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A Study of Construction Project Stakeholders' Management Methods and the Critical Success Factors Essential for Successful Management in Stockholm Region.

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A Study of the Methods for Managing Construction Project Stakeholders and the Critical Success Factors for Effective Stakeholder management in Stockholm Region

ABSTRACT

Project Stakeholders are people who are subjected to, part of, or have decision making over the project and it is significant to identify and effectively manage them in order to avoid project delays or failures. In construction project stakeholder management is one of the key elements that must be included in the planning from the start as this may become a key risk-management issue (Bourne and Walker, 2005). This is necessitated by the notion that construction projects are the most affected by the negative stakeholder actions that normally result in project delays and costs overruns. This study explored the methods and the critical success factors essential for managing stakeholders in construction projects organization in Stockholm region. The study cited major problems faced by construction organizations and the methods used to solve them. Multiple case studies were done in three construction organisations that were managing their project stakeholders. The results showed that "managing with social responsibilities" was an important factor, which was renamed by previous researchers as "pre-condition of stakeholder management". Other important factors found included communication with and engaging stakeholders properly and frequently, formulating clear statement and project objectives, keeping and promoting good relationship and predicting the influence of stakeholders accurately among others. The results of this study provide examples of the methods that can be adopted by construction projects in order to minimize the negative impact of stakeholder actions. Content analysis method was used in this research and categories formatting was used to measure two quantification levels that showed frequency and intensity. Frequency measurement gave the grouped the Critical Success Factors into categories and ranked them in terms of importance and intensity measurement allowed comparison of each factor with the others and showed those critical success factors which were used mostly by the three construction organisations. The major problems identified in this study relate to "managing with social responsibilities" especially the legal aspect.

CHAPTER 1

INTRODUCTION

Different stakeholders have different levels and types of investments and interests in the projects they are involved in (Atkin and Skitmore, 2008). Stakeholders need to be managed and their power and influence mapped so that their potential impact on projects can be better understood. Stakeholders can be a key risk-management issue for project managers in construction organization and it is important to include them in the project plan. Various researchers have viewed importance of Stakeholder Management in large construction projects and studies have been carried out on this topic. However, despite of much study in this area, construction projects have little record of how Stakeholder are managed in their organisations (Newcombe, 2003, Olander and Landin, 2005) and El-Gohary et al (2006). Thus, only a few construction project organisations include stakeholders as an element in their project plan. Scholars have raised a number of reasons as the cause of problems and these include: lack of engagement in Stakeholder Management and the complexity and uncertainly of projects. They find that as each project is a unique undertaking with different stakeholders of different interests and powers (Loosemore, 2006). Other causes include 1) inadequate engagement of stakeholders 2) project managers having unclear objectives of stakeholder management 3) difficulty in identifying the invisible stakeholders and 4) inadequate communication with stakeholders (Loosemore, 2006, Rowlinson, Bourne and Walker, 2006 and Cheung, 2008). It is therefore crucial to understand the methods and the critical success factors essential for the successful stakeholder management. The purpose of this study is to investigate the current methods for managing stakeholders in the literature and relate with the results of the multiple-case studies done in Stockholm region. The purpose is to provide examples that can be useful for construction project organisations in Stockholm. The aim is to encourage construction project organisations to proactively manage their stakeholders to avoid the negative impact of their actions on projects.

1.1. Problem Statement

The negative effect of stakeholders' actions is one of the major problems experienced by construction projects and this, if left unmanaged, becomes a risk issue. A number of researchers have done studies on stakeholder and their impact on projects. Loosemore (2006) states that some of the causes of the problem are that construction industry has poor record of stakeholder management during the past decades due to the complexity and uncertainty of construction projects. Yang, et al (2009) and Hammad, Salah (2013) did research in Hong Kong and Kuwait respectively, about the Critical Success Factors essential for successful construction project stakeholder management and a list of factors and came up with two lists of CSFs. However, Yang et al (2009) recommended that the validity of their study based on surveys, should be further validated by case studies of which details can be presented. Furthermore, since the surveys were carried locally in Hong Kong the findings may not be generalized to other geographical locations. This is because the unique nature of construction projects means that the cultural dimension is important as it pervades production process, purchasing and communication. The mindset of team members differs due to the traditions of the people and nations (Ochieng E.G., and Price, A, 2009, Loosemore M. and Lee, P. 2001). According to Loosemoore and AlMuslam, (2001, and Mawhinney, (2001:76), the Arabic nations have low level of sensitivity of time and this is contrary to the cultures found in the United Kingdom where time is very important especially for project schedule. A research on a new Chinese Hotel construction showed that cultural influence can affect construction projects' outcome as there is problematic context of communication in different cultures. Culture influences communication methods and building and keeping relationships. Besides, the different perspectives and different styles impact on overall performance of the project (Ochieng and Price (2009). Furthermore, the Chinese hierarchy in decision making by management may not fit for in the Nordic nations. Compared to the United Kingdom the Chinese make a complete project plan of the project before the starting while in the United Kingdom, the planning is done stage by stage during the project's execution

(Loosemoore, M. and Lee P, (2001). It is therefore important to explore the factors in different geographical regions in order to ascertain which methods and the critical success factors are important.

1.2. Research Questions

Given the problem statement, the research questions for this study are:

How do the major construction organisations in Stockholm manage their Stakeholders? What are the Critical Success Factors?

1.3. Aim and Objectives

The aim of this study is to explore the methods used for managing construction project stakeholders in Stockholm and identify the critical success factors (CSFs). Researchers have identified several Critical Success Factors and the objective is to do a semi-structured interview to find out which Critical Success Factors are important for successful management of stakeholders in the three construction project organization in Stockholm. The purpose is to compare the results from each construction organization and related the result to the theory in the literature.

The objectives of this study therefore is to:

1. identify the methods used for managing stakeholders in major construction companies in Stockholm.
2. categorize and group the CSFs to show which ones are important for managing stakeholders in construction projects in Stockholm region.
3. explore critical success factors contributing to the successful management of the projects stakeholders Stockholm region.
4. compare the findings from each project organization and relate them results with the theory in the literature to validate the study.

1.4. The Scope of this Study

- To do literature review of the various methods of Stakeholder management
- Analysis of the negative factors of Stakeholders' action on construction projects
- Review the Stakeholder Management process in the three participating organisations
- Investigating the problems caused by stakeholders in construction projects in Stockholm
- Explored the methods and critical success factors essential for successful stakeholder management

CHAPTER 2

2. RESEARCH METHODOLOGY

This chapter defines the process of the methodology used for data collection and analysis. Also, it describes the strategy and reason for choosing the Multiple Case Studies. Sources of data are literature review and face to face interviews in three construction organisations, namely Stockholm City Slussen project organization, Ikano Real Estate organisation and Peab Construction organization. The research flow follows the procedure in studies by Robert Yin (2003, 2006), Baxter *et al*, (2006). A list of questions was sent prior to the interview date and these were discussed in a face to face meeting. Although the discussions covered all the points listed, it did not follow the sequence as the respondents were more comfortable when explaining the methods they use without referring to the questions.

The choice of the methodology was primarily based on the "purpose" of the study and "data" in order to gain in-depth understanding of the methods used by construction projects for managing their stakeholders and the Critical Success Factors. The analysis conceptualized the findings in which categorization of the CSFs was done in order to measure their importance in relations to each other and give an idea of what CSFs are most essential in the three construction project organizations.

2.1. Qualitative Methodology

The qualitative methodology adopted used literature related to stakeholder management and data collection through multiple case studies in three organisations. This technique provided in-depth understanding of how stakeholders are management in the three construction project organisations in Stockholm and what are the Critical Success Factors essential for the successful management of Stakeholders. The three organizations are Stockholm City Slussen project, Ikano Real Estate Company and PEAB Corporation, which exhibited interest in participating in the study, where this research was discussed in detail. Other construction organisations approached either did not have the right person to participate in the interview or did not manage their stakeholders. Qualitative method permitted examination of certain issues and the use of open-ended questions allowed issues to be discussed. Furthermore, the rigor of qualitative multiple case studies afforded the opportunity to explore the phenomena in the context of identifying the critical success factors through interviews with professionals in the three construction companies. The current practices and approaches were explored in order to relate the methods to the literature and to find a connections.

2.2. The Research Strategy

The multiple case studies provide a multi-dimensional perspective that can be used to create a shared view of the phenomenon. In this study, the factor "managing with social responsibilities" was found in all the three construction project organisations but each gave different perspectives of what this mean to them and how the factors are essential. In Stockholm Slussen's this factor is essential in the perspective of environmental and the legal in that stakeholders in this project organization want to sustain the old environment and they take legal action to stop the construction works. In Ikano, the essential of managing stakeholders lies on economic and environment in that the organization builds residences that are economically affordable to the ordinary citizens. Ikano also give the perspective of environment by construction the houses in the outskirts of the city in clean environment to avoid congestion. In PEAB the focus is on profit and economic gain, and the obstacles are the legal problems created by Municipalities stakeholders when permits are required to acquire land. Through interviews, it was possible to explore the different perspectives of the factor "managing with social responsibilities" which was found in all the three project organisations and other critical success factors discussed in the finding section (Remenyi, *et al.* 2002, p.5). Other critical success factors were also found and each project organization gave different perspective of the methods they used to manage to

stakeholders. This is inconformity with the Case Studies Strategy which is an empirical inquiry that investigates a contemporary phenomenon within its real-life context (Yin, 2003a pp.15).

2.3. Research Design

In designing the multiple case studies the argument for the logical steps has been considered to link the research question to data collection and to analyze and interpret in a coherent way in line with (Yin, 2003a pp.19-21). Five components were considered, namely the study questions, its propositions if any, its units of analysis, the logic linking of the data to the propositions and the three types of interviews was semi-structured in this study. An exploratory approach was chosen in the multiple case studies. A major issue in designing this multiple case study research was the maximization of conditions related to design quality, i.e. the criteria for judging the quality of research designs considered construct validity, internal validity, external validity and reliability. (Yin, 2003a, pp.19, 33-39).

2.4. The Research Process

The methodology framework of this study is illustrated in the research process Diagram 1, and includes methodology, purpose and outcome of the study. The research process followed the structure adapted and revised from Yang, et al, (2009) as illustrated in diagram 1.

The Research Process

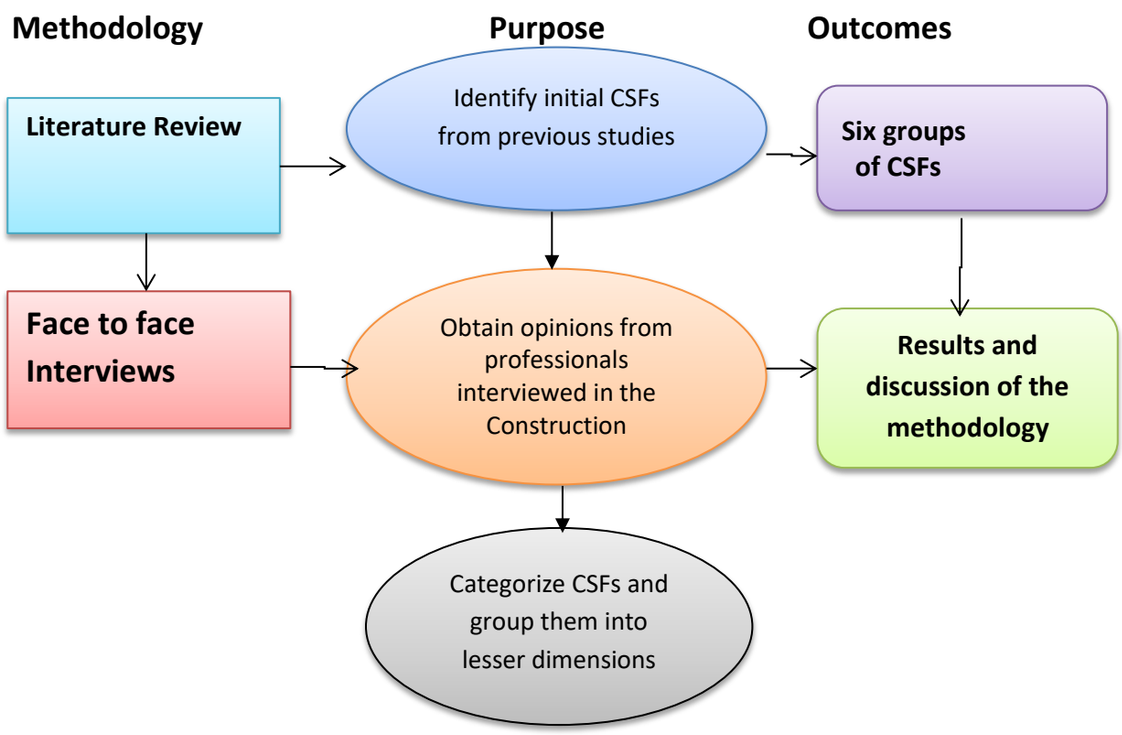


Diagram 1: Research Framework (Adopted and revised from Yang, J. *et al* 2009)

When choosing research method, consideration was given to the purpose of the research, data, analysis and the expected results. The choice of data analysis was made to suite the data samples, and the choice of qualitative research was based on the purpose of this study.

