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Contracts and Culture in a

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Per Fridtjof Larssen, Atle Engebø, Ola Lædre and Ole Jonny Klakegg

Department of Civil and Environmental Engineering, NTNU, Trondheim, Norway

Abstract

Purpose — This paper aims to examine how a partnering contract facilitates project values and the culture in a construction project and the consequences of said facilitation. Hence, it answers the following research questions: 1) How does the contractual framework in Bispevika facilitate relational culture? 2) What effects of this facilitation can be identified in the early phase of development?

Design/Methodology/Approach – An explorative approach is taken into a single case. A literature study into the topics of relational contracting and culture provides a backdrop for the study. The empirical work consists of a study of the construction contracts and six in-depth interviews with actors from the supply-chain.

Findings – Contractual elements affect the project organizations' motivation. On the basis of existing literature, five contractual elements are identified explicitly in the contracts: "shared goals", "incentives and bonus", "open book", "colocation", and "design-build".

Research Limitations/Implications – The data collection is restricted to a single point in time in a single project. Further research is necessary both at a later stage in the same case and in similar projects.

Practical Implications – The paper identifies the effects that proper use of contractual elements has on the relational culture in a construction project and is, therefore, important for subsequent research within the area.

Originality/Value – In addition to identifying the existing contractual elements, the interviews also revealed two additional practices that might be useful for subsequent research: "involvement of executive management" and "subsequent contracts dependent on previous project performance".

Keywords Partnering, Relational contracting, Culture, Open book, Colocation, Target price, Incentives

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1. Introduction

There is a wide acknowledgement today that the construction industry faces certain problems. Researchers and practitioners point to, among others, productivity problems, opportunistic behaviour and sub-optimization (Matthews & Howell, 2005, Laan *et al.*, 2011). One approach to address these concerns is the development of relational project delivery arrangements (RPDA) (Lahdenperä, 2012): "RPDAs are developed to generate a cooperative and trustful climate¹ for implementation of the best of the project. Such a relationship requires honest and open communication. Only then, can the parties respect each other and establish a trustful relationship".

The contract represents the formal agreement between two (or more) parties. It serves as the guideline for project activities and has an important role in establishing the relationship between delivery and payment². There have been several studies describing what is being done in RPDAs (Eriksson, 2010, Hosseini *et al.*, 2016), but there is a lack of studies looking at the effects of individual contractual elements.

The case investigated is the Bispevika Project, a part of the area development located in Bjørvika, Oslo. The client, Oslo S Utvikling, has previously developed other projects in the area and their ambitions when going into further development of Bjørvika represent the onset of the case-project. The Norwegian contractor AF Gruppen was contracted for the first two set of complexes in 2017 as the main contractor through a Partnering DB³-contract⁴. The project at large is scheduled for 1,300 apartments with storefronts on the street level, with an estimated cost of 4.5 BNOK. The first two contracts are limited to 280 apartments at a cost of 1.1 BNOK. Subsequent contracts are awarded based upon performance of the main contractor in previous stages. Projected conclusion date for the project is 2021.

While there is a considerable amount of literature on both contracts and partnering (Børve *et al.*, 2017), few go into how singular contractual elements affect project culture. As the contract represents the start of the formal collaboration it also represents a natural start for inputs on project values and, consequently, culture. Hence, this paper aims to answer the following research questions:

- (1) How does the contractual framework in Bispevika facilitate relational culture?
- (2) What effects of this facilitation can be identified in the early phase of development?

Findings and the following discussion is limited to the observations made within the single case of the Bispevika Project.

2. Methodology

The study was approached as an exploratory case study. As Yin (2014) suggests, case studies are the preferable method when looking at why's and how's.

To evaluate the case project on its cultural aspirations, a literature study was conducted according to Blumberg (2014). From the preliminary study, two paths emerged: 1) further

¹This paper prefers the term culture to climate as culture seems more centered on humans.

²"contract": Merriam-webster.com. 2018. https://www.merriam-webster.com/dictionary/contract (30 September 2018)

³Norwegian contract terminology has some peculiarities when it comes to describing projects; Design-Build (DB) is the usual translation for "Totalentreprise". A "Totalentreprise" is an agreement where a single contractor has the full responsibility for design, production and control (Lædre, 2012).

⁴The contract describes itself in two ways: on the front page as a "partnering DB contract" and in the introduction (under Ch. 2) as a "partnering contract based upon the principles off an 'open book' DB-contract".

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searches based on common words/topics in retrieved literature (e.g. IPD, alliances and open book) and, 2) citation-chaining the retrieved literature (Ellis, 1993).

As the case project is in its early stages, an explorative case study was chosen. Exploratory case studies are suited for identifying research questions and procedures for subsequent research (Yin, 2014).

