Facilitating Construction Briefing - From the Client's Perspective

Nina Ryd

School of Architecture Chalmers University of Technology, Gothenburg, SE-412 96 Sweden nina@arch.chalmers.se

Abstract. The call for improvement to conventional design and construction process in the construction industry is well reported. Essentially, the need for development is associated with the poor performance of building projects. In this respect, the design and construction briefing process aims to identify the requirements of the client and other relevant stakeholders. The subject for this paper is design and construction briefing with a specific focus on the construction clients' perspective of the briefing process. Drawing on a literature review, case studies, and interviews, this article discusses and compares a number of strategic briefing tools. The results provide insight contributing to the construction client's development of competence concerning the consequences of their selected strategy for facilitating construction briefing and provision of facilities.

Keywords: client, management, real estate, planning, briefing, and construction

1 Introduction

The need for development in conventional design and construction process in the construction industry is well reported. Turin (1966), Latham (1994), SOU (2002, p. 115), Green and May (2003) and Koskela (2003) have all commented on the need for change, and each describe comparable problem areas. Essentially, the need for development is associated with the poor performance usually associated with building projects. For example, pre-construction and post-construction activities have been postponed or accelerated to reach a construction stage or move to a new job. This has resulted in poor identification of client requirements and has postponed potential solutions provided by any internal or external specialist. Any attempt to identify or form a design and construction process should cover the project's expected life span, from the identification of a need to the operation of the completed facility (Cheong *et al.* 2002). This approach ensures that all issues are considered from both the business and the technical perspectives. Moreover, this approach recognises and emphasises the interdependence of activities throughout the duration of a project. Furthermore, it focuses on the

front-end activities whereby attention is paid to the identification, description, and evaluation of client requirements in order to find appropriate solutions.

In addition, in much of the recent debate on the construction industry, construction clients are pointed to as the major steering force for directing the construction processes and results (Bertelsen *et al.* 2002; SOU 2002,115; Kamara *et al.* 2002; The Danish Government 2003). Construction clients have a key role as the initiators of projects. As a rule, construction clients also finance the projects. The construction client is also responsible for ensuring that wishes and preferences of the end user are met and that all laws and regulations are complied with. Therefore, construction clients must be recognised as a major driving force within the construction sector. However, today the client or provider of facilities is largely forced to steer this process on the terms of the construction sector with the aid of tools developed for building production.

The aim of this paper is to explore construction client's tools for briefing to improve the understanding of the selected strategies or methods in order to improve the performance of the client's business objectives. This paper begins by briefly describe the characteristics of the clients and the construction sector. Then the paper presents different tools for the management of processes and projects concerned with the planning of facilities. This paper focuses on strategic briefing that converts corporate strategy into property investment or corporate real estate decisions. In addition, this paper examines the processes that capture the organisation's mission, vision, and values that guide corporate decisionmaking. The discussion, therefore, will not assume that all briefing processes end up as building projects, but rather it does focus on what is broadly known as the inception stage of the construction process. The analysis is based on a number of empirical investigations, case studies, and interview surveys from client organisations. These are conducted as a part of the author's ongoing doctoral work on client briefing as a source of information in the construction process as reported by Ryd (2001a; 2001b; 2003a; 2003b). However, there is no space in this paper to provide extensive empirical details. Readers are invited to refer to these texts in order to deepen their understanding of the arguments presented. In addition, a wide range of international literature on the conditions of the construction client and the briefing process is called upon.

A construction client is a person or organisation that contracts the construction of an object (a building, road, bridge, facility) (TNC 2000) either for their own use or someone else's use. The construction client may be the owner or the one who orders the proposed construction. Sometimes, but not always, the client is also the user of the building. Regardless, the construction client often represents many different interests in terms of required services, functions, designs and interpretation aspects. This is a function that represents the owner's interests, perhaps even representatives of the client, the end-user, the operations that will use the facilities and different groups and organisations that in one way or another are influenced by the proposed planning, production, operation, and/or demolition

process. The construction client is often a unit that monitors the interest of many different stakeholders. The degree to which different interest groups become involved varies with the nature of the project.