2.5. Choosing Study Approach – Exploratory

This study was exploratory multiple case study and it explored the situation in which the critical success factors of stakeholder management were applied in the three organisations. According to Yin (2003), case studies can be categorized as explanatory, exploratory, or descriptive he differentiates single, holistic and multiple-case studies. The choice of exploratory approach was made to ensure deeper understanding of the subject as different factors were explored in the cases and the findings compared in line with (Yin, 2003). This approach allowed real life study of methods used by the three construction organisations. The organisations were chosen due to their

sizes and strategies for stakeholder management as these are merger construction projects. Also, these organisations were found to be managing their stakeholders as opposed to other merger construction organisations in Stockholm region.

Multiple-case study achieved its purpose as it allowed the analysis within each setting and across settings to ascertain similarities and differences. This study was built on what other researchers have done and this helped this researcher to focus on what was needed to be studied.

2.6. Advantages and disadvantages of the Approach

The Multiple-case study was found useful in exploring the different methods used in the construction companies for managing stakeholders and to understand how the methods were applied in line with Yin, R. (2003). Multiple case studies can be used to either, "(a) predicts similar results (a literal replication) or (b) predicts contrasting results but for predictable reasons a theoretical replication" in line with (Yin, R. 2003 p. 47). This type of design has its advantages and disadvantages in that while the evidence created from the type of study is considered robust and reliable, the approach was time consuming as each case was analyzed in its own basis.

2.7. Data Collection

Data collection was from different sources in which primary data was collected through interviews and face to face study was done. Although telephone interviews could have been faster, it would not allow elaborate discussion that face to face offers. Four people participated in the interview and the choice of these people was made by the construction organisations' management in line with their positions and roles they had in the projects. The respondents elaborated on their answers and it was possible to ask for clarifications. Secondary data were collected from Articles such as Journals and previous research on stakeholder management. The literature was compared with the findings of the interview (CSFs), which were then categorized in line with (Yin 2003). The data collection strategy provided data that gave the general idea of what methods are used in construction projects and this confirmed and consolidate the theory in the literature review.

The participating organisations were: Stockholm Slussen project Organisation, Ikano Real Estate organization and PEAB Construction organization. The first contacts with the case study organisations were directly made through Headquarters where the names and contact telephone numbers of the responsible managers to be interviewed were given. The individuals were experts in project stakeholder management and were selected because of their knowledge of the industry and experience in managing project stakeholders. They were backed by several years of experience, ranging from 5 years to 23 years. The managers played different roles in their organizations at different positions and levels. The interviews conducted in the offices of the construction companies, (interviewees' offices) lasted between 1 hour to 1.5 hours, depending on the interviewees' available time slots and how many comments they gave. At Stockholm's Slussen, the first interview was carried out with the Project Manager and the second interview was done with the Communication Expert for the project in charge of Stakeholder Management in the Project Office (*Exploaterings Kontoret*) on 20th May, 2016. Both interviews lasted a total of 1 hour and 30 minutes. At IKANO a semi-structured interview with the Director of Project was done at the Ikano Headquarters in Sundbyberg on 9th June, 2016 and the interview took 1 hour. While the interview at PEAB was varied out with Director of projects and the interview also lasted 1 hour.

2.8. Description of the participating Organisations

Stockholm City's Slussen Project: Construction of the new Slussen Projects. This organization was chosen because it is a major construction project with two million stakeholders. The Slussen project is only second after the Stockholm Central Station Sub-way. It is a good example of a construction project organization which has stakeholders with different interests and stake in the

project. Besides the project affects a large region around lake Mälaren with many stakeholders. An understanding of how the construction project organization managed the large number of stakeholders is presented in the findings section.

Ikano Real Estate organisation: Construction of residential apartments at Ulriksdal. This organization was chosen as its primary stakeholders are its customers. It was interesting to find out how the construction organization satisfied its stakeholders needs.

PEAB Construction Corporation organisation: Construction of the "The Mall of Scandinavia" at Friends Arena in *Arena Staden,* Solna. This organization was chosen because it is the largest construction organization in Stockholm. Also, the constructions are carried out inside the cities where different type of stakeholders are found and this is important in study as it provides diversity.

Table 1: The Profiles of the Experts interviewed

	Expert Role in the projects	**Position**	**Years of Experience**
1	Stockholm City Slussen Project Organisation	Project Manager	21
2	"	Communication Manager	5
3	Ikano Real Estate Construction Organisation	Project Director	23
4	Peab Construction Organisation	Project Director	15

During the face to face, interviews, verbally administered questions from a list of pre-determined questions were asked. Detailed answers were obtained as the method allowed the respondent to expound on the topic. Semi-Structured interview method helped to limit the boundary of discussion while allowing transparency and provided a better understanding of the methods used to manage stakeholders in the three companies and the critical success factors. Open-ended questions asked during the interviews allowed issues to be discussed and this enhanced the quality of the research result because clarifications were made during the interviews and managers expressed their experiences, the problems faced by the projects how they resolved the problems and Critical Success Factors (Yin, 2003a, pp.97-98). The process of data collection involved i) identification of the three construction organisations ii) finding out the effective methods of managing Stakeholders in the three organisations iii) identifying the CSFs through face to face interviews, and iv) comparing the methods and matching the CSFs to show similarities and differences with a view to ascertain the commonality that could be used in categorization and grouping.

2.9. METHOD

This study used documents, archival records on websites, articles by various researchers, and interviews. Data was collected through face to face interviews in the three construction companies in Stockholm. Data was matched and categorized in order to build compare and relate the Critical Success Factors. Content Analysis has been used to determine the CSFs found in the three construction organisations and the underlying relationships. Comparison of the Critical Success Factors was done with theory in the literature.

2.9.1. Content Analysis

Krippendorff, (1969, p.103. 4) defines "content analysis as the use of replicable and valid method for making specific inferences from text to other states or properties of its source". Content

analysis is a set of procedures for collecting and organization information in a standardized format that slows analysts to make inferences about the characteristics and meaning of written and other recorded material. This method is used for analyzing trends, detecting differences, measuring frequencies and intensity of statements (GAO, 1989, p.6). Content analysis is the longest established method of text analysis among the set of empirical methods of social investigation. Qualitative content analysis defines itself within this framework as an approach of empirical, methodological controlled analysis of texts within their context of communication, following content analytical rules and step by step models. Content analysis research methodology is used in this study because the method has external validity as a goal. Because of its focus on human communication, content analysis offers practical applicability and relevance for research which is appropriate for analyzing interview results.

This specific type of content analysis approach was chosen in line with (Weber, 1990), who states that the approach should be in line with the theoretical and substantive interests of the researcher and the problem being studied. At the beginning of the coding, the directed approach in which analysis starts with a theory or relevant research findings as guidance for initial codes was used. When comparison was done the summative content analysis that involves counting and comparisons of keywords or content was used followed by the interpretation of the context in line with Cavanagh, (1997). In the comparison, the CSFs found in the three sample organisations were compared and related to previous research. The three approaches that are normally used to interpret meaning from the content of text data were considered and in order to adhere to the naturalistic paradigm, i.e., conventional, directed, and summative were used at different stages of the study.

2.9.2. The Steps of the Content Analysis

The process of content analysis is lengthy and may require going over and over the data again to ensure that thorough analysis is done. The content analysis followed the ten steps:

1) First the transcript was read through and brief notes were made to find relevant information.
2) The notes were made in the margins and list of the different types of information found in the text were marked.
3) The list was read through categorizing each item in a way that offers a description of what it is about.
4) Identification of the CSFs was done to ascertain whether or not the categories can be linked in any way with the groupings in the literature, and with the list of major categories found from the interviews.
5) Comparison was done and contrast made of the CSFs and the categorized groups from the sample organisations.
6) This was done with the findings from three organisations and then the first five steps were repeated again for each organization.
7) All were collected to examine each in detail and the fitting and relevance in the context were considered.
8) Once all the transcript data had been categorized, they were reviewed to ensure that the relevant Critical Success Factors were grouped and categorized as should be.
9) Review all of the categories of the CSFs were done to ascertain whether some categories can be merged or if some need to be grouped in sub categories.
10) In order to ensure that information needed was categorized, a return to the original transcripts was made.

The object of qualitative content analysis can basically be any kind of recorded communication, i.e. transcripts of interviews/discourses, protocols of observation, video tapes, written documents in general etc. As Multiple case study research usually corresponds to such a comprehensive study and the major strength is data in collection different sources of evidence can be used Yin (2003a). This allowed for addressing a broader range of issues about Stakeholder management Critical Success Factors in line with (Yin, 2003a, pp.97-98).

Coding was used in order to compare and relate factors found in the three participating organisations and compare with CSFs in literature.

Coding or Indexing: means to assign a word or a phrase that summarizes a section of language-based or visual data. This method was chosen for its capability to capture whatever is salient and essential in the text in line with Saldana's framework (Saldana, 2009). The strategy of this research is to gather data from interviews, analyze the findings and create a guidelines of methods that can be used to manage construction projects in Stockholm. In coding the interview results, the group categories were given as CG1….CG6 and CSFs CF…CF15 to enable the comparison of the finding and to relate to the theory. In relating the findings with the theory, Hammad, S. (2013) grouping of the CSFs was used as this gave a wider view and a more comprehensive list of the Critical Success Factors. Hammad's 30 CSFs include Yang's (2003) CSFs. The comparison looked into the similarities of the methods used by the three organisations. The result was related to the theory to show similarities and differences and the dominant Critical Success Factor. In this study "managing with Social responsibilities" what found to be dominant.

The categorization of CSFs gave the similarities of the methods. The results gave generalization of the CSFs at the abstract level. Thus, conceptualizing the data in line with Löfgren, Kent, (May 19 2013) and in line with Yang, *et.al,* (2009) was done with CSFs and how they relate to each other are shown by the use of coding symbols CF1…CF15. There are three methods of labelling categories, namely, 1. Adaptation 2. Seeking information and 3. Problem Solving. Adaptation was chosen to establish the connections in order to group the CSFs.

2.10. Advantage of using Content Analysis

When content analysis is used to focus on the characteristics of language as communication with attention to the content or contextual meaning of the text (Budd, Thorp, & Donohew, 1967; Lindkvist, 1981; McTavish & Pirro, 1990; Tesch, 1990; Kondracki & Wellman, 2002). Qualitative content analysis goes beyond merely counting words and phrases, but also examines language intensely for the purpose of classifying large amounts of text data from the interview results into an efficient number of categories that represent similar meanings (Weber, 1990).

CHAPTER 3

LITERATURE REVIEW

3. INTRODUCTION

Construction projects have many Stakeholders whose composition is often large and include: the owners and users of facilities, project managers, project architects and engineers, designers, shareholders, local authorities, legal authorities, employees, subcontractors, suppliers, process and service providers, competitors, banks, insurance companies, media, community representatives, neighbors, general public, government establishments, visitors, customers, regional development agencies, the natural environment, the press, pressure groups, civic institutions, and the list is almost endless (Newcombe, 2003). According to Newcome, project stakeholders are groups or individuals who have a stake in, or expectation of, the project's performance. The number of stakeholders involved or interested in the project normally increases the complexity and uncertainty of the situation. Each stakeholder usually has different interests and priorities that can create conflict or disagreements with the project (Karlsen, 2008). Their influence may have an impact on the course of a project at some stage and some of stakeholders´ influence may impact the project more often than others. Thus, when diverse stakeholders are present in a construction, the project must to set up a plan for managing them in order to succeed.

Stakeholders can be defined as people who have the power to impact an organisation or project in some way. "People or small groups with the power to respond to, negotiate with, and change the strategic future of the organization or project" (Eden and Ackermann 1998: 117). Bryson (2004: 22) in his influential book "Strategic Management" defines a stakeholder as: "any group or individual who can affect or is affected by the achievement of the organization's objectives". Newcombe, (2003) studied the concept of the construction project stakeholders as "multiple clients" for construction projects and thought it was necessary to distinguish them from the term "client", which referred to the financial sponsoring organization who is directly responsible for the production and development of a project. Project Management Institute (PMI 2008 in PMBOK 2013, 391-415) defined project stakeholders as "individuals and organizations who are actively involved in the project, or whose interests may be positively or negatively affected as a result of project execution or successful project completion."

Stakeholders can be divided into internal and external, internal stakeholders being those directly involved in an organization's decision-making process (e.g. owners, customers, suppliers, employees) and external stakeholders being those affected by the organization's activities in a significant way (e.g. neighbors, local community, general public, local authorities). In construction, there has been a strong emphasis on the internal stakeholder relationship such as procurement and site management, while the external stakeholder relationships to some extent have been considered a task for public officials via the rules and legislation that concern facility development (Atkin and Skitmore, 2008). Newcombe (2003), and Smith and Love (2004) used a similar classification of inside and outside stakeholders and direct and indirect stakeholders.

Carroll and Buchholtz, (2006) classify stakeholders as primary and secondary and state that primary stakeholders are a group of people whose continued participation in the project is important for the survival of the project organization in that the organisation cannot survive when they do not participate in the project work. Whereas, secondary stakeholders are those who influence or are influenced by the organisation. This class of stakeholders may be able to influence the organization or the organization may influence them. Primary stakeholders could be contractors who provide services (e.g. contractors, subcontractors, consultants) or those in direct relationship with an organization; as opposed to secondary stakeholders who have no contracted responsibility or formal involvement in the organization but are in an indirect or secondary relationship with an organization (Smith and Love, 2004; Carroll and Buchholtz, 2006). Mitchell *et al.* (1997) proposed an approach for classifying stakeholder's concern by combining various

attributes such as power, legitimacy and urgency. They categorize organisation stakeholders as Internal and External and their relationship with the organization. Stakeholders and their levels of influence vary according to the nature of the project, their investments and interests in the project. One of the common negative effects is when Stakeholders form a coalition to try to stop a project and important for project team to be aware of what are the essentials for managing them.

