External Stakeholder Management in the Construction Process

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Key words

Stakeholder, Construction management, Project Management

Preface and Acknowledgements

"At eight o'clock on Thursday morning Arthur didn't feel very good. He woke up blearily, got up, wandered blearily round his room, opened a window, saw a bulldozer, found his slippers, and stomped off to the bathroom to wash…Shaving mirror – pointing at the ceiling. He adjusted it. For a moment it reflected a second bulldozer through the bathroom window…The word bulldozer wandered through his mind for a moment in search of something to connect it with. The bulldozer outside the kitchen window was quite a big one. He stared at it. 'Yellow,' he thought and stomped off back to his bedroom to get dressed…'Yellow,' he thought. The word *yellow* wandered through his mind in search of something to connect it with. Fifteen seconds later he was out of the house and lying in front of a big yellow bulldozer that was advancing up his garden path…Mr L. Prosser was, as they say, only human…he was a nervous worried man. Today he was particularly nervous and worried because something had gone seriously wrong with his job – which was to see that Arthur Dent's house got cleared out of the way before the day was out. 'Come off it, Mr Dent,' he said, 'you can't win you know. You can't lie in front of the bulldozer indefinitely.'…Arthur lay in the mud and squelched at him. 'I'm game,' he said, we'll see who rusts first.' 'I'm afraid you're going to have to accept it,' said Mr Prosser gripping his fur hat and rolling it round the top of his head, 'this bypass has got to be built and it's going to be built. 'First I've heard of it,' said Arthur, 'why's it got to be built?' Mr Prosser shook his finger at him for a bit, then stopped and put it away again. 'What do you mean, why's it got to be built?' he said. 'It's a bypass. You've got to build bypasses.' …Mr Prosser said, 'You were quite entitled to make any suggestions or protests at the appropriate time you know.' 'Appropriate time?' hooted Arthur. 'Appropriate time? The first I knew about it was when a workman arrived at my home yesterday…'But Mr Dent, the plans have been available in local planning office for the last month. 'Oh yes, well as soon as I heard I went straight round to see them, yesterday afternoon. You hadn't exactly gone out of your way to call attention to them had you? I mean like actually telling anybody or anything.' 'But the plans were on display' 'On display? I eventually had to go down to the cellar to find them.' ' That's the display department.' 'With a torch.' 'Ah well the lights had probably gone.' ' So had the stairs.' 'But look you found the notice didn't you?' 'Yes said Arthur, 'yes I did. It was on display in the bottom of a locked filing cabinet stuck in a disused lavatory with a sign on the door saying *Beware of the Leopard.*'

The passage above is from Douglas Adams "The Hitch Hiker's Guide to the Galaxy" and even if the reality is not this bad the passage gives some thoughts on the subject of how to communicate with stakeholders in the construction process. If we continue the

story, absurd as it is, the problem is more clarified. An Alien spaceship arrives at Earth with the following message. " ' People of the Earth your attention please,' a voice said…'This is Prostetnic Vogon Jeltz of the Galactic Hyperspace Planning Council,'…As you will no doubt be aware, the plans for development of a hyperspatial express route through your star system, and regrettably your planet is one of those scheduled for demolition. The process will take slightly less than two of your Earth minutes. Thank you.' The PA died away. Uncomprehending terror settled on the watching people of Earth…Observing this, the Vogons turned on their PA again. It said: 'There's no point in acting surprised about it. All the planning charts and demolition orders have been on display in your local planning department in Alpha Centauri for fifty of your Earth years, so you've had plenty of time to lodge any formal complaint and it's far too late to start making a fuss about it now.'…'What do you mean you've never been to Alpha Centauri? For heaven's sake, mankind, it's only four light years away you know. I'm sorry, but if you can't be bothered to take an interst in local affairs that's your own lookout.

The point I would like to make by presenting this story is that it is important to know what to communicate, how to communicate it, when to communicate, where to communicate it and most importantly to whom the communication is to be made. In this sense it is not only to inform stakeholders, one needs also to get a confirmation of how the information was processed by the stakeholders and what their response is. This study will reflect some of the problems with stakeholder management and communication in the construction process.

Abstract

Construction projects affect the community in both positive and negative ways. Positive effects are, for instance, better communications, better housing, and a higher standard of living. However, construction projects inevitably bring with them deterioration and changes on the local plane, at the site of the construction project. Thus, in construction projects, many different and sometimes controversial interests must be considered. Representatives of these interests are referred to as the project stakeholders. The stakeholders in a project can be divided into internal and external stakeholders, the internal stakeholders are those who are members of the project coalition or who provide finance; the external stakeholders are those others affected by the project in a significant way (Calvert 1995, from Winch, Bonke 2002).

The purpose of this research project is to contribute to, and increase, our knowledge concerning external stakeholder management in the construction process, and to develop methods and tools for the evaluation and management of external stakeholder influence. The contribution of this study to construction project managers is:

- An increased knowledge of how an external stakeholder management process presents it self in construction projects.
- Suggests different strategies to an external stakeholder management process.
- Suggests different tools that can be used for analysing the influence of external stakeholders. The main tool, described in this study, is the stakeholder map and the power interest matrix.

Furthermore this study points to the importance of the project management to identify those stakeholders who can affect the project, and then managing their differing demands through good communication. Thus, the challenge for the project management is to find the best solutions for all stakeholders involved and try to get an acceptance for that solution, which probably is only possible through a good and communicative dialogue, and after a carefully conducted stakeholder management process.

This would indicate that a more ambitious strategy in the external stakeholder management process would increase the possibility of resolving conflicting interests. However, a more ambitious strategy also requires more resources. Hence, the dilemma for the project management is to balance the use of resources with the appropriate strategy towards each individual stakeholder group.

Svensk sammanfattning

Byggprojekt påverkar samhället bade positivt och negativt. Postiva effekter kan vara, till exempel, bättre kommunikationer, bättre bostäder och en högre levnadsstandard. Negativa effekter byggprojekt oundvikligen för med sig förändringar för den lokala miljön. Detta medför att många olika intressen måste beaktas vid genomförandet av byggprojekt. Dessa intressen representeras av projektets intressenter. Ett projects intressenter kan delas in i interna och externa intressenter, de interna intressenterna är medlemmar i projektorganisationen eller sponsorer till projektet, de externa intressenterna är de som påverkas av projektets genomförande (Calvert 1995, från Winch, Bonke 2002).

Syftet med denna studie är att bidra till kunskapen om hantering av externa intressenter i byggprocessen, samt att utveckla verktyg för att analysera hur externa intressenter kan påverka genomförandet av ett byggprojekt. Denna studie skall ge följande bidrag till byggprojektledare.

- En ökad kunskap om hur externa intressenter kan påverka genomförandet av byggprojekt.
- Föreslå olika strategier för en extern intressenthanteringsprocess
- Föreslå olika verktyg för att analysera hur externa intressenter kan påverka genomförandet av ett byggprojekt. Det verktyg som främst är beskrivet i denna studie är intressentkartan och makt/intresse matrisen

Denna studie pekar även på vikten av att projektledningen identifierar de intressenter som kan påverka projektets genomförande, och sedan genom god kommunikation försöker hantera deras krav på projektet. Utmaningen för en projectledning ligger i att försöka hitta den bästa lösningen på ett problem med beaktande av alla intressenter och att få en acceptans för den lösningen. Detta är antagligen endast möjligt genom noggrann process av att värdera olika intressenters påverkan på projektet, och genom en god dialog med med dessa intressenter.

Detta indikerar att en mer ambitiös strategi för att hantera externa intressenter ökar möjligheten att lösa konflikter med dessa intressenter, men en mer ambitiös strategi kräver också mer resurser. Dilemmat är därför att projektledningen måste hitta en balans mellan resursanvändningen och vald strategi för varje enskild intressentgrupp.

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1   Introduction

1.1   External Stakeholder Management

Construction projects affect the community in both positive and negative ways. Positive effects are, for instance, better communications, better housing, and a higher standard of living. However, construction projects inevitably bring with them deterioration and changes on the local plane, at the site of the construction project. Thus, in any project, and especially in construction projects, many different and sometimes controversial interests must be considered. Representatives of these interests are referred to as the project stakeholders. Project stakeholders are defined as, individuals and organisations who are actively involved in the project, or whose interests may be affected by the execution of the project or by a successful project (A Guide to the Project Management Body of Knowledge, PMI 2000). The implication is that a stakeholder is any individual or group with power to be a threat or a benefit (Gibson, 2000)

The stakeholders in a project can be divided into internal and external stakeholders, The internal stakeholders are those who are members of the project coalition or who provide finance; the external stakeholders are those others affected by the project in a significant way (Calvert 1995, from Winch, Bonke 2002).

An important external stakeholder is the public, especially when it comes to publicly financed construction projects. Experiences from the construction of the tunnel under the English channel shows the need to better address the interest of external stakeholders in general, and the public in particular, and that the management of external stakeholders should be considered as an essential cost element in the implementation of any major civil engineering project (Lemley 1995, Lemley 1996).

"Today managing the public image of major civil engineering projects is at least as important as managing their physical creation. Poor public perception can damage or stop a project as surely as can bad ground or shortage of labour and materials. The Channel Tunnel project is a classic example: for much of its formative period it existed in an often destructive climate of adverse public opinion. Most of this was avoidable, but it resulted in the project team spending much of its time fighting a rearguard action rather than simply getting on with the job"(Lemley 1996).

The Channel tunnel experience can, however, be applied to almost all construction projects. Any construction project, independent of size, can become embroiled in a process of conflicts and controversies with external stakeholders.

The external stakeholder management process involves both a formal process that is regulated by laws and regulations and an informal process of managing the uncertainties concerning the needs and demands of external stakeholders.

1.2   External Stakeholder Management
   – A project management task

A project is a unique process, consisting of a set of co-ordinated activities with a start and a finish date, undertaken to achieve an objective conforming to specific requirements, including constraints on time, cost and resources (Quality Management – Guidelines to quality in project management, SS-ISO 10006). These constraints can be affected by the influences of stakeholders, internal as well as external. The project management team must identify the stakeholders, determine what their need and expectations are, and then manage and influence those expectations to ensure a successful project (PMI 2000).

Managing stakeholder demands is not without its complications. The aims and demands of different stakeholders within a project, can sometimes be each other's opposites. A stakeholder management process management of conflicts that arise between the conflicting aims of different stakeholders. In a construction project a conflict may arise between the client and a local community. The client wishes to complete the project within the set frames of time, cost and design, while a local community may demand changes to the design and location of the construction project, which can generate unforeseen costs for the project if the conflicting interests are not managed satisfactory.

 "Interfaces should be established with all the stakeholders and feedback obtained as appropriate throughout the project. Any conflicts between stakeholders needs, should be resolved…Attention to changing stakeholder needs, including those of new stakeholders, should continue throughout the project. " (SS-ISO 10006)

In Both PMI (2000) and SS-ISO 10006, the management of communication between project stakeholders is regarded as an important process. The processes related to communication should ensure a timely and appropriate generation, collection, dissemination, storage and ultimate disposition of information on the project.

For construction projects there are several examples of failures in communication between project stakeholders; one Swedish example is the construction of the tunnel under the Hallandsås ridge. However, there are also good examples where the project management has committed resources for the communication process in external stakeholder management. The City Tunnel project in Malmö, Sweden, is a good

example of a project that has given high priority to an open and honest communication with project stakeholders.

The consequences of an insufficient external stakeholder management process for a construction project process can be the following: (Ismodes 1997)

Conflicts with the local community: If the affected local community is not regarded in the project decision process, there is a risk of future conflicts that in turn can have further negative consequences for the project.

Complicated decision-making process: The decision-making process in the implementation of construction projects can have many unwanted consequences if it is managed insufficiently.

Time delays and cost overruns: Conflicts with a local community usually lead to time delays and cost overruns for the project.

Negative publicity for the companies involved: A poorly performed external stakeholder management process can lead to negative publicity.

1.3   Background

1998 a work group within the Royal Academy for Engineering Sciences (IVA) conducted a study on the potential for the development of the civil engineering sector in Sweden. The study resulted in a report (IVA 1998). Several areas were identified, in which a need was perceived for the development of competence in the civil engineering sector in order to satisfy the demands of the society. One of these areas was the lack of acceptance of civil engineering projects due to an insufficient process of managing external stakeholders.

There are several examples of technically and economically well planned projects, managed in a formally correct way, but which were, nonetheless, stopped due to political decision based on opinions from external stakeholders, so that large amounts of already committed resources became obsolete (IVA 1998).

Furthermore, civil engineers tend to explain problems in technical and economic terms, which may not be sufficient to address the concerns and needs of external stakeholders.

In communication, particularly as practiced by engineers, precision and clarity are often the primary values. The premise is that decisions are best based on data, and the best decisions are based on the clearest, least ambiguous data. They believe that when the technical facts are clearly communicated. All reasonable hearers will arrive at similar conclusions. But in public policy-making, engineers must often present data to

audiences who do not share the values of their technical culture." (Hynds, Martin 1995)

Consequently, there is a need to develop methods and tools for managing the concerns of external stakeholders in construction projects. The problems that were described by IVA are relevant for all types of construction projects, not just civil engineering projects, because they all, more or less, affect external stakeholders. For the initiator and developer of a construction project, it is important to seek an acceptance of the project, by its stakeholders, at an early stage of the project. This means that the role of the project manager must involve not just an understanding of the technical process, but also an understanding of the links between technique, the environment, and the community and the people in it. For instance, a local community possesses unique information of local circumstances. The project management should acquire knowledge about the location of the project using this competence, and, furthermore, engage the local community in the planning process of the construction project. Thus, an external stakeholder management process should, if managed correctly, be seen as a positive opportunity to improve the project.

1.4 Aim and Limitations

The purpose of this research project is to contribute to, and increase, our knowledge concerning external stakeholder management in the construction process, and to develop methods and tools for the evaluation and management of external stakeholder influence. The aim is to formulate a theoretical and general model to describe the process of managing external stakeholders in construction projects. The model is to form a baseline for the development of methods to assess and analyse the process of managing external stakeholders, in order develop an action plans to improve the decision–making process in the implementation of construction projects.

This study will focus on the informal process of external stakeholder management from a project management perspective, where the primary aim of an external stakeholder management process should be to obtain an acceptance of the construction project, and of its implementation. The secondary aim should be to gain knowledge of the risks concerning external stakeholders, and thus establish a more rational base on which project decisions are made.

Furthermore, the knowledge produced by this study is intended to be the base of improved education of construction project managers, civil engineers, and architects. Today, there is a lack of knowledge for construction project managers to manage external stakeholders. Thus, there is a need to strengthen the education of civil engineers and architects in the area of external stakeholder management.

This research project is limited to the study of the applications of external stakeholder management in a project management perspective with its focus on the client organisation, which often are the owners of a construction project. Even though

problems with external stakeholder management, more or less, exist for all kinds of construction project, this study is also limited to road, railroad and housing projects, with the knowledge that these kinds of projects are usually more controversial and consequently give a better input to the study. However, the results are probably applicable to other types of construction projects, because of the general nature of the problem.

This study is, furthermore, limited to Swedish conditions of external stakeholder management. The chosen case studies is located in the South of Sweden, but they can most likely represent other parts of Sweden, since the basic legislative body (The Swedish Planning and Building Act, PBL)is the same. The geographical limitation is more of a practical nature, and makes it possible to conduct a more thorough research because the case studies are located in the vicinity of the Lund Institute of Technology.

Complementing research is being conducted within the social sciences, mainly from a perspective of political science and sociology, and furthermore, some environmental studies also address this area of research.

1.4.1 Cooperation with the Department of Sociology, Lund University

Research in the area of external stakeholder management is complex and involves a number of aspects. This study focuses on the project management perspective. However, there is a significant social aspect to the research area, which needs to be addressed in order to gain an insight into how this aspect affects the project management aspects of the problem. To provide a more complete picture of the problems surrounding external stakeholder management, this research project is conducted in close cooperation with a research project at the Department of Sociology, Lund University.

The cooperation is conducted in such a way that the formulation of the problem for the two research projects is identical but the research is conducted from the perspective of two different sciences, namely, construction management and sociology.

1.5 The Author's Frame of Reference

I have a Master of Science degree in civil engineering from the Lund Institute of Technology, Sweden, and have worked as a production engineer for a building contractor on civil engineering projects, before and during my master studies. I also have some experience of project management in large civil engineering projects, where I indirectly encountered the problems of external stakeholder management, and their consequences.

I have always had an interest in construction project management and the problems surrounding it. The management of stakeholder aspects I see as essential part to manage in order to ensure the success of a project.

During my PhD studies, I have taken courses in areas of project management, construction process, social aspects of urban planning, communication, and research theory and methods. In addition to this, my in close cooperation with a PhD student at the Department of Sociology, Lund University, has greatly enhanced my understanding of the social aspects of the research problem.

Parallel with my PhD studies I have worked as a lecturer in the areas of construction project management, property management, real estate management, and business economics. As a complement to my role as a lecturer, I have also taken a few basic courses in pedagogy.

1.6   The Structure of the report

1.6.1 The Main Report

Chapter 1, Introduction, addresses the background and purposes of this research project.

Chapter 2, Methods, describes the research process and the methods used to conduct this study.

Chapter 3, Stakeholder Management, gives the theoretical framework of stakeholder management. The chapter reviews the general principles of stakeholder management, and describes the essential stakeholder groups.

Chapter 4, Democratic Aspects on External Stakeholder Management, describes the legal body of external stakeholder management, and reviews some of the research done from the political sciences point of view, which addresses the democratic problems connected with external stakeholder management, mainly from the perspective of publicly funded construction projects.

Chapter 5, Strategies for Managing External Stakeholders, discusses the possible strategic levels for conducting an external stakeholder management process, and the implications of the chosen strategy.