The empirical work of this study consists of six interviews and four documents. The document study looked at relevant material produced for the case-project: two main contracts (one for each phase) between the client and the main contractor (*the CC-contract*), and the initial sales document, a 260 pages document describing ambitions and goals from the contractor. As the contract is a sensitive document, sometimes not even available to researchers, all exact monetary values were redacted and other contractual documents, e.g. price-estimates and payment plans, were not requested to avoid sensitivity issues. The contracts were read, first to form an informed, but subjective, opinion regarding terms and clauses that might facilitate a collaborative project organisation based upon the literature study. This was followed by reading the contract alongside the table of elements observed in partnering projects as presented by Hosseini *et al.* (2018).

The six interviews were with different actors/firms, representing a central part of the supply-chain of the case project (i.e. client, the main contractor and major subcontractors [SCI). The interviews were conducted between late March and early May of 2018.

The interviews were transcribed and coded using NVivo. The coding is based on reflections from Tjora (2017). The transcriptions were coded with a two-step method, first with *In Vivo* coding, followed by a restructuring and grouping codes by themes and categories. The transcriptions and their respective coding served as the main body of empirical evidence for this study.

2.1. Limitations

The study is limited to being a single case study. However, as the study is exploratory in nature, it sought to discover and examine preliminary information to create a foundation for further research. The timeline of interviews was short (two months), which makes it difficult to observe long-term effects of early choices. Lastly, as the project is located in Norway, it might imply some geographical and cultural biases influencing any broader theories.

3. Theoretical framework

The practice of relational contracting is based on Ian Macneils theory of the relational contract from 1968 (Macneil & Campbell, 2001, Mclaughlin *et al.*, 2014). Macneil proposed that a contract is inherently relational in opposition to the classical theory of the discrete (or transactional) contract, but he did not see an immediate recognition of this idea (Mclaughlin *et al.*, 2014). It later got its proof of concept with the evolution of RPDA. Relational contracts in construction can be traced back to the US army corps in 1988 and have since evolved into three distinct practices: partnering, alliances and integrated project delivery (IPD) (Lahdenperä, 2012).

Yeung *et al.* (2012) suggests five core elements of relational contracting: "commitment", "trust", "cooperation and communication", "common goals and objective", and "win—win philosophy". Besides these core elements, Yeung *et al.* suggests there exist a variety of other elements that are considered non-core or optional. Looking at contractual elements, Hosseini *et al.* (2018) finds that between 44 partnering construction projects, no partnering element was present in all, suggesting a possible lack of clear definition and understanding in the Norwegian construction industry as among the reasons.

Relational contracting as a measure to address the increase in complexity that construction project faces is not a new one. To cope with project complexity, Ning & Ling (2015) recommends contracting parties to design effective mechanisms to facilitate the preservation of relationships, cooperation between contracting parties and flexibility rather than overly rely on pre-set planning.

Organisational culture refers to a system of shared norms, beliefs, values and assumptions, which bind people together and create shared meaning (Larson *et al.*, 2014). Construction projects are often characterized by the different contracting organizations and their individual organizational culture. This meeting, or clash, of cultures can nurture or stifle efficiency. In relational contracting this is addressed by bringing forth the best of individuals and organisations to make a successful project delivery (Rahman & Kumaraswamy, 2008). Thus, project organizations need to focus on the management of the project culture during the project's life cycle (Van Marrewijk, 2007).

According to Rahman & Kumaraswamy (2008), coordinated efforts in terms of both contractual and non-contractual requirements, practice and their relevant protocols are needed. The outcome of such a collaborative effort is to ensure optimized project outcomes and higher performance levels.

4. Discussion and findings

This paper examines how the contract enables relational thinking and facilitates the development of a relational culture in the case project. Firstly, when addressing the role of the contract there was a shared sentiment between every interview that traditionally the contract itself was not something they were concerned with in their daily workings. The role of the contract, after signing, was expressed to be most relevant when operations had gone sour and there were considerations into if one should involve lawyers.

The document study revealed five explicitly stated talking points: "shared goals", "incentives and bonus", "open book", "colocation", and "design-build". These are all found in the table of elements from Hosseini *et al.* (2018). However, when it comes to "open book" and "colocation", neither of these had any further specification in the contract itself. Additionally, as part of the coding of the interview results two additional topics of interest arose, one regarding "involvement of executive management", the other regards the decision to divide the project into several stages with "subsequent contracts dependent on previous project performance". In respect to the methodology of this paper (looking at contracts), these two will be addressed as additional findings towards the end of the chapter, but has a possibility of representing an important dimension for further insight into the topic of developing a relational culture in a project.