However, the term client should be understood in a broader context than the traditional one because considerable changes have occurred in Sweden during recent years. The construction client is not only active concerning his/her own building stock but also in the letting out of premises. Therefore, in many ways the role of the client may be said as being the same as applying to functions with facilities management in companies and organisations using a large stock of premises on account of their own activities. This paper focuses on these new roles of the construction client.

The co-operation between the consultants, clients, and tenant/users in the early stages is not well documented (Ryd 2001b). At the same time, decisions are often made concerning solving individual projects without any real analysis of the consequences taken during this stage (Smith *et al.* 2003). As early as 1966, however, Turin noted that the construction client has a direct relationship to the property-owner, tenant/user, and the construction industry, the suppliers that describe, calculate, and deliver products that are necessary for any construction project. In Sweden, co-operation with external property owners with primarily financial interests has become increasingly important.

The basis for being able to satisfy the needs of the client, however, is a good understanding of the client's situation, which demands effective means of working within the construction and management processes. In addition, the client should have a more active role in construction, implying that the client should understand what makes a construction project successful (Spencer and Winch 2002). Continuous interaction and involvement of the client is important in this process.

2 Methodology and empirical results - the use of briefing tools

In 2001 and 2002, the authors performed an interview study of the current state of briefing methods in Sweden to identify and to understand the briefing tools used in the construction industry (Ryd 2003a; Fristedt and Ryd 2003). Those chosen for the interviews had a good knowledge of and experience in the sector, regularly carried out briefing processes, and represented different types of organisations and operations. Twenty-two in-depth interviews were carried out with representatives from governmental client organisations as well as from developers, consultants, and architects. The semi-structured interviews centred on descriptions of how briefings are conducted and on what the respondents wanted to improve. A number of specific areas were covered: methods, roles, responsibilities, decision-making processes, scope, formulation of needs, and suggestions for improvements (Ryd 2003a).

In addition, a number of case studies have been conducted, the most extensive of which (Ryd 2001a; 2001b) was as an exploratory case study (Stake

1995; Gillham 2000) of a project, where the construction brief formed the basis for procuring a contractor. The project was followed for a period of two years, from the start of the production phase to the completion of the building, with a special interest on the interaction between parties during this phase. Focus was on the decision-making processes and the formulation and re-formulation of requirements that led to the final brief. These were then compared with the outcome of the construction process. Main data sources were non-participant observations during meetings, interviews, project documents, and observations on site (Clifford and Marcus 1986). In particular, the case study considered the following: the client's choice of briefing method; how the original intentions in the brief are carried forward to other phases; how the content of the brief develops; how administrative and official stages impact the ability of the briefing document to serve as a guide; and if the structure and content of the brief could promote integration and collaboration (Ryd 2001a; Ryd 2001b).

The results of these empirical studies show that there is significant interest for and need of tools for strategic briefings even if there is very limited knowledge of the different types of tools available. Furthermore, the studies revealed a lack of experience with how these tools are used within the different construction client organisations. On the other hand, there is a better knowledge of the briefing tools more focused on tactical and operative aspects in briefing, especially focusing on the contents of the brief document. Even though all the respondents know that integrated business development and a client orientated strategic facility planning process are vital, as the all believe that a well-executed operational description is the basis for successful briefing.

A client for a state property company: "It is so difficult to get the people working with the briefing to think strategically. They are always so busy answering practical questions from the building consultants. Often they only see the individual product and seldom think of what will happen in 10 years and connect that with the activity that will take place at the facility. For example, there is a risk that you commit yourself to a site that is too small or difficult to access."

