Abstract
Contractors purchase material and services for 70-80% of their turnover. In order to increase their competitiveness, contractors need to realise the suppliers’ part in the delivery and prioritise the value created by the suppliers. Even though, construction companies often are recommended to emulate manufacturing companies when developing long-term relations with their suppliers, there are, however, constraints for this development which are related to the characteristics construction industry. The aim of this paper is to identify perceived constraints related to establishing and maintaining efficient contractor-supplier relations in construction. The findings are based on a two-year case study of a large contractor, where field observations and in-depth interviews were carried out in order to find out what individuals working in a purchasing department perceive as being the constraints. The results show that most of the perceived constraints reported seem to concern the contractors’ organisations and behaviour. It is recommended that the contractors initially focus on developing a robust organisational foundation before focusing on the development of relationships with suppliers. It is further recommended to differentiate the strategy for developing supplier relations depending on characteristics such as type of product and geographical markets. Some suppliers are suitable for closer collaboration on a national level, whereas, in some categories of products, it is more suitable to strengthen regional networks of suppliers.

Introduction
Manufacturing companies tend to build long-term relations with the suppliers they consider to be most important, and then work to develop a viable mutual process in order to strengthen the relationship. Successful manufacturing companies may even support their suppliers’ development believing that the cost will be lower if also the suppliers work more efficiently. These manufacturing companies believe that their competitiveness is dependent on both the efficiency in their own processes as well as those of their suppliers. When looking at contractors within construction, this behaviour is not seen to the same extent (Saad et al., 2002). Why is that? Do the market conditions, the industry structure and the organisational culture hinder construction firms from following the same behaviour?

Manufacturing companies are described as producing longer series of fewer products in permanent factories and as having more or less permanent processes and organisations. Construction companies are, on the other hand, described as producing single and unique products in temporary factories and where organisations are constantly renewed. Is it a better strategy to avoid establishing long-term relations and instead focus on forming structures and training the employees to be flexible? Does type of product matter?
There are several reasons for examining constraints that undermine the establishment and maintaining of contractor-supplier relations in construction. First, contractors purchase material and services for 70-80% of their turnover. In order to increase their competitiveness they need to prioritise the value created by the suppliers and realise the suppliers’ part in the delivery. Hence, suppliers form large part of the quality that the contractors deliver (e.g. Proverbs and Holt, 2000; Karim et al., 2006). Second, contractors invest resources to establish closer and long-term relations with their customers while they ignore establishing long-term relations with their suppliers (Josephson et al., 2009). Third, a construction project involves several relations between firms. Projects that initiate new relations between firms increase the uncertainty and the risks. Long-term relations could decrease the uncertainty and the risks. Moreover, research within construction has so far focused on relationships between contractor and client and ignored the relationship between contractor and supplier (Saad et al., 2002; Akintoye et al., 2000).

The aim of this paper is to identify perceived constraints related to establishing and maintaining contractor-supplier relations in construction. During two years, the first author was employed within the purchasing department, which is a national staff that manages framework agreement suppliers. The purchasing department manages the sourcing and implementation of these agreements, while the actual purchases are done locally in each specific project. Participatory observations together with individual interviews constitute the primary method of data collection. In total, 37 in-depth interviews were conducted of which 25 focused on a specific contractor-supplier relation (see Frödell and Josephson, 2008) and 12 of the respondents belonged to the purchasing department (see Frödell, 2009). The participative observations lasted for a period of two years where the first author’s role as an observer was subordinated the role of participant and hence, could be termed participant-as-observer (Gold, 1958; Merriam, 2009). The observations were continuously documented by writing field notes (Bryman and Bell, 2007), where a special focus was on opinions and comments related to the case organisation’s perception of constraints regarding establishing and maintaining of contractor-supplier relations.

Based on the field notes, a categorisation of the perceived constraints was made. The aim of this paper is not to give an exhaustive coverage of constraints related to the establishment and maintaining of contractor-supplier relations, but to report topics which were frequently mentioned and discussed within the case organisation. Eight perceived constraints concerning establishing and maintaining long-term supplier relations form the basis of this paper. Four major areas related to perceived constraints have become clear: Contractors’ organisational structure, Contractors’ long-term/short-term perspective, The business deal and The external environment. Each of the major areas is constituted by two perceived constraints, resulting in eight perceived constraints which are discussed below. After the field notes had been analysed and a preliminary categorisation of the perceived constraints were formed, a group discussion with two strategic purchasers from the case organisation was held in order to get additional information on the perceived constraints. The group interview lasted for three hours and was led by both authors. During the discussion, each identified perceived constraint was introduced by the authors and followed by a discussion. The discussion was audio recorded.
Contractors’ organisational structure

The contractors’ organisational structures have significant influences on their behaviour. Since Sweden is a long country with a long distance from north to south and the large contractors do business in a variety of sub-industries, the contractors have divided their organisations into several regions and further into several districts. In addition, new projects are often located in new places. The organisations are decentralised and the work is performed in different ways in the different projects.

