

# Reproduction of exchange relationships: Changing focus from organisations to individuals

Mikael Frödell, (email: mikael.frodell@chalmers.se)

Division of Construction Management, Chalmers University of Technology, Sweden

Per-Erik Josephson, (email: per-erik.josephson@chalmers.se)

Division of Construction Management, Chalmers University of Technology, Sweden

## Abstract

*That organisations collaborate on a firm to firm basis is an assumption which underpins much of the literature on inter-organisational relationships and supply chain integration, both in the generic literature as well as in the construction oriented. The exchange relationships on an organisational level, however, are constituted of one or several interactions on interpersonal level. With the interpersonal level as unit of analysis, this paper aims to answer how dyadic exchange relationships are produced and reproduced.*

*Investigation of dyadic exchange relationships between contractors and subcontractors has been conducted through 15 interviews with site managers from the contractors and foremen from the subcontractors. Findings show that the individuals within both dyads of the exchange relationship play important roles in the outcome of the project and the specific relationship. Despite this, the organisational focus of procurement of subcontractors tends to be highly price-driven. Site managers and subcontractors' foremen, however, tend to bypass the price-driven procurement approaches by offering their preferred counterparts possibilities to recalculate their quotations and adapting prices according to individuals.*

*By narrowing the range of procured subcontractors and focusing on the use of core teams based on matching of individuals within the teams, a potential improvement in the construction supply chain can be seen. By changing the focus of the concurrent research within construction management from organisational level towards interpersonal level, new perspectives may also be elucidated and exchange relationships between contractors and subcontractors might be better understood and explained.*

**Keywords:** Inter-organisational relationships, interpersonal relationships, Contractor-supplier relations, Supply chain integration, Subcontractors

## 1. Introduction

That organisations collaborate on a firm to firm basis is an assumption which underpins much of the literature on inter-organisational relationships and supply chain integration, both in the generic literature (Emberson and Storey, 2006) as well as in the construction oriented (e.g. Bankvall et al., 2010, Eriksson, 2010). The forces which are affecting the development of inter-firm relationships may, however, be derived from three different levels: institutional, organisational and interpersonal (Marchington and Vincent, 2004). At the institutional level, there are national and regional norms and standards empowered through trade associations and professional bodies. At the organisational level there are the forces of previous business relations on both local and national level as well as inter-firm dependency. At the interpersonal level, the breadth and depth of contacts between supplier and customer is considered which concerns the day-to-day interactions between boundary spanners at different levels of the organisations (Marchington and Vincent, 2004).

In order to fully understand how firms interact, an investigation of the operational exchange relationships is essential and “one must be more sensitive to the local contingencies on those boundary spanning persons and processes than to some overall organisational characteristic which may have little predictive or explanatory power” (Leifer and Delbecq, 1978, p. 48). Even though contemporary research argue that project performance is negatively affected mainly by delays in labour flow together with material flow and information flow (Hatmoko and Scott, 2010), the literature on inter-organisational relationships offer sparse discussion of the processes that characterize interpersonal relations within or between organisations (Marchington and Vincent, 2004).

During the past decades, the construction oriented literature regarding inter-organisational relationships and supply chain integration mainly has focused on the client-contractor relationships (Bemelmans et al., 2012, Fernie and Thorpe, 2007, Saad et al., 2002). The perspective of the contractor-supplier relationship has, however, gotten increased attention during the last few years where strategic purchasers’ perception on efficient relations has been explained (Frödell, 2011) and successful examples illustrated of construction firms adapting cooperative integration of material suppliers (Nordin et al., 2010). With some exceptions (e.g. Dainty et al., 2001, Winch, 2001), the collaboration with and integration of subcontractors, is still scarcely researched. With the interpersonal level as unit of analysis, this paper aims to answer how dyadic exchange relationships between site managers and subcontractors’ foremen are produced and reproduced.