However, drawing on the results from the empirical studies and the author's earlier research, several factors that a strategic briefing tool should have been identified:

- a focus on goals, requirements, problems, and priorities from the clients' point of view, with clearer responsibility for long-term profitability from investments
- the fact that client and user needs are seldom unambiguous, clear or stable, but change over time
- the need for concepts for communication between different stakeholders within the strategic briefing process

- an critical examine of the operation with the purpose of elucidating alternatives
- the balancing of comprehensive and more detailed attitudes
- the management of insecurity
- the clearly defined roles of the different parties involved during the briefing phase
- the form for decision-making throughout the process
- an easy to use process and more contributions from the client and the senior management
- an emphasis on the briefing's contractual and legal significance
- the time required completing the briefing process.

Identification of the various forms of briefing tools presented in this paper has been performed using literature studies, article searches, and other authors' compilations of practice. The assessment of these is then based on knowledge and observations from previous theoretical studies, an explorative case study (Ryd 2001a; 2001b) and interview studies (Ryd 2003b). The literature that describes the tools and methods all has a methodical ground. This approach allowed a critical appraisal based on the experience from the case study and the interview study to minimise the two main sources of bias in literature reviews. Bias arises from methodological problems associated with the studies included in the review and bias arising through the interpretations of studies by a reviewer. It should be noted that the final methodological cut-off point for inclusion of studies in these reviews depend on the overall quality of the literature retrieved.

3 Client tools for planning of facilities

Construction clients need to be able to express their requirements and wishes in a way that describes the operation's intentions with the facilities and buildings. An approach is needed where the construction client is able to formulate these needs without them immediately being translated into construction lingo. This would be a tolerant method that presents the information in a format that clarifies and supports a better understanding of what the construction client wants. This is formally called a definition, analysis or translation of the expressed and unspoken needs in a solution-neutral building specification. It is natural that this takes place in the form of a process considering the complexity, the expectations, the project format as it is, and the need for cooperation between the construction sector's stakeholders.

3.1 Strategic briefing

Strategy has been defined in a number of ways. According to Quinn (1995), the origin is the Greek word *strategos*, initially referred to as a general in command of an army. Later it came to mean "the art of the general", which is to say the psychological and behavioural skills a good general should posses. Over time,

it became to mean managerial skill (administration, leadership, oration, and power). According to Mintzberg, a *strategy* is "the pattern or plan that integrates an organisation's major goals, policies, and actions into a cohesive whole" (2002). Therefore, a well-formulated strategy addresses the builder's assets and the client's assets in order to achieve competitive advantages.

In Sweden, strategic briefing is a concept that has still not been entirely established. This British concept was introduced at the beginning of the 1990s to reduce the limitations experienced in traditional specification development when both public and private operations were in a state of constant change (Blyth and Worthington 2001). The more conventional needs-initiated briefing process was based on the assumption that the requirements a structure must meet can be described with the help of studies of existing work processes and interviews with employees and management.

Strategic briefing springs from the current operational needs, but it also takes a longer perspective and focuses on the operation's strategic development plans, its prospects, and the building's potential for adaptation for other uses. It is a matter of identifying how a building is to be used, how its use might change, and the factors that affect these changes. Bertelsen *et al.* (2002), for example, found that the identification of these strategic themes help clients manage the construction process.

3.2 Tools that are developed

From a literature review of current practice, certain tools can be identified for use by clients to manage projects during the inception stage:

- problem seeking (PS)
- strategic needs analysis (SNA)
- strategic choice approach (SCA)
- scenario planning (SP)
- design quality indicators (DQI).

Within the limitations of this paper, it is not possible to describe completely all the tools. A complete appreciation of the tools can barely be archived by reference to the source literature. However, this paper would not be comprehensive without concise accounts of these tools.

3.3 Problem seeking

Conventionally, architectural briefing (programming) is done by architects to develop client requirements. Peña and Parshall (2001) explain briefing as the pre-design activity that develops the considerations or design determinants that define a comprehensive architectural problem. The comprehensive method is a system called *Problem Seeking* and consists of five phases: goals, facts, concepts, needs, and problems. Goals reflect the client's wishes. Collecting and analysing facts guide the conditions of the project. Concepts inform how the client wishes

to accomplish goals.

Problem Seeking depends on interviews and work sessions. Interviews are used to gather data - mainly during the initial three steps. Work sessions are used to confirm information and to encourage client assessment - particularly during the fourth step.

