Procurement effects on trust and control in client-contractor relationships

Per Erik Eriksson
Department of Business Administration and Management, Luleå University of Technology, Luleå, Sweden, and
Albertus Laan
Department of Construction Management and Engineering, University of Twente, Enschede, The Netherlands

Abstract
Purpose – This paper aims to investigate how construction clients currently deal with procurement and to analyse how the choices made during the buying process stages affect the combination of governance mechanisms and control types in client-contractor relationships.

Design/methodology/approach – Empirical data were collected through a survey of 87 Swedish construction clients.

Findings – Current procurement procedures establish governance forms facilitating a focus on price, through output control, and authority, through process control. Since construction transactions are mostly characterized by high complexity and customisation and long duration, the theoretical framework prescribes a focus on trust and a somewhat lower focus on price and authority. Hence, from a transaction cost perspective, construction clients focus too much on price and authority and too little on trust. Since current procedures may cause problems in all stages of the buying process, the result suggests that partnering arrangements, entailing completely different choices during the buying process, may be a suitable way to facilitate trust and cooperation through informal social control.

Research limitations/implications – Since the empirical results are based on data collected from only Swedish clients, international generalizations should be made cautiously.

Practical implications – Clients wishing to implement trust-based collaborative relationships need to reconsider their procurement procedures entirely; joint objectives, teambuilding and other “fuzzy” techniques are not enough to transform adversarial relationships into cooperative ones.

Originality/value – Earlier research has focused on one or a few aspects of procurement and governance, while this paper adopts an overall process perspective, taking into account clients’ procurement procedures in their entirety.

Keywords Procurement, Partnership, Trust, Construction industry, Sweden

Paper type Research paper

Introduction
In many countries, the construction industry has been criticized for its incapacity for innovation and improvement (Egan, 1998; Ericsson, 2002; Ng et al., 2002; Chan et al., 2003). Poor productivity, cost overruns, decline in construction quality, decrease in customer satisfaction, conflicts and late completion are problematic areas for the sector (Egan, 1998; Yasamis et al., 2002). Root causes for these inefficiencies have over the
years been directed to the industry’s fragmentation, the uniqueness of construction as a product, the divorce between design and construction, obsolete procurement methods (Naoum, 2003) and lack of trust and cooperation between the actors (Cheung et al., 2003). Since the extent of trust and cooperation is affected by the procurement procedures, this is a key improvement area (Latham, 1994; Egan, 1998) and a key factor contributing to project success (Cheung et al., 2001).

Transaction cost economics (TCE) is a common theoretical framework when investigating procurement and inter-organisational relationships in general (Aulakh et al., 1996; Eriksson, 2006) and in construction (Voordijk et al., 2000; Rahman and Kumaraswamy, 2002). According to TCE, competitive advantage results from efficient governance of transactions (Williamson, 1985), which requires tailoring of procurement procedures to transaction characteristics (Eriksson, 2006). Hence, it would be interesting to investigate current construction procurement procedures from a TCE perspective in order to analyse their fit to transaction characteristics, which facilitates efficient governance. The purpose of this research is to investigate how construction clients deal with procurement and utilize a TCE framework to analyse how the choices made during the buying process affect the combination of governance mechanisms in client-contractor relationships. After this short introduction of the paper, a presentation of the theoretical framework follows, describing first how to identify suitable governance forms and then how to establish them through procurement. Then the data collection method is described (survey to Swedish construction clients) and the empirical results are presented. The paper continues with an analysis of how the current procurement procedures affect governance mechanisms and project performance, and ends with conclusions.

