

The next section develops a theoretical framework about the motives for strategic partnership formation based on literature from different scientific fields such as economic, organizational and social studies. Then the method is described; this is followed by data analysis and findings. The concluding section summarizes and outlines implications for relevant parties.

2. Theory

Various theories have been used to explain why firms want to enter into a strategic partnership with each other [16,17]. Eisenhardt and Schoonhoven [22] used the resource-based theory to study strategic partnerships. Through partnering, firms pool complementary resources together (e.g., machinery, labor) to enhance their joint productive capacity and lower their joint costs [34]. The combination of tangible assets, capabilities and intangible assets such as intellectual property can result in firms gaining a competitive advantage [18]. From the viewpoint of social exchange theory, exchanging a long-term perspective for the continuity of work can be beneficial for both parties [19]. Within an inflationary market, strategic alliancing can be a one-sided strategy of a client to secure the construction services of a contractor by offering him a long-term perspective [20]. With the counter desire for continuity of work, contractors could be willing to participate, especially if they feel they can continue working for this client when markets go down again [20]. Grant and Baden-Fuller [21] take a knowledge-based view of strategic partnerships, showing that the primary advantage of a strategic partnership is in acquiring and exploiting each other's knowledge, such as knowledge of production processes or markets. Early contractor involvement is an example of a client's strategy to gain access to the knowledge of a contractor in the early design stages [23]. From the perspective of transaction costs theory, strategic alliancing should give cost advantages, because it lowers the need to arrange, manage and monitor transactions across firms [24]. The market power theory is concerned with the ways a firm can improve their market position [25]. Partnering could facilitate expansion in

other markets [26]. Especially for small firms, partnering with a large firm down the supply chain could ensure them permanent access to their counterparts' market. Contingency theory argues that there is no best way to design an organization, and that the environment that an organization operates in shapes its structure and processes [27]. Therefore, the motive for strategic partnering could be to align the components of the participating firms (e.g. production processes) to achieve best performance [3]. Agency theory looks at the best way to organize the relationship between the principal (e.g. client) and agent (e.g. contractor) in such a way that it limits the agent's self-serving behavior [28]. Problems often arise when both parties have different interests and one party – the agent - has more information than the other. This information asymmetry could be misused by the agent to act in their own best interest [29]. From the perspective of agency theory, strategic partnering and its underlying rules could be a motive to organize the relationship between the client and contractor in such a way that it limits the agent's self-serving behavior. For instance, open-book accounting is a mechanism that should remove information asymmetry between partners [11]. The bandwagon effect is a psychological phenomenon in which people do something primarily because other people are doing it [34]. In construction, it could well be that the motive to form partnerships is fueled by the trend of working collaboratively which has dominated the construction debate in the past two decades [20].

3. Method

3.1. Rationale

This study has two objectives: (a) to identify the characteristics of the strategic partnership, and (b) to identify the motives of clients and (sub)contractors for forming a strategic partnership. To reach these objectives, a theoretical framework with sensitizing concepts was developed in order to identify the motives of partners who work within a strategic partnership in the construction industry [33].

3.2. Case study selection

For this study, four cases concerning strategic partnerships were purposively selected as this makes it possible to collect the most relevant data. [30]. A list of potential cases was created based on research team members' knowledge and the knowledge of people they know who work in the construction industry.

Despite the similarities, the four cases were different because they had a different scope of organizations involved in the partnership and length of the relationship, as shown in Table 1. For instance, in case C, six parties are seen as partners and two as 'co-makers'. The difference between partners and co-makers is that partners are involved in the design phase, while co-makers become involved when the construction phase is planned.

Table 1.	The scope of integration per case and length of the relationsl	hip in in
amount o	f previous projects	
	Partne	Co-
	rs	makers

	Partne						Co-	
	rs				makers			
	Client	MC	Speci	Specialized subcontractors				
Cases			Ι	D&A	R	W	Т	Р
А	3*	3	3	3				
В	1	6	6	6	1			
С	3	3	3	3		1	3	3
D	4	4	4	4		2	4	4

* = length of the relationship in number of previous projects executed by the strategic partnership. Abbreviations: MC= Main contractor, I=Installations, D&S=Demolitioner and Asbestos sanitation, R=Roofing, W=Window frames, T=Tiler, P=Plaster Worker

All four cases concern strategic partnerships working on consecutive housing refurbishment projects owned by social housing associations in the Netherlands. Most housing associations have a continuous stream of housing retrofit projects. This gives them the opportunity to offer repeat business and to build long-term relationships with supplying parties [20].

3.3. Case study design

Between April 2016 and December 2017, semi-structured interviews were conducted with key informants who were chosen for their experience in the selected strategic partnerships. Key informants from different organizational levels in both client, contractor and subcontractors' organizations were interviewed. Snowball sampling was applied. Key informants were identified until the research team concluded that the motives and partner selection criteria from each case were identified. In total, 14 interviews were completed with key informants from different companies: six contractors, two subcontractors and six clients (see Table 2).