The information from each of the five steps is used to define the problems and the solutions. The five-step concept interacts with these four considerations or design determinants: function, form, economy, and time.

It should be noted that Peña and Parshall distinguish between briefing (programming) and design. "If programming is problem seeking, the design is problem solving" (Peña and Parshall 2001:15). This means that their method aims to develop a fixed and complete briefing that is then passed on to the planning phase and the ones who develop the briefing do not take part in the rest of the process.

3.4 Strategic needs analysis

Strategic Need Analysis (SNA), developed at the University of Melbourne, aims to define the needs of the client (Smith *et al.* 2000; 2003). The method requires the participation of as many significant stakeholders as is practically feasible. These are representatives, direct and indirect, who can contribute to the proposed project from a strategic or operational perspective. According to Smith *et al.* (2003), the method aims to help stakeholders see projects from their own organisation's true goals, objectives, needs, and requirements. Furthermore, every accepted alternative ought to address the strategic direction of the organisation, strategic management process and statements.

Using seminars and workshop, the SNA process uses standard problem solving techniques (for example see Peña and Parshall 2003; Duerk 1993; Kumlin 1995). During the first workshop, operational goals and different alternatives are identified with the help of the decision-making support software Strategizer. After a break of three to five days, a second seminar/workshop is held to determine a strategy. The big difference between other briefing models is that SNA focuses on strategic questions and involves the management of the organisation in the process in an explicit way. The results can be seen as an agreed strategy on how to solve the long-term facility-related questions within the organisation so that they best reflect the organisation's goals. In cases when a facility change is discussed, a performance brief is developed which documents the goals that the chosen solution is meant to reflect in terms related to the operations. The method has been tested in six cases. Smith *et al.* (2003) concluded that a tolerant and open culture for how work is conducted to improve the operational goals within the construction client's organisation is critical for the use of SNA.

3.5 Strategic choice approach (SCA)

Strategic Choice Approach (SCA) (Friend and Hickling 1997) is a Problem

Structuring Method (PSM) developed as a methodological support for decision-making within multifaceted problem areas. PSMs assist groups of diverse composition in decision-making and action plans. Their characteristics feature is the use of a model to represent alternative versions of a complex situation of common interest, combined with facilitation to help group members make constructive mutual adjustments. The approach focuses on the decisions to be made by a group in a particular planning situation, and recognises that strategic decisions are interconnected in complex ways as well as surrounded by uncertainty. Strategic choice is an incremental approach that recognises the need of an explicit balance between decisions to be made now and those that can be delayed. (compare to Blyths and Worthingtons (2001) *last responsible minute*) SCA is empirically founded in that it draws from studies of strategic decision-making in practice.

The approach cycles through four modes of group decision-making: *shaping*, designing, comparing, and choosing (Friend and Hickling 1997). In the shaping mode, the group establishes important areas for the decision. The output of this phase is a problem focus that includes urgent, important, and interconnected decisions but is small enough to be manageable. In the design mode, the group is helped to identify feasible combinations of action options in these areas. The comparing mode involves the group in evaluating these combinations against a range of criteria that they see as important, although in the process participants commonly also uncover uncertainties that block the identification of a straightforward solution. Finally, in the *choosing mode*, the group agrees in some areas and sets up explorations and/or consultations in other areas. In each of the four modes, the participants share and record information on flip charts; this also occurs when using the Problem Seeking method (Peña and Parshall 2001). The information recorded on the flipcharts documents how and why the decisions were made. However, a software package called Strategic Advisor (STRAD) has been developed to support individuals and small groups in the more informal use of the approach. A SCA workshop identifies who will be doing what action and presents strategies for resolving identified areas of uncertainty to support future decisions.

3.6 Scenario planning

Scenario planning is a strategic briefing tool for medium to long-term planning under uncertain conditions. It helps clients sharpen their strategies, develop their strategic briefs for the unexpected, and focus on their goals. Assessment in scenarios helps clients understand the logic of developments, identify driving forces, identify important factors, identify important stakeholders, and encourages clients to influence outcomes.