1. Contractors’ decentralised organization

The first perceived constraint relates to the decentralised organisational structure implemented in the contractors’ organisations. Generally, decentralised organisations are argued to have fast and adaptive decision paths which can be seen in the cases of this paper as well. An effect of this, however, is that many decisions are made locally in the organisation and have a tendency to see to the good of the project rather than the good of the organisation as a whole. This sub-optimization is an inherent part of the culture which was clearly articulated by one of the strategic purchasers: “the local decisions are sub-optimized is matter of course”.

The effects of this decision-making pattern can be seen in purchasing and supplier relations. Even if the purchasing department signs the framework agreements with suppliers, the projects make the actual decision of what supplier to use. A strategic purchaser emphasised the subordinate status of the framework agreement and the power of the order itself: “The framework agreements may be good for our suppliers but in the end it is the actual order that matters, that is when they can secure their money at the bank. A non-binding agreement is more a case of nice to have.” This does in fact result in the framework agreements being mainly used when considered the most favourable from a project perspective. From a supplier perspective this might be seen as a need to promote their products twice, once to the purchasing organisation for the signing of agreement and once to the project for the actual order.

Even though loyalty to the current agreements can be considered high within the case organisation, the reasons for this can be questioned. The fact is that many of the suppliers were already widely used through the organisation even before the agreements were signed, which unambiguously lead to a high loyalty to the agreement. However, it is questionable if the loyalty would be as high if the supplier were changed in favour of a new one; or would the projects still buy from the former supplier?

It is then obvious to ponder the actual benefits the suppliers gain from these framework agreements if the contractor only follows them when it is the most favourable for themselves and their specific project. Furthermore it may not be completely clear who should decide when to follow the agreements and when not to. Is the decision for the purchasing department which has signed the agreements and which are supposed to have the best holistic picture of the market, or it is for the projects which mainly are working to maximise the results for the specific project and are mostly updated on the current preferences and the actual needs in the production?
2. Different ways of working in the contractors’ projects

The second perceived constraint relates to the contractor’s organisation and concerns the different ways of working in the projects. The major contractors carry out thousands of projects each year spread both geographically and in content. In these projects, the ways of working are very individual and relate to the specific site manager rather than to the company which the site manager is a part of. Hence, when the supplier is approaching the projects there are different ways in how the projects thinks the ordering and delivery should be conducted making the situation for the supplier very difficult. One part of the development of contractor-supplier relations relates to standardised ordering from the projects and standardised deliveries from the suppliers which has turned out to be a very difficult task for the contractors, and the suppliers use their own ways of dealing with this matter.

One way for the suppliers to manage the inconsistency in the projects’ ways of working has turned out to be differentiated prices. A strategic purchaser explained: “There are subcontractors [service suppliers] that offer a certain price if a specific project manager is responsible for the project. This is because they know that it will be a better functioning process”. Another strategic purchaser points out that this should not be seen as a rebate when there is a good project manager, i.e. a manager that runs projects in structured ways and follows the original schedule, but as an additional cost for extra work and for higher risks when the project manager is not as good. Consequently, suppliers put great value in a consistent and well managed process within the project.

When treating the issue of supplier relations and supplier development, it is questionable if the contractors are mature enough to deal with the suppliers’ processes when they do not have control over their own situation and their own processes. A better support in these matters might be needed from other parts of the organisation. “The production should focus on developing what they are best at, the production. But they also need support with issues as structural calculations, processes and purchasing”, a strategic purchaser stated, further elucidating the situation. Nonetheless, purchasing is considered a good and concrete way to realise cost reductions for the project. A production manager stated that “purchasing is the only post where we can make a profit. All other costs are pretty much fixed.”

Contractors’ long-term/short-term perspective

On the strategic level, decisions are supposed to be based on a long-term view. The decisions on the operational level are, on the other hand, based on short-term views. One reason is that the business to a high extent is organized for maximum profit in single projects.

