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The Roots to Conflicting Interests among different Partners in a DBFM Consortium

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ABSTRACT AND KEYWORDS
The paper describes a theory for identifying the roots of conflicting interests in DBFM-consortia. The Theory that has been developed analyses the possible conflicting interests based on three complementary tension fields, where for every tension field relevant aspects are defined from existing literature. By rating the individual aspects a statement can be made about the possibility that conflicting interests might occur in one of these three tension fields. Because of the fact that (some of) the aspects are controllable (like investments made, or possible future deals), the probability of conflicting interests to occur can be reduced. This should lead to more insight in the way a consortium should be managed with regard to conflicting interests. The principles described are not only applicable to DBFM-projects, but can also be used in other forms of collaboration.

Keywords: consortia, collaboration, conflicting interests, management tool

1.1 INTRODUCTION
Traditionally, the different phases in the construction industry (design, build, finance, maintain) are separated and poorly integrated. This leads to sub optimization in the construction process (Dorée, 2001). Public Private

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Partnerships (PPP) based on integrated contracts, where the different phases are placed in one hand, are an important step in integrating these building phases. These PPP’s have the potential to reduce this sub optimization in the construction industry. The Dutch government recognizes the sub optimization and the fact that private parties are often better suited to bear some of the risks involved, or to finance and maintain a project. Because of this the government stimulates PPP, making it an interesting and growing market. The most used contract form for PPP, is one single contract existing of the aspects design, build, finance and maintain (a DBFM contract) signed by one private company. These contracts stimulate the private companies for instance to think about the maintenance costs while they are still designing the project. Life cycle costing will play a much greater role in the design phase, and integration of building phases is stimulated. This leads to added value for the client. These contracts existing of different specialties (design, build, finance, maintain) often lead to the formation of consortia in the market. Different companies start working as one team for a project. This is where the difficulties occur: different companies who start working together on a project have different interests. These different interests often lead to conflicts, which could undermine the advantages of a consortium. Many studies have demonstrated the negative effect conflicting interests have on the possible added value the collaboration could achieve (Wijnen 1998; Vosselman, 2004 Huxham 2005). This makes it a real and relevant problem.

As can be derived from the literature, the biggest advantage of a DBFM consortium is co-specialization. This means different companies combine their strengths so specific tasks and risks can be handled by those parties who excel in these tasks. This leads to a more efficient use of the strengths companies have. Another positive aspect of collaboration is the fact that different companies have different manners of solving a problem. These differences will keep parties sharp and alert (Wijnen 1998; Nueno, 1999). There is a risk in forming consortia between companies from different cultures and businesses. Companies often will not or can not fully understand the interests the other companies have, leading to unavoidable conflicting interests. Many aspects of conflicts have been investigated, such as the role of trust, the dangers of opportunism and the effects of relationship safeguards (Mayer et al, 1995; Jap et al, 2003). These and more researches are relevant to this research, and will be used to set up a system that can identify the causes to conflicting interests between companies involved in a DBFM consortium.

The statement that ‘a part of the added value of a DBFM consortium is lost, because of conflicting interests between the companies involved in the consortium’ is the general problem this research has been set up for. The goal is to ‘develop a method, a Theory that can provide insight in the possible conflicting interests between the companies involved in a DBFM consortium’. Central question to this goal is how conflicting interests can be
identified in the collaboration. To answer these questions the next sub questions have been answered:
Q 1. How do goals and interests of the companies involved relate to each other?
Q 2. Where in the collaboration can conflicts occur?
Q 3. How can companies be classified?
Q 4. Which factors play a role in conflicting interests?
Q 5. How can these factors be related to question number 2?
Q 6. How can conflicting interests be demonstrated with a Theory?

2. METHODS

To find the answers to these questions a strict separation has been applied between the development of a Theory, (question 1 through 6) and the confrontation with reality (case study). Only existing theories will be used to set up the Theory. Many studies to the role of trust, the principles of PPP, different forms of collaboration, et cetera have been consulted. After the Theory has been developed, it is tested in practice through interviews with companies that have joined a consortium for the realization of a school project in The Netherlands.

3. RESULTS

3.1. HOW DO GOALS AND INTERESTS OF THE COMPANIES INVOLVED RELATE TO EACH OTHER? (Q1)

Goals and interests are related as shown in the following figure.

![Figure 1: The relationship between goals and interests](image)

This shows that companies have different interests and decide to collaborate because they have mutual goals. The interests therefore cannot be equalized.

3.2. WHERE IN THE COLLABORATION CAN CONFLICTS OCCUR? (Q2)
As is shown in figure 1 it takes companies and some kind of relationship that lead to a conflict. It is important that the relations in which these conflicts can occur are exhaustively defined. This research has shown that the following tension fields can exhaustively describe the relationships.

Each of these three tension fields describes a different perspective in the relations that exist in a consortium. The first perspective looks at a company as an individual. Aspects that play a role here are whether or not a company has relationships with companies outside the company. The time and effort a company has to put in other projects, or the financial incentives outside the consortium can be so big, the incentives from inside the consortium become useless. The second tension field describes how two companies are able to cooperate, and focuses on possible conflicts because one company wants to learn from the other company, or because of lack of trust.

The third tension field focuses on the aspects that play a role in consortium management. The consortium as a whole has to work like a single engine, management aspects are analyzed in order to make a judgment of the possible existing conflicts.