Governance mechanisms and different types of control
TCE considers three main governance mechanisms (price, authority and trust) that are strongly related to three different control types (output, process and social control). A client can thus facilitate different levels of price, authority and trust in a transaction relationship through the use of these different types of control (Eriksson, 2006). The suitability of these mechanisms mostly depends on the levels of asset specificity and frequency in the transaction (Williamson, 1985). Price is traditionally associated with market relationships, suitable for standardized transactions. The price gives information about what to be delivered and incentives to do it. The “invisible hand” illustrates this mechanism, adjusting the transaction in relation to the prices resulting from supply and demand (Larsson, 1993). The price mechanism is closely related to output control (Hennart, 1993), defined as the degree to which the focal firm monitors the results or outcomes produced by the partner (Aulakh et al., 1996). Output control is efficient when it is possible to measure goal attainment, which mostly occurs when asset specificity is low, and the monitoring party has limited knowledge of the transformation process (Collin, 1993b; Das and Teng, 2001). Therefore, it is the most proper form of control in price-based market relationships.

In a transaction governed by authority, the buyer can get the desired product from the supplier through control of behaviour and inputs (Håkansson and Snehota, 1995). The “visible hand” illustrates this mechanism, adjusting the transaction by giving authoritative orders to the agent executing them (Larsson, 1993). Authority is related to process control (Hennart, 1993), referring to the focal firm’s monitoring of the partners’
behaviour or the means used to achieve the desired ends (Aulakh et al., 1996). It may be realized through formal structures, contractual specifications and managerial arrangements (Das and Teng, 2001). Increased inter-dependencies, caused by asset specificity, make output control less efficient than process control (Gencturk and Aulakh, 1995). Furthermore, bounded rationality and asset specificity make outputs hard to measure (Williamson, 1996; Das and Teng, 2001). When asset specificity is high, process control is suitable, if the client knows the appropriate action to achieve the goal (Collin, 1993b; Das and Teng, 2001).

To obtain the advantages and synergies of cooperative relationships, the establishment of **trust** is vital (Aulakh et al., 1996). In a transaction governed by trust the parties to an exchange believe that, without the exercise of authority, they can get what they want from each other, without fearing opportunism (Håkansson and Snehota, 1995). Trust can be defined as positive expectations regarding the other in a risky situation (Das and Teng, 2001). This mechanism is illustrated by the "handshake", adjusting the transaction in relation to agreements resulting from negotiations between organizations (Larsson, 1993). The most proper form of control in cooperative relationships is **social control**, facilitating trust and commitment (Das and Teng, 2001). Social control may be defined as building a common organizational culture that encourages self-control (Aulakh et al., 1996). When neither output nor process control is appropriate, i.e. when it is not possible to measure goal attainment and the monitoring party does not know the appropriate action to achieve the goal, social control is most efficient (Collin, 1993b; Das and Teng, 2001).

Eriksson (2006) has developed a TCE-based procurement model that identifies six different types of transactions, depending on their asset specificity and frequency. Different combinations of mechanisms should coordinate each transaction type. In the model (see Figure 1), approximate values (low, medium, and high) of the three mechanisms are described, together constituting 100 per cent of the coordination.

The TCE-based model argues that increased levels of asset specificity (resulting mainly from complexity and customisation) should lead to a lower focus on price and a higher focus on trust and/or authority as governance mechanisms. Furthermore,

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Asset specificity</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occasional</td>
<td>Type 1</td>
<td>Emphasis on price: high</td>
<td>trust: low</td>
<td>authority: low</td>
</tr>
<tr>
<td></td>
<td>Type 3</td>
<td>Emphasis on price: medium</td>
<td>trust: medium</td>
<td>authority: medium</td>
</tr>
<tr>
<td></td>
<td>Type 5</td>
<td>Emphasis on authority: high/medium</td>
<td>trust: medium/high</td>
<td>price: low</td>
</tr>
<tr>
<td>Recurrent</td>
<td>Type 2</td>
<td>Emphasis on price: high</td>
<td>trust: medium</td>
<td>authority: low</td>
</tr>
<tr>
<td></td>
<td>Type 4</td>
<td>Emphasis on price: medium</td>
<td>trust: medium</td>
<td>authority: low</td>
</tr>
<tr>
<td></td>
<td>Type 6</td>
<td>Hierarchical production</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Eriksson (2006)*

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**Figure 1.** Model for the choice of governance mechanisms
higher frequency and longer duration of the buyer-supplier relationship increase the need for trust while somewhat decreasing the focus on price and authority. Transactions of type 6 involve hierarchical production, not entailing a procurement situation, for which reason they are outside the scope of the model.