## 2. Theoretical framework

The point of departure is the governance structures which are proposed by Williamson (1973, 1991) and explained as markets and hierarchies. By the argumentation of markets and hierarchies and the in-between mode hybrid, different kinds of areas for transactions to be executed on are defined. This is followed by the perspective of the individual and how the organisational and individual forces might interplay during reproduction of exchange relationships.

In accordance with Thompson (1967), who states adjustment and adaptation to be the central question in inter-organisational constellations (boundary-spanning components of organisations) in contrast to coordination as for intra-organisational questions, Williamson (1991) points towards adaptation as an influential attribute when investigating inter-organisational constellations. In total, five attributes differentiate the governance structures in markets from hierarchies: adaptation through autonomy, adaptation through collaboration, incentive intensity, administrative controls, and contract law (Williamson, 1991). Markets are argued to exist when transactions are executed between independent buyers and sellers and the price is set by the autonomy of the market, the supply and demand. Hierarchies or unified governance are present when full integration has taken place and the transaction is completely taken of the market. As markets and hierarchies are the extremes of a continuum, the in-between mode – hybrid governance structure – have been referred to as a coordination mode (Grandori, 1997) and as relational contracts (Winch, 2010). While some of the studies on governance structures has characterised the in-between mode as an additional third mode with its own characteristics, many studies on inter-firm organising has, however, been managing the governance through one single broad mode of organising argued as an intermediate generic mode stretching between markets and hierarchies (Grandori, 1997).

Based on asset specificity and frequency of transaction, four governance alternatives have been argued as relevant for the construction industry (Winch, 2001): sequential spot-market where the asset specificity as well as the transaction frequency is low; consortium where the asset specificity is low and the transaction frequency is high; joint-venture when the asset specificity is high as well as the transaction frequency and quasi-firm when the asset specificity is low and the transaction frequency is high. As for the traditional trades of subcontracting, sequential spot-market is most common where one firm might be exchanged for another relatively easy (Winch, 2010). Even though similarities are many with the market governance, sequential spot contracts are still argued as a relational contract, i.e. a hybrid mode (Winch, 2010). When transaction frequency rises between two firms, quasi-firms exists, which is an intermediate between the bilateral and unified (hierarchical) governance structures and also an intermediate between relational and neoclassical contracting (Eccles, 1981).

The perspective of governance structures does, however, take an inter-firm perspective of the exchange relationships. This despite that organisations are constituted by individuals and all individuals do not act in a unison way and not always in the direction of the organisation as such (Emberson and Storey, 2006). When discussing exchange relationships it might, however, be difficult and even unlikely for individuals acting within the operational core of the company to initiate collaborative approaches towards external actors unless they have the support from the company (Marchington and Vincent, 2004). The contradictory perspective of the organisation and the individuals has been articulated by Bryman et al. (1987, p. 264) by stating that "although the market transaction may fundamentally determine the approach to relationships between the parties, the noticeable feature is the attributed importance of interpersonal relations in avoiding contractual stand-offs". Hence, within the contractor-supplier exchange relationship they are identifying the importance of the individual. In order for procurement to have any influence on the corporate strategy and hence the organisational perspective, a change of the price-driven procurement methods has been argued as a must (Cousins and Spekman, 2003). Similarly, in order to facilitate cooperation in exchange

relationships, exchange relationships “should be structured in such a way that there are frequent and durable interactions among specific individuals” (Welling and Kamann, 2001, p. 33).

### **3. Method**

15 semi-structured in-depth interviews based on open-ended questions were conducted during the beginning of 2011 by the first author. Of the 15 respondents, six were site managers from contractors and nine were foremen (or in equal position) from the subcontractors. These roles were chosen since they are active in the procurement of subcontractors to the project, the ones who have the day-to-day contacts within the project and also are financially responsible for the business transaction. Due to the possibility that the involved parties’ opinions of the relationship might differ (e.g. Blois, 2002, Marchington and Vincent, 2004), both dyads of the exchange relationships were interviewed.