Chapter 6, Tools for Analysing an External Stakeholder Management Process, presents tools with which to analyse and manage an external stakeholder management process from the perspective of construction projects.

Chapter 7, Discussion and Conclusions, discusses how the problem of managing external stakeholders presents itself in construction projects.

1.6.2 The Articles

Three articles are presented in the appendix that analysis and draw conclusions in three different aspects of the problem of managing external stakeholders.

Appendix 1, Consensual Approaches to Siting Controversy. This is a pilot study undertaken to examine how an ambitious strategy of external stakeholder management may present itself. It is a comparative study between the theories of consensus building and the actual external stakeholder management for a project, the City Tunnel project in Malmö, Sweden.

Appendix 2, Evaluation of Stakeholder Influence in the Implementation of Construction Projects. A case study based on four cases, an analysis and evaluation is presented of how the stakeholders have influenced the implementation of the project and the decision-making process. It also presents a model for evaluating stakeholder influence during all stages of the project.

Appendix 3, Defining Decision Points to Avoid Escalation in Construction Projects. Addresses the problem of escalation of project decisions due to the influence of external stakeholders and unforeseen events. A hypothetical model of identifying decision points is presented with the purpose of laying a foundation for further research on how stakeholder management, risk management, and cost-benefit analysis can be combined to effectively manage the affects of external stakeholder influence, during different stages of a project.

2   Methods

2.1 The Research Process

The research process (see figure 2.1) for this study has focused on the understanding of external stakeholder management and suggests methods for project management that can be used in an external stakeholder management process. Furthermore, this study will provide a foundation for future studies that will test and validate possible methods and models. A systems approach has been adopted, and case studies have been used as the instrument of research in combination with literature reviews
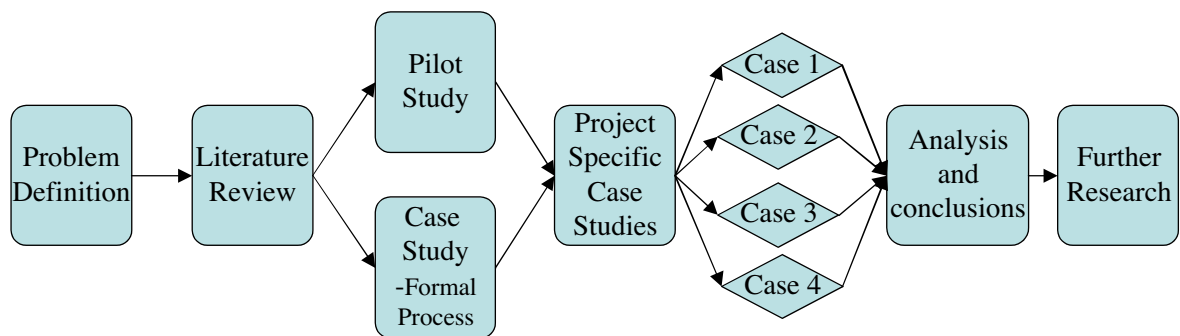
Figure 2.1. The research process

2.1.2 Co-operation with the Department of Sociology

The problem of understanding external stakeholder influence is by its nature interdisciplinary. In order for this study to focus on the project management issues, the sociological issues are investigated by the Department of Sociology, Lund University. The interdisciplinary approach consists of two research projects being conducted simultaneously, this study, and a study with a sociological viewpoint.

The co-operative work has been conducted in such a way that the two projects have had an identical problem definition and case studies have been conducted jointly. However, the analysis of the case studies has been conducted separately, from a project management and sociological viewpoint, and will be presented in separate reports. This report presents the project management aspects.

2.2 The systems approach

The underlying assumption of the systems approach is that the reality is arranged in such a way that the whole differs from the sum of its parts (see figure 2.2). This means that not only the different parts of the system must be studied, but also their relations (Arbnor, Bjerke 1997).
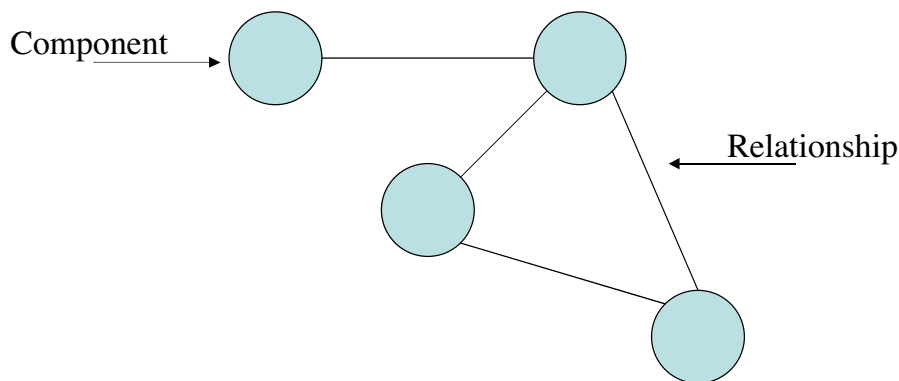
Figure 2.2. A System is a set of components and the relations among them (Arbnor, Bjerke, 1997)

The systems approach had its breakthrough in business research during the 1970s. One aspect of the development of the systems approach was the increasing complexity of society, there being now talk of different societal systems, organisational, educational, production, etc. (Arbnor, Bjerke 1997)

The definition of systems demands some additions: (Arbnor, Bjerke 1997)

- The systems approach means studying components that are in inevitable interaction with each other instead of having potential cause-effect relations.

- In order to explain the individual component it is not enough to study the component itself or in isolation, the researcher must put the component in context. In order to explain or understand a system it is sometimes necessary to place it in its own context or environment. This makes it possible to distinguish between open and closed systems. Open systems are studied in the context of their environment, closed systems are not (see figure 2.3)
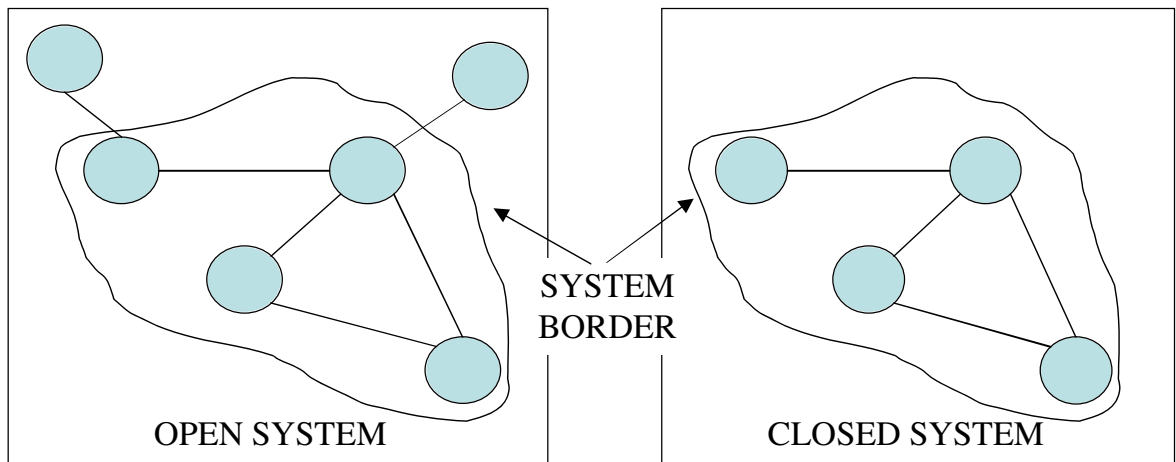
Figure 2.3. Open Systems and Closed Systems (Arbnor, Bjerke, 1997)

The system environment is what lies outside the boundary of a system, This environment is usually defined as the factors that are important for the system to consider, but are beyond its control (Arbnor, Bjerke 1997). If this definition is applied to the concept of construction projects and their relations to external stakeholders, the external stakeholder can be considered as a factor that must be considered, but is beyond the control of the project.

In this study a systems approach has been adopted. The basic system, which is an open system, is presented in figure 2.4. However, this system is not fully developed, and one purpose of this study is to develop the basic system for future studies. The purpose of this study can, thus, be related to the construction of the system, and future studies will focus on implementation and new proposals (see figure 2.5), as they are defined in a goals-means orientation (Arbnor, Bjerke 1997). The method to gain knowledge about the system has mainly been conducted through literature reviews, secondary data, and case studies, primary data.

There is, however, a limiting factor for the systems approach, and that is that every system is unique. Thus, there is a problem of generalisation, in the sense that if one system component is replaced, a whole new system is acquired, which may give a different output. One of the purposes of this study is to gain knowledge about external stakeholder management in order to develop the basic system in figure 2.4, for future studies in this area.
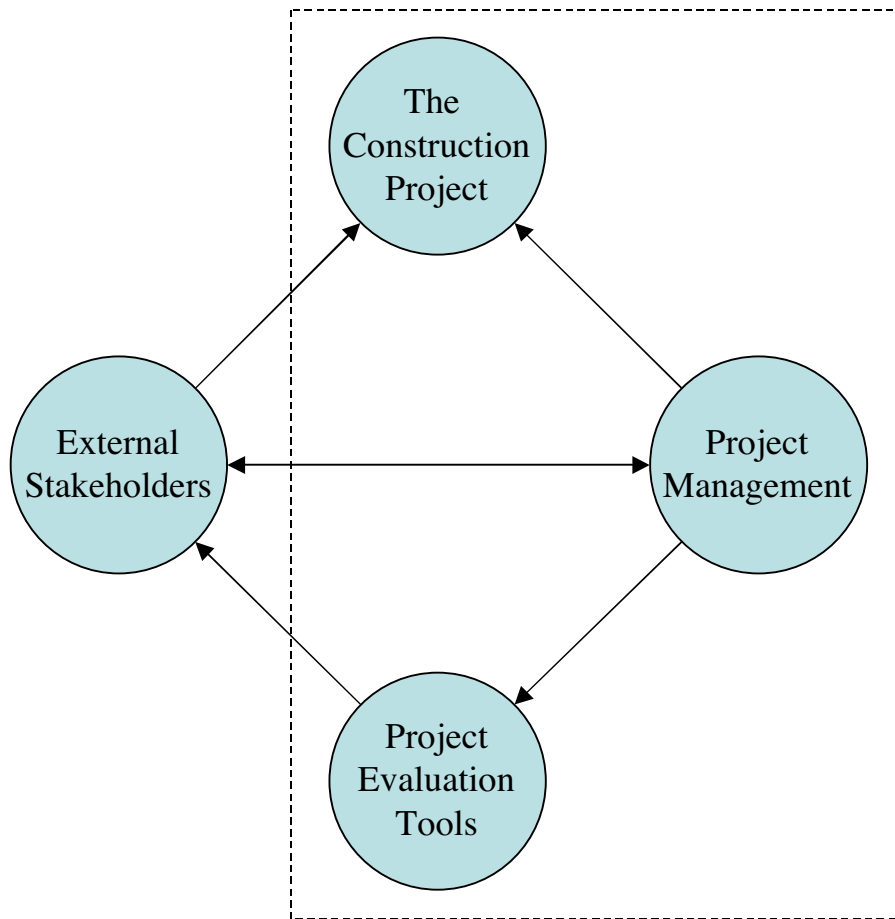
Figure 2.4. The basic system for external stakeholder influence
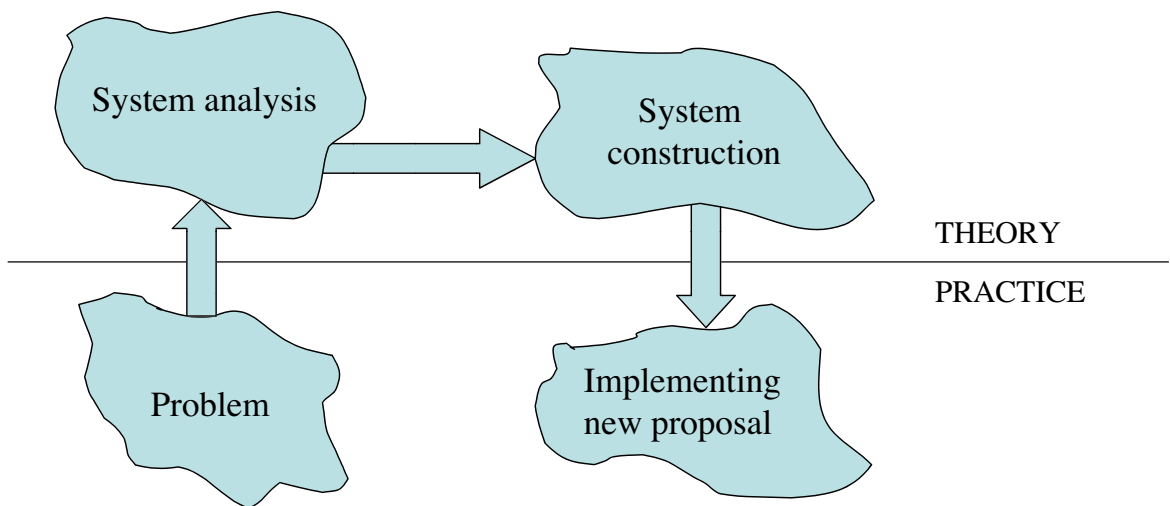
Figure 2.5. A general plan for a study with a goal-means orientation (Arbnor, Bjerke 1997)

2.3   Literature Review

The literature review have been conducted with the purpose of establishing the state of the art when it comes to the basic problems of external stakeholder influence, from the aspects of:

- Project management theories and techniques
    - o   Risk management
    - o   Communication
    - o   Cost-benefit analysis
- Stakeholder management
- Consensual approaches to external stakeholder management
- The formal process and legislations
- Democratic issues

The literature used has consisted of scientific reports and articles, public investigations, project management standards and guidelines, and homepages.

In the search for literature mainly the following databases were used:

- Byggdok (http://www.byggtorget.se)
- LIBRIS   (http://www.libris.kb.se)
- ELIN   (http://elin.lub.lu.se)
- Google   (http://www.google.com)

The first selection of literature from the searches was from abstracts if they were available, and the second selection was made after reading the specific document. Some possibly relevant literature was, for some reason, not available. However, the consequence of this is of minor importance since a large majority were accessible, and concerning those that were not, the main reason was that they were old. A last, and not insignificant, source of finding literature was from references in reports and articles.

2.3 Case Studies

A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin 1994). Case studies can be quantitative or qualitative; in this study a qualitative approach has been chosen. A qualitative case study focuses on insight, discovery and interpretation rather than a test of a hypothesis. A qualitative case study can be defined as an intensive analysis of one single phenomenon, and it has a focus on the whole (Merriam 1994).

Qualitative research has a different base from traditional science. Traditional science is often on the assumption that there is one single objective reality that can be observed and measured. In contrast, qualitative research is based on the assumption that there are a multitude of realities; values are not objectively conditioned, but rather a function of the interactions of people. Reality is subjective and needs to be interpreted rather than measured. Qualitative research focuses more on processes than on specific goals and end-results. Qualitative case studies are based on information collected from interviews, observations and various documents (Merriam 1994). In this study information has been collected mainly from interviews and documents.

In this study three case studies have been conducted:

1. A pilot study of how the City Tunnel project in Malmö conducts its external stakeholder management process, which is compared with other research about consensual approaches. This study, and its analysis, is presented in appendix 1.

2. A case study of the formal external stakeholder influence. This case study is an investigation of the formal appeals made against community plans. The main purpose has been to gain a deeper understanding of external stakeholder influence, and has been the foundation for selecting cases and formulating interviews in case study three.

3. A case study of how the external stakeholder influence manifests itself in four specific projects. This study, and its analysis, is presented in appendix 2.

The limitation of the case study methodology is that the information collected, and the analysis made, is depends mainly on the researcher's own preferences. In this study we have been two researchers (see chapter 2.1.2) from two different scientific disciplines, and we have together discussed the different aspects and results of the case studies. This co-operative approach has to some extent mitigated the subjectivity of the case studies.

2.3.1 Case study 1: Pilot study of the City Tunnel project

This case study was undertaken at an early stage of the research project, to compare some consensual approaches to external stakeholder management from the literature and US experiences, with a real project in Sweden in which an approach to external stakeholder management with some consensual elements was adopted.

Description

The City Tunnel project consists of 18 km of railway track, of which 6 km pass trough a twin tunnel beneath the centre of the city of Malmö. Construction is expected to begin in 2004 and to be completed in 2009, although the design has been in the process of being carried out since 1999.

The main purpose of the City Tunnel project is to improve the public transportation system in the Öresund region (eastern Denmark and southern Sweden, with the main cities Copenhagen and Malmö) together with the Öresund Fixed Link, and to decrease the railroad traffic on the Continental Line, which passes through some densely populated residential areas. (Government Proposition 1996/97:161)

Gathering of Information

The information was gathered mainly by a study of documents published on the internet homepage of the project (http://www.citytunneln.com, 2001-09-15). One interview was conducted with a member of the project management team with responsibility for the information flow to, and communication with external stakeholders.

Analysis

The analysis consisted of comparing the approach adopted by the City Tunnel project, with the approach of consensus building.

2.3.2 Case study 2: The Formal Stakeholder Influence

This case study was conducted together with the Department of Sociology. In addition, the main purpose was to gain an understanding of the written arguments which external stakeholders presented against the construction projects, in the formal appeals against the community plans made for the projects.

Description

Every construction project must be approved by a community plan, and the external stakeholders, the plaintiffs, may appeal every community plan in two instances. The plaintive must in each case produce arguments for why the community plan should not be approved. These arguments give, to some extent, a picture of how the external stakeholders argue their case, when they feel that they are negatively affected by a project. Furthermore, it presents a picture of how external stakeholders can affect

construction projects within the formal process, and how this affects construction projects.

