

Kurzbericht (englisch)

Contract awarding procedures and building costs

The study deals with contract awarding procedures in Germany and is based on facts which may not be the same in other countries.

No-one will seriously argue that the bidding and contract awarding procedures for building services may have a considerable influence at the costs at which the project can eventually be realized and accounted for. However, opinions differ widely which procedure may have which impact.

We assume that most of the conditions can at least be identified that will recommend or exclude a certain bidding procedure for a project. However, low building costs are usually only one of many criteria. The building costs as one crucial factor compete with others, such as cost guarantees, reliable deadlines, high quality, the easiness of the project implementation, the manageability of the project etc.

Another prerequisite for the intended contract awarding procedure as well as for the project and contract documents, which must have been adapted to the relevant situation, is the existence of a strong market. Unfortunately, the market is often impaired by the dominating market position of one competitor or by attempts to regulate the market.

A brief introduction: Inviting tenders and awarding contracts

The relevant planning stage at which the client will part with the project will largely determine the contract awarding procedure. The client will try to retain his influence and his say in the matter until he has found a contracting party that promotes his interests to the extent as originally intended.

The client may award the contract for the project at any stage: during the preliminary planning, during the design and permit phase or during the execution planning. Depending on the concrete planning stage in which the project is, the client will have to choose contractors that are able to offer and render the necessary planning and construction services required from this point in time onwards. The client will also have to make sure that his interests as regards quality and warranties are taken care of.

The contract awarding procedures are a constituent part of the project organization as a whole. Therefore, the contract awarding procedure is also a reflection of how the project including its targets and the costs is to be managed and controlled. This study will largely focus on the contract awarding procedures relevant for housing construction.

Description of the contract awarding procedures

▶ *Inviting individual trades to tender:*

The performance description and the specification will be prepared for each trade individually on the basis of the execution planning, which becomes part of the invitation to tender.

▶ *Functional invitation to tender:*

When a performance program is included in the invitation to bid, the mode of execution and the techniques used become part of the competitive bidding procedure.

▶ *Inviting groups of trades to bid (Building according to Smart; SIA/SBV, Switzerland)*

"Building according to Smart" means that the building project will be realized by a number of trades that are joined in a group for making a bid (a kind of "ad hoc consortium").

▶ *Building team (The Netherlands)*

By co-operating from an early stage onwards, all parties involved in the construction work intend to optimize the project under technological and economic aspects.

▶ *GMP: Guaranteed maximum price:*

The building contractor guarantees a price and sets a limit. Any savings can be distributed between the client and the contractor.

▶ *Construction system competition:*

A competition involving the architect and the contractor, so that not only creative services but also building services are covered. Based on the preliminary design, a performance and price competition of the partial systems evolves (such as for the foundations, for the supporting framework, for the mechanical service, for the interior work, for the cladding etc.)

▶ *Turnkey projects:*

In the case of a turnkey project, a complete object is delivered on the basis of a lump-sum offer.

How to select a contract awarding procedure?

A contract awarding procedure has three crucial features:

- ▶ The type of performance description, in which the client has laid down his objectives and ideas (performance description with specification(s), performance description with performance schedule)
- ▶ The type and the layout of the agreements with which the client contracts the contractors for the project.
- ▶ The type of companies that may become the contracting parties of the client (such as general contractors, multi-trade contractors, individual trades).

Once the preferred type of the contract awarding procedure has been selected after having given careful consideration to the circumstances, a fourth feature must be considered as well:

- ▶ The type of cost control, especially the use of the competition between several bidders, but also other ways and means of ensuring that the client will get the best value for his money.

Experience gained by housing constructors

The contract awarding procedures in Germany are still heavily dominated by the traditions of inviting tenders for individual building lots and awarding contracts on the basis of public and restricted invitations to tender. However, there is an increasing number of projects, for which the usual contract awarding procedures are not used any longer.

Here are the main features in brief:

- ▶ *Type of performance description:*
Clear and uncomplicated, adapted to the cost calculation procedure. It may include a performance schedule, although a specification is preferred.
- ▶ *Layout and type of contract:*
Depends on whether control mechanisms are required before and after the contract has been awarded. Closely connected with the organization of the planning and supervision processes.
- ▶ *The type of contractors used:*
Depends on the market situation; in the case of multi-trade contractors also depending on their previous experience, their references and the extent to which the capacity of the own personnel is used.
- ▶ *The way a certain bidder is selected:*
Frequently selected on the basis of the VOB [Verdingungsordnung für Bauleistungen / Contractual scale of building performance], although this form of selection has come in for criticism, as the VOB/B sometimes proves to be restrictive. A friendly form of co-operation as a factor contributing to economic efficiency is also required.
- ▶ *Involving contractors in the contract awarding procedure:*
Not very often used, but successful. Important is a detailed economic experience of the procedure.