During the interviews, the site managers were asked about their current project, the subcontractors in their current project as well as questions related to their relationships to two specific subcontractors and their respective foremen. Each of the six site managers were asked to select one subcontractor in their current project which they desire working with in the future and one subcontractor which they do not desire working with in the future. Of the six site managers, three chose to not specify a subcontractor which they did not prefer working with in the future. The nine selected foremen were asked about their current project, their relationships to two specific site managers, one of which they desire to work with and one of which they do not desire to work with, as well as their relationship to the site manager who selected them for the study. Each interview lasted for approximately one and a half hour and was conducted at the respondent’s work site. All interviews were audio-recorded and transcribed verbatim. Notes were also taken during the interviews and reflections were summarized and noted after each interview. To corroborate the impressions from the interviews and to facilitate and enhance subsequent analyses, an additional interviewer accompanied during four of the interviews.

The six site managers work at three different regional construction firms in western Sweden, two at each contractor according to Table 1. Four of the projects were new buildings of which one partly is rebuilding. These projects were producing apartments. Two projects were pure rebuilding projects of which one was a hospital and one was offices. The size of the contracts was approximate numbers given by the site managers and ranged from 34 - 400 MSEK. Within each company a contact person recommended two or three site managers to interview. The criteria for these site managers were that they currently should be running a project with subcontractors involved and they should have been involved in the selection of the subcontractors. If three project managers were recommended, two were randomly selected for interviews.

Of the nine respondents at the subcontractors, eight had the official role as foreman, in several cases in tandem with other roles. One of the respondents, however, had the role as project manager. Nevertheless, when the respondent described his role as project manager, the similarities with the smaller companies’ foremen were many such as managing the contract and being the site manager’s contact during the project. The turnover of the subcontractors has ranged between ten and 65 MSEK

with one exception at 1 745 MSEK and the number of employees ranged from eight to 53 with an exception with 1 200 employees as presented in Table 2.

*Table 1. Site managers' current projects*

<i>Contractor</i>	<i>Type of Site Manager's Current Project</i>		<i>App. Sum of Contract (SEK)</i>
<i>A</i>	<i>Senior apartments</i>	<i>New/rebuild</i>	<i>40 M</i>
<i>A</i>	<i>Apartments</i>	<i>New</i>	<i>34 M</i>
<i>B</i>	<i>Hospital</i>	<i>Rebuild</i>	<i>63 M</i>
<i>B</i>	<i>Offices</i>	<i>Rebuild</i>	<i>40 M</i>
<i>C</i>	<i>Apartments</i>	<i>New</i>	<i>270 M</i>
<i>C</i>	<i>Apartments</i>	<i>New</i>	<i>400 M</i>

*Table 2. Subcontractor respondents' positions and company details*

<i>Representative's Position</i>	<i>Profession</i>	<i>Turnover</i>	<i>Employees</i>
<i>Owner, CEO and Foreman</i>	<i>Painting</i>	<i>10 M</i>	<i>16</i>
<i>CEO and Foreman</i>	<i>Waterproofing</i>	<i>60 M</i>	<i>21</i>
<i>Owner and Foreman</i>	<i>Landscaping</i>	<i>18 M</i>	<i>8</i>
<i>Owner, CEO and Foreman</i>	<i>Casting</i>	<i>60 M</i>	<i>26</i>
<i>Owner, CEO and Foreman</i>	<i>Ventilation</i>	<i>35 M</i>	<i>18</i>
<i>CEO and Foreman</i>	<i>Demolition</i>	<i>30 M</i>	<i>17</i>
<i>Foreman</i>	<i>Painting</i>	<i>30 M</i>	<i>40</i>
<i>Owner, CEO and Foreman</i>	<i>Smithery</i>	<i>65 M</i>	<i>53</i>
<i>Project manager</i>	<i>Prefab concrete</i>	<i>1 745 M</i>	<i>1 200</i>

#### **4. How site managers reproduce desired exchange relationships**

During the interviews several themes crystallised. First in this section, the site managers' views on what makes certain subcontractors better than others is presented. Secondly, the importance of the specific individual in the role of foreman is treated. Last, the site managers' views on the price as a driver during procurement are handled.