Gathering of Information

The main source of information was the study of all the community plans that had been appealed in the municipalities of Malmö and Lund, from 1996-2000. A total of 65 community plans were examined. In addition to this, four interviews were conducted with civil servants in the municipalities that have the responsibility for the process of conducting community plans.

Analysis

The analysis if this case study was mainly of an investigative nature, to assess the extent to which these formal appeals could be considered a lack in the external stakeholder management process. Furthermore, the analysis was then used as a foundation for the design of case study 3.

2.3.3 Case Study 3: Project Specific Case Studies

The purpose of this case study was to examine how external stakeholder influence affects a construction project, and how the project management for the projects had handled this influence. Four projects were examined. These have been chosen on the criteria that they have different characteristics. We chose one large and one small housing project, and one large and one small civil engineering project. The identified gains of the project are either local or regional/national (see figure 2.6), which gives the following grouping of the case studies:

Case 1   A small housing project, and the gains are local
Case 2   A large housing project, and the gains are local
Case 3   A large civil engineering project, and the gains are regional/national
Case 4   A small civil engineering project, and the gains are regional/national

In all cases, the negative effects are local.

Gains / Size	Local	National/Regional
Small	Case 1	Case 4
Large	Case 2	Case 3

Figure 2.6. Grouping of chosen cases, according to size and gains.

Description

Case 1: Lund, Sweden, a housing project consisting of 60 apartments

The developer purchased the property in the late 1980s. Previously the property had been an old residence with a large park, which had been inhabited for many years and was partly in disrepair. However, both the park and the old residential building had a cultural value for the community, and in addition, the park also had some recreational value.

The proposal by the developer was to build two nine-storey buildings, with senior citizens as the main target group. The old residential building was to be preserved and used as a joint facility for the residents. The proposal met opposition from the residents in the close vicinity and from groups that had an interest in the cultural values of the city. The main criticism was that the buildings were to tall and that the park would lose its recreational purpose, in addition to the objections of the residents in the neighbourhood who perceived a deterioration of their living environment. This proposal was stopped after a five-year planning process, due to an appeal by the residents in the vicinity.

The project was then redefined. A gas station in the immediate vicinity was moved, which made it possible to preserve a larger area of the park, and the height of the buildings were reduced, and the number of buildings could be increased from two to five. Now, only the objections from the residents in the neighbourhood remained, with

the same arguments as before. In the late 1990s, the project could finally be completed after a 10-12 year planning process and many resources committed in vain.

Case 2: Malmö, Sweden, a housing project consisting of 1200 apartments

The city of Malmö is experiencing a growing need for housing, due to an increase in the population. At the same time as the demand for new housing is high the supply is low, due to the difficulty in getting a sufficient rate of return on invested capital for housing projects. This has the result that the quantity of newly constructed housing is low, and that the housing that is produced is expensive to live in.

The municipality of Malmö contacted an architect who has introduced a form of industrial building, which would reduce the production costs, and thus the living costs. Together they found a financier who was willing to invest on condition that the living cost for the future tenants was predefined to a "reasonable" level. The contacts with the municipality, the architect and the financier resulted in a decision on the location and the size suitable for the project.

The location was an attractive part of the city where a suitable property was available. However, the problem was that the population of this part of the city would increase by approximately 60-70% over a three-year period, if the project were realised as planned. The residents and the local authorities became worried about the standard of the social services if the project was built at the proposed rate, and suggested a lower rate of production and a reduction in the size of the project.

Case 3: Lund, Sweden, railroad project, the construction of a two-way railroad track through the town centre

In the late 1980s the Swedish government decided to expand the West coast railway from a single to a double track railway. The whole route passes a number of communities, and one of these is the town of Lund. The developer (the National Railroad Administration) intended to expand the railway along the existing route through the town centre and some populated areas, with the argument that it was the most rational alternative, and that the environment of the residents along the existing railway would be improved by the noise reducing structures that would be constructed. The problem was that no other alternatives were really examined, before the decision to build along the existing route was taken.

Since the railway was located in a densely built-up area, the municipality was the authority that would issue the final approvals for the project, via a community plan. The residents concerned had formed an interest group with the purpose of convincing the municipality and the developer to relocate the railway to a more sparsely populated area; this resulted in demands on the developer to investigate alternative routes for the railway. After several investigations, that all showed that the most rational route was to expand along the existing railway, the municipality gave its approval to build along the existing route. However, the residents concerned were not satisfied and started an extensive campaign in the media to influence the decision-makers to relocate the

railway. After an appeal to the national government, which took five years to process, the final approval to expand along the existing route was given.

Case 4: Önnestad, Sweden, road project, the construction of a grade-separated intersection for a highway

The highway has, for its size, a high frequency of accidents, thus there is a need for safety measures on the highway. One of these measures is to build a grade-separated intersection. The construction of the intersection will result in closed exits and new access roads. The new construction will affect a recreational area, the living environment of residents in the vicinity, and a business that will be shut off from the existing highway.

Gathering of Information

The main source of information in this case study was from interviews with internal and external stakeholders for the project, project managers, project owners, architects, local authorities, the affected residents, politicians, and representatives from of the various interest groups. In total 31 interviews were conducted. The interviews were open in order obtain what the interviewed person felt were the essential aspects of the project from their point of view, in order to gain as many facts as possible of how external stakeholders had influenced the project decisions.

In addition to the interviews, official documents and investigations concerning the project were examined, in order to acquire the official view of the project, and to gain input to the structure of the interviews. Newspaper articles were also examined to gain a picture of the role of the media.

Analysis

The analysis of case study 3 is presented in appendix 2, and was conducted by applying a stakeholder analysis approach.

3   Stakeholder Management

3.1   The Stakeholder Management Process

Stakeholder Management is an essential part of the project management process. Both "Guidelines to the Project Management Body of Knowledge (PMI 2000), and "Quality Management – Guidelines to Quality in Project Management" (SS-ISO 10006) emphasise the need to identify and manage all the relevant stakeholders in order to ensure the success of the project.

Project managers need to identify and interact with key institutions and individuals in the project systems environment. An important part of the management of the project systems environment is an organised process to identify and manage the probable stakeholders in that environment, and determine how they will react to the project decisions (Cleland 1999).

3.1.1   Project Stakeholder Management (PSM) Process

Cleland (1999) describes a project stakeholder management (PSM) process. The following basic premises can serve as a guide for the development of a PSM process.

- PSM is essential for ensuring success in managing projects.
- A formal approach is required for performing a PSM process.
- PSM should provide the project team with adequate intelligence for the selection of realistic options in the management of project stakeholders.
- Information on project stakeholders can be gained from a variety of sources, some of which might superficially seem to be unprofitable.

The PSM process consists of executing the management functions of planning, organising, motivating, directing and controlling the resources used to cope with strategies from stakeholders (see figure 3.1)
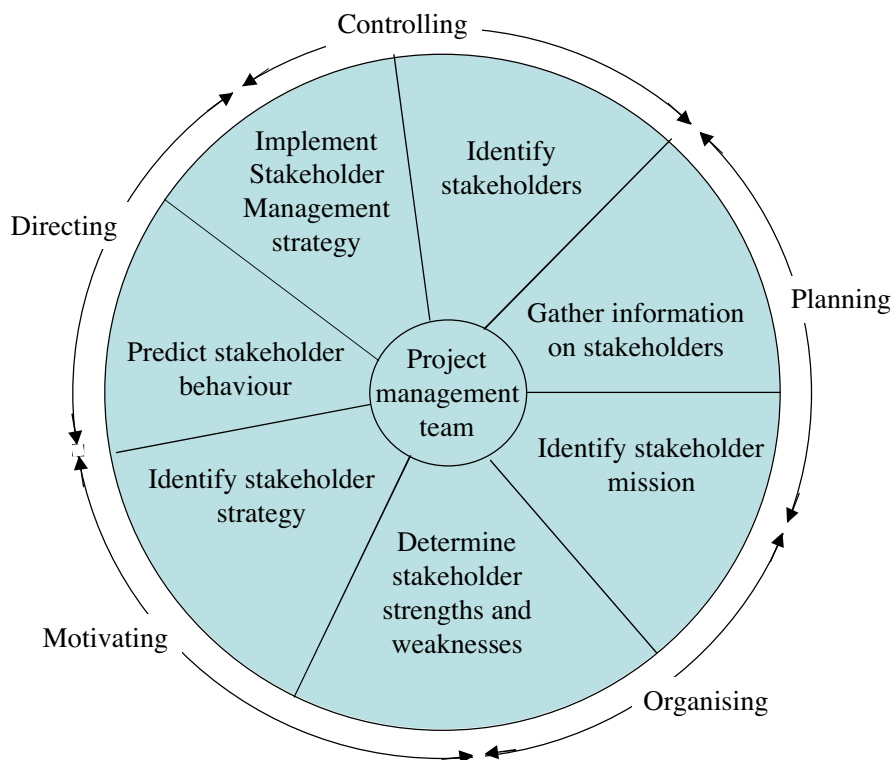
Figure 3.1. Project stakeholder management process (Cleland 1999)

Identification of Stakeholders

Stakeholders are persons or groups that have, or claim to have, ownership, rights, or interests in a project and its activities. Primary, or internal, stakeholders are those who are members of the project coalition or who are providing finance and those who have a legal contractual relationship to the project. Secondary, or external, stakeholders are defined as those who influence or affect, or are influenced or affected by, the project, but are not normally engaged in transactions with the project and may not be essential to the survival of the project (Cleland 1999, Calvert 1995 from Winch, Bonke 2002). The external stakeholders have, however, a capacity to mobilise public opinion in favour of or in opposition to the purposes and performance of the project (Cleland 1999)

Gathering Information

To systemise the development of information on stakeholders means that questions such as the following need to be considered (Cleland 1999).

- What needs to be known about the stakeholder?
- Where and how can the information be obtained?
- Who has the responsibility for the gathering, analysis and interpretation of this information?
- How and to whom will the information be distributed?
- Who will use the information to make decisions?
- How can the information be protected from being "leaked" or misused?

Information on the stakeholders is available from a wide variety of sources. In obtaining such information, the highest standard of ethical conduct should be followed. When the information has been collected, it must be analysed and interpreted, and once the analysis has been completed, the specific target of the stakeholder' mission can be determined (Cleland 1999).

Identification of Mission

After the stakeholders have been identified, and information gathered about them, there is need to determine the nature of their stake or mission on the project (Cleland 1999). A useful tool in this process can be the stakeholder map (Winch, Bonke 2002).

Determining Strengths and Weaknesses

An assessment of stakeholder' strengths and weaknesses is a prerequisite to understand the success of their strategies. The strength of an oppositional stakeholders may be based on such factors as: (Cleland 1999)

- The availability and effective use of resources.
- Political alliances.
- Public support.
- Quality of strategies.
- Dedication of members.

Accordingly, weaknesses of a stakeholder may emanate from: (Cleland 1999)

- Lack of political support
- Disorganisation
- Lack of coherent strategy
- Uncommitted, scattered membership.
- Unproductive use of resources.

A helpful tool in the process of determining strengths and weaknesses of project stakeholders can be the concepts of environmental scanning, stakeholder mapping, and the power/interest matrix (Mendelow 1981, Johnson, Scholes 1999, Winch, Bonke 2002).

Identification of Stakeholder Strategy

A stakeholder strategy is a series of prescriptions that provide the means and set the general direction for accomplishing stakeholder goals, objectives and mission (Cleland 1999).

Prediction of Stakeholder Behaviour

To predict stakeholder behaviour, the project management team should take the lead in analysing the probable impact of the stakeholder on the project. A systematic approach for analysing such impacts (see figure 3.2). First, identify and define each potential strategic issue in sufficient detail to ascertain its relevance for the project. Then identify the key stakeholders who have, or might feel that they have, a vested

interest in the project. Finally, clarify the specific stake held by each stakeholder, and judge how much influence the stakeholder might have on the project. (Cleland 1999).

```
┌─────────────────────────────┐
│    Define strategic issue    │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│  Determine underlying factors │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│    Identify key stakeholders  │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│   Determine vested interests  │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│     Identify specific stake   │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│  Evaluate stakeholder influence │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│    Modify project strategy    │
└─────────────────────────────┘
```
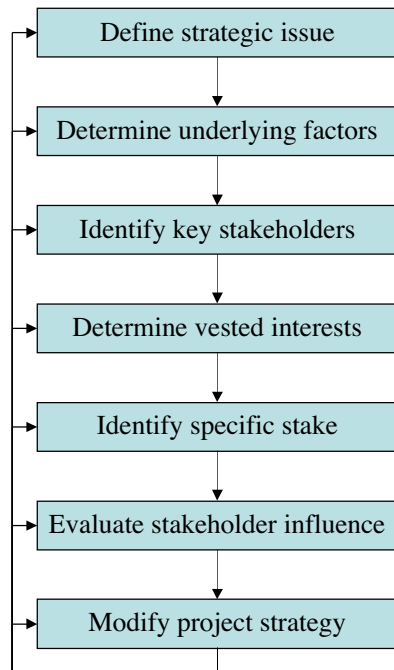
Figure 3.2. The Stakeholder impact evaluation process (Cleland 1999)

Implementing Stakeholder Management Strategy

A policy, which stipulates that t stakeholders will be managed actively, is an important step in implementing a stakeholder management strategy. Once this step has been taken, additional policies, action plans, procedures and allocation of supporting resources can be made to make stakeholder management an ongoing activity, and when the stakeholder management strategies are operational, the project management team has to: (Cleland 1999)

- Ensure that the key managers and professionals fully appreciate the potential impact that both supportive and oppositional stakeholders can have on the project outcome.

- Manage the project review meetings so that stakeholder assessment is an integral part of determining the status of the project.

- Maintain contact with key external stakeholders to improve the chances of determining the stakeholder' perception of the project and their probable strategies.

- Ensure an explicit evaluation of probable stakeholder response to major project decisions.

- Provide an ongoing, up-to-date report on stakeholder status to key managers and professionals for use in developing and implementing project strategy.

- Provide a suitable security system to protect sensitive project information that might be used by oppositional stakeholders to the detriment of the project.

3.2   Stakeholders in the Construction Process

Cleland (1999) presents a figure of project stakeholders, divided in to internal and external stakeholders. An adaptation of Clelands figure to represent construction projects is presented in figure 3.3.
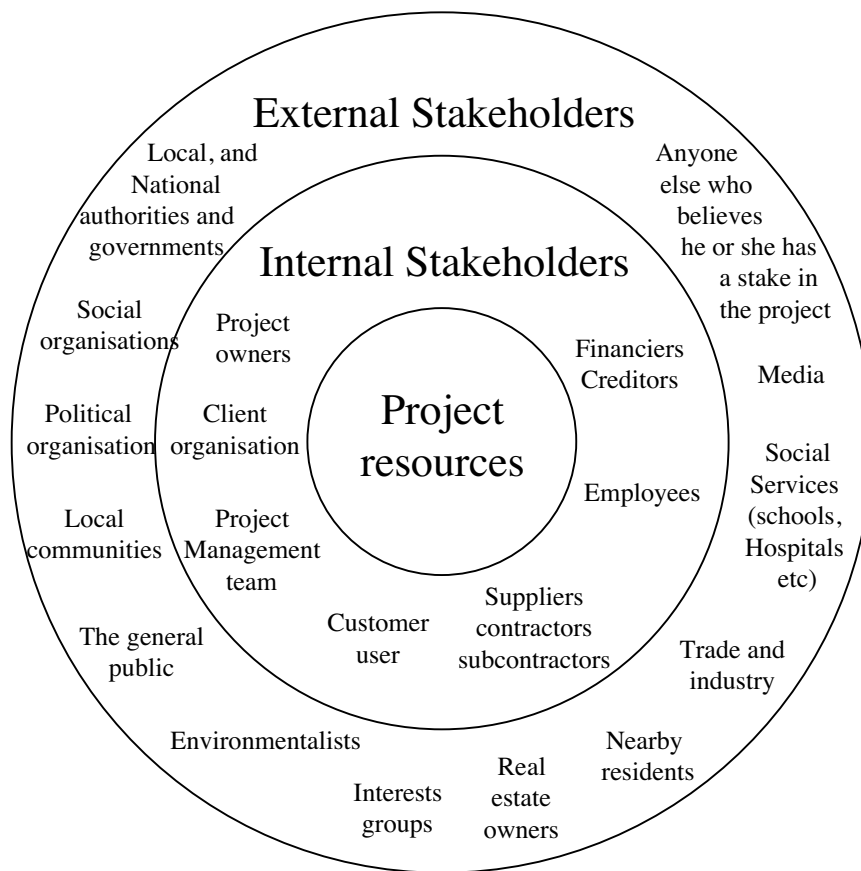
Figure 3.3. Construction project stakeholders (adapted from Cleland 1999)

If the stakeholder analysis made by the City Tunnel project (see appendix 1), and the definition of key stakeholders in ISO-10006 and PMI 2000 is applied, the stakeholders shown in figure 3.3 can be divided into nine major groups:

Internal Stakeholders   Project owner
                                                 The project management team
                                                 Suppliers
                                                 Customer

External Stakeholders	The public
	Local and national authorities
	Trade and industry
	Interests groups
	The Media

3.2.1 Internal Stakeholders

Project Owner

Is the most relevant stakeholder and the sponsor of the project. The project owner is the bearer of project risks, and the one who will bear the consequences of a failed project. The project owner of a construction project is in most cases the developer of a property and the initiator of the project, the client organisation.

Customer

The customer is the basis for initiating a project. There must be a need and thus a customer for a project to be successful. However, for construction projects the concept of customer is not as obvious as it would appear. The definition of a customer is: the individual or organisation that will use the product of the project (PMI 2000). The customer is in this case equivalent to the end-user. For construction projects, especially if they are public, the definition of customer as the end-user is relevant. In public construction projects, the end-user often does not pay for the product of the project, other than by the taxes. In this case, the public can be regarded as the customer of the project.

