

Deciding about Design Quality

Value judgements and decision making in the selection of architects by public clients under European tendering regulations

Summary

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The search for an architect can be characterized as an interactive selection process in which a client tries to find an architect who can visualize and implement the clients' needs and ambitions best. This process is not without problems. "Architect soap opera", "Slip-up, architect cannot build library after all", and "Public does not want A but B to build town office" are just some newspaper headlines that have dominated the image of tender procedures in which Dutch public clients selected an architect the past few years. It is thus a challenging decision process of surprises and unforeseen circumstances in which legal and social obligations have to be considered. The current practice of architect selection by public clients has its roots in three distinct systems: 1) tendering for services and works, 2) the selective search to identify a suitable architect or design team, and 3) the architectural competition. It is these diverse roots of the selection process that appear to cause conflicts between the legal rationality and the psychological rationality of decision making.

In this research I explore the origin of these problems as currently experienced by public commissioning clients in architect selection in order to propose implications for future practice. In Chapter 1 the research topic, research focus, and research approach are introduced. I also describe the knowledge gaps, scientific challenges, and contribution to the field. This research focuses on the complete process of decision making from the perspective of public clients willing to select an architect in the context of European Union procurement law. The aim of the research is to describe, understand, and explain the design and implementation of procedures by means of which the quality of design proposals is judged in order to award a contract to the architect who will deliver design services for a particular project. The research questions in the study are:

- 1) How do public commissioning bodies decide on the selection of an architect in the context of EU procurement law?
- 2) Which situational characteristics influence the process of decision making of public commissioning bodies in this context?
- 3) What are the implications for the design of procedures for the selection of architects?

In Chapter 2 I address the concept of design quality across the fields of architectural design, environmental psychology, product experience, and value management. Based on these perspectives I define design quality as an overall value judgement of an individual stakeholder that is based on the interaction between the person and an (representation of an) object in the built environment. As a result of the interaction between the individual and the product, a value judgement is always accompanied by an affective response and an assessment about the level of quality or value of a product.

Chapter 3 provides an overview of the psychological aspects that seem most relevant for judgement and decision making in the context of selecting an architect. It elaborates on the definition of design quality as a value judgement from Chapter 2. The chapter starts with an overview of three generations of decision theory: rational decision models, behavioural decision models, and naturalistic decision making. The current practice of architect selections appears to be based on two conflicting models about decision making: the legal and the psychological model. The legal model assumes a rational and sequential decision process in which alternatives are compared based on pre-announced criteria. The naturalistic decision model attributes an important role to the use of intuition and affect. The origin of the current problems in practice could consequently be found in these different rationalities. I adopt the concept of sensemaking as the main concept for decision making to explain how clients deal with these different rationalities.

An architect selection is not an isolated event. Public clients operate in a context of governance and have to consider this organisational structure in their decisions. Chapter 4 addresses four contextual elements that in my view are essential to understand the environment in which architect selections take place: the political, cultural, legal and economical context. I found that the choices made during the preparation phase determine to a considerable extent the results and appropriateness of the tender, as well as the style of the architectural design. Existing models and guidelines can be divided into procurement models, competitions models, decision support systems, and project management tools. Yet, existing knowledge remains scattered and is not used adequately by the contracting authorities. Only the procurement models have an obligatory nature and could actually be enforced. It appears that it is the perception of these legal obligations rather than the actual procurement law that prevent a selection process based on open dialogue between the client and the architects about design quality. There are no open discussions about the difficulties experienced by clients as well as architects. Professions tend to search for solutions within their own domains while an architect selection is in fact a multidisciplinary phenomenon by nature. A gap exists between the existing structures provided to support decision making for architect selection processes and actual decision making of public clients.