A positive trait that the site managers point out with subcontractors is that they are positive and do not see any problems. One of site manager describes his own day by saying "it is always problems on every little thing. For me, my whole day is filled with problem-solving". It is hence argued as

relieving when the subcontractor manages the problems themselves. What site managers are after is that the subcontractors should be self-propelled and creative. All subcontractors, however, are not supposed to be creative. Dependent on the trade, site managers expect a certain amount of creativity. Carpet layers for instance are not considered as needed to be creative while installation workers are. Additionally, the extra finish that some specific workers put to their work is highly appreciated. The additional costs which comes from the extra finish and the problem-solving, is according to the site managers, not a big problem since they argue that it should be more expensive to go back later on and fix the problems. Nevertheless, when too many hours are taken account for by the workers, the site manager has to take this up for discussion with the foreman. The site managers argue the extra costs to be a situation of giving and taking.

Another feature is to what extent the subcontractor keeps to the schedule. Since the schedule is argued by the site managers as the most important management tool during the production, it is considered essential to stick to it, whatever happens. For the subcontractor's account, it is the foreman's responsibility to manage their resources in order for the schedule to be followed. This might imply working longer days or dedicating more workers to the project in case the subcontractor falls behind the schedule. The site managers also discuss the deliveries of documentation concerning quality and environment as a variable when considering subcontractors. A site manager points out that some foremen deliver these documents by default while the site manager in other cases needs to pursue the foreman in order to get the documentation. The specific site manager argues that smaller companies in general not are as good as larger companies in these issues. "Some smaller companies do not know what to deliver – then I have to help them and this takes time", the site manager states and accentuates the general problem that the site managers come down to, their time. If the subcontractor does not deliver what it is supposed to, the site manager has to take time to get the subcontractor to deliver, whether it is documentation or project deliverables.

One of the site managers thinks that the firm is the most important when procuring subcontractors. He argues that "if you find a good company, then it is generally that everyone within the company is good, but there are exceptions". The other site managers, however, consider the specific individual as decisive rather than the name of the company. "It is usually the foreman who is the company, so to speak; it is they who make it work", another site manager states. The site manager tells about the foreman at the pipefitter within his current project who formerly was employed by another firm. "Well, it was just like the old firm. It is the same actually, because he is the one who manages it", the site manager comments the foreman's change of firm. The reasoning points toward the importance of the specific individual in the role as foreman. This also argues against formation of long-term contracts with subcontractors since it not is possible to sign these contracts related to specific individuals. If the performance in the exchange relationship is dependent on a specific individual, the forming of firm-specific long-term contracts would be directly counter-productive.

The site managers also discuss the impact of the price during the procurement. One of the site managers was part of the procurement of a subcontractor which in the case was a landscaping subcontractor. Two firms had similar prices but the site manager chose this one since he had been working with the foreman before and he had good experiences. He had no experience from the other firm. He, however, expresses relieve that the preferred subcontractor lowered its price in the end of

the negotiation since it was priced too high in the beginning. If this had not been the case, he might have been to use the other firm. The problem, the site manager states, is “since I had never worked with him [the foreman] before, I could not claim that he was worthless”. He continues, “If I had worked with him and had many bad experiences and failed jobs, then, maybe, I could have justified taking the more expensive company, otherwise it would have been very difficult”. This situation clearly shows how the price is the decisive factor in the selection of subcontractors. Even though the site manager had good experiences from a subcontractor, it is expressed as very challenging to procure it if the price is not the lowest. In order to deviate from the lowest price the site managers have to prove that the alternatives have performed very bad, not just that their preferred alternative have performed well in the past. On the question whether it ever is possible to procure a subcontractor which does not have the lowest price, the site managers’ answers simply is “No”.

## **5. How subcontractors’ foremen reproduce desired exchange relationships**

The findings from the interviews with the foremen from the subcontractors mainly concern three themes. Firstly, the characteristics of a desired site manager are presented. Secondly, the management of additional costs during the project is discussed followed by the additional costs related to specific site managers.