3.2. Classification of project Stakeholder

There are a number of reasons why it is necessary to classify stakeholders: namely, to provides a strong sense of stakeholder impact on projects when considering the other alternative concurrence of attributes, to determine the silence of stakeholders, to develop appropriate responses to manage them (Nguyen, et al., 2009, Newcombe, 2003), to assess how each stakeholder group is likely to enforce its expectation on the project; whether these groups have the means to do so based on the power they possess; and the likely impact of stakeholder expectations on project strategy. Methods for assessment are: power/predictability matrix and the power/interest matrix (Figure 1 and Figure 2).

The classification is done by analyzing who external and internal stakeholders are and dividing them into public, private, supply side and demand side as shown on Table 2. On the public side of External Stakeholders are the regulatory agencies, local governments, national government and public agencies. While on the private side are the external stakeholders includes local residents, local landowners, environmentalists, conservationists, archeologists, and other external stakeholders. Internal Stakeholders are mainly those who are working in directly with the project and are divided into Supply Side and Demand Side. On the supply side are those who are directly involved in the execution of the project and include architects, engineers, principle contractors, trade contractors, materials and suppliers. On the demand side are the client for whom the project is being constructed, client's employees, line managers, organisation's customers and suppliers.

Table 2: Grouping of Stakeholders: External and Internal

External		Internal	
Public	**Private**	**Supply Side**	**Demand Side**
Regulatory Agencies	Local residents	Architects	Client
Local Government	Local Landowners	Engineers	Financiers
National Government	Environmentalists	Principle contractors	Client´s Employees
Public Agencies	Conservationists	Trade contractors	Client's Customer
	Archeologists	Materials	Client's Suppliers
	Other external stakeholders categories	Suppliers	

(Source: Adopted from Winch's Framework, 2000)

Construction Project Stakeholders are part of organization stakeholders. Table 2 shows the different stakeholders in construction project and their roles. The consultants and contractors fall under the Internal Stakeholders and are part of the "Suppliers" as well as "funding bodies and sponsors". Municipalities/Land owners, surrounding communities, politicians and governments, regulatory bodies and in the External side and they have important roles in the construction project organisations. These roles of Various stakeholders are presented on Table 3.

The Client is the Sponsor of the project, Consultant who may be the project manager, contractors/sub-contractors perform the construction works. Funding bodies such as financial institutions, municipalities whose land the construction site is placed, the surrounding communities whose influence and interest may affect the project positively or negatively, the politicians and the government whose support is needed in the project.

Table 3: Roles of Project Stakeholders

Stakeholder Group	Objectives and Roles
Client	The client can be public or private. The main difference between a private construction project and a public project is that the client and the beneficiary are the same in private construction project and in the reconstruction housing project the main initiator is the beneficiary and benefit accrues to the communities affected (Siriwardena *et al.* 2010).
Consultant	Provides the consultancy advice for the project on designing, evaluating the cost, technical issues/advice (engineering advice electrical, civil etc.).
Contractor/Subcontractors	Engage in actual construction according to the designs, specifications, contract documents communicated by the relevant parties (Siriwardena *et al.* 2010).
Funding body/Sponsor	Ensures that the funds are utilized for the purpose and the sponsor makes sure that used according to the planned budget and time schedule. Ensures that deliverables are delivered on time at the specified and approved cost.
Municipalities/Land Owners	Provides the land on which construction work is carried out. Their support is important for the timely purchase, planning, execution and completion of the construction project.
Surrounding Communities	Their support, influence, interest in the project is important and must be assessed.
Politicians	The support of the politicians is important in project construction as they are the leaders of the communities surrounding the project. They influence and they have power.
Government and other Authorities such as counties	Ensure that the construction project is carried out according to laid down regulations and requirements.

(Source: stakeholder.mapping.com 2015)

3.3. Methods for Managing Stakeholders

According to Landing (2000), assessment of the different groups of Stakeholders is important in understanding the attributes of each group in order to choose methods for managing them. Stakeholders with "Low Stake" and "High Interest" can be helpful in decisions making and giving insightful opinions. The second group is those with "High Stake" and "High Interest" This group is important and are critical stakeholders who must be managed closely. A third group is the minor group with "Low Stake" and "Low Interest". This group requires minimal effort to manage and are least in priority and requires monitoring. The fourth group with "High Stake" and "Low are those who need to be either kept engaged in the project or kept informed or both.

Elias et al. (2002) state that mapping is normally used for identifying the groupings of stakeholders in order to ascertain their levels of influence, predictability and interest. The assessment can be done to show their behavior and predict their influence in the project. Given the dynamics of Stakeholders it is significance to map them in order to formulate strategies targeting the different groupings. Strategies may include those to resolve conflicts, compromise conflicts, promote good relations, formulate appropriate strategies and predict their reactions (Elias et al. 2002). According to Nguyen, *et al.* (2009), assessing power and interest can be more relevant when the level of the potential impact that external stakeholders have and the probability that impact of a given level will occur. Thus, the power/interest matrix could be translated into the impact/probability matrix Nguyen et al. (2009) and Olander (2006). This is illustrated in Figures 1 and 2). Bourne and Walker (2005) developed interest-impact index concept based in vested interest levels. In Figure 1, the power/predictability matrix shows different types of stakeholders labeled A to D. A: is highly predictable but have low power therefore they do not cause problems. B: has low predictability and low power therefore their actions are difficult to predict, but they can be managed. C: is highly powerful and highly predictable and this group of stakeholders requires close collaboration. D: is highly powerful but with low predictability and this is the group that can either be a great danger or a great opportunity, therefore their actions must be monitored. Figure 2 shows the power associated with the vested interest levels. In A low interest level with low powers requires minimal effort to manage, B: high interest level with low power must be kept informed, D: high power with low interest must be kept satisfied and D: high power and high interest are the key players and must be managed. Figures 1 & 2 show the matrix for assessment of power and interest of stakeholders.

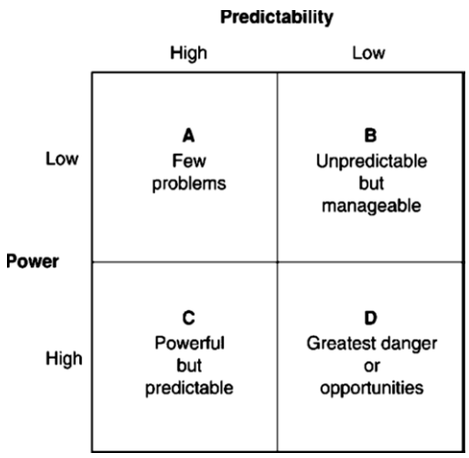


Figure 1: Power/predictability matrix (Newcombe, 2003)

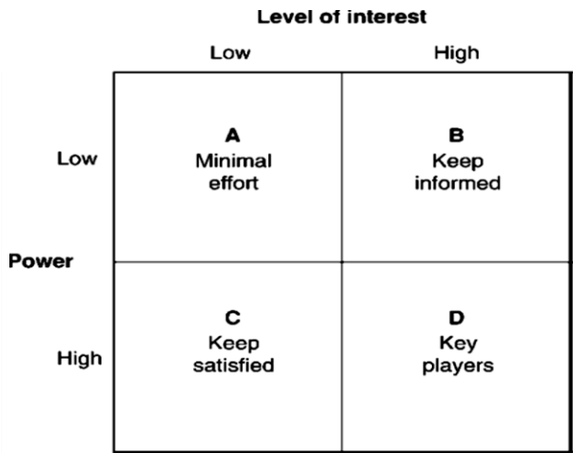


Figure 2: Power/Level of interest matrix (Newcombe, 2003)

According to Nguyen, et al. (2009), stakeholder level of impact could be calculated using the following formula:

$$I = P + L + U + K + D \cdots\cdots$$

Where:
I = Impact level of the stakeholder;
P = Power level of stakeholder;
L = Legitimacy level of stakeholder;
U = Urgency level of stakeholder;
K = Knowledge level of stakeholder;
D = Degree of proximity for the stakeholder.

On the parameters 'vested interest levels' (probability of impact) and 'influence impact level' (level of impact) concepts is derived from the risk assessment process that is associated with the probability impact analysis as shown in figure 3.

	High	
Low Level of Impact	Keep satisfied	Key Players
	Minimal Effort	Keep informed

Figure 3: The Stakeholders Probability of Impact (Source: Olander, 2007)

Karlsen, (2008), Grimble and Wellard, (1997; Olander, (2007), propose that if diverse stakeholders are present in construction undertakings, then the construction industry should formulate methods for managing them according to the levels of interest and the stake they have in the project. The four levels are normally applied according to the stakeholders management objectives based on the result of stakeholder analysis.

	Low Stake/Importance	**High Stake/Importance**
High Interest	Keep satisfied Interest protected: These Stakeholders can be helpful in giving insightful opinions. (Involve)	Key players Maintain good relations: These Stakeholders are critical and requires close collaboration (Collaborate)
Low Interest	Minimal effort: Least priority Stakeholders. Monitor them (Inform)	Keep informed: If you cannot get them engaged and interested, keep them informed (Consult)

Figure 4: The Four Levels of stakeholder management (Grimble &Wellard, 1997; Olander, 2007)

The different categories of stakeholders in figure 4, are divided into four levels (collaborate, involve, inform, and consult). The methods of managing the four different groups are explained by various researchers as follows:

1. **Inform**: low interest and low stake is managed by providing balanced and objective information to assist stakeholders in understanding the problems, alternatives and/or solutions. This requires minimal effort of stakeholder involvement in the project and they are not a priority. The stakeholders in this level with lower probability of impact are mainly External (Karlsen, 2002).

2. **Consult:** low interest and high stake in the project is managed by obtaining stakeholders' feedback on analysis, alternatives and/or decisions in order to keep them informed about the project. These are secondary stakeholders with higher probability of impact who need to be 'kept on board,' they should be consulted in order to seek their opinions and input for key decisions that directly or indirectly affect them (Grimble & Wellard 1997; Olander, 2007).

3. **Involve**: Stakeholders with high level of interest and low stake need to be involved in the project throughout the process and kept satisfied to ensure that their concerns and aspirations are consistently understood and considered. Despite their low probability of impact, stakeholders with high level of interest essentially need to be involved in all activities in the project according to their interest since they have the power to make decisions that impact the project (Grimble & Wellard 1997; Olander, 2007).

4. **Collaborate**: The key players in the project are those with high interest and high stake and it is important to partner with this group of stakeholders in each aspect of the decision since they have high probability of impact and high level of interest that can amount to project success. This group is likely to form a 'coalition of support' in planning and implementation of the project. As such, they should be treated as partners to increase their engagement and commitment in the project (Savage et al., 1991).

3.4. Previous Research on Stakeholder Management

Previous studies carried out by researchers like Newcombe (2003); Olander and Landin (2005); El-Gohary et al. (2006); (Loosemore, 2006), show that construction projects have little record of how stakeholders are managed and this is mostly due to complexity and uncertainty of projects as each project is a unique undertaking. Also, inadequate engagement of stakeholders, having unclear goals and objectives for managing stakeholders, difficulty in identifying the invisible stakeholders and inadequate communication with stakeholders have been cited in previous research. According to Pouloudi and Whitley, (1977), companies that successfully plan strategies for stakeholder management get positive results in the project implementation. The researchers recommend that the strategies should include steps for identification of stakeholders, gathering information, determining strengths and weaknesses, prediction of stakeholder behavior, and implementing stakeholder management strategy. Olander (2006), Cleland and Ireland, (2002), view project stakeholder management as process that involves executing the management functions of planning, organizing, motivating, directing and controlling the resources used. Jergeas et al. (2000) identified two aspects of improvements for managing stakeholders: communication with stakeholders and setting common goals, objectives and project priorities. Similar views are expressed by Yang, J. et al. (2009), that two aspects of improvements for managing stakeholders are communication and setting common goals, objectives and project priorities.

Karlsen (2002) provided a recursive six step process of project stakeholder management that include initial planning, identification, analysis, communication, action, and follow-up while Elias et al. (2002) proposed eight steps for managing the stakeholder process as i) developing a stakeholder map of the project; ii) preparing a chart of specific stakeholders; iii) identifying the

stakes of stakeholders; iv) preparing a power versus stake grid; v) conducting a process level analysis; vi) conducting a transaction level analysis; vii) determining the stakeholder management capability of the R&D projects; and viii) analyzing the dynamics of stakeholder interactions. Walker (2006) agreed with these views recommended three steps: i) prioritizing stakeholders; ii) developing a stakeholder engagement strategy; iii) visualizing stakeholders and monitoring effectiveness of communication as the basic steps. Jergeas *et.al* (2000) through a case study interview proved that setting common goals, objectives and project priorities are significant for improving stakeholder management. The long-term performance of construction and its ability to satisfy stakeholders depends on decisions made and the care taken by decision-makers in stakeholder communication Landin (2000). However, Jefferies, (2002); Yu, (2007) and Yang *et al*., (2009), viewed stakeholder management method as the Critical Success Factors (CSFs). CSFs are the activities and practices that should be addressed in order to ensure effective management of stakeholders in construction industry. Yang (2006) considers that identifying stakeholders; gathering information about stakeholders; and analyzing the influence of stakeholders are important factors.