In private construction projects the customer concept is clearer, since the customer will pay for the product of the project, for instance via the rent or the purchase of a house or apartment.

In conclusion the needs of the customer are relevant in a stakeholder management process, since the customer needs should have priority over the needs of other stakeholders, if a conflict between these arise (SS-ISO 10006), which means that the customer' needs must be clearly defined in order to match them against the needs of external stakeholders.

The Project Management Team

The project management team is the instrument that the project owner has for implementing the project according to the prerequisites and specifications delivered by the project owner. A well composed project management team, with all relevant competences, is essential for the success of a project. In an external stakeholder management process, the project management team decides the extent of an external stakeholder management process.

Suppliers

The suppliers are the ones that deliver services and products to the project organisation. In construction projects the contractor is one of the most relevant suppliers, because it is those who complete the construction project on site, according to the specifications delivered by the project management team. From the point-of-view of many external stakeholders, the contractor becomes the face of the project, since it is in the construction phase that the consequences of a construction project becomes visible, and when disturbances due to the construction occurs. Thus, it is important that the contractor upholds and maintains the ambitions of the external stakeholder management process, as expressed by the project management team.

3.2.2 External Stakeholders

The Public

The public is a large and illusive stakeholder. The public can both benefit from a project and suffer its negative consequences. We can take the example of a road project; the general public will benefit from the project by the improvement of communications, but the residents in the vicinity will suffer the consequences of a locally deteriorated environment.

Consequently, the public cannot be managed as a uniform stakeholder group must be divided in to subgroups that can affect the project differently depending on how they are affected by the project.

Local and National Authorities

This stakeholder group consists of civil servants and politicians. It is essential that politicians are taken into consideration since they issue the final approvals for the implementation of project. Thus, they have a major formal influence on project decisions.

The civil servants are, in a more informal sense, an equally relevant stakeholder as the politicians. The civil servants provide the politicians with the base for their decisions, according to an interpretation of the rules and regulations. Thus, the civil servants have a possibility to influence project decisions, via their recommendations to the politicians.

Trade and Industry

Trade and industry are in many ways a stakeholder similar to the public, they can both benefit and suffer the consequences of a project. If we again take a road project, local trade and industry will profit by the improvement in communication, but a new road may involve the closure of an existing road or its being used less frequently, with the consequent loss of accessibility.

Interests groups

Interest groups, or lobby groups, can act both locally and nationally as proponents or opponents to a project. Interest groups can be formed in many different ways and have different powers to influence project decisions. For each project, relevant interest groups need to be identified, and each group must be managed separately.

The Media

The media cannot really be defined as a stakeholder, since they have no actual stake in the project. However, the media can have a tremendous impact, both as a proponent and as an opponent, to influence other stakeholders in the project decision process. Furthermore, they can be used as a medium for stakeholders to influence other stakeholders. An example can be an interest group that uses the media to affect the politicians in their decision to approve or reject a project.

The media can also be used by the project management team as a forum for information to other stakeholders.

4 Democratic Aspects of External Stakeholder Management

4.1 The Formal Planning Process

4.1.1 The Swedish Planning- and Building Act

The implementation of construction projects is regulated by the Swedish planning- and building act (PBL). The basic principle of the PBL is that permissions are required to implement a change in the physical environment, and that the design must fulfil set requirements. It is the responsibility of the developer to fulfil these requirements, which are specified by community plans that define how and in what way a property may be used. Public consultations must be conducted in the formulation of community plans.

4.1.2 Additional legislation

In addition to the PBL there are some additional regulations for how properties may be used for construction.

The environmental act, shall support a sustainable development and have the following purposes:

- Human health and environment must be protected.
- Valuable natural- and cultural environments must be preserved.
- The biological diversity must be preserved.
- Ground- and water areas must be used from an ecologically, socially, culturally and economically sustainable development.
- Reuse and recycling must be promoted.

For construction projects the environmental act states a sensible use of natural resources, and ground- and water areas in both a long- and short-term perspective. The basic principle is that interests of preservation as well as interests of exploitation can be met. Demands for an environmental impact assessment are regulated in the environmental act. The environmental impact assessment must include the identification of direct and indirect impacts that a planned change will bring.

The act for the building of roads, and the act for the building of railroads regulates how road and railroad projects are to be conducted. In the planning of road and railroad projects a pilot study, a road (-railroad) investigation, and a working plan is to be made (see figure 4.1).
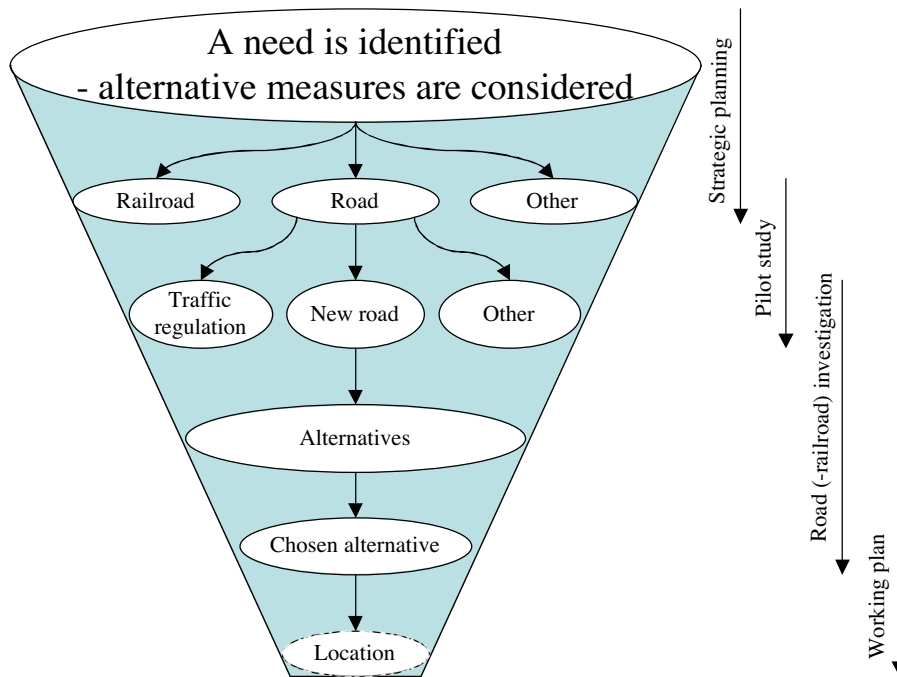
Figure 4.1. The planning process for a road (Vägverket (the National Road Administration), 1996)

The pilot study is to set the requirements for the continued planning of the project, and must include contact with stakeholders affected. In the road-, (railroad-) investigation different alternatives are to be studied, and one alternative must be the status quo, the zero alternative. When an alternative has been decided upon a working plan is to be designed. The working plan must include a specification of the land area required and an environmental impact analysis. Consultations are to be conducted to determine the final location and design of the project.

4.1.3 Criticism of the Formal Process

In Sweden in recent years extensive criticism of this formal procedure has been voiced. The criticism presents itself from two partly opposite positions. A usual criticism from developers is that the planning process takes too long (Swedish Parliamentary Auditors, 2001), it is difficult to plan an investment when the formal planning process takes years to conduct, and in further delays of years due to legal appeals is not unusual. The criticism from external stakeholders, and mainly the public that is affected by the project, is that there is too little time for them to participate and influence the planning process. The formal process thus becomes subordinate to the informal processes for executing an influence on the planning process (Henecke, Kahn 2002).

It would seem that these are two contradictory demands, but it could be argued that a more time-consuming external stakeholder management process in the early stages of the project, would save time in later stages, because of less harmful process of opposition from the external stakeholders.

4.2   Public Construction Projects

A major part of the research, which has been undertaken to date concerning external stakeholder management in Sweden, has been conducted from the perspective of political sciences. This focus has been on how the democratic process has been considered in the decision-making of public construction projects.

Many public investments in construction projects in the transportation sector (roads, railroads, etc) are controversial since they affect a large population both negatively and positively. The governing factor for national planning, in Sweden, is that public investment must be based on a common public interest. In this sense, the basic criteria are that decisions about public investment must have a positive cost-benefit analysis from a societal point-of-view (Government proposition 1997/98:56, Transport Policy for Sustainable Development).

Problems in the process of external stakeholder management may arise when a special interest preponderates over the common public interest. Ahlstrand (1995) addresses this issue. Decision-making in the public sector has a problem to uphold the common public interest against an economically strong special interest. This increases the risk that investigations and analyses, for instance a societal cost-benefit analysis, are made to show that the special interest corresponds with the common public interest, and not as an impartial investigation, or analysis, with its base in the common public interest (Ahlstrand 1995).

In a democracy it must be in the political interest to establish a decision-making process that shows how affected voters influence the possibility politicians have to uphold their views against civil servants and special interests. How the decision-making process is conducted is one of the key issues in a working democracy. Decision-makers, the media and the public must have access to a rational and open basis for decisions (Ahlstrand 1995).

The societal cost-benefit analyses must be an important base for decisions concerning public investments, in, for instance, transportation systems. However, the consequences of an unprofitable project, in a societal sense, are often less clear than an unprofitable project in a business sense. The basic principle of a societal cost-benefit analysis is that the total gain created by a project shall exceed the total negative effects of the project. This makes the analysis harder to judge because some parameters are difficult or impossible to specify in economic terms, but the model of a societal cost-benefit analysis is based on the assumption that the stating of non-economic parameters in economical terms is possible to define.

The model of valuing non-economic parameters in economic terms, gives a multitude of possible results depending on who is performing the analysis. In this sense, it is important that a societal cost-benefit analysis is conducted in an objective manner, and not as a reflection of a special interest. Ahlstrand (1995) gives an example of this problem, the Nockeby tramway. The operators of the local public transportation system in Stockholm (SL), wanted to close the tramway since it was judged unprofitable. However, the local community wanted the tramway to remain in operation, and for this purpose a local interest group was founded "Save the Nockeby tramway". Both SL and the local interest group made a cost-benefit analysis, both correct with reasonable assumptions. By adapting these analyses to the model of the societal cost-benefit analysis two completely different results emerged (see figure 4.2), mainly because the two analyses reflected the special interests that they were supposed to support. Thus, it is important that both those who conduct the analysis and those who evaluate it are objective and impartial to the project.

Total gain
79,7 MSek

Total cost
17,1 MSek

Total gain
6,6 MSek

Total cost
2,2 Msek

SL

"Save the Nockeby tramway"
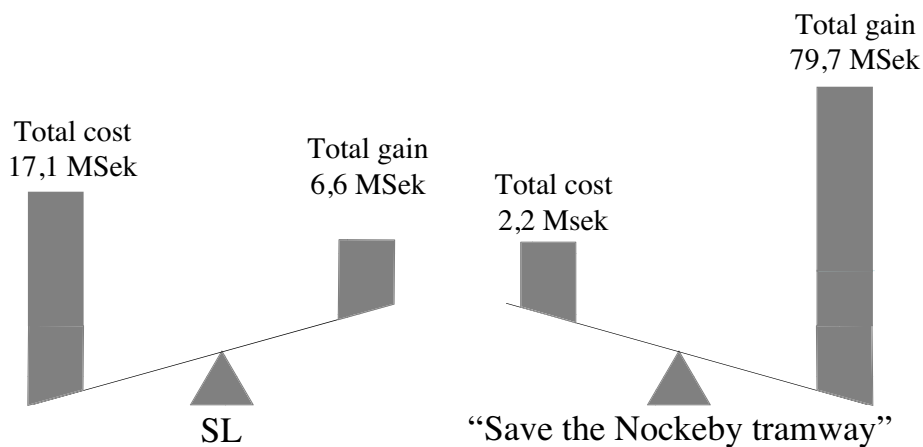
Figure 4.2. Two societal cost-benefit analysis of the Nockeby tramway (Ahlstrand 1995).

Ahlstrand (1995) gives the following explanations why political decisions are made that are not in line with the common public interest.

- **Society has become more complex and specialised:** The need for experts to analyse and investigate different effects on the society has resulted in the need for increased allocation of resources, from organisations and authorities, to reach a good result in each area of expertise. Experts are good at convincing decision-makers that the special interest of a group is in line with the common public good.

- **Politicians have lost their control over societal planning:** Politicians shall in their interaction with civil servants act on the basis of their knowledge on societal development. By achieving a general picture of the decision-making process, politicians can argue for or against the views of different experts. However, it seems that this general picture is lost, and that politicians cannot resist the arguments given by the various experts, and thus may make decisions contrary to their initial view. Thus, when opinion against the decision arise it is difficult to reverse the decision made. It is consequently of importance that

several alternatives for a decision are identified and discussed with the affected stakeholders before a decision is made.

- **The public have found themselves on the sideline in the public decision-making process:** Methods must be introduced to give politicians and planners knowledge concerning public values in their decision-making process.

- **The systems of reward:** The individual decision-maker acts in a way that benefits him- or herself. Incentives for innovative thinking in the public sector are low, and new solutions to conduct a public decision-making process are not encouraged.

- **Lack of criteria for public decisions:** The public sector has no generally accepted criteria for the organisational operations in comparison to, for instance, the demands for financial returns in the business sector. Lacking decision criteria, many public decision-makers base their decisions on their perception of the gains to be expected. Public decisions are generally made after a negotiation process, in which the parties involved base their viewpoints on how the resources committed will affect their own operation, while no-one takes responsibility for the common public interest.

Ahlstrand (1995) describes the Swedish public decision-making process according to figure 4.3. The citizens elect a new set of politicians every fourth year (arrow 1). The politicians must then consider the basis for decisions provided by the civil servants (arrow 2). The politicians make the decision (arrow 3). The civil servants deliver the services they think the citizens need to have (arrow 4). In this decision-making process the interests of the citizens have a low priority, the citizens can only make their views known every fourth year in the elections.
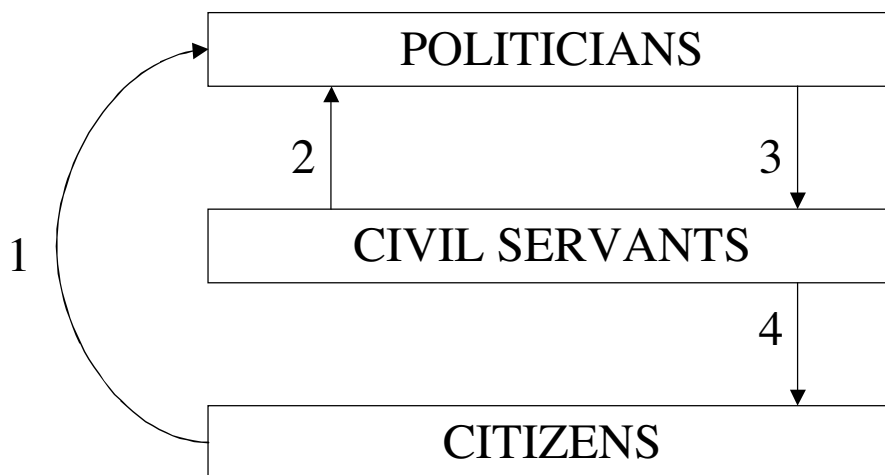

Figure 4.3. The Swedish public decision-making process (Ahlstrand 1995)

Ahlstrand (1995) suggests a change of system in the public decision-making process (see figure 4.4). Similar to the public decision-making process described in figure 4.3, this originates in public elections (arrow 1). However, the politicians have now given a directive to the civil servants that the basis for decisions shall be formed according to specific criteria (arrow 2). According to these criteria the civil servants are to investigate how the public is affected by each decision (arrow 3, and 4). The civil servants then deliver the basis for the decision to an impartial examiner (arrow 5). The examiner evaluates and gives the basis for the decision to the politicians who now have better control of eventual shortcomings. The decision goes to the civil servant who effectuates the decision (arrow 7, and 8).
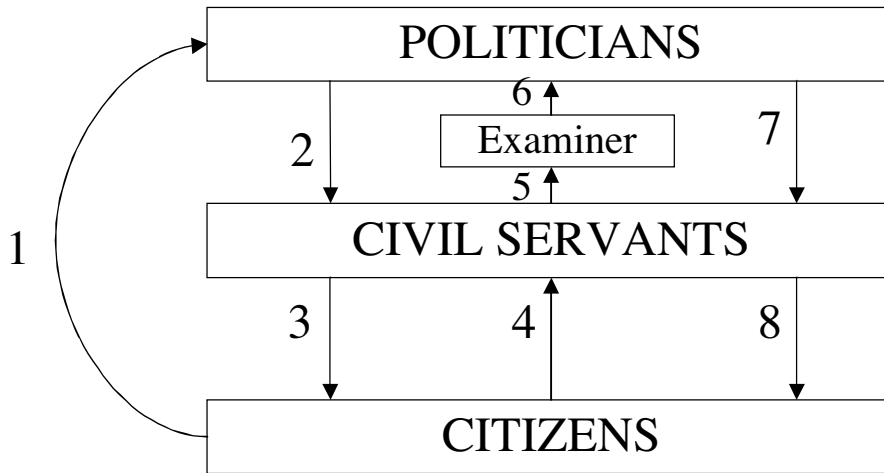
Figure 4.4. A possible system of change in public decision-making (Ahlstrand 1995)

The problems of special interests with too strong control over the planning and implementation of public construction projects are also addressed by Falkemark ("Politics, lobbyism, and manipulation – Swedish traffic policy" 1999, and "Swedish traffic planning – reality and ideal" 1999). Falkemark argues from two normative premises. The first is an assent to a rational decision-making process. According to this, a decision-making process should be based on an alternative analysis of a well-conducted basis for decisions, and that there is a basis for the decision before the decision is made. The second normative premise is from a democratic viewpoint, and means that the citizens should have the possibility to influence decisions that affect them. According to this viewpoint, it is a shortcoming if a special interest is allowed to exert control over the common public interest. Falkemark ("Swedish traffic planning – reality and ideal" 1999) conducts an analysis of these shortcomings for five major Swedish public construction projects.