Procurement effects on governance mechanisms
For the TCE-based model to be of practical use, it is not sufficient to know only which combination of mechanisms is favourable for the transaction at hand; the purchaser must also know how to obtain it. Eriksson (2006) therefore illustrates how different causes of actions during the stages of the buying process will involve different types of control, affecting the levels of price, authority and trust, see Table I.

Problem recognition and transaction type identification
Stage one involves the recognition of a problem and the awareness that the needs may be filled through a purchase, resulting in a make or buy decision. Hence, the client first has to decide which type (1-6) best fits the transaction at hand, by assessing the two transaction characteristics of frequency and asset specificity. Then the client may continue to the next stage in the process, specification, if the product is to be procured from an external supplier (transaction type 1-5).

Specification
By specifying performance rather than technology (e.g. design-build contracts), output control facilitates a high emphasis on price, while through detailed specification (e.g. design-bid-build contracts), process control facilitates a high emphasis on authority. A lower level of authority is obtained when the technical specification and the characteristics of the product are developed by both client and contractor in cooperation (e.g. design partnering). This mostly entails social control but also process control to some extent, facilitating a high emphasis on trust, medium emphasis on authority and low emphasis on price (Eriksson, 2006).

<table>
<thead>
<tr>
<th>Buying stage</th>
<th>Specification</th>
<th>Bid invitation</th>
<th>Bid evaluation</th>
<th>Contract formalization</th>
<th>Type of compensation</th>
<th>Collaborative tools</th>
<th>Performance evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price focus through output control</td>
<td>Spec. by contractor</td>
<td>Open bid procedure</td>
<td>Focus on tender price</td>
<td>Formal, comprehensive contracts</td>
<td>Fixed price</td>
<td>Low usage of collaborative tools</td>
<td>Output control by client</td>
</tr>
<tr>
<td>Authority focus through process control</td>
<td>Spec. by client</td>
<td>Limited bid invitation</td>
<td>Focus on authority-based soft parameters</td>
<td>Formal, comprehensive contracts</td>
<td>Reimbursements</td>
<td>Low usage of collaborative tools</td>
<td>Process control by client</td>
</tr>
<tr>
<td>Trust focus through social control</td>
<td>Joint spec.</td>
<td>Limited bid invitation</td>
<td>Focus on trust-based soft parameters</td>
<td>Informal and incomplete contracts</td>
<td>Including incentives</td>
<td>High usage of collaborative tools</td>
<td>Self-control by contractor</td>
</tr>
</tbody>
</table>

Table I.
Procurement effects on control types and governance mechanisms
Bid invitation
By using a large pool of potential suppliers who are often replaced, buyers facilitate competition (Spekman, 1988; Stump, 1995) and a focus on price and short-term benefits, which according to Anderson and Oliver (1987) is related to output control. Social control involves investments in the partner’s socialization, enhanced by long-term relationships and expectations of continuance (Aulakh and Gencturk, 2000). Process control is also related to a long-term focus, since it removes incentives to sacrifice long-term for immediate pay-offs (Anderson and Oliver, 1987). Negotiations with only one or very few suppliers therefore indicate social and/or process control, while open bid procedures indicate price focus through output control. Consequently, the larger the number of bidders, the higher the emphasis on price and the lower the emphasis on trust and authority and vice versa (Eriksson, 2006).

Bid evaluation
When focusing only on the lowest tender price, the client does not take the opportunity to affect the characteristics of the supplier (Heide and John, 1990), indicating a laissez-faire approach, which, according to Anderson and Oliver (1987), is related to output control. In process control, however, the client takes most of the risk (Aulakh and Gencturk, 2000). Then consideration of the characteristics of the supplier, such as competence and capacity (i.e. control of inputs), becomes important (Anderson and Oliver, 1987). Considerations regarding the collaboration and nurturing of the relationship indicate social control (Aulakh and Gencturk, 2000). This may be exemplified by soft parameters such as collaborative ability, reputation and earlier experience of the supplier. Consequently, the more weight on price and the less weight on soft parameters, the higher emphasis on price and the lower emphasis on trust and authority, and vice versa (Eriksson, 2006).