In terms of briefing, clients constantly make plans that include forecasts as well as scenarios and visions both as stakeholders and as organisations. Traditional briefing with short timeframes work fine during constant conditions and is as such both necessary and controlling. Clients need risk reduction and certainty to be

able to make decisions about their future facilities. Nevertheless, we look to the future. The more complicated a system is, the more irrelevant this type of briefing becomes. When uncertainty increases, clients need briefing tools to reveal and discover the potential business situation in order to identify possible risk and opportunities and to plan for many possible outcomes and situations. According to Lindgren and Bandhold (2003), scenarios are vivid descriptions of conceivable futures. Some of the possible futures seem more probable than other futures. Other scenarios are preferable, and the desired future could often differ from the most probable ones. At the same time, clients cannot explore every possible future. Scenario planning is one way for clients to reduce complexity. Scenario workshops can challenge existing paradigms and create shared perspectives on the future.

TAIDA (Tracking, Analysing, Imaging, Deciding, and Acting) is a scenarioplanning framework developed by Lindgren and Bandhold (2003). Tracking uncovers changes. Analysing discovers future consequences of changes in present and the interplay between trends and tendencies. Analysing addresses the following questions: What is happening and what seems to be happening? What are the lasting tendencies and what are the ephemeral tendencies? What are the necessary conditions for this to become reality?

In scenario planning, the client's business vision is used as input to the scenario development. A client's vision represents a future worth striving for, and by definition they are uncomplicated as they hide risks. Nevertheless, influential visions are straightforward and easily understand but still unclear enough to attract many people (Sahlin-Andersson 1989). One result of a scenario planning process is a revised strategic vision.

3.7 Design quality indicators

Models within the British Rethinking Construction (2003) project have shown that as client involvement in detailed briefing migrates along the entire supply chain the end products are more highly valued by the ultimate customer. However, the majority of the construction clients still operate with a vague and intuitive understanding of what is meant by building design quality, how it adds value, and how to evaluate the value added towards their business strategies (Gann and Whyte 2003). The Design Quality Indicator (DQI) is an evaluation tool to assess the design quality of buildings. The tool aims to do the following:

- to generate a frame of reference for discussing design between varied stakeholders
- to develop client and user priorities for their facilities
- to communicate these priorities extensively throughout the briefing, design, and procurement processes
- to assess design proposals against settled requirements and expectations to create feedback and forward loops. (Table 1.)

Table 1. Strategic briefing tools

	Problem Seeking (PS)	Strategic Needs Analysis (SNA)	Strategic Choice Approach (SCA)	Scenario Planning (SP	Design Quality Indicators (DQI)
Aim	Increases involvement and interaction with clients in briefing, at the first step of the design process	Makes a constructive input to the inception of a project	An interactive support for decision making within multifaceted problem areas	A strategic briefing tool for medium to long- term planning under uncertain conditions	Generate a frame of reference for discussing design between varied stakeholders
Method	A combination of interviews and work sessions - in a five-step method	Uses standard planning workshops, problem solving techniques with information seminars and workshops	Facilitator focused with no detailed restrictions concerning the numbers or length of workshops	Workshops and seminars: expert, participation and organisation models.	A generic questionnaire is used that offers a method for analysing the design quality of buildings
Prerequisites	Designers should look at the whole problem before starting	A tolerant and open culture for how one works to improve the operational goals within the client's organisation is critical for use of SNA.	Strategic choice is viewed as an ongoing process in which the planned management of uncertainty plays a crucial role	It is often advantageous to include external facilitators and even workshop members at some stage in the process in order to bring external perspectives into the process	DQI aspires to be applicable throughout the construction process
Results	A statement of an architectural problem that can work as the interface between briefing and design.	An agreed strategy on how to solve the long-term facility-related questions within the organisation so that they best reflect the operational goals	Commitments to action and strategies for resolving identified areas of uncertainty to support future decisions	A revised strategic vision is one result of a scenario planning process and is one way for clients to reduce complexity to be able to handle it	Allows clients to clearly elicit their requirements and sets a framework for specific consideration about the quality of the product and assists in understanding the trade-off between different choices
Application in practice	The method has been internationally known and used over a long period of architectural practice.	The method has been tested in six cases.	SCA is empirically founded and used in practice during the last decades	SP has been used since the 1950s with success during the 1970s. Today, SP has become a standard tool	The DQI has been developed in collaboration with a wide range of organisations