3.5. The Critical Success Factors (CSFs) Approach

Attempts to find the most effective methods for managing stakeholders by various researchers have identified sets of Critical Success Factors (SCFs). Yang, J. *et al.* (2009) identified 15 CSFs and stressed the need to apply them in order to effectively manage project stakeholders. CSFs are defined as areas in which satisfactory results will ensure successful competitive performance for the organization or project (Rockart, 1979, in Yang *et al.* (2009). Similar definition is given by Saraph *et al.* (1989) who views CSFs as those critical areas of managerial planning and action that must be practiced in order to achieve effectiveness and success. CSFs are therefore methods that contribute to effective management of project stakeholders. These are those activities and practices that should be addressed in order to ensure successful management of stakeholders in construction project. Rockart developed the Critical Success Factors approach as a useful method for identifying the essentials of stakeholder management. He defined the Critical success factors approach as areas in which satisfactory results ensures successful competitive performance for the organization. Hammad, Salah (2013) identified 30 CSFs and grouped them into six major categories. The factors and their groupings according to Hammad, S.(2013) are shown on table 4.

Table 4 Essential Factors for stakeholder management process

Pre-Condition: "Managing with Social Responsibilities"	
GROUP 1: "Top Management Support"	
1	Managing Stakeholders with corporate social responsibilities
2	Flexible project organization
3	Project Managers competences
GROUP 2: "Information Input factors group"	
4	Setting common goals and objectives of the project
5	Identifying stakeholders
6	Exploring the stakeholder needs and expectation
GROUP 3: "Stakeholder Assessment Factor Group"	
7	Accessing stakeholders' attitude
8	Understanding area of stakeholders' interest
9	Predicting the influence of stakeholders
10	Analysing conflict and coalitions among stakeholders
11	Evaluating the stakeholders' power
12	Evaluating the stakeholder legitimacy
13	Understanding the stakeholders' urgency
14	Determining the stakeholders proximity
15	Determining the stakeholders' knowledge
GROUP 4: "Decision making factor group"	
16	Transparent evaluation of the alternative solution
17	Ensuring effective communication
18	Formulating appropriate strategies

GROUP 5: "Action and evaluation factors group"	
19	Implementing the strategy based on schedule plans
20	Flexibility in the implementing strategy
21	Evaluation of the stakeholder satisfaction
GROUP 6: "Continuous Support Factors Group"	
22	Communication with the engaging stakeholder properly
23	Stakeholder involvement in decision-making
24	Promoting a good relationship among stakeholders
25	Analysing the change of multiple stakeholder engagement
26	Obtain support assistant from higher authorities
27	Mutual trust and respect amongst the stakeholders
28	Reduce the uncertainty
29	Maintain alignment between or among the stakeholders
30	Access to resource and knowledge

3.6. The six groups of Critical Success Factors

1. Management Support Group

Top level or management support from the implementing agencies, is essential for effective stakeholder engagement (Yang *et al.* 2009b). In some projects, certain individuals at director level are tasked with the responsibility of overseeing their stakeholder management activities. Top management must endorse the principle of stakeholder consistently and wholeheartedly to guarantee successful stakeholder participants. Willingness to share power and resource that would benefit overall organization's goal is necessary (Brooke and Litwing, 1997).

1. Information Group

Freeman *et al.* (2007) believe that identifying stakeholder information is an important task for assessing stakeholders as this is the backbone of project success. Before undertaking any management activities, information about the project and its stakeholders, extensive research and analysis is required. The information includes project missions, full list of stakeholder, area of stakeholders' interests, and their needs and constraints to the project (Yang *et al.* 2009b). The stakeholders commitments, interest and power should be fully assessed so that the project manager can tackle the key problems in the stakeholder management process and the potential impact on success in the project.

3. *Stakeholder Assessment Group*

In real world, stakeholders have influenced projects in a variety of complex ways. In order to analyze the impact of stakeholders upon projects, it is necessary to identify and include the factors by which they do so. To enhance the understanding of project managers on stakeholders, their attributes, behavior, and potential influence need to be assessed and estimated. The conflicts and coalitions among stakeholders also could be analyzed based on information about stakeholders (Yang *et al.* 2009b). Once the information about the stakeholder is prioritized, the assessment of stakeholder on the basis of their impact and vested interested in the project could be done. This requires an accurate understanding of the stakeholder attributes in order to categorize them according to their attitude classification.

4. Decision making factor group

Based on the outcomes in 'information input', and the outcomes in 'stakeholder assessment', the project management team has the responsibility to compromise conflicts among stakeholders by choosing the transparent evaluation of the alternative solution based on stakeholders' concern, and to decide on the levels of stakeholders' engagement in order to ensure effective communication, and formulate appropriate strategies to deal with the issues raised at this stage.

5. Action and evaluation factors group

The action and evaluation group is the final management activity group in the process of stakeholder management. The inputs required are the formulated strategies, and the level of stakeholder engagement to ensure effective communication.

6. Continuous Support Factors Group

Construction projects are transient (Bourne, 2005), and organizations are correspondingly permanent. Since many stakeholders, such as government, local communities and media, would be involved in the project at a later stage of the process or in future projects, the change of their influence needs to be realized in order to promote a steady relationship with them in order to continuously communicate with them properly and frequently (Yang *et al.,* 2009a). Continuous support group also includes the activities which should be carried out to support the management activities. Continuous support comes from the activities within, and can be used for accumulating the experiences and knowledge of the project management team in the long term.

Researchers (Jefferies, 2002; Yu, 2007; Yang *et al.*, 2009b), state that the factors (CSFs) have been used as a means of improving the performance of the management process and Yang, J, Shen, G.Q., Ho, M., Drew D.S., and Chan, A.P.C. (2009) in their study came up with 15 factors based on the studies carried out by other researchers on construction project management and findings from literature in the various Journals.

The 15 CSFs are as follows:

C1. Managing stakeholders with social responsibilities (economic, legal, environmental & ethical);
C2. Formulating a clear statement of project missions;
C3. Identifying stakeholders properly;
C4. Understanding area of stakeholders' interests;
C5. Exploring stakeholders' needs and constraints to projects;
C6. Assessing stakeholders' behaviour;
C7. Predicting the influence of stakeholders accurately;
C8. Assessing attributes (power, urgency, and proximity) of stakeholders;
C9. Analysing conflicts and coalitions among stakeholders;
C10. Compromising conflicts among stakeholders effectively;
C11. Keeping and promoting good relationships;
C12. Formulating appropriate strategies to manage stakeholders;
C13. Predicting stakeholders' reactions for implementing the strategies;
C14. Analysing change of stakeholders' influence and relationships during the project process;
C15. Communicating with and engaging stakeholders properly and frequently.

According to Carroll's (1979) definition, "managing with social responsibilities" encompasses the economic, legal, environment and ethical issues. A detailed review of Yang, *et al.* (2009) 15 critical factors are as follows:

1. Managing with Social Responsibility

Although managing Stakeholders with social responsibility is one of the Critical Success Factors a number of researchers regard it as a Pre-condition. Othman and Abdellatif (2011) stated that stakeholder management must have social responsibilities towards supporting effective management of the stakeholder in the construction project. Yang *et al.* (2009b) clarified that "managing with Social responsibilities" is not the same as corporate social responsibility. Rather, the later considers economic, legal, ethical, environmental, and cultural responsibilities as the precondition step for stakeholder management (AlWaer *et al*. 2008; Prager and Freese, 2009). The environmental elements are air, flora/fauna, dust, water, and noise, and the need to protect these and provide healthy living conditions is inevitable.

2. Formulating a clear statement or project missions

Formulating clear statement involves identification of clear mission for the project at different

stages and a better understanding of the tasks and objectives at a particular stage of the project lifecycle including issues of cost, schedule and budget. The complex client orgaisations and the social economic and regulatory environment in which the projects operate means that politics is inevitable in the definition of the project mission (Winch, 2000). The mission includes setting of common goals, objectives and project priorities in order to improve stakeholder management (Jergeas et al 2000).

3. Identifying Stakeholders

This factor has been considered as important by several researchers who have pointed out the necessity of identifying project stakeholders (Karlsen 2002; Olander 2006; Walker, *et al.* 2008). Identifying stakeholders should answer the question "who are stakeholders" and their classification in order to manage them accordingly.

4. Understanding the areas of stakeholders' interests

Due to the complexity of construction projects, there are various stakeholders with different interests and researchers like Cleland, (1999) and Freeman *et al.* (2207) believe that identifying stakeholders interests is important for assessing stakeholders. The interests include product services, and financial returns. Karlsen also presents a possible consideration to evaluate stakeholder's interest in the project.

5. Exploring stakeholders' needs and constraints in projects

Exploring stakeholders' needs and constraints means atomizing the areas of stakeholders' concern and the detailed list of issues (Freeman, *et al.* (2007). This mean that during the project process, all stakeholders needs should be assessed in order to obtain realistic solutions of the issues. Stakeholders needs can provide an indication of the stakeholder groups' concerns, the problems the project team faces, and stakeholders requirements of the projects. This has been confirmed by Olander and Landin (2008) by a case study in Sweden.

6. Assessing stakeholders behavior

This relates to the capacity and willingness of stakeholders to threaten or cooperate with project teams. Freeman, *et al.* (2007) sorts out stakeholders into 3 categories: observed behavior, cooperative potential, and competitive threat.

7. Predicting the influence of Stakeholders

According to Olander and Landing (2005), recognizing the stakeholders' influence is important for planning and executing a sufficiently rigorous stakeholder management process. Olander (2007) further developed the stakeholder impact index and considered that analyzing the potential impact determines the nature and impact of stakeholder influence in relations to the project.

8. Assessing Stakeholders Attributes

The power, urgency, legitimacy and proximity of stakeholders need to be assessed in order to enhance the understanding of their needs. It is important to know the ability of stakeholders to control resources, create dependencies and support the interest of project or oppose it is. Thus, a successful project manager needs to understand the "invisible" stakeholders' powers. Also, it is important to know how urgent stakeholders' claims call for attention. The assumptions by stakeholders that the actions of a project are desirable, proper or appropriate within their own norms, values and beliefs need to be known, and the proximity of stakeholders which can be rated as directly working in the project or remote from the project should be known (Mitchell, *et al* 1997; Bourne and Walker 2005; Schuman, 1995).

9. Analyzing conflicts and coalitions among stakeholders

Analysing conflicts and coalition among stakeholders is an important step for managing stakeholders and project managers should also search for possible coalition. Freeman (1984) states that the groups who share objectives about the project can more likely form coalitions.

10. Compromising conflicts

As there are various conflicts among stakeholders, it is important for project manager to make decisions on how to compromise them as there can be a positive relationship between conflict resolution and satisfaction of stakeholders (Leung, et al 2005). It is necessary for projects organization to be able to make a "win" compromise solution.

11. Promoting a good relationship

In order to deliver a project successfully and meet stakeholders' expectations, it is important to promote good relationship between stakeholders and the project (Jergeas et al, (2000). Trust and commitment among stakeholders can be built and maintained by an efficient relationships management (Pinto, 1998; Bourne 2005; Karlsen et al, 2008).

12. Formulating appropriate strategies

The important question is what kind of strategies a project has for stakeholder management. According to Karlsen (2002), stakeholder management strategy is the attitude of project management team and how they treat different stakeholders. Having strategies for responses to the demands presented by the stakeholders are important for successful management of stakeholders.

13. Predicting stakeholders' reactions

When project managers make decisions about strategies to deal with stakeholders it is important to consider their reactions to the strategies. Paying attention to stakeholders response helps to predict their behaviour and this is important in implementing strategy (Cleland and Ireland, 2002).

14. Analyzing the change of stakeholders

According to Freeman (1984) stakeholders and their influence change over time depending on strategic issue under consideration. The uncertainty caused by stakeholders may include who they are, their influence, their needs and the implications of relationships among them (Ward and Chapman, 2008).

15. Ensuring effective communication

This is a very important critical success factor as communication is essential for maintaining the support and commitment of all stakeholders (Briner *et al.* 1996). Communication needs to be effective, regular and well planned. According to Weaver (2007), project managers should be highly skilled negotiators and communicators capable of managing individual stakeholder's expectations and creating a positive culture change within the overall organization.

CHAPTER 4

3. RESEARCH FINDINGS AND RESULTS

4.1. CASE STUDY 1: STOCKHOLM SLUSSEN PROJECT ORGANISATION

This study focused how Stakeholders are managed in Stockholm City Slussen Project Organisation. Slussen Project, was designed by Foster & Partners in collaboration with Berg Architectural office for the Stockholm, the Slussen Masterplan covers an area of Stockholm adjacent to the navigation lock between the Baltic and the freshwater Lake Mälaren. The concept for the project is to create a modern urban quarter at the heart of the Stockholm archipelago and a dynamic new civic destination. The masterplan provides new public spaces, an accessible quayside, pedestrian and cycle routes and prominent new buildings while transforming the existing infrastructure to minimize the threat of flooding and creating a 21st century transport interchange (See Appendices).