Contract formalisation
Complete contracts are more legally binding because more specific clauses make the contract easier to interpret and enforce (Woolthuis et al., 2005). Thus, contract formalisation is important in price-based market relationships (Macneil, 1978), involving output control. Even more so, process control results in formalised and bureaucratic relationships (Aulakh and Gencturk, 2000). Through social control, however, the parties establish an implicit sense of acceptable and deviant behaviour (Aulakh and Gencturk, 2000), making formalisation unnecessary. Consequently, the more formal and comprehensive the contracts are, the higher the emphasis on price and authority, and the lower the emphasis on trust, and vice versa (Eriksson, 2006).

Type of compensation
A compensation system rewarding the supplier for his output (e.g. a fixed price for a product delivered) indicates output control and a high emphasis on price, while compensation for the costs of the supplier based on the time worked and the costs of input material (reimbursement compensation) entails process control (Gencturk and Aulakh, 1995), emphasising authority. Profit sharing (incentives) together with joint objectives indicates social control (Das and Teng, 1998), emphasizing trust.
Usage of collaborative tools
In some transactions (e.g. construction work) the actual production takes place within the buying process since there is no ready-made product to buy. Because the client and the contractor then have to interact to create the product, use of collaborative tools, such as joint objectives, shared office building, teambuilding activities and joint dispute resolution techniques, may be suitable (Cheung et al., 2003; Eriksson, 2006). A larger extent and scope of such joint actions and collaborative tools will directly facilitate trust building, through social control (Das and Teng, 1998), for which reason they indicate closer cooperative relationships (Heide and John, 1990). Indirectly, it will also decrease the emphasis on authority, through less need for process control, and price, since these tools create human asset specificity, leading to switching costs for the client. Consequently, no or low usage of collaborative tools results in increased need for output and process control, indicating emphasis on price and authority, while high usage indicates high emphasis on trust, through social control (Eriksson, 2006).

Performance evaluation
This deals with the fundamental evaluation of how well the procured product solved the problem and how well the supplier performed. Monitoring of ongoing performance enhances high emphasis on authority through process control, while inspection of the outcome enhances high emphasis on price through output control. The more the supplier himself is allowed to control the performance and the result, the higher the emphasis on trust, through social control (Eriksson, 2006).

Methodology
The empirical data was collected through a survey, which was first piloted by five respondents, resulting in only minor changes. The population investigated was 104 Swedish construction client organizations that are members of ByggherreForum, a national construction client association. Registered contact persons were first approached by email or telephone and asked if they or other more suitable persons in their organizations were willing to participate in the study. Hence, it was up to the contact person to choose the most suitable respondent, given that the survey involved procurement and project management processes. Four people declined to participate at this stage, due to lack of time, so a paper version of the survey was then sent out by mail to the hundred people that had agreed to participate. These people were mostly procurement managers, project managers or directors of the construction and facilities department in their organizations. After two reminders, a total of 87 responses was received, representing a response rate of 84 percent. In this paper only the empirical data regarding different aspects of the organizations’ procurement procedures are discussed. The respondents were asked how often they used different procurement procedures (e.g. To what extent do you use the collaborative tools listed below during the construction project period?). The items were measured using 7-point Likert scales anchored by 1 = very seldom and 7 = very often. The exception to this is the items regarding bid evaluation parameters, in which the importance of the parameters was estimated: 1 = unimportant and 7 = very important.

Empirical results: clients’ current procurement procedures
In Table II, descriptive data are presented for all buying decision alternatives.
In the design and specification stage, the respondents stated that the detailed design of the construction product is mostly made by the clients and their consultants (mean value 5.40). The specification is seldom left to be managed by the contractor (3.01) and joint specification is seldom used (2.76).

In the bid invitation stage the usage of an open bid procedure was more common (4.38) than limited invitation (2.90). The limited invitation construct is measured by three items (slightly limited, strongly limited and direct negotiation), with a Cronbach alpha (CA) of 0.65.