In Chapter 5 I formulate fifteen possible success factors based on the insights from theories about assessing design quality, value judgements, and decision making. The theoretical framework shows a structure of five sensemaking processes: 1) reading the decision task, 2) searching for a match between aims, ambitions, needs and opportunities, 3) writing the decision process, 4) aggregating different kinds of value judgements, and 5) justifying against different rationalities. To account for the fact that the research field on architect selections is nascent and neither empirical studies nor theories exist that address processes of decision making in this context, the case study method was chosen to gather empirical data and validate these possible success factors. I conducted three instrumental cases in the context of a restricted tendering procedure: a School, a City Hall, and a Provincial Government Office. The cases differed in the scope of the brief, the type of tender, and the characteristics of the selection process. Additionally I performed one case about an ideas competition for a new Faculty Building. A variety of different forms of data was collected for each case to allow for triangulation between self-report, observed behaviour, and official justifications. The results of the research were successfully tested in a workshop with

experts, in which also implications were discussed for the design of the selection procedures.

The empirical cases as described in Chapter 6 and Chapter 7 show that the decision process of selecting an architect is indeed a result of the interacting of the decision makers with the alternatives once they are confronted with them and start to make sense of the proposed designs. It is, therefore, almost impossible for clients to design a selection procedure and announce the criteria and weighing factors up front, as required by procurement law. In this respect the rationality of the legal requirements clashes with the psychological rationality of decision making. On the other hand, both rationalities strengthen each other by providing a public client with the structure and room needed for successful decision making. In Chapter 8 the five sensemaking processes and their underlying situational characteristics are explained from the theoretical insights and empirical findings. Based on the results recommendations are done for the design of a tender procedure.

The first sensemaking process of *reading the decision task* is based on the concepts of 'sensereading' and 'framing' and deals with the translation of the aims of the client into the tender procedure. Because a public commissioning client acts as a client rather than a customer, distinctive dimensions of architectural and legal language has to be analysed by the decision makers during the process of decision making in order to know what to expect. The development of the brief and the analysis of the project environment are important parts of this sensemaking process. The most important dilemma that clients faced during this process was a distinction between the search for the right solution for their design problem, as suggested by the tradition of design competitions, and the search for the right partner in designing a solution for their accommodation needs, as suggested by the tender principles. The results of the study suggest that complexity, uncertainty and time are the main situational characteristics that influence the process of reading a decision task.

Tendering is a way of granting contracts for projects based on the principle of an open market. The second sensemaking process of *searching for a match between aims, ambitions, needs and opportunities* relates to the fact that during the selection process the values of a client about architecture are connected to the opportunities that are offered by the architects. Although European procurement law aims at opening the market across the EU member states, experiences show that Dutch clients prefer to work with Dutch architects. The results indicate that the decision makers apply existing knowledge about the architects in order to create a sense of control over the situation and the quality of the architects that participate in the tender. The high degree of uncertainty is increased by the stakeholders that have to be involved in decision making. The results of this study suggest that control, affect, and time are the main situational characteristics that underlie the matching process of aims, ambitions, needs and opportunities.

The third sensemaking process that I identified is the process of *writing the decision process*. This process is based on the concepts of 'sensewrighting', 'sensegiving' and 'framing' and entails the writing of the selection process of an architect by the client during a project. Observations showed that decision makers have to deal with a lot of uncertainty during a tender process due to incomplete understanding, lack of information and conflicting alternatives. In these kinds of situations expert judgement and intuitive decision making rather than a rational evaluation of alternatives are

needed to reach a decision. In all cases the procedure of the selection process (restricted or open) determined the amount of phases in decision making but not the interpretation of these phases. Both procedures showed similar iterative decision processes of goal setting, perception, individual value judgement, group decision making and evaluation. In general a distinction could be made between the preparation of the tender in which the brief, procedure, stakeholder involvement and decision process was designed, and the execution of the tender in which the design was applied. The main situational characteristics that I distinguished as influencing the process of writing a decision process are time, intuition, and expertise.

The fourth process of sensemaking relates to the *aggregation of different kinds of value judgements* that is needed to reach a final decision about design quality. In this process the legal and social rationality of decision making clash when a pseudo-rationality is created by quantification of qualitative judgements. The choice for a winner during a tender is on the one hand based on the structure that is provided by the pre-announced criteria, but on the other hand part of a process of increasing insight and sensemaking in which value judgements are implicitly aggregated. Structure, system, and expertise were found to be the most important situational characteristics that influence the process of aggregating different kinds of value judgements.