- The highway in Bohuslän, (part of the section of the road between Göteborg and Uddevalla).
- The Öresund fixed link.
- The construction of the Hallandsås tunnel.
- The Dennis package in Stockholm.
- The Adelsohn package in Göteborg.

In summary, the analysis identified the following shortcomings:

- **A backward order in the public decision-making process:** Actual and formal decisions are made before a well-conducted basis for the decision exists.

- **Investigations and analyses are a process of keeping up appearances:** The investigating authority is given the impression that the decision is already made, and consequently the investigation are made to legitimate a decision already made instead of impartially investigating the project and its consequences.

- **A double role for the government:** In some of the cases the government is both the initiator of the project and the instance of appeal for project decisions.

- **An imperfect democratic process:** The decision-making process has involved only a limited number of participants, and facts have, in some of the cases, been withheld from the public and other stakeholders.

- **An increased pace in the decision-making process:** In several of the cases there has been an extreme pressure to meet time limits, which has affected the basis of the decisions and the democratic process.

4.3   Siting Controversies

Siting controversies are common in most large and controversial construction projects, as for example, highways, railroads, hazardous waste facilities etc. However, even in smaller and seemingly uncontroversial projects controversies about the siting of a construction project may arise. Siting conflicts reflect two key elements (Edelstein 2001). On one hand the need to solve a problem. The disposal of solid wastes is an example. There is a need for adequate, cost-effective, and safe methods for disposing solid wastes generated by the community. On the other hand, both the facility to be sited and the problem it is supposed to solve are likely to be stigmatised and subjected to anticipatory fears. As a result, the facility is regarded by the affected community, as an act of violence to that community.

Siting controversies involve a broad range of stakeholders, and the presence or absence of trust among the parties involved can acquire a decisive role. While the lack of trust may obstruct local acceptance of a technological project, some research have argued that a well-structured, participative s decision-making procedure concerning the siting of a construction project may serve as an opportunity to build trust (Boholm et al, 2000).

4.3.1 Rational Choice Theory

In "Politics, lobbyism, and manipulation – Swedish traffic policy in reality" (1999), Falkemark bases his analysis upon the Rational Choice Theory (RCT), as an

explanatory model of human behaviour in, for instance, a siting controversy. The starting point is that the analysis must be based on empirical data in each specific case. The main idea behind RCT, when it comes to determine whether an individual will to contribute to a collective gain, can be explained wby a simple formula.

$$V*P + S - C > 0$$

V represents the value each s individual assesses they will have from the collective gain. **P** is the probability the individual assesses that his or hers commitment can contribute to the realisation of the collective gain. The commitment to a collective gain can also bring personal gains that are not directly connected to the collective gain, the selective incentive **S**. C represents the cost of the personal commitment.

The formula means, for every single individual, that, if the value of the collective good multiplied by the probability that individual commitment will contribute to the realisation of the collective gain, plus the selective incentive, minus the individual cost, has a positive value, then the individual will engage in the realisation of the collective gain. Thus, the formula states that an individual can very well engage in the realisation of the collective gain even if he or she assesses the gain to be hopeless. It is enough that the selective incentive in the form of personal satisfaction is greater than the personal sacrifices of participation (Falkemark, "Politics, lobbyism, and manipulation – Swedish traffic policy in reality", 1999)

Falkemark gives an example of the RCT analysis by describing the successful action of the residents of Fräntorp to stop a highway project. The background is that house owners in Fräntorp received a letter from the municipality of Göteborg and the National Road Administration, in which it was stated that a demolition of several houses was necessary in order to construct a highway. A local movement to protest against the highway construction was established, which was finally successful and managed to stop the highway construction. The RCT analysis shows some contributing causes behind the establishment of the protest action. A leading figure in the initiation of the protest action was the chairman of the house owners' association, and much depended on the pressure he felt to do something when the threat of demolition came. Here is a clear example of a positive individual incentive (S) for the chairman to do something, regardless of how he assessed the probability of success; the selective incentive consisted of the perceived appreciation from the other house owners. The individual cost (C) was time and energy. The Value (V) of the protest action from the house owners' point-of-view must be considered to be high, because of the painful experience a forced move would create. Hence, the collective gain of annulling the decision to expropriate must have a considerable value. The probability (P) of a successful action must be judged from the fact that nearby communities had succeeded in stopping the construction of the highway. Thus, the probability of success in Fräntorp as well, must be considered as good.

The RCT analysis of why a protest action against the construction of the highway arose in Fräntorp, can be summarised as follows.

- V*P had a considerable positive value, (V) was in this case high and the probability (P) was not insignificant.

- The selective incentives (S) were also considerable, because of the fact that some form of action was necessary.

- The costs (C) were in this case reasonable.

The reasoning above show that the sum of V*P and S clearly exceeded C, which led to the initiation oft the protest action. Why the protest action was successful can be explained by the fact that there was a lack of studies that showed the societal gain of the project. In addition, the protest action found several shortcomings and problems in the investigations that preceeded the decisions about the project. Consequently, the politicians had no argument left to proceed with the project.

4.3.2 The Nimby Syndrome

NIMBY is short for "Not In My BackYard" and is an abbreviated name for public opinions that arise when the local environment is threatened by, for example, a construction project. The NIMBY syndrome gained prominence in the 1970s, and in its early and popular usage, the NIMBY syndrome characterised citizens as (a) overly emotional, uninformed, and unscientific in their opposition to various facilities; (b) motivated by narrow, selfish interest; and (c) obstructing policies that would provide for a collective good. Recent studies of the NIMBY syndrome challenge the first two of these characteristics. Researchers have attempted to understand the NIMBY syndrome by using survey data and to demonstrate that citizens are not entirely motivated by self-interest and narrow concerns (McAvoy 1999).

There is a variety of questions to answered for an understanding of the NIMBY syndrome and for establishing the appropriate role for citizens in policymaking. These questions arise when the context in which public officials make siting decisions is examined. What are the officials' motivations for siting facilities? How do they respond to public pressure? How do they use resources to influence debate? Are the positions the officials advance superior to those arrived through citizen deliberation? What kind of control of bureaucratic decision-making is possible, necessary, or desirable (McAvoy 1999)? McAvoy shows in his study that the official decision-making process was improved because they were repeatedly scrutinised by citizens concerned about a facility. This could be one of the positive aspects of a NIMBY process. However, this improvement is based on a reactive response to an adverse public opinion, and not as a proactive course of action to improve the decision-making process, and maybe avoid a damaging NIMBY process.

Davy (1997) also addresses the problem of NIMBY-related protest actions: "Your backyard is where you are most vulnerable, and this is why you do not tolerate any

pollution of your backyard. The backyard is a metaphor for safety, purity, and privacy. This may explain why the social phenomenon of local opposition against unwanted development is called "the NIMBY syndrome". And indeed, many environmental and land use conflicts result from the violation of citizens' ideas and illusions about safety, purity and privacy." (Davy 1997)

Davy (1997) explains the NIMBY syndrome as an action by a local community whose goal it is to stop a project from being implemented. These forms of protest arise usually in the implementation of controversial projects that affect the local community in a considerable way. A collective name for this kind of construction projects is LULUs (Locally Unwanted Land Use).

"How can a development dispute be resolved if a proposed project meets all economic, ecological, and legal requirements, but still is not accepted by the public." (Davy 1997)

The matrix in figure 4.5 shows the different possible alternatives for the development of an external stakeholder management process for a construction project.

	community approves	community resists
developer quits	**I** *Low damage* The site remains unused over an indefinite period of time	**II** *Low value* The site is used for a different, yet less profitable purpose
developer pursues	**III** *Highest value* The site is used for the most profitable purpose	**IV** *High damage* The site remains unused, but costly NIMBY struggle ensues

Figure 4.5. Alternative developments for an external stakeholder management process for construction projects (Davy 1997).

Alternative III gives the best possible outcome, and can arise in a successful planning process where the developer and the local community in consensus achieve the best solution for all parties involved. Alternative I is an outcome where the local community has given its approval to the project, but the developer chooses, for some reason, to abandon the project. The property remains unused and the damage for the parties involved is low. In alternative II, the developer surrenders to local opinion and does not proceed with the project, and the property will be used for a different purpose. The value becomes low since the property is not used for the best possible purpose. However, the damage is low because the project was abandoned and reassessed in time, before too many resources were committed to the project. The worst scenario is alternative IV. Both the developer and the local community persist in their pressure to build or stop the project, which leads to a costly NIMBY process.

In the planning process the developer should aim for a process according to alternative III (figure 4.5). In this process the developer must have a flexibility and objectivity about the project in order to identify necessary changes and a possible abandonment in time, before too many resources are committed and thus minimise the damages. The developer must, however, try to avoid a NIMBY process. In addition, if this is not possible, the developer must be prepared to manage this kind of processes.

4.3.3 Mobilisation of Public Opinion

In recent years, the local community often questions the implementation of construction projects. The ability of the traditional democratic parliamentary institutions to define needs and problems, to give priority to and mobilise resources is being questioned. The traditional political parties have lost their ability to be vital democratic movements. Alternative forms of democracy have been developed, for instance different interest groups (Montin et al, 1998). In this sense, the planning process of construction projects needs to address the local community in such a way that the members of the community feel they are participating and influencing the decision-making process.

A study of the Hallandsås tunnel project (Boholm et al, 1998) showed that the project management team did not consider the local community and the views of its members, who felt that they lacked influence on the project process, in spite of the fact that they considered that their knowledge of local conditions was relevant. It has been shown that regard to local competence has in some cases led to the discovery of new and improved solutions to project problems (Boholm et al, 1998).

If we apply the result of this study to construction projects in general, it can be shown that:

- The local community feels frustration at not being able to influence the planning and implementation of construction projects in their local environment.

- Correct, timely, and appropriate information about the progress of the project is essential. Otherwise, the risk is that the information process will be conducted through the media, with the result that the project management loses the control over the information flow.

- A local community is relatively more inclined to form action groups outside the parliamentary democratic system, in order to affect project decisions.

5 Strategies for Managing External Stakeholders

5.1 Strategic levels

There are two basic strategic levels in the management of external stakeholders, either simply to fulfil the formal demands that are required by legislation or to try to find all-gain solutions and consensus for the project. The level of stakeholder involvement can define the levels of strategy. Jackson (2002) identifies five strategies, informing, education, testing reactions, seeking ideas and alternative solutions, and seeking consensus, in the process of involving external stakeholders (see figure 5.1)

```
┌─────────────────────────┐
│  IDENTIFY STAKEHOLDERS   │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│     SET OBJECTIVES       │        CHARACTERISTICS
│                          │
│       Informing          │
│                          │      One way communication
│       Education          │
│                          │
│    Testing reactions     │
│                          │      Two way communication
│   Seeking ideas and      │
│  Alternative solutions   │
│                          │
│   Seeking consensus      │      Shared decision-making
└─────────────────────────┘
```

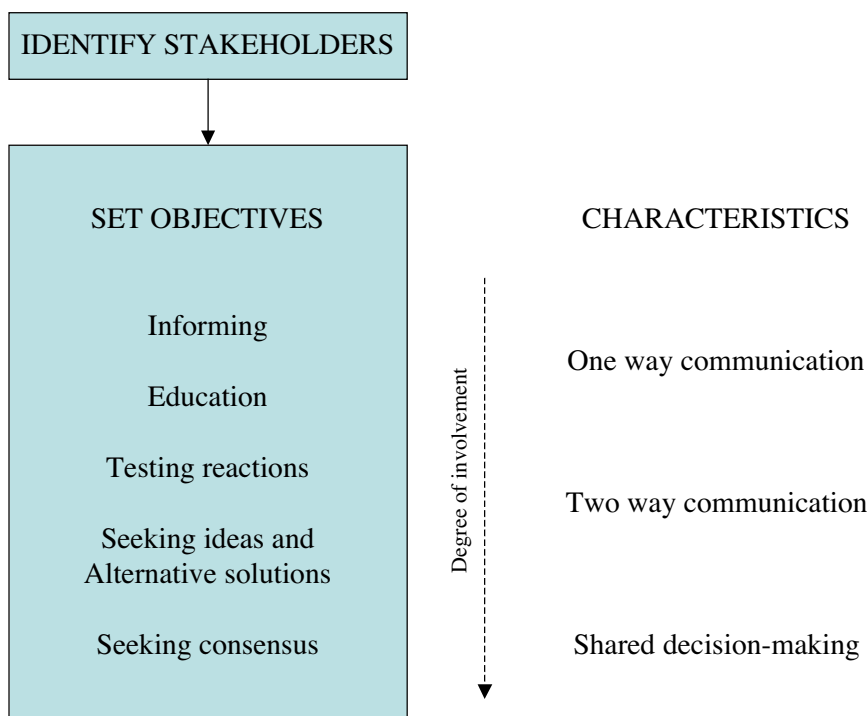*Figure 5.1. Levels of external stakeholder involvement (adapted from Jackson 2002)*

The traditional method of involving external stakeholders has basically been to keep them informed about project decisions, which may be the most rational strategy for the majority of the external stakeholders and for the majority of projects. However, the project management cannot make this decision without a carefully conducted

identification of stakeholders. For each identified stakeholder the project management must determine a strategy to manage and involve each stakeholder in the project decision process. For public construction projects, in which the public is a relevant stakeholder a consensual approach towards the public should probably always be the ambition. The City Tunnel project in Malmö has adopted a strategic model that reach towards seeking consensus, and the managers, at least, are actively seeking ideas and alternative solutions by communication with external stakeholders in general and the public in particular (see appendix 1). The most ambitious strategy is to seek consensus, by an approach which attempts to find solutions that meet the needs and requirements of all parties. The consensus-building concept is one approach to seek consensus, and to find all-gain solutions in dispute resolution.

5.2 Consensus Building

Conventional methods of dealing with disagreements, particularly in the public sector, are increasingly inadequate. At every level of government, officials have discovered that the "decide-announce-defend" model of the past is unacceptable. Many are looking for new ways to generate informed agreements or to resolve disputes when they arise. (Consensus Building Institute, www.cbi-web.org, 2003-03-31)

Consensus building is a method developed in the United States for solving conflicts. Consensus building requires informal, face-to-face interaction among chosen representatives from all stakeholder groups. The basis of the method is an effort to seek all-gain solutions rather than win-lose solutions or political compromise. The background to consensus building is the fact that every attempt in the United States to build prisons, highways, power plants, mental health facilities, or housing for low income families was obstructed by residents in the vicinity. Another fact was that public policy disputes often end up in court. Unfortunately the courts are often unwilling to fashion remedies that meet the needs of all sides. Stated simply the purpose of the courts is to interpret the law, not to reconcile conflicting interests, making all-gain solutions impossible. (Susskind, Cruikshank 1987)

To achieve a good, negotiated settlement, four characteristics, namely fairness, efficiency, wisdom and stability must be met: (Susskind, Cruikshank 1987)

Fairness	The best way to judge whether a negotiated settlement is fair is to evaluate the attitudes and opinions about the settlement of the parties most affected by it. If the involving parties consider the settlement as fair, the probability that they will uphold the settlement is higher.

Efficiency	A settlement must be efficient in terms of being possible to accomplish within a reasonable time limit. If a settlement through consensus is only slightly fairer than one without and at the same time considerably more inefficient, it is probably not worth the effort to seek a consensus solution.
Wisdom	A wise settlement is based on co-operation. Both sides must participate in an effort to minimise the risk of being wrong. They must develop a working approach that accommodates the best possible technical evidences no matter which "side" the evidence supports.
Stability	Stability is a key factor of a good settlement. Participants in a public disputes resolution effort should put an emphasis on feasibility. They should not strike a deal they will be unable to implement.

Consensus building seeks to identify the scope of possible agreements or to invent and create a realm of possible agreements between the stakeholders. To manage a project with the aid of consensus building makes the project stakeholders aware of the possibilities to reach an agreement and the amount of co-operation that is necessary to achieve an agreement. The achievement of a consensus building process comprises a number of steps (Davy 1997):

- To identify all stakeholders whose interest are involved in the siting of a construction project.
- To explore the scope and nature of their initial disagreement or agreement.
- To invent options for mutual gain and for "packaging" (trading of negotiable items that are valued differently by different stakeholders).
- In addition, if an agreement can be reached, to commit the stakeholders to their agreement and to arrange for its implementation and monitoring.

The basis of consensus building is to go from win-lose solutions to all-gain solutions. This can be achieved of all participants in a conflict think in terms of how they themselves can obtain their goals and at the same time meet the goals of their opponents.

5.2.1 The Mutual Gains Approach

As a part of the consensus-building concept Susskind, and Field (1996) presents the mutual gains approach, which consists of six principles: (Susskind, Field, 1996)

- Acknowledge the concerns of the other side.
- Encourage joint fact-finding.
- Offer contingent commitments to minimise impacts if they do occur: promise to compensate knowable but unintended impacts.
- Accept responsibility, admit mistakes, and share power.
- Act in a trustworthy fashion at all times.
- Focus on building long-term relationships.

Acknowledge the Concerns of the Other Side

The parties involved in a dispute will be stuck in a zero-sum bargaining game, where the only common ground is to perpetuate the conflict if appreciation of the needs and concerns of the other side fails (Susskind, Field, 1996). "In a negotiation, if each side understands and can explain the viewpoint of the other side, it increases the likelihood of reaching a negotiated resolution" (Bazerman, Neale, 1992, from Susskind, Field, 1996).