During the interview, it was found that the purpose of the project is the urgent need to replace much of the degenerated water and transportation infrastructure. The City of Stockholm is transforming this important part of the capital into a new destination, creating a balance between road vehicles and pedestrians while enhancing the public realm with easier access to the waterfront. The masterplan scale and grain consciously preserves the city's character at this historic location. A central feature of the new Slussen is the Water Square, a pedestrianised public space arranged around the new navigation lock and realigned quayside, animated by new restaurants and bars. On the Southern (*Södermalm*) side the ground plane around the existing City Museum is extended out over the new below ground transport interchange and shopping mezzanine to create a series of new public spaces. A range of buildings used for different purposes are integrated into the new quarter to become a dynamic urban focus for Stockholm. Slussen's prominent waterside location opposite historic *Gamla Stan* will make it a magnet for the city's best contemporary architecture, while the elegant new road and pedestrian bridges will become feature elements. Once complete, the new Slussen's extensive public terraces will provide spectacular panoramas over Stockholm. The area covers about 70,000 square meters and the project leadership are:

- Client: City of Stockholm
- Collaborating Architect: Berg Arkitektkontor
- Structural Engineer: ELU, Arup, Dewhurst McFarlane and Partners
- M & E Engineer: SWECO
- Landscape Architect: White Architecture
- Additional Consultants: Spacescape AB, ACAD, Fire Safety Design AB, Tyrens AB, Tikab Structure Mechanic AB, WSP, Structure Enviromental Bureau, Stockholm

Slussen is the part connecting the Baltic Sea with Lake Mälaren where the two water bodies are separated by a "lock". The lock was built in 1500 to allow ships and boats to pass through from the Baltic Sea to Lake Mälaren without allowing salty water from the Baltic Sea to mix up with the sweet water of Lake Mälaren. Stockholm City has two million Stakeholders all of whom have an interest in the Slussen project. The purpose of Slussen Construction project is to create new clean environment and this is a legal requirement for the society.

4.1.1. **Mission of Slussen Project**

Environmental component includes air, flora/fauna, dust, water and noise and the mission of Slussen Project is to improve the environment. According to the project manager, the objective of the project is to replace the old structure with new and modern construction as the old material was rotten. Slussen was first build in the 1500 and since then the structure has decomposed. Another objective of the project is to protect the waters of Lake Mälaren while creating a Water way passage between the lake the salty Baltic Sea. The scope of the project covers the Slussen Bus Station and the "Lock" connecting Lake Mälaren and the Baltic Sea. The construction

project is to improve the environment. The second reason was the need to remove the old structure which had become damp. The lock was to protecting Lake Mälaren from salty sea water by separating lake water from sea water at the point where boats pass over from the sea to the lake of the main outflow of Lake Mälaren. The third reason was to maintain technical status of Slussen by preventing pollution from the sea to the lake. Lake Mälaren's water is used for drinking in the surrounding regions. Slussen means a "lock" in English.

Picture 1: Aerial view of Slussen (www.stockholm.se May 2016)

The plan to build new Slussen began in 1991 but construction works did not start until 2010. Slussen is the second largest hub after Stockholm T-Centralen Subway but there was a problem with its magnitude and too broad Scope. Another issue to consider was the "The Public Sphere". As the stakeholders were identified and their interests understood, it was necessary for the project managers to properly engagement them in setting up priorities in order to neutralize the impact the impact of their negative actions. However, managing stakeholders was not included in the original plan and it became difficult to stop their actions. Moreover, the stakeholders formed coalition to stop the construction project and as there were no strategies in place, the matter went to court where there was a long legal battle between the project and stakeholders.

4.1.2. Stakeholder Management method at Stockholm Slussen

This study found that managing stakeholders in the Slussen project has been one of the most challenging tasks as this involves two million Stakeholders all with different interest, resources and capability to form coalitions to stop the project. Despite the project management awareness of existence of stakeholders, the project started with no specific plans for stakeholder management. At different times during the project life cycle, the stakeholders formed coalition to stop the construction project in which the conflicts ended up in court injunctions. Through continuous support of higher authorities, i.e. Stockholm City Council and the local politicians who made available resources for legal representation in law courts, it was possible to continue the construction.

The Stakeholders include:

1. Property owners in Stockholm South area
2. Cultural preservationists interested in keeping the original Slussen
3. The residents in Stockholm South who are opposed change of environment
4. Motorists whose routes are diverted during the construction works
5. Pedestrians who find it difficult to find their way in the construction area
6. Cyclists who have nowhere to park their bicycles
7. The local politicians who considers the project as a necessity to the society
8. The Elites of Stockholm city supporting the various groups

Apart from the stakeholders in Stockholm, there were also those from the Municipalities around Lake Mälaren: Västerås, Södertälje, Eskilstuna and Sigtuna. The different interests of stakeholders were identified and their strong voice capable of forming coalition using their resources and powers to try and stop the project. Several reasons were given by the Stakeholders for opposing the construction project. One of the reasons was that the construction works was running the place down. Another reason was the residents who were opposed to changes in their everyday life when the environment is changed through the construction works. A third reason was the opposition from culturalists who wanted to preserve the old Slussen's design. The rest of stakeholders considered the project a waste of tax payers' money. Besides, the plan for the bus station and the detailed plan for trains caused unnecessary delays.

The Stakeholders claimed that

1. there was no danger about the old place
2. the new construction was changing the environment of the residential areas
3. the new construction was changing the cultural set up of Slussen
4. the motor ways were diverted causing a lot of traffic problem for motorists
5. the cyclists did not have parking place
6. the elites of Stockholm just wanted to support the local stakeholders
7. the pedestrians could not find their ways around construction sites
8. the new construction created complication in the area
9. the stakeholders did not want change of environment

4.1.3. **Plan B Strategies After Stakeholders Actions against the Project**

The main problem experienced with Stockholm Slussen Stakeholders is their capability to form a coalition and act in a manner that is negative to the execution of the project. The stakeholders united to stop the construction of Stockholm Slussen Water way and Bus Station; a case which ended in a legal suite in the court of law. Support from the Management and Politicians played a great role that enabled the project to win the case. Such actions resulted in huge cost overruns and delayed schedule. The problem of a wide undefined Scope as problem arose during the project implementation that added to the already existing problems. The Scope was too wide with too many Sub-contractors working on the project at the same time. The design to include the Bicycle parking place also caused delays as this was in in the original plan, which added to the already huge cost overrun.

At the start of the project, stakeholder management was not included in the strategic plans and their attributes had not been evaluated. However, after the law suits, the Stockholm Slussen project turned to Plan "B" in which stakeholder management was in focus. The Stakeholders had tried to stop the project and after the legal issues were solved, the management of Stockholm Slussen project embarked on effective, regular and planned communication with all members of the project community to build a good relationship. This was evidenced by employment of a new skilled negotiator and communication expert, who introduced change management in order to manage individual groups of stakeholders and create a positive cultural change within the overall organization to avoid future law suits by Stakeholders. Change management aimed at gaining support of the stakeholders to engage them in the project. There was a need to identify stakeholders properly in order to engage them in the project. The relationship management method was effective and continuous communication using meetings, Newsletters, telephone calls on established hot-line, site visits and open-house at the project office.

In planning communication methods, transparency and openness were crucial and a list of issues to consider in communication were spelled out:

i) Transparency and openness
ii) Information input and update
iii) Identifying the approach
iv) Communication with facts, details, accessible ways and explanation of what happens

v) Creating and pursuing good relationship with the stakeholders
vi) The Municipality Management Board working together with development committees.
vii) Social Media, website, information brochures, email.

Communication was based on facts and channeled through:

1. Websites which is quite detailed
2. Newsletters
3. Maps and designs
4. Meetings with residence and landlords in the area
5. Hot-line for direct telephone to the project coordinator
6. Open Day visitors to visit and ask questions
7. Relationship with Media
8. Accessible Instagram twitter, etc.
9. Joint social responsibility in which Stakeholders are engaged.
10. Study visits to the construction sites

4.2. CASE STUDY 2: AT IKANO REAL ESTATE COMPANY

The respondent explained that IKANO Real Estate is a company owned by IKANO Properties which develops residential and commercial houses. The IKANO company is one of the three IKEA group of companies and was started by the three brothers, the sons of the owner of IKEA.

The three companies are:
1. IKEA – High class furniture offers furniture and home appliances
2. IKANO – Financial Services, Real Estate Retail offers banking and insurance services, and
3. Inter IKEA – Franchises the IKEA concept and invests in Real Estate

4.2.1. Historical Background

It was explained that Ikano Real Estate was a daughter company of IKEA and the idea began in Småland, Sweden, the birthplace of Mr. Ingvar Kamprad, the founder of IKEA and IKANO. Ikano builds shopping centres and high volume retail centres that are owned by the Ikano Real Estate and residential apartments. The properties are built in Sweden, Finland, Denmark and Norway and have unique attractions that encourage millions of people of all ages to visit every year. The Ikano Corporation includes IKEA, Ikano and Inter IKEA.

The vision of Ikano Real Estate is to build cities and do a good business with partners and families.

The Ikano Corporation

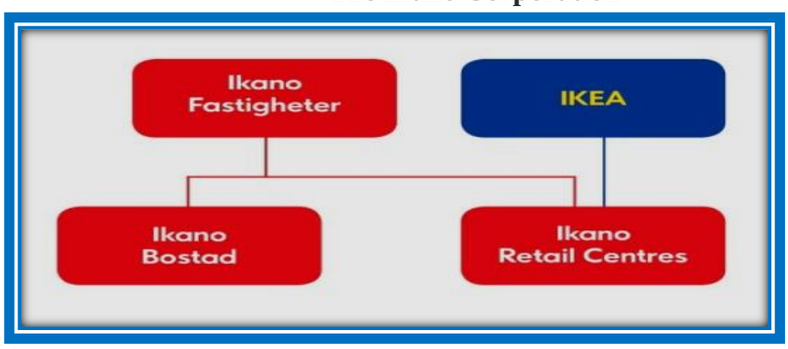


Diagram 2: The Ikano Corporation.

4.2.2. MISSION

The Mission of IKANO is to identify idle land and turn them into cities. The constructions of commercial and residential properties are found all over Sweden and branches in other Nordic regions, Norway and Finland. The aim of the Real Estate is to build cities and turn idle suburb land into business premises and residential houses. The objective is to design comfortable

apartments that are economically affordable and improvement environment by constructing buildings in the suburbs and reduce congestion and air pollution in the cities.

Picture 2: Ikano Residential Apartments at Ulriksdal, Stockholm (www.Ikano.se)

Current construction projects are found at Ulriksdal, Solna where the company is constructing residential houses, offices and sports hall.

4.2.3. The Types of Stakeholders of Ikano

1. Clients who support the project and are members of the IKANO Clients' club
2. Customers purchasing the apartments
3. Sub-contractors – who may not produce quality work, increase costs, or fraud
4. Supplies – material not available on time causing schedule delays and increasing costs
5. Area residents - complaining about noise, too many people, machines and equipment
6. Staff working in the municipalities causing problems about the free-hold quarters

The main opposers of Ikano projects are Municipality employees concerned about the effect in the society, neighbourhood residents who may not want additional constructions in their backyards and the general public who do not wish to see changes in their environment. Ikano solves this problem by building in the city suburbs.

4.2.4. Strategies for Stakeholder Management

The "economic" strategy: residential houses are built in places of low congestion in the suburbs of cities and towns. The company builds comfortable apartments with movable walls to suit the requirement of the occupants. An example is that the size of a two bedroomed apartment would be 65 square meters instead of 75 square meters. This study found that IKANO's focus is to build apartments with smaller bedrooms and larger living rooms to reduce the square meters taken by each apartment. The idea is to make the apartment cheaper by using a smaller space. "Ethical strategy" is to provide value to the society by constructing on free-hold quarters and clearing waste land. Environmental Strategy is by providing residential houses in a clean environment.

4.2.5. The Critical Success Factors for Stakeholders' Management at Ikano

During the face to face interview it was found that engaging stakeholders was an important factor. The company has created a laboratory known as "living laboratory" (*bo lab*) in which ideas are gathered from stakeholders regarding designs, quality, size and shapes. In this way the stakeholders become engaged in the project and contribute positively to its success. Clients satisfaction is measurement through a method called "*NKI*" which is a common measurement method for Customer Satisfaction Index. Surveys are sent out to assess the needs of stakeholders and measure satisfaction and the ideas that are generated from the "living laboratory" (bo-lab) based in Malmö are shared. Feed-back is received from the users of the products (apartments).

Through research in their "bo-lab" Ikano has created movable walls in their apartment where families can decide to create additional room or open up two rooms to make one big room.

"Understanding areas of stakeholders interests" was found to be another important factor as housing construction is based on the interest of the stakeholders. "Exploring stakeholders' needs and constraints" are shown by the design of the apartments that are minimized in size to reduce the cost. The company endeavours to keep and promote relationship not only with its customers but also with powerful stakeholders such as the politicians. Factor "engaging stakeholders properly" has proved useful for Ikano projects as stakeholders take part in the planning and design of the apartment and give ideas. The company has a research laboratory known as "bo-lab" (living laboratory) in which interested stakeholders can contribute by giving opinions. Information Input about the projects is through Websites and Newsletters and these are channeled to inform Stakeholders of what is going on. The significance of the lab is to collect ideas from the relevant stakeholders about the buildings, design and any other important aspects of the Ikano construction works. Also, the "bo-lab" is important "keeping close relationship with stakeholders and engaging them to participate in the projects". Another Critical Success Factor found is "Predicting the influence of stakeholders accurately in order to seek their support for the project". Ikano predicts the influence of political stakeholders in order to gain their support. The company arranged private meetings during lunches or dinners and targets special events such as the "Annual Political Summit" at "Almedalen, in Visby."