A principal component factor analysis (PCFA) grouped bid evaluation parameter items into three factors/constructs (authority-based soft parameters, trust-based soft parameters and price) with a KMO MSA = 0.829, explaining 75.75 per cent of the total variance, which is satisfactory. The statistical package of social science (SPSS) was used in performing the rotation method Varimax with Kaiser Normalization. The alpha reliability coefficient is 0.81 for the authority-based factor (supplier organization and project staff, quality and environmental management systems, and references of similar projects) and 0.83 for the trust-based factor (earlier experience of the supplier, supplier’s attitudes toward change, their collaborative ability and their technical competence). The mean values show that price (6.40) is considered more important than authority-based (4.72) and trust-based (4.97) soft parameters; see Table III.

Regarding contract formalization, almost all respondents stated that they very often (6.97) use standardized contracts (AB, ABT etc), established by the third party Byggandets Kontraktkommité (“The Construction Contract Committee”).

The most commonly used type of compensation is fixed price for the product delivered (6.46). Reimbursement compensation for the obtained costs is not very common (2.72) and compensation including incentives is seldom used (1.83). The incentive construct consists of two items (CA = 0.70): compensation including gain share/pain share and bonus opportunities.
Different kinds of “collaborative tools” are not used very often (2.69) in construction projects. The collaborative tools construct consists of five items ($CA = 0.73$): joint objectives, team building activities, joint IT-database, joint project office and an arena for relationship discussions and dispute resolution.

Performance evaluation is mostly based on formal process (5.51) and output control (5.92) by the client. Control during the construction process is also executed by supplier self-control (4.44). This self-control does not, however, have much implication for the clients’ end inspections, which are mostly very comprehensive. Limited random inspections of the outcome are not common (2.56).

Analysis
The theoretical framework (Figure 1 and Table I) serves here as a basis for analysing procurement decisions’ effects on governance mechanisms and project performance.

Governance mechanisms prescribed by the theoretical framework
To identify a suitable mechanism mix, the transaction characteristics (i.e. asset specificity and frequency/duration) must be evaluated. According to Rahman and Kumaraswamy (2002), today’s construction industry is a very high-risk, complex, and multiparty business. The transactions are mostly parts of construction projects, which involve many complex processes (Dubois and Gadde, 2002). Furthermore, each project is customized and unique; standardized products are very rare. Transaction frequency is generally low, since few clients are able to offer repeat orders for work over a long time horizon (Cox and Thompson, 1997). However, transaction duration is very long; projects generally last for at least a year, which increases the opportunity for trust-building also within a single project (Kadefors, 2004).

According to Williamson (1985), the construction of plant facilities is a typical occasional transaction involving high asset specificity, i.e. a type five transaction. Overall, most construction projects are of that type. However, some projects are significantly less complex than constructing a plant, for example production of small

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**Table III.**
Factor analysis of bid evaluation parameters

<table>
<thead>
<tr>
<th>Bid evaluation</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item mean value</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authority-based parameters</td>
<td>0.856</td>
<td>0.219</td>
<td>-0.254</td>
</tr>
<tr>
<td>Trust-based parameters</td>
<td>0.799</td>
<td>0.156</td>
<td>0.170</td>
</tr>
<tr>
<td>Price parameters</td>
<td></td>
<td></td>
<td>0.970</td>
</tr>
<tr>
<td>Organization, personnel</td>
<td>5.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality and environmental management systems</td>
<td>4.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>References</td>
<td>4.80</td>
<td>0.290</td>
<td>-0.241</td>
</tr>
<tr>
<td>Experience of supplier</td>
<td>4.82</td>
<td>0.837</td>
<td>0.127</td>
</tr>
<tr>
<td>Attitudes towards change</td>
<td>4.54</td>
<td>0.789</td>
<td>-0.312</td>
</tr>
<tr>
<td>Collaborative ability</td>
<td>5.08</td>
<td>0.731</td>
<td>-0.127</td>
</tr>
<tr>
<td>Technical competence</td>
<td>5.46</td>
<td>0.626</td>
<td></td>
</tr>
<tr>
<td>Tendering price</td>
<td>6.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor eigenvalue</td>
<td>2.53</td>
<td>2.41</td>
<td>1.13</td>
</tr>
<tr>
<td>Percent of variance</td>
<td>31.58</td>
<td>30.08</td>
<td>14.09</td>
</tr>
<tr>
<td>Cronbach alpha</td>
<td>0.81</td>
<td>0.83</td>
<td></td>
</tr>
<tr>
<td>Factor mean values</td>
<td>4.72</td>
<td>4.97</td>
<td>6.40</td>
</tr>
<tr>
<td>Factor standard deviation</td>
<td>1.28</td>
<td>1.40</td>
<td>0.87</td>
</tr>
</tbody>
</table>