The fifth process of sensemaking deals with *the justification of the decision against the different rationalities* at the end of the selection process. A client had to justify the final decision to the own organisation, to the public, to society, and to the architects that joined the tender. In justifying a decision a decision maker is simultaneously confronted with the legal structure of the decision procedure and the psychological decision process of sensemaking. The situations characteristics of support, trust and control were found to be of influence to the process of justifying against different rationalities.

Based on the results of the research, fifteen recommendations were derived for the selection of architects by public clients under European tendering regulations. These are based on the success factors identified in the theoretical framework in Chapter 5. A few examples are:

- Allowing for a holistic judgement in the tender design that incorporates potentially conflicting judgements within itself.
- Ensuring a fit between the position and type of the stakeholders and their role in the decision process.
- Aligning the type of expertise needed for the various decision tasks during the selection process of an architect with the nature and content of the decision task.
- Allowing compensation in aggregating value judgements about design quality.
- Addressing the roles and responsibilities of the decision makers cautiously in the design of the tender to increase the trust between the decision makers and broaden the support for the decision among the stakeholders.

The results of this research give reason to suggest a change of the current implications of the tender regulations in the Netherlands. In my opinion the composition of the jury panel should be the same in the selection and award phase, the jury should have decisive rights, and the roles and responsibilities of the jury members should differ per phase of the tender. This means that for any tender in which an architect is selected the following procedure should be applied:

- A. Assign a diverse jury panel that includes the responsible officer(s) and other representatives of the public commissioning as well as experts in specific domains that relate to the assignment (e.g. urban planners, architects, sustainability experts, historians etc).
- B. Assign decisive rights to the jury panel in both the selection and the award phase.
- C. Ensure that jury members trust and support each other before, during and after the tender. This process could be supported by determining roles and responsibilities among the jury members beforehand for the different phases.

The benefits of assigning decisive rights to a multidisciplinary jury in both the selection phase and the award phase are that 1) the potential tenderers can be quality checked by the domain specific experts in the selection phase, and 2) clients can still influence the final decision in the award phase but with the support of domain specific experts. The experts that are involved in the process could monitor the effects of tendering decisions for the professional field. The suggested procedure would require a substantially higher involvement of the domain experts and other panel members in the preparation phase of the tender, the establishment of a specialized multi disciplinary knowledge centre and the development database with suitability information of the tender candidates.

In Chapter 8 I reflect on the research approach and the scientific relevance of the study and make suggestions for further research. I think that this research answers to the need for interdisciplinary approaches to apply existing knowledge from the more traditional fields of science, such as cognitive and social psychology, to the field of architecture. Triangulation of the different research methods strengthened the analysis of complexities underlying the behaviour as shown by the actors. In terms of credibility this study shows for instance that observations open up a possibility to collect scientific insights which would - although commonly known in the field - otherwise be neglected, such as emotions, and strategic behaviour. The main differences between the ideas competition and the tender cases related to the differences in the legal impact of the decision, the aim of the decision and the expertise level of the client. Generalisations of the research can be found in comparable selection processes which allow for deliberations about options, such as decisions about a real estate portfolio, new product development, research funds allocations, student assessments, or awarding contracts in other sectors.

The study highlights several directions for further research. Both the scientific and the professional field would benefit greatly of a more structural data collection on tenders in architectural design. The results indicate that the role of expert teams, the strategies for winning, the underlying situational characteristics of the sensemaking processes, and the role of decision support systems deserve to be investigated further. Future research could also compare different sectors, different client characteristics, and different tendering procedures and include more theories from the fields of strategic management, public administration, and process management.

This research contributes to knowledge in the areas of architectural design, the psychology of making judgements, and organisational decision making. It is therefore of interest to public commissioning clients, management consultants, architects, policy makers and legal advisors in practice, but also to scholars in the field of design management, product experience, environmental psychology, or decision making. The main audience of this thesis is public commissioning bodies that have to organise a

tender, their advisors, and governmental authorities that develop and implement regulations and policies, and scholars in this (multidisciplinary) area. Because the research shows insights into the client perspective that have never been studied before and are usually not open to the public, I believe that the results of this research also offer an interesting story for those interested in decision making for the built environment in general.