Encourage Joint Fact Finding

The parties involved should try to generate information that is believable to both sides. This may seem to be quite straightforward, but for parties used to working in a traditional project environment of one-way communication this approach can be worrisome. On the other hand, decision-makers want to have the best possible information, and it can be counterproductive to share information if the other side will reject it because of the source. Thus, decision-makers must decide what information others will find compelling. What should they share? What should they not reveal? What should be left to others to discover? Information gathered, analysed, modelled, and carefully packaged behind closed doors may have no credibility, even if the information is accurate. The answer may be to gather data, analyse data, and draw conclusions together. This should result in more believable findings, but it also removes some of the control, which project managers may want to have concerning the outcome of the project (Susskind, Field, 1996).

Offer Contingent Commitments to Minimise Impacts if they do occur: Promise to Compensate Knowable but Unintended Impacts

It makes sense to minimise impacts up front, when they occur, rather than to wait and suffer the consequences later. Up front contingent commitment does require corporate and government actors to put their money where their collective mouths are. If a company or agency promises that something will not happen, or cannot happen, they should stand for that promise by a contingent offer of compensation (Susskind, Field, 1996).

Accept Responsibility, Admit Mistakes, and Share Power

Have an open mind to alternative solutions. If an alternative solution emerges that is are better than the initial solution, because of misjudgement or erroneous prerequisites for the decision. Project management should act responsibly, admit their initial mistake, and share power to embrace the potential "good will" of a good decision process (adapted from Susskind, Field, 1996)

Act in a Trustworthy Fashion at All Times

The concept of trust is elusive. What is it? How can it be created? Trust, or the lack of it, relates primarily to expectations. Thus, to inspire trust one must shape expectations; or to put it as simply as possible, we must "say what we mean and mean what we say". If we camouflage our intentions, sugarcoat the truth, or spin the story to make it "sound better", we do not say what we mean. If we make promises we do not intend to keep, we do not mean what we say. Not only are reputations ruined by exaggerations and misstatements that must be retracted or contradicted later on, but also trust, once lost, is almost impossible to regain (Susskind, Field, 1996).

Focus on Building Long-term Relationships

If you care about your reputation, if you care about your credibility, if you want to affect the bottom line two years from now, focus on building long-term relationships (Susskind, Field, 1996).

5.3 Facility Siting Credo

In the United States several other methods of consensus building have been developed and evaluated. One method reviewed by Kunreuther, Susskind (1991) and Davy (1997), called "Facility Siting Credo" was developed at a national workshop on the planning and siting of construction projects. The method gives guidelines for clients to manage a more efficient planning and siting process of a construction project, by seeking consensus and establishing trust.

The "Facility Siting Credo" consists of the following guidelines: (Kunreuther, Susskind, 1991)

- **Institute a broad-based, participatory process:** Representatives of all affected groups should be invited to participate in and be assisted at each stage of the siting process. All those affected by the siting decision should have a chance to review the criteria for site selection. Groups with different points-of-view should have a chance to criticise the recommendation of facility proponents and the analyses upon which their proposals are based. A joint fact-finding process should be used so that all stakeholders can play a role in specifying the information about risks, costs and benefits that they need in order to make informed decisions

- **Achieve agreement that the status quo is unacceptable:** A siting process must begin with an agreement that the facility is needed. The relevant stakeholders need to understand the consequences of doing nothing.

- **Seek consensus:** A serious attempt should be made to involve all the relevant stakeholders to address their values; concerns, potential needs and wants. Differences can be addressed by searching for new ways of framing questions or different ways of packaging trade-offs.

- **Work to develop trust:** Lack of trust is perhaps the most important barrier to reaching consensus. Those attempting to site a facility must recognise potential sources of mistrust, including lack of support for the project, previous negative experiences, and suspicions toward the government and other institutions. One way to establish trust is to admit past mistakes and avoid exaggerated claims and promises that cannot be fulfilled.

- **Choose the solution that best addresses the problem:** Problems must be addressed with a design and solution of the facility that stakeholders can agree is appropriate. A comprehensive list of alternative approaches and their long- and short-term implication, including the option of taking no action, should be made public in non-technical language. The choice of alternatives and technology should be based on input from the residents of the community who may well know more about the problem "on the ground" than many experts.

- **Guarantee that stringent safety standards will be met:** No community should be asked to compromise its basic health or safety so that a facility can be built. Preventive measures for reducing the hazard should be encouraged and the proposed facility must meet all health, safety and environmental standards, Interested parties should also have an opportunity to specify any additional standards that could be met through mitigation, such as changes in the design of the facility, substitute technologies, operational modifications and training of operators. Monitoring and control procedures involving the host community are important in minimising risks and maintaining standards.

- **Fully address all negative aspects of the facility:** When impacts cannot be prevented or mitigated to the satisfaction of the affected parties, various forms of compensation, specified by the stakeholders involved, can be negotiated. These agreements may include property value guarantees, creation of equivalent habitats when loss is unavoidable, and the offer of service when impact occurs.

- **Make the host community better off:** the applicant should put a package of benefits together so that the host community feels that it is better off with the facility than without it.

- **Use contingent agreements:** Some concerns about the management of facilities can be resolved by specifying contingent agreements that spell out what will be done in case of accidents, interruption of services, changes in standards, or the emergence of new scientific information about risks and impacts, and provide means of guaranteeing that contingent promises will be met at no cost to those likely to be adversely affected.

- **Seek acceptable sites through a volunteer process:** Encourage communities to volunteer sites indicating that it is not an irreversible commitment and that there are potential benefit packages that come with the facility.

- **Consider a competitive siting process:** Assuming that multiple, acceptable volunteer sites are found, the sponsors of the facility should consider a competitive process of site selection.

- **Work for geographic fairness:** It is inappropriate to locate too many noxious facilities in a single locale even if a community is willing to accept them.

- **Set realistic timetables:** It is appropriate and helpful to set and enforce realistic deadlines. However, a good siting process allows all parties adequate time to consider the full range of options and weigh technical evidence as it is gathered. Opponents have any number of administrative and legal means of slowing, even halting, siting processes that they feel have excluded them. It may be necessary to "go slowly in order to go fast".

- **Keep multiple options open at all times:** It is never a good idea to have only one possible site even at the final stage of the process. Negotiations regarding possible incentive packages are more likely to produce reasonable results if a facility sponsor does not feel "held hostage" by the only possible site.

6 Tools for Analysing an External Stakeholder Management Process

6.1 Stakeholder Analysis

In an evaluation of the Channel Tunnel project, Lemley (1995) stated that communication is the key element for a successful project. To achieve any form of relevant communication the project management needs to know with whom it should communicate. A stakeholder analysis to identify the stakeholders and their claims on the project is essential to form and choose strategies in an external stakeholder management process.

6.1.1 Stakeholder Identification

Every project has a set of key stakeholders, (PMI 2000):
- Project management - the individual or individuals responsible for managing the project

- Customer - the individual or organisation that will use the product of the project.

- Performing organisations - the enterprises whose employees are most directly involved in doing the work of the project.

- Sponsor or owner - the individual or group within the performing organisation who provides the financial resources for the project.

The relationships between key stakeholders are often described within the formal organisation. However when identifying stakeholders it is not enough to investigate the at informal and indirect relationships between stakeholder groups and to assess their importance (Johnson, Scholes 1999). In addition to the key stakeholders, there may be many different individuals, or groups, that should be considered as stakeholders for the project. The project management should:

- Identify all potential stakeholders, external as well as internal.
- Assess each stakeholders claim on the project, are they proponents or opponents.
- Assess each stakeholders interest and power to influence project decisions.

6.1.2 Stakeholder Mapping and the Power Interest Matrix

To effectively manage stakeholder interests it is not enough to just identify their demands and needs. Project management must also identify the relative power different stakeholders have on the implementation of the project. A method to do this is stakeholder mapping (Johnson, Scholes 1999), an approach, which is adapted from the concept of environmental scanning (Mendelow 1981). A tool in stakeholder mapping is the power / interest matrix (figure 6.1), which analyses the following questions:

- How interested is each stakeholder group to impress its expectations on the projects decisions?
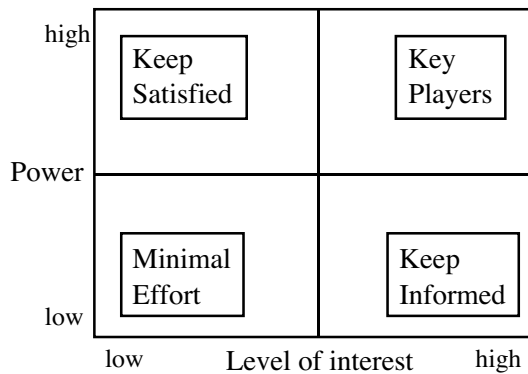- Do they mean to do so? Do they have the power to do so?

Figure 6.1. Stakeholder mapping, the power / interest matrix (Johnson, Scholes 1999)

Key Players are the most important stakeholders with extensive interests in the project and a high power to influence project implementation and completion. The stakeholders in the "keep informed" square are those with great interest in the project, for instance residents in the vicinity of to a construction project, but with limited means to influence the project. The stakeholders in the "keep-satisfied" square are often passive, but can have a great impact on the project. Stakeholders in this group can often be found in institutional investors and legislative bodies. Stakeholders in the "minimal effort" square do not have a great interest nor do they have the power to make an impact.

By grouping stakeholders in the power / interest matrix, project management may achieve a better picture on how communication and relationships between stakeholders should be developed to reach consensus about, and acceptance for, the project and its implementation

In combination with the power/interest matrix, Bonke and Winch (2002) developed the stakeholder map that also analyses the problems and the proposed solutions various stakeholders have for the project process. The stakeholder map includes: stakeholders,

divided into proponents and opponents, problems identified by the stakeholder, and their solutions to the problem (see figure 6.2). Identifying the complete set of stakeholders is of great importance to the validity and usefulness of the mapping method. During this process all stakeholders must be identified, not on the basis of *a priori* distinctions between, for instance, technicians and economists, professionals and lay people, but rather from the perspective that any actor who possesses an interest in the project and the solution to its problems should be considered a relevant stakeholder (Winch, Bonke, 2002).
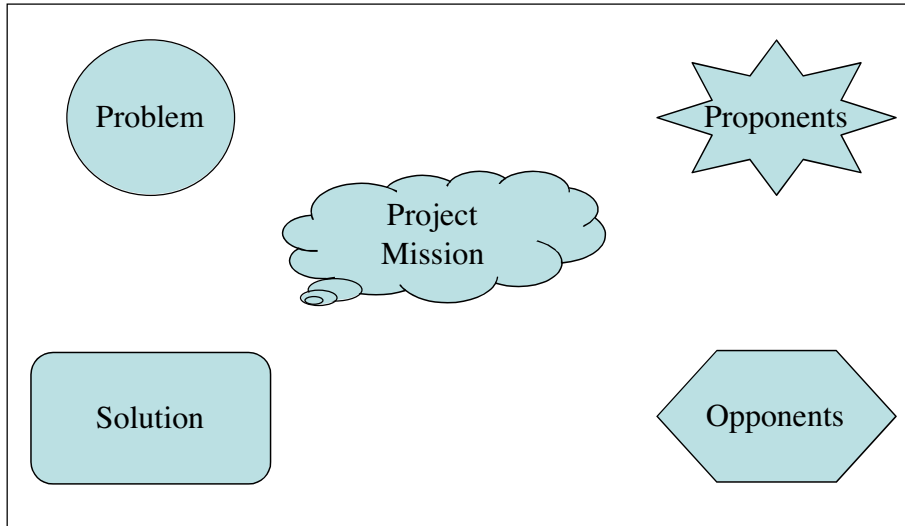

Figure 6.2. Code to Stakeholder Maps (Winch, Bonke, 2002)

In appendix 2 a model of stakeholder evaluation based on the stakeholder map and the power/interest matrix is presented (see figure 6.3)
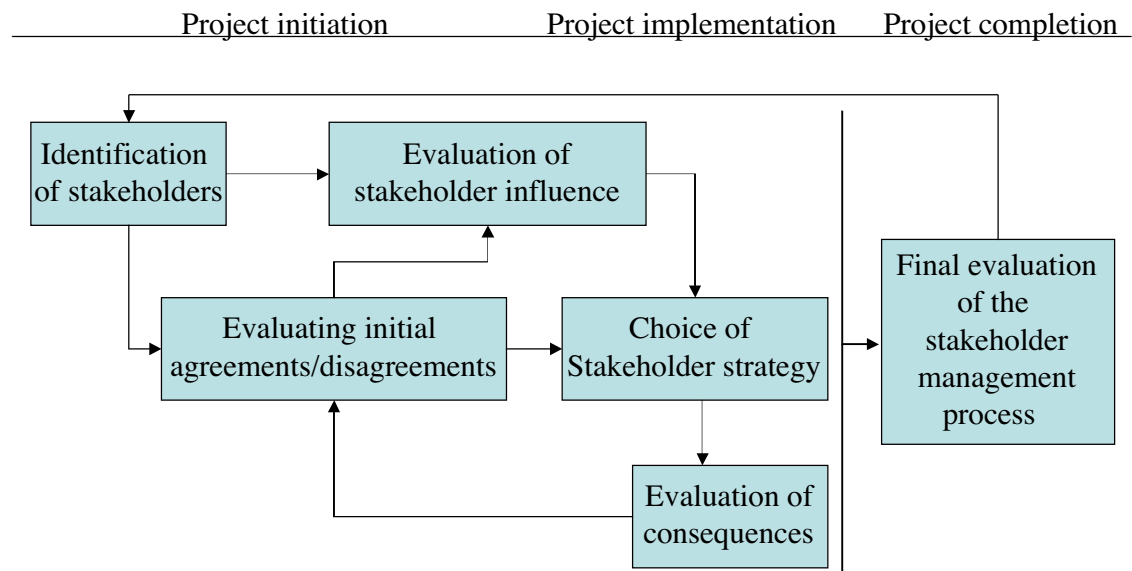

Figure 6.3. Model for evaluating stakeholder influence on the project process

6.1.3 Evaluating Stakeholder Satisfaction

Strong et al. (2001) presents a model for evaluating stakeholder satisfaction. The model is thought to be a two-phase process of:

1. Communicating accurate information regarding realistic expectations of the exchange or relationship, as well as accurate depictions of the actual performance.

2. Providing actual performance, which equals or exceeds expected performance.

In this two-phase satisfaction model, three possible dissatisfying experiences may be defined.

1. Expectations are not clearly explained and understood (pre-exchange information is absent or misleading)

2. Actual performance is inappropriately assessed or disagreed upon (perceptual variances in degree of compliance with pre-exchange expectations and equity norms)

3. Accurately assessed performance fails to meet clearly understood expectations (failure to perform)

The first dissatisfying outcome involves issues of honesty and integrity; the second outcome involves timeliness and empathy issues. The third outcome involves actual performance and might be called "honest mistake". The two first involve managerial communication and assessment, while only the third relates to performance. If substantial gaps exist between the expected outcomes and the actual outcomes, dissatisfaction will be the result. The dissatisfaction may arise from information failures, or performance failures (Strong et al., 2001). The satisfaction model is presented in figure 6.4.
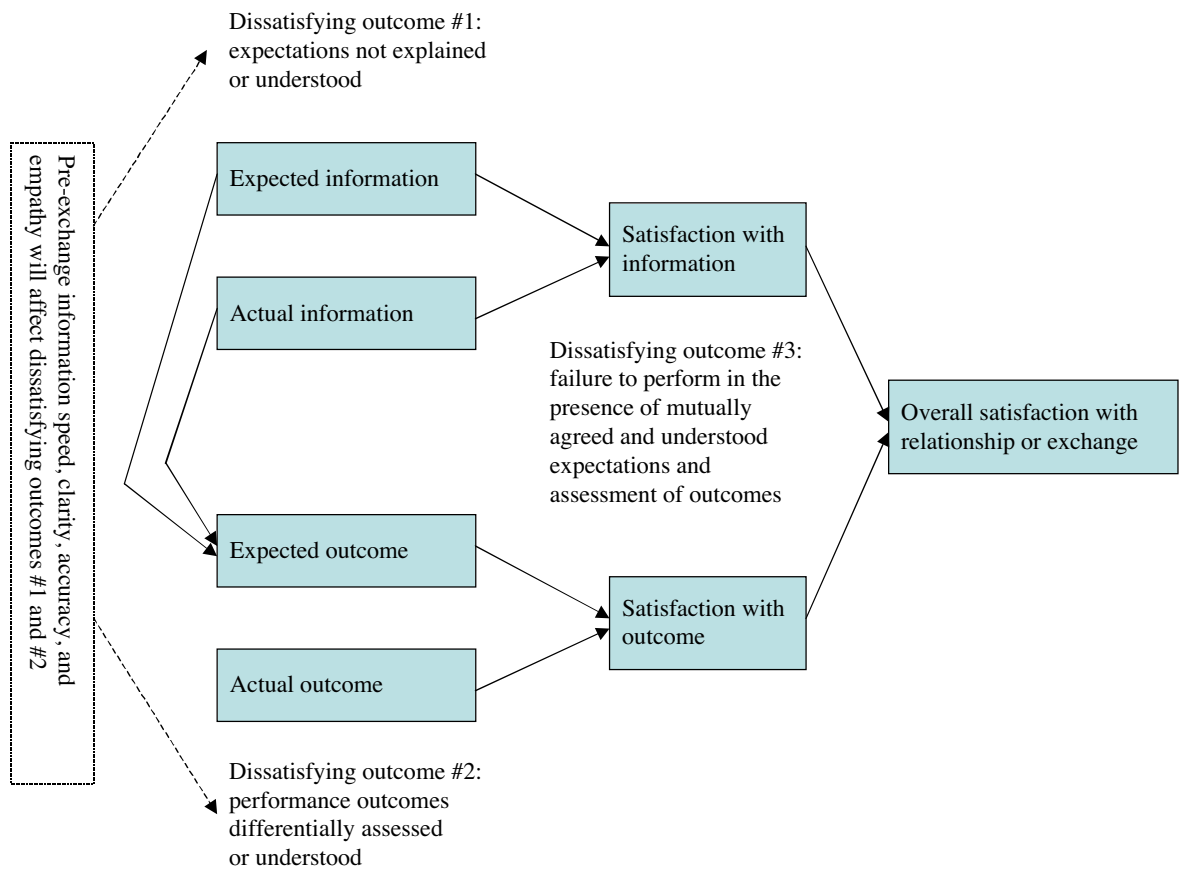
Dissatisfying outcome #1:
expectations not explained
or understood

Pre-exchange information speed, clarity, accuracy, and empathy will affect dissatisfying outcomes #1 and #2

Expected information

Actual information

Satisfaction with information

Dissatisfying outcome #3:
failure to perform in the
presence of mutually
agreed and understood
expectations and
assessment of outcomes

Overall satisfaction with relationship or exchange

Expected outcome

Actual outcome

Satisfaction with outcome

Dissatisfying outcome #2:
performance outcomes
differentially assessed
or understood

Figure 6.4. Stakeholder satisfaction model (Strong et al., 2001)

6.2 Financial Management

The economic aspect of an external stakeholder management has two relevant areas. The first is that an external stakeholder management process will require resources, and thus, generate costs for the project. The external stakeholder management process must be considered as a relevant cost in the cost-benefit analysis of the project. The size of the resources that will be needed are determined by the strategy chosen (see chapter 5.2). The more ambitious the strategy is, the more resources will be needed in the external stakeholder management process. However, a more ambitious strategy will probably save costs and resources at other stages of the project, because of a higher acceptance for project decisions from external stakeholders. The project management should choose the strategy with the best gain all things considered. The question is – what does an external stakeholder management process cost, and how much does it cost not to perform an external stakeholder management process?