The short, generic questionnaire that is used offers a method for analysing the design quality of buildings, and it is intended to be used by everybody concerned with the production of a building – clients, developers, commissioners, financiers, designers, builders, project managers, facilities managers, building users, and visitors (www.dqi.org.uk). The method is intended to be used throughout the construction process – at the inception, design, and construction stages of a building, as well as when the building is occupied and in use. At inception, the method identifies client needs and sets a framework for specific consideration about the quality of the product.

4 The briefing facilitator

Authors like Green (1997), Green and Simister (1999), Smith *et al.* (2003), and Jensen (2002) have highlighted the need for specialist practitioners (facilitators) to bridge the gap between corporate strategy and the development of building projects. A facilitator focuses on the process rather than the project. Given that briefing is a personal undertaking, Barrett and Stanley (1999) have recognised *experience* and *decision-making* as the most important skills for facilitators to have. Furthermore, client organisations generally use teams to solve problems, plan for the future, and improve facilities and processes. One method of enhancing group effectiveness is to use a facilitator (www.iaf-world.org; McFadzen 2002) who is responsible for the co-ordinating the participants during the briefing activities. A facilitator is essentially a neutral person who supports the group throughout the problem-solving exercise (Schwarz 2002). Moreover, a number of the tools referred to in this article are also based on the participation of experienced facilitators.

Blyth and Worthington (2001) have chosen to call a similar role the *Design Brief Manager*. It is not, however, a neutral role since it always represents the construction client and thereby serves as a counterpart to the "hard booted" Construction Manager. However, Zeisel (1984) has pointed out that the widest communication gap to be found in the briefing process is the fact that there often is a distinction between the "paying client" and the "user client". Thus, that would support a more neutral facilitator role.

It is likely that a combination of both these functions is preferable. One initial neutral facilitator is important to the process. This facilitator is not a group member, works for the whole client body, and helps the group to improve the way it identifies and solves problems and makes decisions in order to increase the group's effectiveness during strategic briefing. This means that the participants can concentrate on the contents of the programme while responsibility for conducting a good briefing process is with the facilitator.

In addition, a brief manager's competence is also needed to continually follows-up and translates the client's goals into the construction process.

5 Results

This study examines the construction client's tools for facilitating strategic briefing. Thus, some of the tools need further elaboration. To start with, it might be helpful if we consider an overall table of tools and the empirically identified factors that such tools need to support. (Table 2.)

Table 2. An illustrative table of the evolution of the tools against the criteria's identified in empirical studies that strategic briefing tools support

Key: +++ Strongly supported ++ Supported + Weakly supported 0 Not addressed	PS	SNA	SCA	SP	DQI
a) focus on goals, requirements, problems, and priorities from the client's point of view with clearer responsibility for long-term profitability from investments	+++	+++	++	+++	+++
b) account for the fact that client and user needs are seldom unambiguous, clear or stable, but change over time	+	+++	++	+++	++
c) concepts for communication between different stakeholders	+++	+++	++	++	+++
d) identifying alternatives	++	+++	+++	+++	++
e) balancing comprehensive and more detailed attitudes	++	+	+	+	++
f) management of insecurity	+	++	++	+++	+
g) defined roles of the different parties	+	++	++	++	+
h) form basis for decision-making throughout the whole process	0	+++	+++	+++	+++
i) easy to use and contribute to more active participation	++	++	+	++	+++
j) contractual and legal significance	+	++	+	0	+++
k) time required	7 weeks	2 days with a break of 3-5 days	Focuses on decisions to be made in a particular planning situation, whatever time scale	i	a questionnaire which takes 20-30 minutes to complete and to analyse