4.2.6. The Problem of Stakeholders at Ikano

The main problem faces by Ikano projects is the Municipalities employees' refusal to grant permits for purchase of land or construct buildings in certain areas. Although the Political Stakeholders are supportive, the employees of Municipalities and counties in which Ikano plans its construction project are usually unwilling to grant permission. Another problem is that legal process takes too long to complete, thus delaying the project start and finish.

4.3. CASE STUDY 3: PEAB CONSTRUCTION COMPANY

A face to face interview was done at PEAB Corporation 0733372130, Box 808,169 29 Solna, The interview took place on 13th June at 09:00 hours at PEAB premises. PEAB Construction Corporation is one of the largest in the construction industry in Stockholm and Sweden as a whole.

Picture 3a: **The Arena Staden (city), Solna**

Picture 3b: The Mall of Scandinavia (arenastade.se Aug. 4, 2016)

4.3. MISSION

The **Mission** of PEAB is to satisfy its clients and **make profit through construction works** The goal is to maintain their status in the Stock Market as the major Stakeholder of PEAB is the Stock Exchange. Financers of the construction projects expect to see profits in every construction undertaken by the project organisation. Shareholders are focused and have less engagement with communities. Corporate Social Responsibility in PEAB is Shareholder-based operationalization in which the company takes part in charity work by contributing where help is wanted. PEAB is the largest construction company in Stockholm and Sweden as a whole. The company has a total of 13,000 employees in Norway, Finland and Sweden. PEAB is a member of the Nordic Society of Building Contractors and has corporate social responsibility policy in which the corporation donates to charity undertakings, e.g. support of children with problems. The company develops land and constructs commercial properties, schools, housing and also builds roads. Part of the planning is in cooperation with the municipalities such as the purchase of the Military Airfield in Botkyrka municipality to develop it into residential housing estate.

4.3.2. **Aims and Objectives of PEAB**

PEAB Corporation is grounded on the premises of profit making and economic gains. All the construction projects must generate profit. The company runs schools to teach students from some of the universities in Sweden to learn practical lessons about construction work. Five hundred students are taken from four or five universities and are taught how to use construction materials and work on the construction site. PEAB building constructions are found in different parts of Stockholm such as the high residential apartments buildings at Sergelstorg. The current major construction project is the Friends Arena in Solna. Friends Arena encompasses the Mall of Scandinavia with 400 rooms hotel, 220 shops and 1000 square meter office building. Apartments have been built on the both sides of the Mall and above the Mall and the diagram represent the idea as described by the respondent.

4.3.3. **The Type of Stakeholders at PEAB Constructions**

The identified Stakeholders are:

1. Local residents of the areas where construction works are to be carried out
2. The Stock Exchange Market to answer the economic requirements
3. The company Shareholders
4. Suppliers
5. Sub-contractors
6. Motorists
7. Students who are trained in the practical construction works
8. The Market: property buyers and the price charged

Some of the claims by the Stakeholders against PEAB Constructions include:

1. Noise
2. Activities going on in residential areas
3. Too many People/workers around
4. Vibrations
5. Disturbances

4.3.4. Problem of Legal Cases at PEAB

PEAB is a member of the Swedish Building Construction Association that lobbies and appeals on behalf of the member companies in the construction industry. There have been legal problems with regards legal matters in the Swedish law courts. In order to start a construction works, permits must be obtained and necessary documents signed. Most of the legal documents are handled by the Association on behalf of PEAB and when Stakeholders try to stop the project and take the matter to court, there are long delays that make it difficult for the Association to plan and carry out work. Negotiation is encouraged at PEAB and compromising is usually considered so so that conflicts do not end up in law courts. The respondent expressed concern that despite the government's effort to provide adequate housing in Sweden, the legal process works against this policy causing a lot of frustration not only to PEAB but to the construction industry as a whole. Currently the occupation of 64 residential apartments which have been ready for the past one year cannot take place due to the Municipalities demand for millions kronor. Although PEAB had paid 23 million, he politicians found this to be inadequate and the money was refunded to PEAB. This payment is with regards to half an acre piece of land on which PEAB constructed the four houses with 64 apartments. The respondent explained that PEAB's mission is to make profit and when buildings are not rented as soon as they are complete, there are losses incurred as financiers must be paid at the completion of the project.

5. ANALYSIS OF THE RESULTS

The purpose of this study is to explore what methods are used in the three sample organisations and the Critical Success Factors contributing to the successful management of stakeholders. The methods used and the CSFs have been identified in this study and analysis is done through Content Analysis, and relating the factors in order to compare with the theory in the literature to validate the findings. Coding of the CSFs and groupings the various methods found in each organisation. Codes given to the critical success factors are CF1….CF15 and the group categories are coded as **G1 ….G6.**

5.1. Stockholm Slussen

The mission of the project was to modernize the area and improve environment (CF1). Stockholm Slussen used "effective communication" (CF15) in its stakeholder management. Different methods of communication are used by the project in order to i) "engage its stakeholders" in the project (FC15) ii) "build good relationship" with its stakeholders (CF11) and to gain "continuous support of top management." **(G6)** In their communication policy a number of issues are spelled out which include Transparency and openness, Information input and update, Identifying the approach, Communication with facts, (G5) details, accessible ways and explanation of what happens, and Creating and pursuing good relationship with the stakeholders.

The Municipality Management Board work together with development committees and the most powerful stakeholders whose engagement in the project is vital are the politicians. The "politicians" provide continuous support to the project that has enabled Stockholm's Slussen to win legal cases.CF15. Through the support of top management resources were made available for legal presentation. **(G1)** The project team "predicted the influence of the political stakeholders" (CF7) in order to build good relationship with them. Lack of strategies for managing stakeholders at the start of the project, resulted in the legal suits. It was necessary for the project organization

to adopt plan "B" which involved hiring an expert in stakeholder management who formulated appropriate strategies to manage stakeholders and identified stakeholders properly (CF13). Information input **(G2)** contained factual detailed conveyed with respect in order "to build a good relationship (CF11) and engage stakeholders in the project" (CF15). Facts produced in accessible ways, are well presented and explain what is going on. The project has "good relationship with the local media" (CF11) and communication is through meetings, newsletters, telephone calls on established hot-line open-house and visits to the site. Thus, "effective communication" is the most important critical success factor in Stockholm Slussen construction project.

5.2. **Ikano Real Estate**

Ikano Construction organisation manage their stakeholders mainly by "keeping and promoting good relationship" (CF11) through private meetings such as dinners and lunches with political stakeholders. **(G6)** Ikano properly "identifies its stakeholders" (CF3) and "understands areas of their interests" (CF4). Project team "explores stakeholders' needs and constraints to the project" (CF5) and provides suitable housing based on those needs. "Predicting stakeholders' reactions for implementing the strategies" (CF13) and engaging them in the project (living- laboratory) (CF15) is essential and this begins with stakeholder assessment and understanding stakeholders properly (CF3) and engaging them in the project at the "bo-lab" prevents conflicts and coalition among stakeholders (CF9). Involving stakeholders in the design of apartments at bo-lab (CF15) encouraged them to give ideas about the design of the apartments. Project "mission is clearly stated" (CF2), that is to provide comfortable and economically affordable residences for its stakeholders. Thus, "setting common goals and objectives through information input" (CF1) is important. **(G2).** There are Clients who support the project and are members of the IKANO Clients' club. "Keeping and promoting good relations" (CF11) with municipalities in order to maintain support helps Ikano to acquire land in the suburbs in clean environment **(G6).**

5.3. **PEAB Construction Corporation**

This study found that "Formulating clear statement and objectives of the project" (CF2) is important in PEAB and the organisation's aims is to earn profit (CF1) in order to remain in the Stock Exchange **(G1).** PEAB stakeholders are identified (CF3) and they include **(G2):** Sub-contractors who may not produce quality work, increase costs or fraud; suppliers who may not avail building material on time causing unwanted schedule delays and increasing costs; local residents where construction is carried out who may complain about noise, too many people, big equipment and road diversions. Websites, posters and circular letters to the residents are used as method of conveying information **(G2) "**Ethical issues" (CF1) are important as the company is involved in charity work to support destitute children.**(G1)** PEAB keeps and promotes good relationship with some of the universities in Sweden and provide practical training to students CF5) studying building construction to equip them with practical knowledge. (CF4) Legal issues (G1) have impact on the project organisation's operations when projects are delayed as a result of legal suits in court (CF1). Keeping and "promoting good relationship" (CF11) through Association membership is used to gain continuous support of stakeholders.(G6) The organisation is a member of the Swedish Association of Building Contractors which is a powerful stakeholder in construction industry.(CF15). Coalition is analysed among stakeholders (CF9) and conflicts are compromised. (CF10).

5.4. **Relating the Findings with Theory**

Table 5, summarises the results of the case studies in the three construction project organisations showing which CSFs the respondent said they used as they relate to the Critical Success Factors proposed in Yang, *et al* (2009) and Hammad, Salah (2013). The CSFs are given codes and tabulated in pattern that provides easy comparison between among the three companies in relations to the theory.

Table 5: Summary of the CSFs in relations to the Theory

No	Factor	Stockholm	IKANO	PEAB
"Top Management Support" (G1)				
1	Managing Stakeholders with corporate social responsibilities	x	x	x
2	Flexible project organization		x	
3	Project Managers competences		x	x
4	Setting common goals and objectives of the project	x	x	
5	Identifying stakeholders	x	x	
6	Exploring the stakeholder needs and expectation		x	
"Stakeholder Assessment Factor Group" (G2)				
7	Accessing stakeholders' attitude	x		
8	Understanding area of stakeholders' interest	x	x	
9	Predicting the influence of stakeholders	x		
10	Analysing conflict and coalitions among stakeholders	x		x
11	Evaluating the stakeholders' power	x		
12	Evaluating the stakeholder legitimacy			x
13	Understanding the stakeholders' urgency			
14	Determining the stakeholders proximity			
15	Determining the stakeholders' knowledge	x		
"Decision making factor group" (G3)				
16	Transparent evaluation of the alternative solution	x		
17	Ensuring effective communication	x		
18	Formulating appropriate strategies		x	
"Action and evaluation factors group" (G4)				
19	Implementing the strategy based on schedule plans		x	x
20	Flexibility in the implementing strategy			
21	Evaluation of the stakeholder satisfaction		x	
"Continuous Support Factors Group" (G5)				
22	Communication with and engaging stakeholder properly	x	x	
23	Stakeholder involvement in decision-making		x	
24	Promoting a good relationship among stakeholders	x	x	X
25	Analysing the change of multiple stakeholder engagement			X
26	Obtain support assistance from higher authorities	X		X
27	Mutual trust and respect amongst the stakeholders	x	x	
28	Reduce the uncertainty	x	x	
29	Maintain alignment between or among the stakeholders			
30	Access to resource and knowledge	x	x	X

Table 6: Quantification Levels (GAO, 1987)

No.	Stockholm Slussen		Ikano	CSFs	PEAB	CSFs	Total
1.	Modernizing the station and improving environment	CF1	Economic and environment	CF1	Economic and Ethics	CF1	3
2.			Formulating a clear statement of project mission (Affordable residences)	CF2	Formulating a clear statement of project mission (economic – make profit)	CF2	2
3.	Identifying Stakeholders Properly	CF3	Identifying Stakeholders Properly	CF3			2
4.	Understanding areas of Stakeholders interest	CF4	Understanding areas of Stakeholders' interests	CF4			2
5.	Predicting stakeholders reaction	CF5					1
6.							
7.	Predicting the influence of Stakeholders Accurately	CF7					1
8.	Assessing attributes, powers and influence of Stakeholders	CF8			Assessing attributes, powers and influence of Stakeholders	CF8	2
9.	Analyzing Conflicts and Coalitions among stakeholders	CF9			Analyzing Conflicts and Coalitions among stakeholders		2
10.					Compromising Conflicts among Stakeholders Effective	CF10	1
11.	Keeping and Promoting good relationship	CF11	Keeping and Promoting good relationship	CF11	Keeping and Promoting good relationship	CF11	3
12.	Formulating appropriate strategies to manage stakeholders	CF12	Formulating appropriate strategies for managing stakeholders	CF12			2
13			Predicting Stakeholders reaction for implementing strategies	CF13			1
14.	Analyzing change of stakeholders influence during the project life cycle.						
15.	Communicating with and engaging stakeholders properly and frequently	CF15	Engaging Stakeholders in the bo-lab for designing residences	CF15	Engaging university students in the project	CF15	3

Categories formats can be used to measure three quantification levels: space, frequency, and intensity and in this content analysis categories formats have been used in "frequency" and "intensity" measurements. The CSFs from the interviews have been given codes to tally the number of times each CSF occurs in the interview results in line with GAO (1987). In this measurement it is assumed that the frequency with which a statement (CSFs) occurs in the text (interview results) is a valid indication of the importance of the statement (CSFs). Thus the number of times a CSF occurs in the text (interview results) has been counted. It is also assumed that all content units can be given equal weight such that each one can be compared directly with every other as shown on Table 6, in this report.