The second relevant area is that the project must be profitable; the total gains must exceed the total costs. This is an important argument for continuing and implementing the project. Construction projects can be divided into two categories, public and private. The public projects should be based on a profitable societal cost-benefit

analysis, and the private projects should be based on a profitable business cost-benefit analysis.

The basis of the societal cost-benefit analysis is that the total gain should exceed the total negative consequences, expressed in both monetary and non-monetary terms. The total common good must exceed the local negative consequences. The business cost-benefit analysis is based on a financial calculation, where the revenues must exceed the costs. However, even private construction projects can sometimes be the subject of a societal cost-benefit analysis, for instance, when it comes to determine environmental impacts.

The Öresund fixed link is one example where the analysis of the common good has had a great impact on project decisions, which must in this sense be profitable from a societal point of view. However, the project must also be profitable in a business sense, since it is financed by road tolls, and not by public funds. In this form of combination between societal and business concerns, which are common in new forms of public procurement, private public partnership (PPP), build-operate-transfer (BOT), etc, a dilemma can arise. For the Öresund fixed link the dilemma is the following: It is profitable from a societal point of view to have a higher fee for the road tolls, because the traffic is regulated, which reduces the pollution from cars, and thus reduces the overall environmental impact. However, the higher fee is unprofitable from a business point-of-view, because the amount of traffic that is needed to cover fixed costs is not reached.

The cost-benefit analysis can, consequently, show different results depending on the input and perspective of the analysis. There is also a risk that the analysis is skewed towards a special interest, and can give a different result depending on who is conducting the analysis (see the example of the Nockeby tramway, chapter 4.2). Thus, it is of vital importance for decision-makers to critically judge the cost-benefit analysis, with full awareness about the inputs into the analysis, and about the basic assumptions on which the analysis is based.

Preferably, a basis for decision should consist of several cost-benefit analyses, from different aspects, societal as well as business, and sensitivity analyses with different probable inputs. This would give decision-makers a more complete base for decisions, and may facilitate the process of motivating a construction project from a financial point of view.

6.2.1 Societal Cost-Benefit Analysis

Societal cost-benefit analysis is an established method for evaluating public investment. The method was developed for evaluating total societal gain against the total societal consequence, and tries to quantify gains and consequences in monetary terms. The problem with this method is that it does not evaluate the consequences for the specific local community.

Davy (1997) addresses the problem of how to consider the consequences for the local community affected in the societal cost-benefit analysis. From a traditional point-of-view, a public investment in a facility should be made if it serves the common good. This argument, however, ignores the distributive impact of a facility siting. Whether a proposed development is beneficial and efficient depends on the perspective of the beholder. With this in mind, Davy (1997) introduces the concept of benefit sharing. By performing a cost-benefit analysis per capita, the local affect of the development can be evaluated. The total gain is divided by the population that benefits by the development, and the total effect of negative consequences is divided by the population of the affected local community.

Assume that the total gain of a development amounts to 100 000 units, and benefits a population of 1 000 000. The total effect of the negative consequences amounts to 10 000 units, and the population of the affected local community is 1 000. Traditional cost-benefit analysis gives that the development should be carried out because the total gain exceeds the total negative effect by 90 000 units (100 000 – 10 000). If the cost benefit analysis is made per capita as described above, it gives the following result.

The total gain per capita is 0,1 units (100 000 / 1 000 000), and the total negative effect per capita is 10 units (10 000 / 1 000). This analysis shows that the local community bears a larger burden per capita than the total gain of the developments per capita. This analysis could be a complement to a traditional cost-benefit analysis to determine the impact on an affected local community.

One way to compensate a local community for the burdens imposed on it could be through benefit sharing (Davy 1997). Benefit sharing may include, for instance.

- Financial compensation for a decrease in land value or for other disadvantages that can be compensated (if affected stakeholders are willing to accept compensation for these disadvantages).

- Insurance against uncertain consequences of the development.

- Community development programs that offset the loss of environmental amenities and enhance the quality of life in the vicinity of the facility.

Benefit sharing could be one way to involve the public in the planning process of a construction project, but the method should not be overrated because many parameters in the analysis are difficult or impossible to determine in economical terms.

6.3 Risk Management

It takes resources to perform an external stakeholder management process. Because project resources are limited, it is necessary to be economical with resources and concentrate them to where they are best needed. There is consequently a need to find

methods to determine where and how the resources for external stakeholder management should be used.

One method to determine the use of project resources is to identify and assess the risks connected with an external stakeholder management process. The management of project risks deals with uncertainties throughout the project and requires a structured approach. The aim of the risk-related processes is to minimise the impact of potential negative events and take full advantage of opportunities for improvement (SS-ISO 10006). Risk management from the perspective of the project management means to consider both negative and positive aspects of the project. The basic aim of risk management is to transform potential risks into opportunities for the project (see figure 6.5).
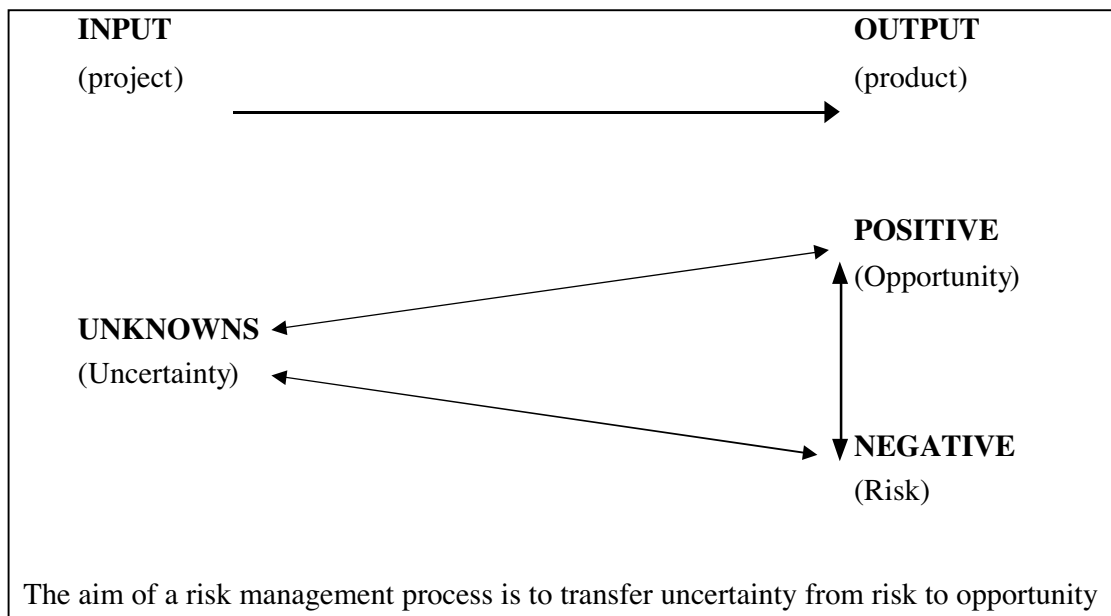

Figure 6.5. Relations between uncertainty, opportunity, and risk. (PMI 1992)

The risk management approach to consider both negative and positive aspects is, however, not uniform. The issue is whether the term "risk" should encompass both opportunities and threats, or whether "risk" is exclusively negative. There seems to be two options: (Hillson 2001)

1. "Risk" is an umbrella term, with two varieties:
   - "opportunity" which is a risk with positive effects;
   - "threat" which is a risk with negative effects.

2. "Uncertainty" is the overarching term with two varieties:
   - "risk" referring exclusively to threat, i.e. an uncertainty of negative effects;
   - "opportunity" which is an uncertainty with positive effects.

Hillson (2001) argues that opportunities and threats are not qualitatively different in nature, since both involve uncertainty, which has a potential to affect the objectives of

the project. As a result, both can be handled by the same process, although some modifications to the standard risk management approach may be required in order to deal effectively with opportunities.

If it is assumed that the term "risk" involves both threats and opportunities, then the risk related processes are (SS-ISO 10006).

- Risk identification, determination of risk events for the project.
- Risk assessment, evaluating the probability of the occurrence of risk events and the impact of risk events on the project.
- Risk response, developing plans for responding to risks.
- Risk control, implementing and updating risk plans.

It is important that these processes and their output are documented.

Risk identification means to identify project risks and to find means to determine when acceptable limits of risk are exceeded. An important input to risk identification should be experience and data from previously completed projects. Risk identification should be performed at the initiation of the project, at progress evaluations and on other occasions when significant decisions are made (SS-ISO 10006). Risks and opportunities for an external stakeholder management process should be a natural part of the risk identification in a construction project.

Tools and techniques for risk identification are: (PMI 2000)

Documentation reviews: Performing a structured review of project plans and assumptions.

Information-gathering techniques: Examples of information-gathering techniques used in risk identification can include brainstorming; Delphi; interviews; and strengths, weaknesses, opportunities, and threats (SWOT) analysis.

- **Brainstorming:** Brainstorming is probably the most frequently used risk identification technique. Its goal is to make a comprehensive list of risks that can be addressed in the risk assessment process.

- **Delphi technique:** The Delphi technique is a way to reach a consensus among experts on subjects such as project risk. Project risk experts are identified but participate anonymously. A facilitator uses a questionnaire to solicit ideas about the important project risks. The response is submitted and is then circulated to the experts for further comments. Consensus on the main project risks can be reached in a few rounds of this process.

- **Interviews:** Risks can be identified by interviews. The person responsible for risk identification identifies the appropriate individuals, briefs them on the project, and provides information. The interviewees identify risks in the project based on their experience, project information, and other sources they find useful.
- **Strengths, weaknesses, opportunities, and threats (SWOT) analysis:** Ensures the examination of the project from each of the SWOT perspectives to increase the breadth of the risks considered.

Checklists: Checklists for risk identification can be developed based on historical information and knowledge that has accumulated from previous, similar projects and other sources of information. One advantage of using a checklist is that risk identification is quick and simple. One disadvantage is that it is impossible to build an exhaustive checklist of risks, and the user may be effectively limited to the categories in the list.

Assumption analysis: The validity of every project is conceived and developed based on a set of hypotheses, scenarios, or assumptions. It identifies risks to the project from inaccuracy, inconsistency, or incompleteness of the assumptions.

Diagramming techniques: Diagramming techniques may include:

- **Cause-and-effect diagrams:** Useful for identifying causes of risk, illustrate how various factors may be linked to potential problems or effects.

- **System or process flowchart:** Shows how various elements of a system interrelate and the mechanism of causation.

- **Influence diagrams:** A graphical representation of a problem showing causal influences, time ordering of events, and other relationships among variables and outcomes.

Risk assessment means to assess the occurrence and impact of identified risks, taking into account the experience and historical data from previous projects. The criteria and techniques used should be recorded. A qualitative analysis should always be made and a quantitative analysis should follow wherever possible.

The result of risk assessment should be that the project management acquires an insight into which opportunities to pursue and which risks to handle, and which opportunities to ignore and which risks to accept.

A method of risk assessment (Davy 1997) implies to determining the probability (P) and the damage (D) for an identified risk. By placing (P) and (D) in a matrix (see figure 6.6) a risk value (R) can be evaluated. Each field in the matrix contains events that are expected to occur with a certain probability and to cause a certain amount of damage.

S7 Near uncertainty but safe	R5 Near Extreme uncertainty	**R6** Extreme uncertainty	
S5 Safe	R3 Uncertainty		
S3 Safe	R1 Uncertainty	R2 Uncertainty	R4 Near Extreme uncertainty
S1 Perfect safety	S2 Safe	S4 Safe	S6 Near uncertainty but safe

Probability →

Consequence

Figure 6.6. Matrix to evaluate risk values (Davy 1997)

The square S1 symbolises a state of perfect safety, which means that the world does not get much safer. R6 means a high uncertainty and risk, which must be handled and cannot be accepted under any circumstances.

Risk response means to develop solutions to eliminate, mitigate, or transform risks. Decisions to accept risks and plans to take advantage of opportunities must be evaluated. Solutions to risk response should preferably be based on known technologies or data from past experience to avoid introducing new risks (SS-ISO 10006).

Risk control should be performed throughout the project. An iterative process of risk identification, risk assessment, and risk response should control risks. The project should be managed by taking into count the fact that risks always exists. Project stakeholders should be encouraged to anticipate and identify further risks and report them. Contingency plans should be maintained in a state of readiness for use. (SS-ISO 10006).

An efficient and satisfactory external stakeholder management   process should be handled through a risk perspective so that resources can be used in an economical and efficient way.

6.3.2 Risk Communication

If assessing risk and perceiving risk were not problematic enough, the link between the two – risk communication – is also fraught with difficulty. Susskind, Field (1996) refer to a study by the National Research Council's committee on risk communication, where they discovered several areas in which risk communication usually stumbles.

- **Lack of credibility:** Lack of credibility interferes with successful risk communication. If stakeholders feel that communicators are advocating rather than communicating, they will discount the information provided. If stakeholders believe that communicators have engaged in deceit or misrepresentation, they will question the facts. If messages contradict one another, either because the communicator has changed positions, or because various sources contradict each other, stakeholder distrust will grow.

- **Confusing language:** Arcane scientific language interferes with effective risk communication. Since risk is based on probabilistic estimates, the stakeholders can be confused by something as simple as the statement that there is a 70% chance of rain. To some, this means it will rain 70% of the time, to other, over 70% of the reported area. How numerical risks are communicated is crucial. At Chernobyl, the same cancer risk could have been conveyed in the following ways: 131 cancers expected in the lifetime of the 24 000 people within 15 km of the plant; a 2.6% increase in cancer over that exposed population; or, an increase in cancer of only 0.0047% over the population of the 75 million people exposed in Ukraine and Byelorussia. Though all of these values express the same risk, they convey very different degrees of seriousness.

- **Access:** Risk communication can fail if the stakeholders have difficulty obtaining access to information. If we exemplify with the public as the stakeholder. Decision-making, particularly in the private sector can be done without the public knowing what is going on. In turn, the public often assumes the worst. Authorities, out of indifference, incompetence, or naivety, may ignore or respond ineffectively to the requests for information made by the public, and lastly the information may not be available.

6.4 Communication

Communication is an essential part of project management efforts to effectively manage stakeholder interests, external as well as internal; Lemley (1995) stated that good communication is a key element for a successful project, based on his experience from the Channel Tunnel project. Today communication related processes are maybe more important than ever, because of the impact of the media on the information flow. Project management should in many cases more openly communicate both good and bad aspects of the project to ensure the flow of correct information in the media and to avoid bad press.

Communication related processes aim to facilitate the exchange of information necessary for the project. They ensure timely and appropriate generation, collection, dissemination, and storage and ultimate disposition of information on the project. Communication related processes are as follows (SS-ISO 10006):

- **Communication planning:** planning the information and communication systems for the project.

- **Information management:** making necessary information available to members of the project organisation and other relevant stakeholders.

- **Communication control:** controlling communication in accordance with the planned communication system.

A few elementary considerations about communication have a broad application across many different organisations. The first is that the sender of a message recognise some of the basic concepts of communication theory and practise, which are: (Cleland 1999)

1. To be as specific and forthright as possible about the information to be transmitted.

2. To know who the receiver is and what the expectations are of that receiver, being the object of some communication media, verbal, written, or non-verbal.

3. To design and develop the message with the receiver in mind, considering the potentially limited view of that receiver, his or her likely perceptions, and the role he or she plays in the project.

4. To select the means or medium for the message, giving careful attention to how the receiver is likely to react to a particular medium.

5. Plan for the timing of the communication to include considerations of the criticality of the message to the receiver.

If the project management, via communication, can create a good dialogue, it may be easier to find the real conflicts about a project, eliminate false conflicts and misunderstandings, and thus reach an acceptance for the project. (De Laval 1999).

6.4.1 Methods to Create Dialogue with External Stakeholders

De Laval (1999) mentions alternative methods to support a dialogue with external stakeholders, with the focus on dialogue between project management and an affected local community. The alternative methods can be used separately or incombinations to achieve functional dialogue. The following methods are described and discussed.