3.3. HOW CAN COMPANIES BE CLASSIFIED? (Q3)

As resulted from Q1, a method of classifying the companies has to be used. A method has been developed which classifies the companies into different competencies, based on two dimensions. The first dimension is the expertise of a company. In this dimension 5 aspects are defined, which are mutually exclusive and collectively exhaustive. They are: Design (D), Build (B), Finance (F), Maintain (M) and Coordinate (C).

The second is the Role is fulfills in this Expertise. In this dimension 3 aspects are defined, which are mutually exclusive and collectively exhaustive. They are: Investor (I), Subcontractor (O) and Advisor (A). These two dimensions are used to define a classification matrix as is shown in the next figure. They are defined as competencies.
The Roots to Conflicting Interests among different Partners in a DBFM Consortium

3.4. WHICH FACTORS PLAY A ROLE IN CONFLICTING INTERESTS, AND HOW CAN THESE FACTORS BE RELATED TO QUESTION NUMBER 2? (Q4, Q5)

Literature research has shown that the next aspects play a role in conflicting interests. Literature about motives for collaboration, relationship safeguards, opportunism, and more has been studies, and are displayed in table 1 (Hagedoorn, 1993; Gulati, 1995; Doz, 1998; Nooteboom, 2002).

Not all factors are relevant to all the tension fields, therefore the table shows which factors have to be monitored (y: yes, n: no) when analyzing one of the three tension fields. (Q5)

Table 1: Aspects

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Tension field</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td>Motives for collaboration</td>
<td>y</td>
</tr>
<tr>
<td>Positioning</td>
<td>n</td>
</tr>
<tr>
<td>Learning</td>
<td>n</td>
</tr>
<tr>
<td>Resources based motives</td>
<td>n</td>
</tr>
<tr>
<td>Cost bases motives</td>
<td>n</td>
</tr>
<tr>
<td>Safeguards against opportunism</td>
<td>y</td>
</tr>
<tr>
<td>Ethical environment</td>
<td>y</td>
</tr>
<tr>
<td>Goal congruence</td>
<td>n</td>
</tr>
<tr>
<td>Trust</td>
<td>n</td>
</tr>
<tr>
<td>Transaction cost structure</td>
<td>y</td>
</tr>
<tr>
<td>Conflict solving structures</td>
<td>n</td>
</tr>
<tr>
<td>Possible continuity</td>
<td>y</td>
</tr>
<tr>
<td>Management aspects</td>
<td>n</td>
</tr>
<tr>
<td>Team strength</td>
<td>n</td>
</tr>
<tr>
<td>Network size</td>
<td>n</td>
</tr>
<tr>
<td>Limited management</td>
<td>n</td>
</tr>
<tr>
<td>Defined reach of collaboration</td>
<td>n</td>
</tr>
<tr>
<td>Measurement of success</td>
<td>n</td>
</tr>
</tbody>
</table>
3.5. HOW CAN CONFLICTING INTERESTS BE DEMONSTRATED WITH A THEORY? (Q6)

The answers to the questions 1 through 5 provide the ingredients needed to develop a system that can judge collaboration based on objective observations. The competencies from the matrix (Q3) are judged based on the relevant aspects to the three tension fields (Q5). A table is set up to come to an overall opinion for conflicting interests to occur based on the relevant aspects. The table is designed as follows:

**Table 2: Total chance of conflict**

<table>
<thead>
<tr>
<th>Competency</th>
<th>Chance of conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positioning</td>
<td>small</td>
</tr>
<tr>
<td>Resources motive</td>
<td>small</td>
</tr>
<tr>
<td>Investments</td>
<td>small</td>
</tr>
<tr>
<td>Bonuses</td>
<td>small</td>
</tr>
<tr>
<td>Continuïteitsintrenties</td>
<td>small</td>
</tr>
<tr>
<td>Beschikbaarheid</td>
<td>small</td>
</tr>
<tr>
<td><strong>Total chance on conflict</strong></td>
<td><strong>big</strong></td>
</tr>
</tbody>
</table>

This exercise can be executed for every competency. These tables and the three tension fields form the Theory, which makes it possible to provide insight in the possible conflicting interests between the companies involved in a DBFM consortium. This can be done by analyzing every competency from the matrix. This leads to the following overall picture:

**Figure 3: overall view**

4. DISCUSSION

The division in three tension fields seems to be plausible. The conflicts that where found during the case study could be classified into these tension fields. The interviews also pointed out that the aspects from the Theory (trust, goal congruence, et cetera) where often recognized by people who had worked in a DBFM consortium. The Theory that is described in this
research seems to be an interesting way to look at collaborations such as DBFM consortia. It is possible to analyze aspects of companies, and identify from these aspects a chance that conflicting interests might occur later in the collaboration.

5. CONCLUSIONS

There are some answers yet to be found. Although the case study executed at the end of the study shows that the theory could be right, this doesn’t show it is a perfect theory to identify conflicting interests. The principles of the theory are interesting for further research. The execution of more case studies which are based on the theory are essential to make this a useful method that perhaps can lead to a way of judging collaborations in a more mathematical manner.

6. REFERENCES

Dorée, A. G., 2001 ‘Dobberen tussen concurrentie en co-development: de problematiek van samenwerking in de bouw’ Twente, Universiteit Twente.