The second level is "intensity" measurement in which the number of coded statements (CSFs) are adjusted by a weight such as a percentile measurement. The purpose is to compare the differences in statements (CSFs) in the text and allowing only the interview results to be analyzed at this level in line with GAO (1989). In this measurement, the organizations are given initials S = Stockholm's Slussen, I = Ikano and P = Peab. The CSFs found in the interview results from the three participating organizations are compared with CSFs in the literature to explore the importance of each factor. The weighting of the Factors are shown by: Agreement = 2; Undecided = 1; Disagreement = 0, and 6 is the total score with a weight of 100 percent in this measurement. Frequency Measurement can be done either manually or by using computer programme, and in this study it has been done manually to show how the organisations answered their questions and which CSFs were found to be common in the three project organisations.

The counting has been done in line with (GAO 1989) to create a simple format for measuring the number of statements which are Similar, different, or Neutral. One can also use Agree, Oppose or Undecided. In this analysis "Agree, Disagree and Neutral has been used and the interview the

CSFs in the interview results have been counted. According to GAO (1987) case studies and interview data can be used in this kind of analysis and the relationship of two or more statements within a single document or sets of documents can also be analyzed. On table 8, new categories have been created from the interview data and frequency measurement done according to the new categories and this is illustrated in Diagram 5. The CSFS coded results have been used in the measurement of intensity as shown of Table 8 in terms of importance

Table 7: Format for Counting the CSFs from Interview data (GAO, 1989)

Codes	Factors	Agreed (2)	Oppose 0)	Neutral (1)	Frequency (Total = 6)		% of Intensity
CF1	Managing Stakeholders with corporate social responsibilities	S=2			=2+2+2	6	100%
		I= 2					
		P=2					
CF2	Formulating clear statement and project objectives			S=1	=2+2+1	5	83.3%
		I= 2					
		P=2					
CF3	Identifying Stakeholders properly	S=2			=2+1+1	4	66.7%
				I= 1			
				P=1			
CF4	Understanding areas of Stakeholders interest	S=2			=2+2+-0	4	66.7
		I =2					
			P=0				
CF5	Exploring Stakeholders's needs and constraints to projects			S=1	=2+1+0	3	50%
		I=2					
			P=0				
CF6	Assessing Stakeholders' Behaviour	S=2			=2+1+0	3	50%
				I=1			
			P=0				
CF7	Predicting the influence of Stakeholders accurately	S=2			=2+1+2	5	83.3%
				I=1			
		P=2					
CF8	Assessing attributes (power, urgency, and proximity) of Stakeholders			S=1	1+0+0	1	16.7%
			I =0				
			P=0				
CF9	Analysing Conflicts and Coalition among Stakeholders	S=2			2+0+2	4	66.7%
			I=0				
		P=2					
CF10	Compromising conflicts among Stakeholders effectively	S=2			2+0+2	4	66.7%
			I=0				
		P=2					
CF11	Keeping and promoting good relationship	S=2			2+2+1	5	83.3%
		I= 2					
				P=1			
CF12	Formulating appropriate strategies to manage Stakeholders	S=2			2+2+0	4	66.7%
		I= 2					
			P=0				
CF13	Predicting Stakeholders' reactions for implementing the strategies			S=1	1+1+2	4	66.7%
				I=1			
		P=2					
14	Analysing change of Stakeholders' influence and relationship during the project process		S=0		0+1+0	1	16.7%
				I=1			
			P=0				
15	Communicating with and engaging Stakeholders properly and frequently	S=2			2+2+2	6	100%
		I= 2					
		P=2					

Table 8: Categorizing Interview Data in terms of importance

	Category 1	Frequency
CF1	1.Managing with Social Responsibilities	6
CF15	2.Communicating with and engaging Stakeholders properly and frequently	
	Category 2:	
CF2	3.Formulating clear statement and project objectives	5
CF11	4.Keeping and promoting good relationship	
CF7	5.Predicting the influence of Stakeholders accurately	
	Category 3:	
CF3	6. Identifying Stakeholders properly	4
CF5	7. Exploring Stakeholders's needs and constraints to projects	
CF9	8. Analysing Conflicts and Coalition among Stakeholders	
CF10	9. Compromising conflicts among Stakeholders effectively	
CF12	10.Formulating appropriate strategies to manage Stakeholders	
CF13	11.Predicting Stakeholders' reactions for implementing the strategies	
	Category 4:	
CF6	12. Assessing Stakeholders' Behaviour	3
CF4	13. Understanding areas of Stakeholders interest	
	Category 5:	
CF8	14. Assessing attributes (power, urgency, and proximity) of Stakeholders	2
CF14	15. Analysing change of Stakeholders' influence and relationship during the project process	

The analysis from the interview data gave five categories of groups as follows:

- Category 1 = Found from interview data in all 3 reports
- Category 2 = Found in interview data of 2 reports but 1 was Neutral
- Category 3 = found in interview data from 2 reports only
- Category 4 = found in interview data from 1 but 2 were Neutral
- Category 5 = found in interview data 1

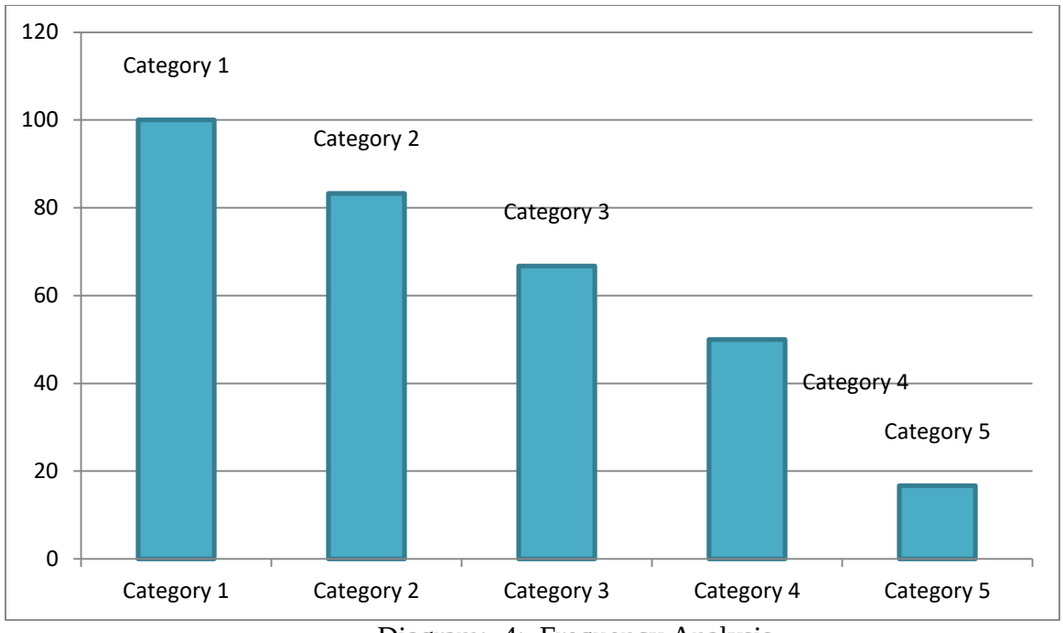


Diagram: 4: Frequency Analysis

The Critical Success Factors and the group categories used in measuring frequency are illustrated in diagram 4. In diagram 4, the measurement is done of group categories while in diagram 5, the CSFs are measured in relations to each other to show intensity of usage. The assumption in this measurement is that frequency with which CSFs occur in the text is valid indication of value of importance.

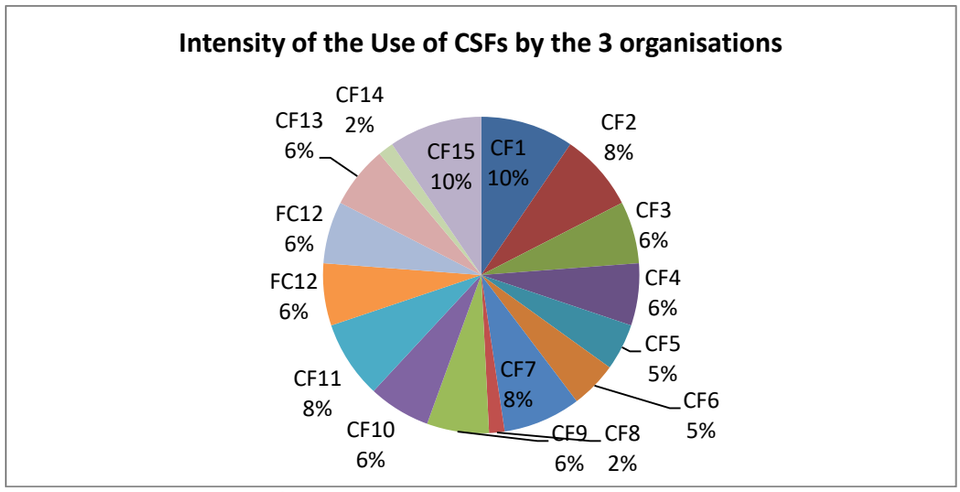


Diagram 5: Intensity Measurement

In diagram 5, the CSFs have been analyzed in terms of intensity to help compare subtle difference and explore the importance of the CSFs. The assumption is that the higher the usage the more important the Critical Success Factor is. This comparison is done based on the Critical Success Factors found in the interview data and compared with each other in terms of importance based on intensity.

Analysis of categorized groups calculated in percentile is a presentation of the importance of the critical success factors. Diagram 5 gives a graphic illustration of the category grouping and the ranking using frequency measurement. In diagram 6, provides a comparison between the critical success factors using intensity measurement. Using the content analysis on Table 7, a graphic presentation shows equivalent percentage score of each critical success factor. In diagram 6, the CSFs are measured in relations to each other to show intensity of which are more important. The assumption in this measurement is that frequency with which CSFs occur in the text is valid indication of value of importance. The purpose of intensity measurement analysis is to compare the critical success factors with each other and compare which factors have higher value.

5.5. **Summary**

Categorization is the heart of content analysis in line with (Berelson 1953 p.147), and the significance of this is emphasized as content analysis stands and falls by its categories. The categories were made up of groups of CSFs mutually exclusive to ensure that no factors were coded in more than one category groups. Phrases containing CSFs were chosen and coded in order to identify subtle differences in content. The phrases are smaller than the context unit and each phrase was given relevant code that matches the CSFs from CF1 to CF15 to avoid repeating the same CSFs in group categories. Content analysis has been used to analyse the interview data in order to compare the findings with each other and with the theory in the literature review. The main objective of content analysis is to analyze information whose format has been transformed into one that is useful. Thus, in this study qualitative data has been transformed through coding to find the important critical success factors from the interview results. The frequency measurement was used as a common means for summarizing data by looking and examining their patterns and relations among them in line with (GAO, 1987). Absolute frequency is the number of times statements or issues are found in the sample. The intensity was represented by a percentage of the number of times the CSFs were found in the interview data and compared with one another. Using this method minimizes duplication as codes are not duplicated.

CHAPTER 6

6.1. DISCUSSION OF THE FINDINGS

This section presents the discussion of the results according to the Context analysis of the interview data. Various factors have been identified by various researchers that lack in-depth and detailed view of the practitioners. Yang, et al (2009) did a survey in Hong Kong and came up with 15 Critical Success Factors essential for stakeholder management. His research discussed how this factors should be used in general but lacked participants' in-depth real-life that face to face interviews provides. Hammad, Salah (2013) carried out a similar study in Kuwait and provided a list of 30 Critical Success. However, a close study of Hammad's 30 Critical Success Factors shows that they are the same as Yang's 15 Factors which re-written with more details. The gap in these previous studies is the lack of participants' real-life indepth understanding that face to face interviews provide. The research shows how three construction organisations in Stockholm manage their stakeholders and the important critical success factors categorized in groups in terms of significance. Context analysis was used to present the qualitative data in a quantifiable state in order to rank the CSFs and compare them with each other in order to identify the most important.

6.2. Categorizing the Critical Success Factors

Five groups were categorized as explained here:

Category G**roup 1:** "Managing with Social Responsibilities, and communication with and engaging stakeholders properly and frequently ranked high in frequency measurement. Frequency measurement was weighted 6 as the highest and there were five categories and CSFs (CF1 and CF15) were found to be important. Environment issue was the main concern at Stockholm Slussen as the new project aimed at creating a clean environment. Lack of adequate communication created problems with stakeholders whose aims were to preserve cultural heritage as well as those who did not want changes in their residential area. In order to solve the problems "communication to build relationship and engage stakeholders in the project" was found to give good results in managing stakeholders. This confirms the finding of study by Hammad Shalah (2013) and Yang, *et al.* (2009) that communicating with and engaging stakeholders in the project is important. The two factors scored 6 points, i.e. 100% as these two factors were found in the three construction project organizations.

Managing with social responsibilities involves environment issues, economic issues, legal issues and ethical issues. Equal in importance is "communication with and engaging stakeholders in the project." The findings were in line with several researchers' statements (e.g. Wood 1991; Carroll 1991; and Donaldson and Preston 1995) who named this factor as a pre-condition. The four factors in the pre-condition are economic, environment, legal and ethical issues.