One of the foremen states that most of the site managers that he has been working with over the years have been quite good. The common view of a desired site manager is a good leader and that the site manager gives good directives to the foremen. Being a good leader is pointed out as having control on everything and that the site manager is calm and to the point. In giving good directives it is not only included that the site manager gives directives of what to do the next day or next week, it also has to have the prerequisites in order for the subcontractor to be able to do the intended work at that point. Also the interdependencies with other subcontractors and the site manager’s responsibility to coordinate this, is mentioned as a major indicator when characterising a desired site manager. A foreman tells that his casting is dependent on that the ground subcontractor has finished the landscaping before he can begin and that the pipefitters are ready to put the pipes in the concrete before he closes the formwork for instance. Additionally, it was argued that with a site manager who manages to create a good atmosphere at the building site, the subcontractors’ workers do a better job.

A foreman of a landscaping subcontractor tells that he always makes a call to the site manager a few days before his workers are going to come to the site and do their work. During this call he ensures that the prerequisites are the right ones for his workers to perform a good work. If not, he clearly tells the site manager that they are not going to show up until the prerequisites are right. The prerequisites concern for instance that there are sufficient areas available in order for the subcontractor’s workers to do an effective job. “It costs me money to stand around and wait and I do not have that in my calculation”, the foreman states. “These trouble hubbies”, he says and refers to the site managers who do not have the prerequisites in place, “they want me to fix and tricks in order to do my work, but who is going to pay for it”. The foreman consider it better to take the discussion of potential additional costs before entering the site and doing the work in order to avoid an economic discussion in the end.

Another foreman, however, states that it might be a sensitive issue to take these additional costs up for discussion. He argues that the site manager might consider the foreman as expensive and difficult to work with and consequently do not want to work with the foreman in the future. This might be even if the additional costs, according to the foreman, are legit and accounted for. In the end, the foremen claim that the site manager is the one person who determines the profitability of the project from the subcontractor's perspective. "We notice a great difference between different contractors and their site managers", a foreman states.

That the specific site managers are decisive for the subcontractors' profitability and also the final pricing of the quotation is a unison view of the foremen. "Working with certain site managers takes longer time; you have to think of that", the site manager points out and argues that the mark-up on the pricing is not changed due to site manager but the unit times are. Another foreman, however, use a mark-up for certain site managers since he knows that he will get additional costs and that he will not get paid for these during the economic discussions afterwards. In the same way the foremen argue that site managers with whom they have previously worked and gained good experiences may get a lower price since the foremen knows that prerequisite are in place and sound economic discussions are conducted. The foremen also argue that it might take one or two projects together with a site manager in order to learn how they are working and also for the site manager to get to know the demands from the subcontractor. With the successful previous experiences, one of the foremen also states that the amount of requests for quotation increases from that specific contractor.

## **6. Discussion**

Findings indicate that the individuals within both dyads of the exchange relationship play an important role in the outcome of the project and the specific relationship. Despite this, the procurement of subcontractors tend to be based on lowest bid while matching of individuals is given little or none consideration. If a discussion about the external integration of subcontractors is supposed to be valid, account is needed to be taken to the involved individuals. The current literature on supply chain integration within construction, however, seems to neglect this and focus solely on the inter-firm perspectives. When studying the practical situation of how site managers and subcontractors' foremen characterise and reproduce their exchange relationships, it seems to come down to individuals. The site managers, however, consider it a difficult task to take account to the specific individuals during the formation of the organisation since the current procurement processes within the construction industry and based in a firm-to-firm mind-set. It is, however, of interest to discuss how these identified characteristics, which in many cases are individual specific, may be considered in the procurement of subcontractors.