3. Contractors’ short-term approach

Moving on to the contractor’s short-term and long-term perspective, the third perceived constraint concerns the contractor’s short-term approach. Even though it is generally accepted that long-term thinking is favourable for reducing transaction costs and increasing productivity, measurements and incentives systems still drive the organisation to take a short-term perspective when it comes to supplier relations. For instance, one of the strategic
purchasers within the case organisation stated that he could sign better deals with the suppliers, but since the evaluations of the purchasers and the incentive structures were based on reducing prices each year, the most favourable deal for the company in a long-term perspective is not always the one chosen.

That the measures and incentives systems encourage decreased prices each year must be seen as a major indicator of the contractor’s short-term approach since most mutual investments and initiatives of the contractor and supplier might take at least a couple of years to pay off. The incentives systems, however, indicate what the management sees as important and which criteria they wish to aim towards, which was supported during a group discussion through the statement: “What I have to do in order to get my bonus definitely drives my work”.

The construction industry has already started to build long-term relations between the actors and also identified the benefits. This is, however, only done in the relations between clients and contractors. Even if it is quite easy to show the positive effects of a long-term relationship with a client, both for the client and for the contractor in terms of money, it is more difficult to show in the relationship between contractor and supplier.

“At the end of the day, it is money into the projects that matters” a strategic purchaser stated. While financial results are the main driver within the production management, it is hard to believe that the focus on the price might diminish in favour of total relationship costs. Who would be willing to take the initial cost of an investment in a supplier if the revenues cannot be seen within the time frame of the project, or not even in the coming year? The contractor who takes on this kind of reciprocal investments would have a strong competitive edge compared with competitors.

4. Organisations’ lack of maturity for long-term relations

The fourth perceived constraint is the organisation’s maturity for long-term relations. In the literature it is argued that supplier development and long-term relations with suppliers need an exhaustive set of antecedents and proper organisational founding in order to lead to the positive effects so often mentioned (Trent and Monczka, 1999). As a first step supplier base optimisation is mentioned; it is explicitly stated that closer interaction between the organisations is not feasible with a large supply base (Trent and Monczka, 1999).

The supply base of the case organisation constitutes approximately 28,000 suppliers annually. Of course the number is dependent on which exact definition of a supplier is used, but according to internal figures this is how many suppliers have invoiced the organisation during one year. During 2007, 0.13 percent of the suppliers corresponded to more than 25 percent of the case organisation’s purchased volume and 10.26 percent of the supplier delivered 90 percent of the value as shown in Figure 1. Hence, over 25,000 suppliers could be eliminated and the purchasing volumes would not be more than slightly affected. Of course it is not as simple as that because several of the supplier markets are local and the production is often dependent on certain specialists, but since almost 9,000 of these suppliers only sent one invoice and almost 17,500 suppliers sent five invoices or less during 2007 something could most probably be done.
The business deal

There are also a number of perceived constraints that contractors face when they come closer to the purchasing situation. Here, we discuss the power balance between contractors and suppliers and contractors’ weak planning, leading to the situation that they do not know what they want to purchase.

5. Uneven power balance between contractors and suppliers

The fifth perceived constraint concerns the power balance between the contractor and the supplier which is an often mentioned influential factor when discussing buyer-supplier relations.

One aspect of power balance is related to demand and supply, i.e. the customer has more power when the supply is bigger than the demand and vice versa. Another aspect of power balance is related to the customer’s and the supplier’s sizes. A common situation is that the contractor is far bigger than the supplier. A third aspect, which is discussed here, concerns how much the supplier depends on a single customer, i.e. percent of total sales volume.

When looking at the fifteen largest suppliers of the case organisation it becomes evident that the majority of these suppliers deliver less than ten percent of their turnover to the contractor, as shown in Table 1. The table represents the case organisation’s purchasing from a specific supplier as part of the suppliers’ turnover and if the supplying organisation is international, the numbers show the turnover of the Swedish subsidiary. With this

Table 1. The case organisation’s purchasing to the specific supplier as part of the suppliers’ turnover