Table 2. Interviewed firms and employees for Cases A, B, C and D					
Case A					
Firm	Role/Position	Size*			
Contractor	Project Leader	Medium			
Client	Head of real estate department	Medium			
Subcontractor Installations	Project Leader and owner	Medium			
	Case B				
Contractor	Project Leader	Medium			
Contractor	Project leader communication	Medium			
Client	Head of real estate department	Medium			
Client	Project Leader	Medium			
	Case C				
Contractor	Project Leader	Medium			
Subcontractor Electrical	Director / Project leader	Micro			
Client	Project Leader	Large			
Case D					
Contractor	Director	Medium			
Contractor	Project Leader	Medium			
Client	Project Leader	Large			
Client	Head of real estate department	Large			

Table 2. Interviewed firms and employees for Cases A, B, C and D

* Definition based on Staff headcount: Micro <10, Small <50, Medium <250, Large >250.

The semi-structured interview protocol developed by the research team was designed to explore the key informants' experiences in strategic partnering and identify the motives and characteristics of this type of organizations. Questions about what strategic partnering is and how it differs from more traditional ways of working, their reasons to choose for strategic partnering, and the form of the project organization were important parts of the interview.

All the interviews were carried out by Researcher two and recorded on tape with permission. Researcher two was not affiliated with the firms. The interviews lasted 50-70 minutes and were transcribed verbatim. Researcher one, who is an experienced researcher in the field of integration and collaboration in the construction industry, applied protocol coding using the concepts from the theoretical framework.

Atlas TI version 7.5.16 qualitative software was used to facilitate data analysis. To reach the objectives of this study, the data was analyzed using code frequencies of (a) the main operational items of the strategic partnership, and of (b) the motives per type of actor and [31].

This study was formally approved by the Human Ethical Research Committee of Delft University of Technology (HERC). Following the ethical guidelines of the HERC, informed written consent was obtained from each informant, anonymity was assured, and informants were informed that they could withdraw from the interview at any time. The data were treated with confidentiality.

3.4. Case descriptions

Table 1 provides information about the scope of integration and length of relationships between the partners in each case. Table 4 presents the project characteristics of the four cases.

Table 4. Project description of cases A, B, C and D						
Items	Case A	Case B	Case C	Case D		
Size of housing corporation (# houses)	10500	8000	27500	27500		
Location in the Netherlands	South	South-east	South	South-West		
Type of houses	Terraced	Terraced	Terraced	Terraced		
	houses	houses and apartments	houses	houses		
Type of construction	Renovation	Renovation	Renovation	Renovation		
Year of construction	1960's	1940's,50's,60's and 70's	1960's	1920's		
Project size (# houses)	90	209	89	81		
Year project started	2013	2016	2015	2016		

In each case, the partners become involved in the project definition phase. The project definition phase contains three stages: determining project purposes, translating those purposes into criteria for assessing alternative designs or solutions, and generating alternative design solutions. The design solutions are developed by the strategic partnership into business cases showing the total cost of ownership (TCO) of each case. The clients' board decides which business case it wants to develop further. After this decision, the strategic partnership continues to develop the design and project budget. When the final plan fits within the business case and the project budget is agreed by an external cost auditor, the works are awarded to the partners by the client. To develop the design, the project partners work together in a joint project team which is directed by a project board. Several integrative activities are undertaken together, such as investigating the current state of the houses, joint identification risks, discussions about possible design solutions, lean planning sessions, and use of prototypes to test and develop the design. The latter is used to evaluate design solutions between planners, designers, and foremen, which is an example of vertical integration between different functional levels [32]. Financial information is shared openly to facilitate the discussion about design solutions. All partners use activity-based costing to calculate their costs. The contractor acts as the integrator of all design and cost information and facilitates the discussion between the different partners, for instance about which partner can best perform particular building activities. Project related risks are either shared between the partners or allocated to a particular partner.

4. Findings

The cases were analyzed based on the objectives stated earlier (Table 3). Table 5 suggests there were three highly discussed motives for strategic partnering. The motive of clients to secure construction services was also discussed, as the market conditions in the construction industry have changed the past few years. At the end of this section, the mechanisms that make clients, contractors and subcontractors step into a strategic partnership are presented.

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Motives		Ci	MC	Sub	Total
		n=6	n=6	n=2	
1	To exploit the knowledge and capabilities of partners	17	20	0	37
2	Access to partners' market / continuity of work stream	6	14	7	27
3	Lower the agents' self-serving behavior / move away from traditional procurement	4	14	1	19
4	To secure construction services	4	2	0	6
5	To achieve the lowest costs	2	1	0	3
6	To make construction costs more predictive	1	2	0	3
7	Bandwagon effect	0	2	0	2
8	Work together in the resolution of unforeseen conditions	0	0	1	1

Table 5. Motives of clients, main contractors and subcontractors for strategic partnering

Abbreviations: Ci=Client, MC=Main contractor, Sub=Specialized subcontractor

The main reason why clients enter into a strategic partnership with upstream firms is to gain access to the knowledge and capabilities of their partners:

One of the main points is the joint development of knowledge and the input of knowledge by our partners. They [the contractor and specialized contractors] are builders and they build in many different places in the south of the Netherlands. They gather a lot of knowledge and experience. We want to see their knowledge reflected in our projects. (Head of real estate department client)

Clients require the capabilities and knowledge of their partners to manage their complex projects. Complex in a technical or social sense:

We give our most complex projects to the strategic partnership. Complex may mean it's in a difficult working-class district or we anticipate a lot of technical issues. (Head of real estate department client)

One of the reasons why clients are making this move is that housing corporations have been downsizing some of their in-house capabilities.