The market of subcontracting has earlier been argued as characterised to be short-term and incused as highly competitive and price-driven. Even though the aim of the exchange relationships between contractors and subcontractors might not be to fully integrate the supplier, the tough competitive procurement processes hinders potential benefits which are identified by site managers and subcontractors' foremen which have developed a mutual understanding of each other and each other's ways of working. In the shadow of the price-driven market it seems, however, as site managers as



well as the subcontractors' foremen have identified this potential mutual development and the potential gains. In accordance with the findings of Bryman et al. (1987), the phenomenon where the desired subcontractors are asked by the contractor to recalculate their quotation in order for the contractor to be able to select them for the contract is a sign of this. Similarities might here be seen with the reasoning on cooperation as an procurement procedure in-between those of competition and cooperation (Eriksson, 2008).

Even though the organisational forces of the contractor tend to force the individuals toward a price-driven focus, the individuals themselves seem to pull the exchange relationship approach closer to collaboration than competition. Hence, the governance structure could be argued to look like market governance at organisational level which is pulled towards a quasi-firm or even a joint venture at individual level since the potential gains of prior beneficial collaboration seem to be highly valued by the involved individuals, given their ways of acting. Since the exchange relationships seems to be based in the interconnectedness of two specific individuals, such as the site manager and the subcontractor's foreman, long-term contracts could be directly counter-productive if these are firm-based as underpinned in much of the supply chain integration literature.

The competitive characteristics between the contractor and subcontractor in the procurement, however, seem to make it difficult for the site managers and foremen to actually take advantage of their mutual experiences which they have identified and developed through a common past. Furthermore, the narrow focus from the contractor's to lower the offered prices from the subcontractors, severely hinders subcontractors to invest in further development. Development, which later could have favoured the contractor through more effective working processes and a decreased cost structure. Following the reasoning by Marchington and Vincent (2004), it is difficult and unlikely for individuals in operational to initiate collaborative approaches towards external actors unless they have the support from the company. In this paper, however, it is argued that the opposite relationship also exists; company level exchange relationship is based in developed and refined exchange relationships at interpersonal level.

Consideration, though, has to be taken to the characteristics of the subcontractors as mainly small companies and their geographically limited spread. Their personnel resources may not make it feasible to geographically expand, why contractors would have to adapt their procurement processes to such features. The local geography and limited size, however, bring certain positive traits when considering the dyadic exchange relationships. In accordance with the reasoning of Bröchner et al. (2002), the regional characteristics entails that individuals tend to meet at recurrent basis and also know each other personally. If these traits of were to be realised during the procurement, a step would be taken towards the matching of specific individuals as recommended by Welling and Kamann (2001) as a mean to stimulate cooperation and more efficiently manage exchange relationships between contractor and subcontractors. Leveraging of these potential advantages during the procurement, however, seems to be absent.

## 7. Conclusions

With the aim to answer how dyadic exchange relationships are produced and reproduced by investigating how site managers and subcontractors' foremen characterise desired exchange relationships, 15 interviews with site managers from the contractors and foremen from the subcontractors were conducted. Even though the subcontractor market is argued as price-driven on an organisational level, the individuals within this study tend to strive towards collaborative exchange relationships with individuals with whom they have mutual positive experiences. By giving their preferred counterparts possibilities to recalculate their quotations in order to achieve the lowest price and by increasing unit times and mark-ups for non-preferred ditto, the site managers and subcontractors' foremen bypass the price-driven procurement approaches.

By narrowing the range of procured subcontractors and focusing on the use of core teams based on matching of individuals within the teams, a potential improvement in the construction supply chain can hereby be seen. Even though the gains of mutual experiences over time are clarified by both site managers and subcontractors' foremen, little is currently done in order to incorporate these insights in the procurement processes at organisational level as well as in the construction supply chain literature. Due to the situation where an organisational price-focus triumph over mutually established, well working processes in the exchange relationships between the site manager and foreman of the subcontractors, development and refinement of efficient mutual processes is hampered. This would, however, imply a need for support from the organisational level, in this case the top management. By changing the focus of the concurrent research within construction management from organisational level towards interpersonal level, new perspectives may also be elucidated concerning how firms within the construction industry interact and why. These questions serve as interesting areas for further research.

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