All the tools presented here address client and stakeholder requirements as well as designed to present further valuable, innovative, and improved strategic briefing. However, the figure seems to imply that the different tools support the identified factors to widely varying degrees. A combination of tools must be used to better ensure that the strategic briefing has considered all factors. A repertoire of methods needs to be developed where different approaches can be used and the advantages and disadvantages of different tools can be highlighted. But on the other hand, the client has a bias in using the methods that it knows best. The client needs therefore to be more aware of the strengths and weaknesses of the tools. It can also be concluded that the different methods vary greatly over time. It should be pointed out that the method that is quickest to perform is not necessarily the worst choice and the method that requires the most time is not necessarily the most comprehensive.

For many years, it has been pointed out that the client's needs have not been met to a high enough degree and that it is in the early stages of the construction process that the decisive decisions are made. The empirical studies conducted in this research project show that practitioners often state that this is because there are no tools to conduct a satisfactory briefing process. The tools however are available and this article has pointed to several of these. They are all intended to support the client and all the other stakeholders during the strategic decision process that takes place during the early phase of the building process.

Unfortunately, none of the tools work without a motivated and conscientious client. It should also be pointed out that the groups that take over after the client's strategic briefing process need to keep themselves updated and respect the client's, the operation's and the individual project's overall goals so that secondary or individual goals do not take over. This work is greatly simplified with the help of a briefing facilitator. The challenge for such a role will be to balance the focus between product management and process management in the tradition of product project management and to link building design, management, and performance to organisational performance.

Client for a state property company: "Decisive for whether a project is successful or not is involvement by management to ensure that the strategic programme is linked to the operational goals."

Acknowledgements

This paper is a part of on ongoing doctoral work on client briefing at the School of Architecture at Chalmers University of Technology. I am most grateful to my supervisor, Professor Sven Fristedt, and Associate Professor Knut Strömberg for all their support.

References

Barrett, P. and Stanley, C. (1999). Better Construction Briefing, Blackwell Science, Oxford.

Bertelsen, S., Fuhr Petersen, K. and Davidsen, H. (2002). Bygherren som forandringsagent – på vej mod en ny byggekultur, Byggecentrum, DK.

Blyth, A. and Worthington, J. (2001). Managing the Brief for Better Design, Spon Press, London and New York.

Cheong, S. P., Anumba, C. J., Hill, H. and Bouchlaghem, D. (2003) Improving construction client satisfaction through whole life performance, published in the Proceedings of the 3rd International Postgraduate Research Conference in the Built and Human Environment 3 - 4 April 2003, ESAI, Lisbon, Portugal, p. 731-746.

Clifford, J. L. and Marcus, G. E. (1986). Writing Culture, The Poetics and Politics of Ethnography, University of California Press, USA.

Danish Government. (2003). Staten som bygherre - vaekst og effektivisering i byggeriet, www.oem.dk.

Duerk, D. (1993). Architectural programming, information management for design, John Wiley & Sons Inc, Canada.

Friend, J. and Hickling, A. (1997). Planning under Pressure: The strategic Choice Approach, (second) Butterworth-Heinemann, Oxford, UK.

Fristedt, S. and Ryd, N. (2003) Ju förr desto bättre, Programarbete i tidigt skede av byggprocessen, U.F.O.S. och Svenska Kommunförbundet, EO Print, Stockholm.

Gann, D. M. and Whyte, J. K. (ed.) (2003) Design quality, its measurement and management in the built environment, Building Research & Information, 31:5 p. X-X.

Gillham, B. (2000). Case Study Research Methods, Continuum, London, UK.

Green, S. D. (1997). New Directions in Value Management, in Proc. of Hong Kong Institute of Value Management International Conference: Effective Change through Value Management, Hong Kong, November 12-13, 8 p.