I feel housing corporations will continue on this trail [strategic partnerships], because their in-house capabilities are getting less and less. It becomes more and more a problem for them to determine what should be done and how. (Director contractor)

Another reason is that clients wanted to move away from traditional procurement, because of the self-serving behavior of contractors:

We started with strategic partnering in 2013 after we had a very bad experience [on a traditionally procured project]. So we just started with a pilot. (Head of real estate department client)

On the other hand, partners, such as contractors, need to be willing to share their knowledge. In this regard, the long-term perspective plays an important role, because it connects the main motive of supplying partners with that of the client:

When you talk about knowledge sharing, you talk about money. When is a party willing to share their knowledge with us? ... What is the drive for a party to share their knowledge? It must be appreciated in some way. We concluded that we have to collaborate for more than just one project. We should look further; for a number of years. (Head of real estate department client)

The main reason for contractors and subcontractors to enter into a strategic partnership, is to gain access to a partners' market downstream. From the viewpoint of a contractor, strategic alliancing with a client is an opportunity to raise the continuity of the work stream:

You have a stable basis. You know you have a project secured for next year. That's an advantage of strategic partnerships. The main idea is that you know this in advance so you can take this project into account. That you can organize your resources for the next year. (Project leader contractor)

Further upstream, strategic alliancing gives the same opportunity for subcontractors:

When you're part of an partnership, you get security. You know that you'll get a project in advance. I can expect a project of [#] homes at the end of this year. It's the idea that we are part of this project again. (Project leader subcontractor)

Furthermore, in times of economic downturn, a strategic partnership gives contractors and subcontractors security of work:

A strategic partnership gives continuity. So when the market goes down again, I still have projects from the strategic partnership. So in the bad times, between 2012 and 2014, we were very happy with our partnerships. (Project leader subcontractor and owner)

On the other side, when markets go up again, upstream partners have built commitment to a client. Even when upstream partners could raise their profit margins working for other clients, they feel committed to keep working for their partner-clients for lower yields in times of economic upturn.

...If another subcontractor may make 50% profit when he works for Client A, and he may only make 3-4% when he works for Client B in a strategic partnership, he will ask himself if he wants to work for this strategic partnership. However, I think we should always work in partnerships for our continuity and to secure our relationship with a client in the future. We will never quit working in partnerships.(Project leader subcontractor)

Figure 1 summarizes the motives of clients, contractors and subcontractors for participating in strategic partnerships and the underlying mechanisms for their exchange.

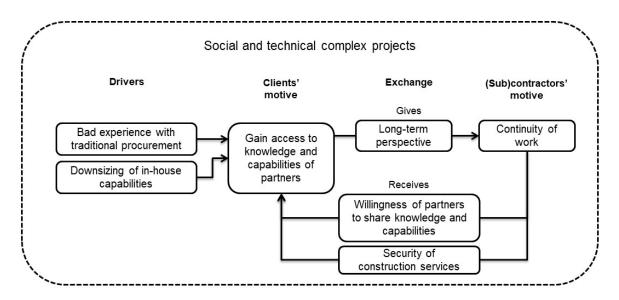


Figure 1. Motives of clients, contractors and subcontractors for participating in strategic partnerships and connecting mechanism

5. Conclusions and discussion

The aim of this study was to explore the motives for strategic alliancing in the construction industry and to identify the criteria used to select partners. The main finding of this study was that construction clients have different motives to enter into a strategic partnership than supplying partners, but that these motives can be exchanged when the client gives a long-term perspective to these supplying partners. Clients enter into a strategic partnership to exploit the capabilities and knowledge of contractors and subcontractors, while contractors and subcontractors form strategic partnerships in order to improve their market position, especially in times of economic downturn. However, it is the long-term perspective that binds both sides together and makes partners exchange motives. This confirms the theory developed by Fernie and Tennant [20] about the reasons why clients and contractors would form a strategic partnership. Supplying partners are willing to share their knowledge and capabilities on complex projects with clients if this can be exchanged for a more continuous stream of work in times when the economy is faltering. Supplying partners are willing to give clients security over their construction services in times of economic upturn. This gives clients the opportunity to keep producing in times when the productive capacity of the construction industry is under pressure and prices are rising.

The findings inform managers in the construction industry that strategic partnerships can be developed in the construction industry to deliver multiple consecutive projects. The framework developed for this study can be used as a basis to identify and discuss the motives of different partners for strategic partnership formation. This study shows that, where the motives of potential partners differ, it is important to look for mechanisms that can make partners exchange motives as shown in this study. Furthermore, the motives for strategic alliancing may change under different economic conditions. So when a partnership is formed, it is important to discuss how motives can change under these changing conditions and if the partnership can be sustained.

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