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<thead>
<tr>
<th>Supplier Type</th>
<th>Percentage of Total Spend</th>
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<tbody>
<tr>
<td>Internal wholesaler</td>
<td>99%</td>
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<tr>
<td>Internal material supplier</td>
<td>84%</td>
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<tr>
<td>Material supplier</td>
<td>49%</td>
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<tr>
<td>Internal service supplier</td>
<td>45%</td>
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<tr>
<td>Internal service supplier</td>
<td>38%</td>
</tr>
<tr>
<td>Material supplier</td>
<td>20%</td>
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<tr>
<td>Material supplier</td>
<td>9%</td>
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<tr>
<td>Material supplier</td>
<td>6%</td>
</tr>
<tr>
<td>Service supplier</td>
<td>5%</td>
</tr>
<tr>
<td>Service supplier</td>
<td>4%</td>
</tr>
<tr>
<td>Wholesaler</td>
<td>4%</td>
</tr>
<tr>
<td>Wholesaler</td>
<td>3%</td>
</tr>
<tr>
<td>Service supplier</td>
<td>2%</td>
</tr>
<tr>
<td>Wholesaler</td>
<td>1%</td>
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<tr>
<td>Material supplier</td>
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relatively small impact on the supplier it could be questioned whether the supplier is interested in engaging in long-term relations with a specific contractor.

It is, however, important to see whether the buyer is one of the largest buyers for the supplier. That could make the buyer important even though the part of the turnover is minor. Furthermore, the construction industry in some cases comprises a special segment within the supplier’s organisation which would make it even more interesting for the supplier to establish long-term relations. It is, however, evident that few of the case organisation’s major suppliers are dependent on the contractor for their survival: “this certainly does not increase the possibilities for developing mutual processes”, one strategic purchaser stated.

6. Contractors do not know what they want to purchase

The sixth perceived constraint is the issue of contractors not knowing what they are buying; at least not until it is too late. Generally it is argued that a prerequisite for purchasing is that what is going to be bought is specified. Yet, several examples to the contrary have been seen. Specifications are not really scrutinised until problems occur. As an additional effect, the bargaining power might decrease if the possible range of alterations in the products is narrowed down by requisites and prescriptions above what actually is needed for a satisfactory functionality.

An actor with a major impact on this issue is the clients since they in many cases prescribe the parts of the construction object. The client (and the architect) prescribes specific material produced by a specific supplier and according to their product range. “We need a functional specification instead of just a brand and a model”, a strategic purchaser stated and emphasised that many alternatives to the well-known and sometimes preferred brand might be as good and might also come at a lower cost. Instead, as an effect of the client’s prescriptions, the contractor has to purchase from the suppliers’ ordinary product range rather than specifying what is actually needed.

This issue further affects the possibilities of building long-term relations with suppliers since it is not always possible for the contractor to choose the supplier. “This could be changed if we want to”, one strategic purchaser stated and primarily addressed the projects which are developed in-house. It was, however, emphasised that the costs for setting the specifications might be high and that some sort of standardisation of purchased good preferably should precede these efforts.

External environment

A current strategy for large contractors is to establish long-term contracts with prioritised suppliers at firm level. The strategy is simple to carry out when the market is ideal. However, the construction market changes over time and only a few suppliers, especially service suppliers, do business in all regions within Sweden.
7. Contractors and suppliers work on different geographical markets

There are regional, national and global contractors. The case company is a national based subsidiary of a global company. They do business in all regions within Sweden. An ideal situation is, of course, to develop long-term relations with suppliers that also do business in all regions. There are, however, few suppliers that fulfil that criterion. The vast majority of suppliers are local, especially service suppliers.

Take HVAC installation for example, which is one of the major subsectors. There are approximately 3000 firms registered in Sweden. Only three of them, Bravida, NVS Installation and YIT operate nationally, i.e. they do business in the same regions that the case organisation does. A few other firms operate in several, but not all, regions. All other firms operate locally. This situation is similar in most subsectors.

If the criterion for choosing suppliers was based on the fact that they do business on the same geographical markets as the contractor, only a very few firms in every subsector would be qualified. Such a limited number would reduce the possibilities to find the supplier that is most suitable for developing closer collaboration. When it comes to specialist contractors, for example HVAC installation firms, it should be noticed that they are decentralized in a similar way as large contractors.

With this situation in mind large contractors should consider other strategies. One general strategy could be to choose suppliers that are willing to expand into new geographical markets and support these suppliers expansion. Another general strategy could be to develop long-term relations on regional levels instead of national level.

8. Great market changes over time

Construction is characterised by major market changes on a national level over time. The changes on a regional level are even greater.