Concurrent invitations to bid

If different invitations to bid for an object are issued at the same time, the economic efficiency of the different types of invitation can be directly compared, at least with regard to the current ... [fehlt im Original]. Some companies use this method quite frequently, other do not even know it. However, in some cases legal concerns have also been raised.

Summary

As long as companies get the value for their money they look for with the approved contract awarding procedures, they are not interested in trying out new ones and put

them to the test. However, the markets in the planning and building industries are changing, and more and more companies, irrespective whether they are "ad hoc consortia" combining various trades or general contractors, offer their services in a package.

Cost control

Looking at the results of our investigation it remains doubtful, whether a particular contract awarding procedure will also have a certain effect on the bidder's pricing. What has definitely been established is, that the contract awarding procedures have a rather different effect on the other objectives the client had in mind when selecting a particular contract awarding procedure. One of the most important criterion for a successful project implementation is surely the transparency and manageability of the entire process, apart from the building costs themselves.

The prices are heavily dependent on the use of the current market capacities (also in partial segments). If the client wishes to select market segments and contractors offering favorable prices, he will eventually have to be flexible with regard to controlling all other project details and necessities as well. He will then have to be prepared to accept various organizational arrangements and contractual agreements and to concede even a certain room for maneuvering as regards the actual construction work.

It became clear that an efficient cost control presupposes a close co-operation between all parties involved.

As compared with more modern contract awarding procedures, the room for maneuvering as regards the cost controlling process has been much smaller when traditional contract awarding procedures are used, where the planning and the implementation processes remain strictly separated. It seems to be useful to initiate an exchange of proposals between the planning and the construction partners at the earliest possible point in time, so that innovative, object-related solutions can be worked out together, which will also have a favorable impact on the costs.

However, it is not just the co-operation between the architect and the contractor which matters. The client himself will also have to decide to which extent he wishes to become involved in the planning and construction processes.

Co-operative procedures, which integrate the client as well as the planning and the construction partners, as is the case with building teams, with construction system competition and with GMP contracts, will allow all parties involved to keep track of the costs. If there are signs that the cost targets cannot be met, the parties involved can respond to the situation well in time.

Competition and market transparency

Normally, the question who is the most reasonably priced bidder will always be asked before any contract is awarded, irrespective of the actual contract awarding procedure selected. The potential client can only find the most suitable bidder as long as he knows the market. A well functioning market is also transparent, which cannot be said about the building market. Too little information about the bidding results are known in the industry, so that the capacity of both contractual parties to act suffers. The assertion more information ruins the market and keeps the prices high is untrue, as

- ▶ genuine competition will beat any price restrictions and price-fixing conspiracies, which unfortunately are still common,
- ▶ market transparency encourages competition and merely restricts its extremes, which can be done without anyway, such as ruinous and unrealistic prices,
- ▶ market transparency also directs attention to the quality and innovative aspects.

One can only speak about market transparency if it applies both to supply and demand, i.e. the performance descriptions will have to be worded unambiguously so that the prices become comparable in the first place. Unfortunately, performance descriptions are often poorly worded and thus misleading.

Competition in the early project stages

The basic principle is: In order to use the largest possible savings potential as regards the building costs, competition (or similar mechanisms) should start as early as possible. At the stage of the project design, a traditional form of competition is the one between architects. As regards the placement of construction services, the competition between the individual trades on the basis of a performance description including the specification(s) is still widely used. Another form of competition or a combination of various forms of contesting against each other is the construction system competition, which can be put up during the preliminary planning or the planning stage.

Team planning competitions, which optimize the planning (also its technical aspects) and the building costs before the actual construction services are contracted, may be considered as equally good. The competitive situation between potential contractors exists only during the preliminary stage, as only those contractors will be invited to become team members who are expected to make the most interesting contributions. However, it should be contractually agreed that further bidders may be invited at a later point in time in order to keep the prices under control.

General contractors and turnkey bidders can act like clients if they were to prepare their offers during an early stage of the planning process. They can act in a similar fashion as a building team or as in a construction system competition. Normally, the deadlines set for handing in the bids do not allow enough time for using procedures like that, although the more permanent forms of co-operation and the relationships evolving between companies make it possible to co-operate in the case of bids with a so-called "creative component".

Construction quality

The quality of executing the construction work is one of the most important items specified for a project. The quality standards as they have been described and contracted are an important factor in the cost control process. The way the other contracting parties are acquainted with these quality standards is a crucial factor, so that the client will eventually get good value for his money. The required quality standards are not only incorporated in the plans and other performance descriptions, they will also have to be pointed out to the contractors when they are familiarized with the project and especially their part in it. Eventually, the site supervision will also give instructions as to meeting the required quality standards. Saving potentials in this field can only be used to the extent as

standards and tolerances make it possible. The room for maneuvering in this field will have to be clearly defined in order to optimize the planning process under cost aspects.