ECAM 14,4
houses with modular construction. Such projects may be categorized as transactions of type 3 or 4. For construction projects in general, the model prescribes medium emphasis on authority, medium to high trust, and low to medium emphasis on price.

**Procurement procedures’ effects on control and governance mechanisms**

The empirical results show that the most common procurement decisions facilitate a focus on price and/or authority in all stages of the buying process (see Table IV). This means that the procurement procedures used by Swedish construction clients mostly result in governance forms based on the mechanism combination of high emphasis on price and authority and low emphasis on trust. From a control perspective, clients almost exclusively rely on formal output and process control, while informal social control is rare. Consequently, there are significant discrepancies between the theoretical prescriptions and the empirical behaviours.

**Procurement procedures’ effects on project performance**

The high focus on price and authority together with a lack of trust may cause problems in most of the buying process stages. Comprehensive specification made by the client before the contractor is procured results in a divorce between design and construction. The drawbacks of this approach are that construction planning cannot affect design and it cannot meet the increasing need for speed and time reductions in construction projects (Cheung et al., 2001; Dubois and Gadde, 2002). Early involvement of contractors in specification is thus legitimate in order to integrate design and construction planning (Akintoye et al., 2000) and shorten project duration (Cheung et al., 2001).

*Bid invitation* through open bid procedures results in many hours spent on design, planning and calculations that are never used, causing waste and non-value adding costs (Dubois and Gadde, 2000; Ngai et al., 2002). Furthermore, it guarantees that the actor constellations change all the time (Dubois and Gadde, 2000), which deters the parties from making relation-specific investments. The constant replacement of actors creates inefficiencies, since a new learning curve must be climbed by the supplier each time (Cox and Thompson, 1997). Thus the short-term focus erodes long-term sustainable competitive advantage (Ingirige and Sexton, 2006).

The focus on low tender price during *bid evaluation* causes many project delivery problems. Contractors bid low to win the contract and then make everything in their power to earn more money through extra work not specified in the contract. Thus,

<table>
<thead>
<tr>
<th>Buyer decision</th>
<th>Control type</th>
<th>Governance mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specification by client/consultant</td>
<td>Process control</td>
<td>Authority</td>
</tr>
<tr>
<td>Open bid procedure</td>
<td>Output control</td>
<td>Price</td>
</tr>
<tr>
<td>Focus on tendering price</td>
<td>Output control</td>
<td>Price</td>
</tr>
<tr>
<td>High usage of standardized contracts</td>
<td>Process + output</td>
<td>Authority and price</td>
</tr>
<tr>
<td>Fixed price compensation</td>
<td>Output control</td>
<td>Price</td>
</tr>
<tr>
<td>Low usage of collaborative tools</td>
<td>Output + process</td>
<td>Price and authority</td>
</tr>
<tr>
<td>Continuous monitoring and complete end inspection by client</td>
<td>Process + output</td>
<td>Authority and price</td>
</tr>
</tbody>
</table>

Table IV. Decisions’ effect on governance mechanisms
softer parameters should be more important (Latham, 1994); bid price should be an order qualifier instead of an order winner criterion. (Yasamis et al., 2002).