- Work groups
- Seminars
- Study circles
- Open house
- Charrette
- Workbook method
- Walks

Work groups

The work group method is based on voluntarism. Individuals who want to be involved in the planning of a construction project form a work group to discuss the siting and design of the project. On some occasions, the work group is given the opportunity to meet the decision-makers and project managers, to create a dialogue about the project.

The City Tunnel project in Malmö uses reference groups, which is a method very similar to work groups. The use of reference groups, for the City Tunnel project, has the purpose of creating a continuous dialogue between the project management and the local communities that are affected. The project management meets, through the reference groups, the residents along the stretch of the project to discuss alternative approaches to the siting and design of the project. The work with reference groups will go on throughout the entire duration of the project, to gain the unique knowledge of local circumstances that is provided by the reference groups. As a result of the work with reference groups several alternative solutions has been considered.

Seminars

An easy way to form a dialogue is by holding a number of meetings or seminars of which two, at least, have the same participants, and discuss a matter of current interest. To form a meaningful dialogue, for the participants as well as the project management. The seminar must be well prepared by the project management. It can be appropriate to use pedagogical and visual aids to create the necessary conditions for a good and meaningful dialogue.

The number of participants in the seminar must not be too large, because it is important that every participant is given a chance to speak. It may therefore be necessary to arrange several smaller seminars with different participants to allow as many as possible to give their opinions about the project.

Study circles

To engage project stakeholders in a study circle is another option for dialogue between project stakeholders and project management. The study circle teaches the participants about the questions that arise in connection with a construction project. The study circle must be in constant contact with the project management to create a meaningful dialogue, and in this way the participants can become an important resource in a public consultation or meeting.

Open house

The open house method gives the public the possibility to visit different authorities within the construction project. The general principal is that during a certain period, the public can come and go as they please. The place for the open house can for instance be the office of the construction project or a temporary place where information about the project, the project management team, and experts is available. The public is given the opportunity to have questions answered, and to give opinions and suggestions about the siting and design of the project.

The open house method is simple to perform, but preparations must be made to ensure that all information and expertise are available. If the time and place for the open house is chosen with care this can be a very meaningful method.

Charrette

The Charrette method implies that all stakeholders in a construction project are given an opportunity to participate in the planning of the project. Architects and planners use the term Charrette to refer to an intensive creative design process that takes place in fixed, short period time (Maguire 1998).

The Charrette method was developed in the United States and gives the public an opportunity, through public meetings and workshops, to participate in the planning process. The architects listen to suggestions during the workshops, which they then transform into drawings and sketches (Söderlind 1999). The process should be like a "brainstorming" where all suggestions will be handled unbiased. From the "brainstorming", a final suggestion is developed and presented at a final meeting. At the final meeting the participants of the Charrette decide whether the suggestion can be accepted or not. Depending on the complexity of the construction project the Charrette can take anything from a few days to several months and the preparations by the project management for performing the Charrette are extensive.

A follow up of three Brownfield pilots where Charrette was used as a planning method illustrates that the following criteria must be met to perform a successful Charrette (Maguire 1998).

- An active, willing community, with a stake in the redevelopment.

- Access to all the information necessary to instruct the community and comprehensively plan for reuse.

- A space conducive to collaborative thinking and a facilitator who can take in information from the community and produce sketches on the spot.

- A means of translating the product of the Charrette into reality.

Charrette is a method that demands a high level of resources in the form of preparation and time to perform the Charrette. The Charrette method may be difficult for major construction projects to manage, but for smaller projects or for difficult parts of a major project it can be a good method to produce the best solutions for the project. The advantage of the Charrette method is that the public is a part of the planning process and feel that they have an influence over the siting and design of the project.

Workbook method

The workbook method is based on the affected stakeholders being contacted by the project management and given a workbook, which contains information about the construction project. The workbook is then developed in co-operation between the project management and the stakeholders into a complete planning document. The workbook method is time consuming for the project management and can take up to a year to realise.

The work to produce the workbook is extensive and requires all facts about the current problem. The advantage of the workbook method is that a very good dialogue is created between the project management and the affected stakeholders. The questions and problems surrounding the project are well processed and provide increased knowledge on the project for both the affected stakeholders and the project management.

Walks

Walks are a method that can be used at the start of a project and/or at the completion of a project to evaluate the result. Walks mean that the project management and the affected stakeholders take a walk around the site of the construction project. The participants follow a set route around the site and stop at a number of selected places. At these places, the participants write down their observations individually. When the walk is over all participants gather to and discuss their observations.

The method of walks is a fast and easy way for the project management to get indications of the problems concerning the site. The method is also good to combine with other methods for creating dialogue between project stakeholders.

6.5   Tollgates or Decision Points in Project Management

A way to bring structure into the different methods of managing and analysing external stakeholders is to use tollgates or decision points, where clear objectives are set at each decision point that must be met in order to continue the project.

PROPS, the project management model developed by Ericsson (Ericsson Radio Systems AB, 2000) has a base of six tollgates at the intersection, between predefined

project stages. At each tollgate the project owner (or –sponsor) shall determine the future course of the project.

The tollgates provide a project model that is flexible and based on the perspective of the life cycle of the project, appropriately applied the project model ensures: (Ericsson Radio Systems AB, 2000)

- That the project will be initiated and procured in a businesslike manner.

- That the potential gain for the customer as well as for the project organisation (and other stakeholders, author's remark) will be observed.

- That scarce resources are managed in a manner that is most desirable for the project organisation.

In appendix 3, a hypothetical model, for further studies on decisions points for construction projects is presented (see figure 6.7).
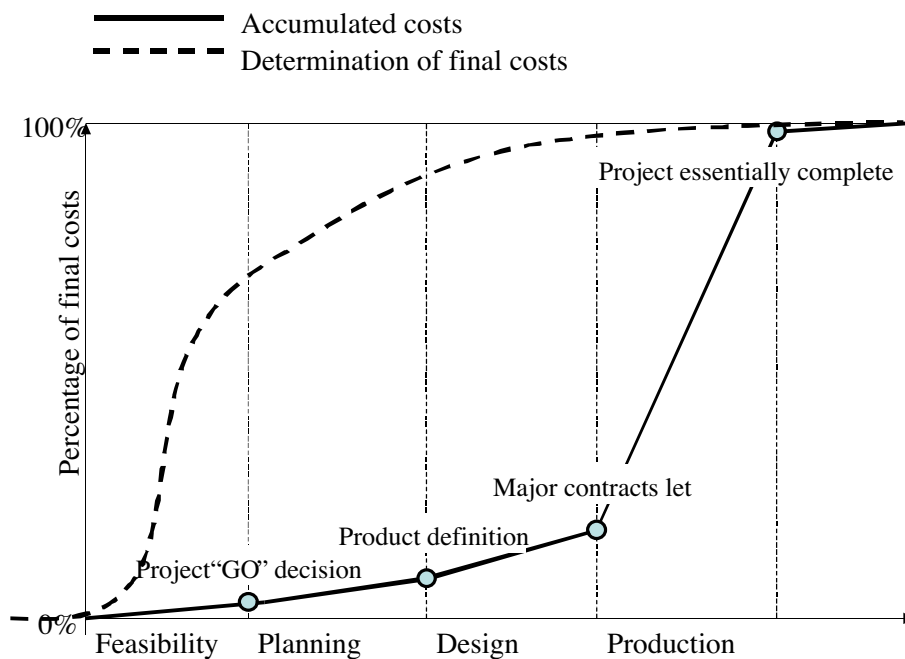

Figure 6.7. Decision points combined with determination of final project costs. Adapted from Söderberg (1978).
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7 Discussion and Conclusions

7.1 How do conflicts and controversies affect a construction project?

The case studies revealed that controversies with external stakeholders are a time consuming and costly process. However, a majority of the project managers that has been interviewed in the case studies, are of the opinion that the outcome of the project has improved because of the new information that was obtained and the changes that were made on the basis of the controversies surrounding the project. The problem is that these improvements have come mainly from confrontation instead of communication with external stakeholders. Improved communication can be the answer to attaining the benefits of a controversy and at the same time avoiding the negative outcomes. However, the problem is to define how the communication should be conducted in order to efficient.

7.1.2 A time consuming process

The case studies have shown that the most apparent affect controversies have on a construction project is time consumption. Case study 3 (see appendix 2) showed that the power external stakeholders had to affect the implementation of the project was that they could delay the project. Directly by appealing the decisions to approve the execution of the project to a higher instance, and indirectly by influencing decision-makers to make further investigations about the implementation of the project.

The demands for further investigations extends the planning process, which delays the project. However, the demands for further investigations can be a productive contribution to the project if the demands are valid. If demands for further investigations are only made to delay the project, or to express the views of a special interest, they may be counter-productive. An example of this is case 3 in case study 3 (see chapter 2.3.3, and appendix 2) where a vast number of investigations where made which basically said the same thing.

The other time-consuming factor is the juridical process of appeals, which does not contribute to the project and is only a process by which time is lost. An other problem is that a juridical process obstructs the opportunity to reconcile conflicting interests (Susskind, Cruishank 1987), because of the fact that the task for the instances of appeal is to interpret the law, not to reconcile conflicting interests. Project management

should therefore try to identify possible arguments for appeal early on, and try to consider these during the normal planning process. However, if a juridical process of appeals are inevitable, this process must be planned for by the project management in order to reduce its damaging effect.

The sometimes long process from idea to approval is perceived by the developers as a major factor of insecurity for the project and its implementation (Swedish Parliamentary Auditors, 2000/01:14). Project management has invested resources and capital in the project involving increasing costs the longer the process is, which in return ties the project management to earlier decisions and decreases its flexibility to make changes which increases the risk for escalation of project decisions (see appendix 3).

7.1.2 A costly process

A time-consuming process is costly, mainly because capital has been tied up in the investment. The longer the capital is tied up in the project, the longer it takes before the revenues can be lifted. This means that the project owners must have a capital base and the liquidity to maintain project implementation. In all of the cases, in case study 3, (see appendix 2) the project owners have been large client organisations with resources to maintain project implementation, but a smaller client organisation may have problems with their liquidity and hence may be forced to terminate the project before completion.

It is consequently of importance to evaluate the effects that a controversy can have on the economy of a project, in order to know when to proceed, or more importantly, when to abort if that is a rational choice, in order to minimise the sunk-costs. Project termination before project completion and late project changes gives an effect of substantial sunk costs, a problem that is addressed by IVA (1998). In case 1, case study 3 (see chapter 2.3.3, and appendix 2), the whole project had to start over from scratch, which resulted in 8 years of project work becoming obsolete.

7.1.3 Information versus communication

Although legislation emphasises the necessity of providing information to affected stakeholders (see chapter 4.1), the results from the case studies show that effective communication is not necessarily the result when such information is made available. Effective communication must consist of some necessary information, however, the emphasis should lie on two-way communication in the form of dialogue rather than the one-way communication that information exemplifies. If a dialogue can be created it may be easier to identify the true nature of a controversy or conflict, and thus it is easier to resolve the controversy or conflict.

In the cases in case study 3, there has been little or no dialogue between project stakeholders. Project managers in all projects emphasised the need for good and timely information, but had not tried any active methods to create a good dialogue. This had

the result that the dialogue that did occur was mainly about whether or not the project should proceed and not about how the project should be implemented to better meet the demands of various stakeholders.

The role of project managers as good communicators must not be underestimated. The lack of dialogue, in the case studies, also resulted in a somewhat biased medial attention. All projects had lived and live in a climate of bad press that has concentrated on arguments from a relatively small public opinion and not more objectively, on why the project should or should not be implemented

7.2 Conclusions

The case studies have shown that controversies and conflicts are not necessarily counter-productive. Although stakeholders often referred to the negative effects of conflicts, project managers stated that consideration of conflicts during the project sometimes resulted in improved outcomes. In view of this it appears that project managers need to emphasise the positive aspects of conflicts and controversies, in order to encourage all those involved to try to resolve them at early stages of the project.

The case studies also showed, that it is not the conflicts that are the problem, but rather the relationships between project stakeholders. Through good stakeholder identification, possible trade-offs may be identified in order to negotiate solutions and resolve a conflict. In addition, if no trade-offs can be identified, project managers need at least to understand the nature of the conflict in order reduce its damaging effects, and if possible develop the positive aspects of the conflict.

Thus, the contribution of this study to construction project managers is:

- An increased knowledge of how an external stakeholder management process presents it self in construction projects, mainly by the case study 3 (see appendix 2)

- Suggests different strategies to an external stakeholder management process.

- Suggests different tools that can be used for analysing the influence of external stakeholders. The main tool, described in this study, is the stakeholder map and the power interest matrix. In appendix 2 this tools are used to evaluate the stakeholder management process for the studied projects.

Furthermore this study points to the importance of the project management to identify those stakeholders who can affect the project, and then managing their differing demands through good communication. Good communication should reduce the risk of unresolved conflicts that may arise between, for instance, project management and external stakeholders. The challenge for the project management is to find the best solution for all stakeholders involved and try to get an acceptance for that solution,

which probably is only possible through a good and communicative dialogue, and after a carefully conducted stakeholder management process.

This would indicate that a more ambitious strategy in the external stakeholder management process would increase the possibility of resolving conflicting interests. However, a more ambitious strategy also requires more resources. Hence, the dilemma for the project management is to balance the use of resources with the appropriate strategy towards each individual stakeholder group.

7.3   Further Research

Further research is needed to examine what the costs are for conducting an external stakeholder management process, and, maybe more importantly what the costs of not conducting a sufficient external stakeholder management process are. In addition, there is a need to examine the outcome different external stakeholder strategies in different stages of a construction project.

Furthermore, the tools presented in this study are basically tools for evaluation and not for prediction of stakeholder influences. Further studies is needed to examine how the proposed tools can be used to predict the possible outcome of a stakeholder management process, and how the tools can be combined with cost-benefit analysis and risk management tools.

Appendix 3 outlines a hypothetical model for further research in this area, where it is suggested that to avoid escalation of project decisions due to an insufficient external stakeholder management process, the project management should conduct a combined risk-, stakeholder-, and cost-benefit analysis at predefined decision points in the project process.

For my further research in the area of external stakeholder management, a refined system has developed, from this study (see figure 7.1).
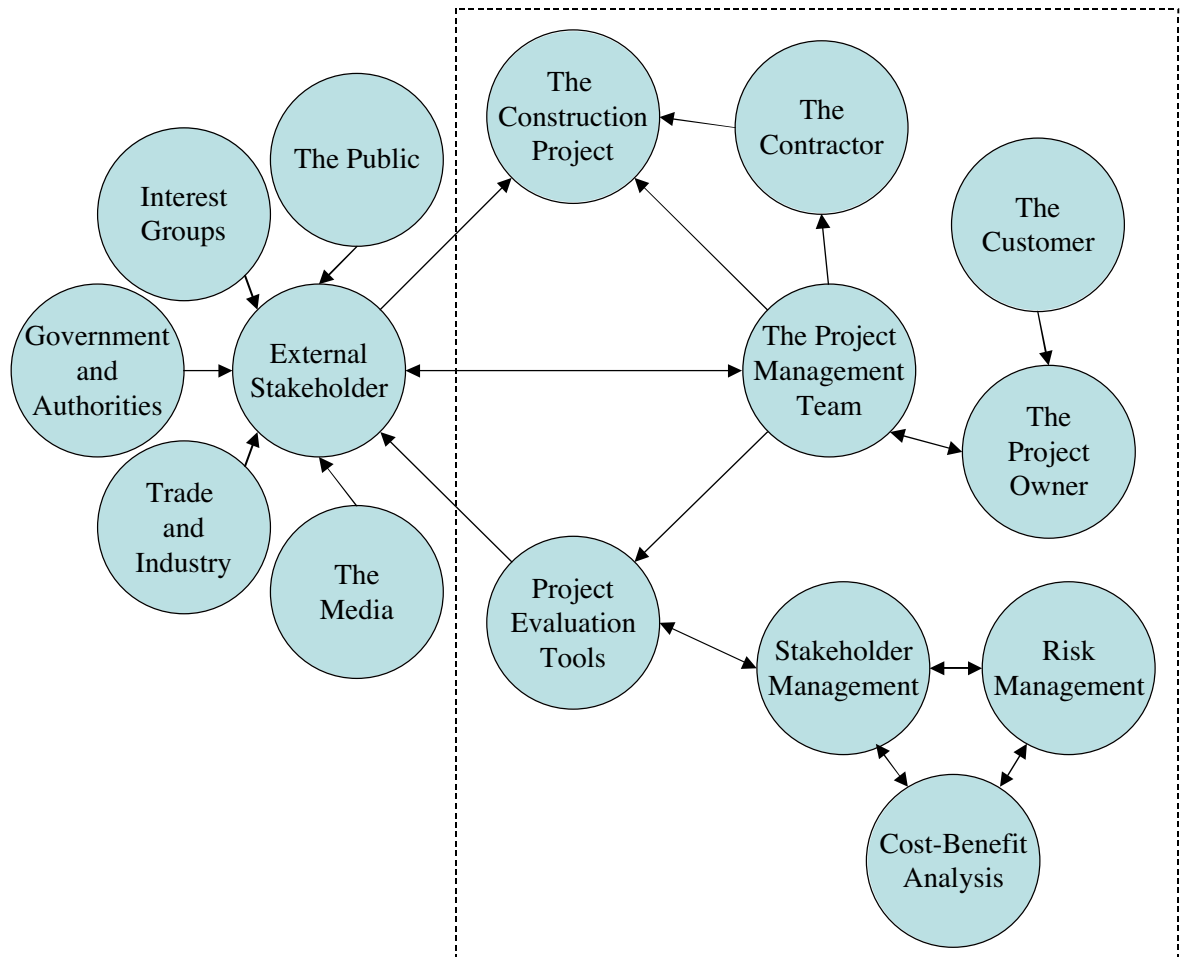
Figure 7.1. Refined system for research about an external stakeholder management process

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