4.1. Shared goals

An important facet to relational project delivery arrangements is the establishment of shared goals (Lahdenperä, 2012). It is reasonable to see each party have their individual motivations for going into a project, but to make sure there is an outline of shared goals to help facilitate these motivations and align interest are important to avoid sub-optimization (Matthews & Howell, 2005). In the CC-contract the goals of the project are presented as a set of "shared primary goals" (1):

The project shall realize:

- significant savings compared to normal construction-costs;
- qualities that trigger an increase in sale price beyond the usual increase in the market; and
- time-saving in terms of progress.

The project shall:

- be the most attractive part of the city of Oslo and Norway;
- create more than 40% more value than traditional construction projects;
- have the most pleased users; and
- change the collaborative methods in the construction industry.

Another member of the contractor team also presented, by email, these goals four months later (3):

The project shall:

- city development, Bispevika shall become the most attractive part of the City of Oslo:
- create more than 40% more value than comparable construction projects;
- have the most pleased users and be the best place to live; and
- change the collaborative patterns of the Construction Industry.

Given the similar formulations between three different people, at three different times, it could indicate a shared understanding of the overall project goals. There is a noticeable move towards specificity and use of superlatives in the latter formulations, but at the same time, the goals coincide. There are reasonable arguments to be made as to why not to include the measurable values and superlatives in the original contract as it *could* be seen as a breach of contract if these exact numbers were not reached. Evaluating the sets, they can be seen as 1) "ambitions", 2) "goals" and 3) "targets", akin to what Samset (2008) describes. The contract states that both parties established these goals, and in the interview with the contractor, they were adamant about these being their goals as well as the clients, dispelling any notion about this being a one-sided enforced ambition from the client.

To promote these values down the supply-chain the contractor, when reaching out to subcontractors (SC), required them to attend a presentation of the project spanning several hours. Interested SCs were then required to come back a couple weeks later to present how they could support the project goals. A contract was finally awarded to the SC who exhibited the right *mind-set* (i.e. what the contractor called the SCs attitude towards the project goals and willingness to cooperate). From the interviews all the SCs would mention the ambitious goals of the project, referring to "being best" and "changing the industry", both indicating a well-rooted understanding of the project goals.

After procurement, the contractor continued the activity of close communication with their SCs in terms of goals and ambitions. There were even occasions where the contractor would have a goal in mind, but through communication with the supplier understand that their supplier had even higher ambitions. This seems to indicate a trustful relationship in which the supplier find the contractor reliable enough to actually challenge these ambitions and not being afraid of what not realizing these goals would ensue.

4.2. Incentives and bonus

The contract is structured as a target price contract, with an incentive system that splits any bottom-line gains/losses between the parties. While not stated in the contract itself, it was stated during the interviews that there exists an upper limit to cost, in which it is expected that the contractor covers all expenses beyond this limit. Alongside the target price with shared gains/losses there exists a bonus-system (separate from the bottom-line performance of the project, to promote certain behaviour).

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The target price, incentives and bonuses were tailored towards each SC, reflecting their level of ambitions. The tailoring of incentives and bonuses underpin the work in developing shared goals. While it takes away from a clean, easily described project, it gains individual ownership to the processes. Several SCs saw their role in the overall project as so central that they suggested tying their payout to the overall result rather than their performance towards an individual budget post. By tying certain actors to the overall result of the project, it arguably integrates them into the project, as found in IPD and, hence, creates a motivation for supporting other actors, enabling the collaborative affects one wishes to achieve with RPDAs.

While the actors were mostly positive to this approach, there were concerns over the negotiation of the target price. By optimising the target price in collaboration with the contractor, the SC ends up with a price that – while reachable – has little further room for improvement and payout of incentives. However, this did not seem to negatively influence their overall feelings towards the project but might serve as an indication that goals and bonuses have to seem achievable to motivate.

The consequence of this was that even at an early stage SCs saw potential in each other to optimise their deliveries and the overall goal and was eager to communicate. The action of tailoring incentives and bonuses after ambitions made the SCs expresses a feeling of being wanted in the project, further strengthening the bond to the project.

4.3. Open Book

The 'Open book' concept was introduced as a "central principle" in the CC-contract, but was not further defined. The interviews revealed no general structure besides the exchange of information actually happening. Hence, the formal structure of the open book arrangement escapes this study.

While most parties had a somewhat shared understanding of the concept, one SC understood it as having your expenses covered. While it seemed like an innocent misunderstanding, the problems it could cause would potentially devastate the relation to the contractor. It stands as an argument for specifying practices in the contract. Another party, while they had no problem complying with opening their books, did not see a benefit to it as their "cost is what it is" and were not open to further negotiation.

Nevertheless, participants were open to the practice and considered it a symbol of trust but did not see any major benefits beyond estimating and controlling the target price.