The situation of constant market changes leads to a question of supply and demand on a short-term basis. When the demand is higher than the supply, the contractor has to negotiate with more suppliers while the suppliers are less interested in delivering to a specific contractor. When the supply is higher than the demand, the supplier has to negotiate with more contractors, while the contractor may be less interested to purchase from a specific supplier. The best opportunity to establish and maintain efficient contractor-supplier relations occurs when supply and demand are balanced. Supply and demand are, however, never in complete balance. The market is never perfect.

Neither the contractor, nor its suppliers seem to be interested in prioritising a single supplier or contractor, partly due to the great market changes. A strategic purchaser mentioned how the contractor, in time of prosperity, had to buy a certain product from all suppliers active in the Gothenburg region. In contrast, when the market fell in 2008/2009, the top management gave strong recommendations to the suppliers to reduce prices in order to maintain their framework agreements. Furthermore, during the recession, project managers themselves
negotiated with suppliers that the case organisation already had framework agreements with in order to get lower prices than those already accepted by both parts.

Discussion and conclusions
There is an ongoing debate on how construction could develop more efficient processes, leading to higher customer value (e.g. Byggkommissionen, 2002; Statskontoret, 2009). One common recommendation is to establish long-term customer-supplier relations (e.g. Dainty et al., 2001), but it is also questioned as a general solution (Fernie and Thorpe, 2007). On this issue, this paper takes a contractor perspective. Contractors tend to focus on establishing closer relations with clients, i.e. their customers, but tend to neglect their suppliers. This paper is based on a case study of one of three large private owned contractors in Sweden. However, the results are relevant for most large and medium-sized contractors.

Eight perceived constraints concerning establishing and maintaining contractor-supplier relations have been identified. Two common denominators of the perceived constraints concern the need for contractors’ to take responsibility and the differentiation in approaches towards suppliers.

It is apparent that most of the perceived constraints reported here concern the contractors’ organisations and behaviour. This might be because the case study was conducted within a contractor organisation and hence, the identified focused on this organisation. Still, contractors play a major role in many of the perceived constraints and, if these constraints are to be surmounted, the responsibility is with the contractors. Trent and Monczka (1999), argued for the importance of proper organisational foundation before focusing on the development of relationships with suppliers. For instance, they accentuated the need for an adapted organisational structure, measurement and evaluation systems as well as human resource development. These are issues which have also been found to be crucial in this paper, why contractors should focus on their structure and the behaviour holistically in the organisation. Van Weele (2005), however, argued that the organisational structure in many companies of today makes achieving close and effective cooperation with suppliers a difficult process. In order to manage this change in perspective, there is a need for a cultural change within contractor organisations where long-term thinking in the relationships with suppliers permeates the entire organisation.

Furthermore, the large numbers of suppliers delivering products to the contractors’ organisations have different characteristics. For instance, there are differences in size, geographic coverage and type of delivered product. The contractors should therefore differentiate their approaches towards their suppliers, adapting them for the specific supplier and the situation (Fernie and Thorpe, 2007). Some suppliers are suitable for closer collaboration on a national level, whereas in some categories of products it is more suitable to strengthen regional networks of suppliers. Consequently, one recommendation is that the contractor should focus on developing closer collaboration with a small number of suppliers (Errasti et al., 2007; Sarkar and Mohapatra, 2006) and thoroughly consider the decision of which suppliers to approach.
By aiming specific development efforts at the relationships that are most suitable, it is possible to realise the potential of long-term relations and also highlight the good examples which result from these initial efforts. These long-term relationships are not necessarily best suited for the major national – or even global – suppliers, but might instead be more likely to succeed if the efforts are aimed at suppliers which are more dependent on the contractor as customer.

Even though the general debate within the construction industry promotes the need for increased productivity, contractors of today are not forced to extensively cut costs since yearly increases in price are more or less an inherent part of the business. This could be an issue for the clients that have a high potential of increased gain by taking greater account of the contractors’ relations to their suppliers. Since over 70 percent of the money that the client is paying the contractor is passed forward to the next tier of actors, it could be seen as an obvious step for the client to extend the relationships further than to only the contractor. The partnering contracts should in this case reach a greater part of the value chain than it does currently.

Nevertheless, this is foremost an issue for the contractors who could realise a potential gain by developing their relations to their suppliers and also their processes in the interface towards the suppliers. To conclude, contractors have a long journey to travel before fully adapting supplier relationship management, and the development has to be taken in small steps in order to manage to increase the performance of the supply chain.

References