Green, S. D. and Simister, S. J. (1999). Modelling client business processes as an aid to strategic briefing, Construction Management and Economics, 17(1), p. 63-76. ISSN 0144-6193.

Green, S. D. and May, S. C. (2003). Re-engineering construction: going against the grain, Building Research & Information, 31(2) p. 97-106. ISSN 0961-3218.

Jensen, P. (2002). Construction, From Vision To New Reality (in Danish: Byggeri, fra vision til ny virkelighed, Tegl, Denmark.

Kamara, J. M., Anumba, C. J., and Evbuomwan, N. F. O. (2002). Capturing client requirements in construction projects, Thomas Telford Ltd, London.

Koskela, L. (2003). Is structural change the primary solution to the problems of construction? Building Research and Information, 31/2 Mars-April 2003, p. 85-96.

Kumlin, R.R. (1995). Architectural programming: creative techniques for design professionals, McGraw-Hill, New York.

Latham, Sir M. (1994). Construction the Team, HMSO, London.

Lindgren, M. and Bandhold, H. (2003). Scenario Planning - the link between future and strategy, Palgrave Macmillan, Houndmills.

McFadzen, E. (2002). Developing and supporting creative problem solving teams: part 2 - facilitator competencies, Management Decision, 40/6, p. 537-551.

Mintzberg, H. (Ed.) (2002). The Strategy Process, 4th Edition, Prentice Hall College, USA.

Peña, W. and Parshall S. A. (2001). Problem Seeking; An Architectural Programming Primer, 4:th edition, AIA Press, New York.

Quinn, B. *et al.* (1995). The Strategy Process - Concepts, Contexts, and Cases, James Prentice-Hall International Inc Englewood Cliffs.

Rethinking Construction Ltd. (2003). Demonstrating Success through Rethinking, Rethinking Construction Demonstrations Report July 2003, published by Rethinking Construction Ltd, London.

Ryd, N. (2001a). Byggnadsprogram som informationsbärare i byggprocessen; en studie av byggnadsprogrammering, Report Department Of Facilities Management, Chalmers University Of Technology, Gothenburg, Sweden.

Ryd, N. (2001b). The Architectural Brief As Carrier Of Client-information During The Construction Process, (in Swedish) Thesis for the degree of Licentiate of Architecture, Department Of Facilities Management, Chalmers University Of Technology, Gothenburg, Sweden.

Ryd, N. (2003b). Would IT-supported briefing empower the construction client? Conference, paper for the International CIB Symposium: Knowledge in Construction, October 22-24, 2003.

Ryd, N. (2003a). From Building Production-focused Specifications Towards a Client-focused Briefing Process, Nordic Journal of Architectural Research, 2003:2, p. 55-64.

Sahlin-Andersson, K. (1989). Oklarhetens strategi, organisering av projekt-samarbete, Studentlitteratur, Lund.

Schwarz, R. (2002). The Skilled Facilitator, Jossey-Bass San Francisco, USA.

Smith, J, and Jackson, N. (2000). Strategic Needs Analysis: its role in brief development, Facilities, volume 18, number 13/14, 2000, p. 502-512.

Smith, J., Jackson, N and Wyatt, R. (2003). A method for strategic client briefing,

Facilities, volume 21, number 10, 2003, p. 203-211.

SOU 2002:115 Skärpning gubbar! Om konkurrensen, kvaliteten, kostnaderna och kompetensen i byggsektorn, Betänkande av Byggkommissionen.

Spencer, N. and Winch, G. (2002). How buildings add value for clients, Construction Industry Council, Thomas Telford Ltd, London.

Stake, R. (1995). The Art of Case Study Research, Sage Publications, Inc. California.

TNC. (2000). Construction economical concepts (In Swedish: Byggekonomiska termer) Tekniska nomenklaturcentralens publikationer, Stockholm.

Turin D. A. (1966). Building as a process, Republished in: Building Research and Information, 31/2 Mars-April 2003, p. 180-187.

Zeisel, J. (1984). Inquiry by design: tools for environment-behaviour research, Cambridge University Press, Cambridge.