Construction actors rely heavily on contract formalization through standard forms of contracts, which are instruments seeking strict liability and attaching blame to events that occur, encouraging non-collaborative behaviour and driving distance between the parties (Barlow et al., 1997; Cox and Thompson, 1997). However, high formalisation may also be a suitable complement to trust when contracts are coupled with strong relational norms (Woolthuis et al., 2005). Hence, the common use of standard contracts in construction is only harmful if they are used as safeguards in the absence of relational norms.

Many projects last for several years and the design is often changed during that time because of changes in the client’s preferences (Kadefors, 2004). Since uncertainties in construction are high and derived from many different sources (Voordijk et al., 2000), output-based compensation (fixed price) is inappropriate. This is because output control through fixed prices may lead to inflexibility since the supplier may resist adapting to changed circumstances (Aulakh and Gencturk, 2000). Reimbursement compensation, preferably coupled with incentives, should thus create a better basis for adaptation, suitable in complex and uncertain projects (Bajari and Tadelis, 2001).

The use of collaborative tools is normally missing in traditional projects. Such lack of joint actions hinders integration of the actors and their activities, making them work on arm-length distance from each other (Heide and John, 1990).

The heavy reliance on output control in performance evaluation is problematic, since construction work is often hidden and very difficult to inspect after the completion of the building. When outputs are hard to measure, due to bounded rationality and asset specificity (Williamson, 1996; Das and Teng, 2001), process control is suitable if the monitoring party knows the appropriate action to achieve the goal (Collin, 1993b; Das and Teng, 2001). This is however not always the case. Not every client organization has a large and highly experienced staff organization with deep construction knowledge. In such cases social control is most efficient (Collin, 1993b; Das and Teng, 2001). Hence, self-control by the contractor seems appropriate, increasing trust and commitment and decreasing the costs of non-value adding client-led inspections.

In recent years, interest in collaborative approaches (e.g. partnering) has increased among practitioners and researchers in the construction sector (Li et al., 2000). Partnering is based on several fundamental principles, such as commitment, trust, respect, equality and communication (Chan et al., 2003), which are applied to mitigate the problems in the sector. A true partnering approach involves client decisions during the buying process period (e.g. joint specification, limited bid invitation, bid evaluation based on soft parameters, incentive-based compensation and collaborative tools) completely different from the most common decisions presented in the empirical results. Hence, this approach may be a suitable alternative to the traditional procurement procedures, facilitating an emphasis on trust rather than price and authority, as prescribed by the TCE framework. This argument is supported by several empirical investigations, which have found significant benefits of partnering (for example regarding quality, sustainability, dispute resolution, innovation, and also time and cost reductions) compared to traditional procurement procedures (Barlow et al., 1997; Egan, 1998; Chan et al., 2003; Fortune and Setiawan, 2005).
Conclusions
This study has shown how Swedish construction clients’ current procurement decisions establish governance forms that facilitate a focus on price through output control, and authority through process control. Trust-breeding procedures entailing social control are seldom used. The theoretical framework prescribes a mechanism combination focusing on trust and with somewhat lower emphasis on price and authority for construction transactions, due to high complexity/customization and long duration. Hence, there are significant discrepancies between the theoretical predictions and the empirical results. From a TCE perspective, construction clients focus too much on price and authority and too little on trust. Since the most common decisions taken by clients may lead to problems in all of the buying process stages, these findings give theoretical support to the criticism arguing that the traditional procurement procedures result in adversarial and trust-lacking relationships. From a TCE-standpoint, the common combination of high price and authority is not suitable for any type of transaction. Hence, changed procurement procedures are called for. In recent years, interest in more collaborative approaches to procurement and governance has increased. Through a change of buying behaviour, clients implementing partnering may establish governance forms facilitating trust and cooperation through informal social control rather than the traditional price- and authority-based relationships, utilizing formal output and process control. From a TCE-perspective, partnering therefore seems to be more suitable than the currently used procurement procedures. However, it also important to mention that trust-building arrangements do not solve all problems; some extent of price and authority is needed to achieve efficient transactions.

References


**Corresponding author**
Per Erik Eriksson can be contacted at: pererik.eriksson@ltu.se

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