4.4. Colocation

One clearly stated ambition of the client was to facilitate the relational nature of the project by colocating each actor. Colocation was specified in the contract, but was not specified beyond the mutual ambition of "securing necessary colocation of the parties' operational resources in the project". In practice, this meant establishing shared facilities on the site where everyone was expected to have minimum one representative at given times during the week. Actors with larger responsibilities had several representatives. By colocating the actors, the project seeks to 1) build a connection to the project and its organisation to challenge the inherent, strong connection to each owns firm and 2) facilitate a quicker and faster way to address problems and difficulties that may arise during planning and production.

The effects of the colocation on the case project were sparse as the project is still in early production. Respondents were positive to the colocation and experiences so far were mostly positive.

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The client–contractor-contract (the CC-contract) was stated as "partnering DB"-contract, with a Norwegian Standard DB-contract (NS8407) attached. There has, as of 2018, yet to be developed a Norwegian Standard-contract for partnering.

From the interviews with the contractor and the client, it was stated as a necessity to organise the project as a DB-contract to properly facilitate a partnering project. It should be noted that the amount of control the DB-contract gives the contractor this is very beneficial to them in terms of control. No other party were concerned with the CC-contract and had no further input to the matter.

4.6. Additional findings

These additional findings were not derived from the contract and not found in Hosseini *et al.* (2018), but all interviewed SCs mentioned them positively. They are included as they had an important effect on the relational culture in the project and might be significant for further studies.

4.6.1. Involvement of executive management. As mentioned, the SCs were expected to present their values and ambitions towards the project. This presentation had to be held by someone from the SCs executive management. This was made mandatory by the contractor to ensure that this project was of importance to the SC. A consequence of this was that the people involved from the SC considered the project more important as their leadership had taken the time to make sure they were chosen for this project. This made people more open to front the values and motivations their leadership had presented, in turn reducing the stress over whether a decision affected individual results or the common good. Our impression from the interviews is that this led to a more open-minded, collaborative project, were SC personnel felt they were assigned an important task in the overall activity of their firm.

4.6.2. Subsequent contracts dependent on previous project performance. The client decided to divide the full development project into contracts covering individual buildings and awarded contracts based on the pre-sale of apartments, and more importantly, if the project organization showed promise in achieving the overall goals. The most ambitious goals (40 per cent increase in value) was only expected at the completion of the final contract, with previous contracts stepwise progressing towards this. This had an unnoticed effect on the actors – i.e. no single party explicitly pointed to it, but all parties mentioned it in terms of their individual interest of staying in the project. As the project sees itself, and confirmed by the individual parties, as a chance to enhance the industry, all parties acknowledge that, the timespan of such an ambition is not achievable within a single project. The stages not yet realised represent a future set of stepwise goals, in which actors who perform acceptably are invited to join the next stage, creating an individual motivation and a motivation for the parent firm.

5. Conclusions

The goal of this study was to look at how a partnering project facilitates for collaboration through the contractual framework. This was addressed through the research questions:

- (1) How does the contractual framework in Bispevika facilitate relational culture?
- (2) What effects of this facilitation can be identified in the early phase of development?

The interviewees stated that the contract traditionally is not a concern until a disagreement occurs. The contract in Bispevika facilitates a relational culture through the five contractual elements: 1) "shared goals", 2) "incentives and bonus", 3) "open book", 4) "colocation", and

5) "design-build". Additionally, interviews revealed an additional two elements 6) "involvement of executive management" and 7) "subsequent contracts dependent on previous project performance".

All these had a positive effect on the relational culture in the project, "Shared goals" created a mutual understanding and motivation towards the client's overall goal of the project. The SCs would reference the ambitions, indicating that the goals were well rooted. By adjusting "Incentives and bonus" towards each SC the contractor demonstrated the willingness to collaborate and nurture the SCs ambitions. However, negotiating the target price, along with a reveal of economic information through "open book" was daunting to some and might cause later conflicts. "Open book" was generally seen as a sign of trust, but did cause some concern in regards to target price and possible future misunderstandings. Experiences with "Colocation" were sparse owing to the project being in its early phases and should be a topic of consideration for further studies along the project timeline. The contractor and the client saw "design-build" as a necessity to facilitate the partnering project. "Involvement of executive management" lets the participants from the SC feel important within their own organization owing to the attention from their leaders. By handling "subsequent contracts dependent on previous project performance" and realizing the larger gains alongside the larger challenges, the client created a secondary joint-goal for the project organization, facilitating team spirit.

Lastly, the contract did not describe the operational conditions "open book" and "colocation", which raises questions whether

- (1) there are other documents that dictate conditions or
- (2) the operational implication are deemed obvious to the parties.

As these represent blind spots in the study, further research is necessary to address this.

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