- Economic issues: Two out of three respondents agreed that economic issue is important as they must make profit from construction works. Unnecessary expenses incurred as a result of delays in execution of the project are not acceptable by sponsors of the projects. This was critical in PEAB as the organization must ensure its position in the Stockholm's Stock Market and all projects are aimed at making profit. At IKANO, economy is not only important to construction organization, but also to stakeholders who will purchase the properties. For this reason, IKANO builds residences that are economically affordable to its stakeholders especially for low income citizens, and this is line with (Yang, et al 2009). The legal problems faced by construction organisations relate to permits and purchase of land from Municipalities. Legal problems are common and PEAB has been faced with a one year ago conflict with Sigtuna Municipality hwere 64 residential apartments stand empty because the Construction Organisation is not able to pay the amont of money required by the Municipality. The amount required beyond what the construction organization can offer for half an acre of land.

- Environmental issues: This was found to be important in two construction companies. In Stockholm Slussen, environmentalists formed coalition with culturalists to stop construction project and through the support of politicians and top management of Stockholm city the construction project won the court case. After the legal case, Stockholm turned to plan "B" and employed communication specialist to manage stakeholders. All the Municipalities mentioned in the findings around lake Mälaren are concerned with construction project in Slussen as they do not want the waters to be polluted by the Balkan sea waters. The communication with Stakeholders around Lake Mälaren include information through different media and open telephone line through which stakeholders can reach project managers when they want to. At IKANO houses are built in the out-skirts of city to avoid congestion and provide clean environment for the residents in line with (Yang et al 2009).

- Legal issues: Legal matters affect all the three construction organisations and as explained, Stockholm Slussen, faced legal cases with its Stakeholders where the stakeholders formed coalition to stop construction. At PEAB legal issues are handled by the Swedish Association of Contractors who represents the interests of PEAB in the law courts and negotiations with the local authorities such as municipalities. The problems about permits and purchase of land owned by municipalities are the major legal problems. Legal and economic issues have been identified in this study in line with (AlWaer et al. 2008; Prager and Freese, 2009 and Yang et al 2009).

- Ethical issues: The last in this group is ethical issues which requires that construction organisations give consideration to the norms of the society in which they carry out construction works. PEAB offers training for university students to learn the practical building works and contribute in charity work in line with (AlWaer *et. al.* 2008; Prager and Freese, 2009). IKANO provides clean and affordable residences and makes it possible for low income individuals to own houses.

"**Communication with and engaging stakeholders in the project: **" This factor was found to be important in all the three construction organisations. Stockholm Slussen uses various methods of communication to win the stakeholders support to the project. IKANO uses communication to engage stakeholders in the design of their projects in the "bo-lab" where stakeholders are encouraged to participate in the design of houses. PEAB uses communication to inform the general public about up-coming construction works using neon signs and newsletters sent to residents. This is in line with Briner, et al (1996) and Weaver (2007), who state that communication needs to be effective, regular and well planned. They recommend that project managers should be highly skilled negotiators and communicators capable of managing individual stakeholder's expectations and creating a positive culture change within the overall organisation. Also, this factor is essential in for keeping the support and commitment of all stakeholders as confirmed by Briner, et al (1996).

Group 2: In this group category, three critical success factors were identified, namely, i) formulating clear statement and project objectives, ii) keeping and promoting good relationship, and iii) predicting the influence of stakeholders accurately are important. Two organizations agreed with the factors, while one respondent from one organisation was neutral. The respondents from PEAB was neutral about this factor therefore the score is one 1 point assigned to this respondent, giving a total score of 5 out of 6 = 83%.

- "Formulating clear statement involves identification of clear mission for the project". This belonged to the second group in importance. This is in line with Winch (2000), who state that definition of the project mission is inevitable and and setting of common goals and strategies to manage stakeholders is essential and this is in line with Jergeas et al (2000).
- "Keeping and promoting good relationship" is practiced both in Stockholm Slussen and IKANO. The good relationship with the top management and politicians helped Stockholm

Slussen to have resources that made them to win the law suits filed by project stakeholders. IKANO builds and promotes relationships with Stakeholders, especially with the politicians to maintain their support especially when purchasing land and obtaining permits to construct houses in line with (Yang et al 2009).

- "Predicting the influence of stakeholders accurately" was found to be important in both Stockholm Slussen and IKANO. Recognizing the stakeholders' influence is important for planning and executing a rigorous stakeholder management process and enables the project manager to analyse the potential impact of stakeholder influence in the project in line with Olander (2007).

Group 3: "Identification of stakeholders properly" ranked three in the content analysis. this "Exploring stakeholders needs and constraints to project", and "Analysing conflicts and coalition among stakeholders" were found to have the same level of importance.

- "Identifying stakeholders properly" is important as it answers the questions of "who are the project stakeholders and how can they be classified. This helpes the project manager to manage individuals or groups of stakeholders accordingly, and is in line with Karlsen (2002; Olander (2006); Walker, et al. (2008).
- "Analysing conflicts and coalition among stakeholders" in Stockholm Slussen this is important as different types of stakeholders can form coalition to stop the project. This is confirmed by Freeman (1984) who observes that such groups who share the same objectives about a project can more likely form coalitions. At PEAB, compromising conflicts among stakeholders is important and this is mainly between suppliers and sub-contractors. The importance of this factor is that project manager must make decisions on how to compromise the conflicts and encourage a positive relationship between conflicting stakeholders. This is in line with Leung, et al (2005) who states that it is necessary for projects organization to be able to make a "win" "win" compromise solution.
- "Exploring stakeholders' needs and constraints to projects" is important and it has helped IKANO to build apartments whose walls can be adjusted according to the tenants' needs. The bo-lab has been used adequately by both project owners and the stakeholders who are interested in the houses. Exploring stakeholders' needs and constraints means atomizing areas of stakeholders' concern and issues and this is in line with Freeman, et al. (2007).
- "Assessing Stakeholders needs" made it possible for IKANO to avoid the negative impact of stakeholder actions. This factor creates opportunity to find solutions to the issues related to the construction projects. This is confirmed by Olander and Landin (2008) in a case study carried out in Sweden.
- "Formulating appropriate strategies to manage stakeholders" and "Predicting stakeholders' reaction for implementing the strategies", were found in Stockholm Slussen and IKANO) and not in PEAB. Therefore the score for this group is 4 out of 6, weighted as 66.7%. The Factor "exploring stakeholders' needs and constraints" were found in (IKANO), IKANO designs its residential houses according to the buyers economic needs. The organization ensures that the project team's attitude is positive towards stakeholders and this helps to get positive response from stakeholders in line with Karlsen (2002).

- "Predicting stakeholders' reaction for implementing the strategies" and considering their reactions to the strategies calls for paying attention to response and predict their behaviour. This is important in implementing strategy and is in line with Cleland and Ireland, (2002).

Group 4: This group is composed of two CSFs, namely, "assessing stakeholders' behavior and interest and "understanding areas of stakeholders interest".

- "Assessing stakeholders' behavior and interest" was found in Stockholm Slussen and IKANO. Stockholm Slussen needed to know the interest and the ability of stakeholders to control resources, to create dependencies and support, their interest in the success of the project or oppose it is. The project learned to understand both the visible and the "invisible" stakeholders' powers and how important and urgent the stakeholders' claims call for attention. Municipalities

around lake Mälaren are the visible stakeholders, but culturalists, environmentalists, artists are stakeholders were identified only when they started to oppose the project. It is important that the proximity of stakeholders which can be rated as directly working in the project or remote from the project are known and this is in line with Mitchell, et al (1997); Bourne and Walker (2005); Schuman, (1995).

- "Understanding areas of Stakeholders interest" is found in Ikano construction organisation where the stakeholders with different interests participate in the project designs. This enables the organisation to build houses that meet with the needs of stakeholders. This factor is supported by researchers Cleland, (1999) and Freeman et al. (2007) and they believe that understanding stakeholders' interests is important for assessing their needs.

Group 5: "Assessing attributes of stakeholders in terms of power, urgency and proximity" is the least important according to the findings of this study. Although this factor establishes which stakeholders were more powerful, whose support may be needed, the three construction organization did not found it important. Also, "Analyzing change in Stakeholders" was not identified in this research.

6.3. Reliability

Checking for Reliability tells analysts the extent to which a measuring procedure can produce the same results on repeated trials (Carmines and Zeller, 1979, p. 11). It shows whether the data collection technique will be consistent when similar studies are done. The assessment of reliability was through coding of the CSFs and comparing with the results of previous research in the literature. The method used for coding is shown in the analysis to enable retesting of reliability. The coding decision was based on what was found in literature which is compared with the interview data. In this Content Analysis, the coding has done manually in order to make it easy to understand the steps followed so that any other researchers are able to follow the same steps. This is in line with Gao (1987) Content analysis.

Consideration was given to the possibility that errors can occur and the common errors in such a study are participants' error in which answers to the questions could be erratically mixed with anothers, or participants' bias in which some information is deliberately given or left out during the interview. Researcher's error is that in which interview data was incorrectly recorded, or researchers bias where the researcher only asks the question to get the answers he/she wants. To overcome these errors and bias reporting the researcher ensured that notes taken during the interviews were written clearly and saved for reference purposes during report writing. Also, the researcher prepared a list of questions to be discussed to help focus only on the relevant information meant to answer the research question. During the interview the researcher put a mark against each question to show that it had been answered. The interviews were semi-structured to allow the respondents to expound on their answers, and provide opportunity for the researcher to ask for clarification. Therefore, reliability of this study is ensured as similar questions can be repeated to get the same answers. The researcher sent a list of questions prior to the interview date to help the respondents to focus on the interview questions (see the questions on Appendix A). The questions were written to help focus on the topic and some of the questions were based on the 15 Critical Success Factors found in the literature. Interviews were arranged in special rooms reserved for the purpose for at least one hour without interruption and the participants were prepared for the interviews. Preliminary request for interview were sent with the questions to 10 construction organisations and only three responded positively and accepted to be interview. The time and place allowed openness in the discussions as the respondents had enough time to consider the questions and relate them to his work in managing stakeholders. When the same questions are put to the The interviews took place without disturbance on different dates to enable this enabled this researcher to reflect on the answers given during the interview in order to prepare draft report.

6.4. Justification of the Choice of Data

The choice of data has been justified by the necessity to have a clear idea of and knowledge of how stakeholders are managed in the participating organizations and this is the purpose of this study. The Content Analysis method was used to transform the non-structured interview data to measurable data in order to provide an overview of which critical success factors are important in relations to each other and for the stakeholder management in construction organizations.

6.5. Summary

The Content Analysis presents the findings in quantifiable manner and shows the important critical success factors. The research was carried out to answer two questions with regards to the methods for stakeholder management in construction project organizations and the Critical Success Factors, namely, “How do major construction organisations in Stockholm manage their Stakeholders?” and “What are the Critical Success Factors essential for the successful stakeholder management?” Literature review has provided present knowledge from the results of previous research and the multiple case studies have been done to provides indepth understanding of the Critical Success Factors essence for the successful stakeholder management are applied in the three construction project organisations in Stockholm region. The content analysis has been used to categorize the factors in terms of importance using frequency and intensity analysis in line with GAO Content Analysis (1989).

SUMMARY AND CONCLUSION

7.1. SUMMARY

The importance of stakeholder management has been recognized by many scholars and professionals. With a focus on different aspects of stakeholder management, various sets of CSFs have been suggested in the literature. This paper presents the results of a multiple case study in three construction organisations in which give detailed explanation of how methods are used and which factors are important. The findings of the case studies show that construction organisations must take consideration of the "pre-condition" factor at the start of the project. The precondition is the name to "managing with social responsibilities" by various researchers on this topic. Managing with social responsibilities includes legal, economic, environment and ethical issues and it is important that these issues are considered and resolved before the start of the project. Thus, legal issues are a great problem to construction organization and projects must ensure that all the legal requirements are fulfilled before the start of the project. Legal requirements include permits, fees, purchase of land, etc. In this study, examples of legal issues have been cited, especially those at Stockholm Slussen and PEAB. Economic issue is important as most projects except those by Governments are carried out for profit and any delay in the completion of the project is an additional cost to the owners. The third issue in this group is environment and example of problems caused by environmentalists have been discussed in this paper, especially those faced by Stockholm Slussen project. The least remembered factor in the category of "pre-condition" is ethical issue. Every organization must consider ethical issues in its operation as this touches on the workers as well as the communities. Project organisations need to know that apart from ensuring profit maximization, the project managers and their team members should also fulfill their ethical and corporate social responsibilities of being good citizens. Some of the most common ethical issues related to project management include violation of basic rights of workers as a result of misuse of powers, ignoring Health or Safety Standards, making shady deals by corrupt project managers, biasness and blaming others when a job is done poorly that affects the environment or the community around. Although such ethical issues are not taught as part of project management, it is important that project managers be made aware and this study recommends that ethics be included in the study of project management.

Another important method of managing stakeholders found in this study is "Communication with and engaging stakeholders in the project. The three organisations have demonstrated how they use communication to manage their stakeholders. For example, Stockholm Slussen only uses communication as the only method for managing its stakeholders and applies different methods of communication. Communication is used for building and keeping relationship with stakeholders and engaging stakeholders in the project. The results of content analysis carried out in line with Gao (1989) are discussed in Chapter 6.

7.2. CONCLUSION

This study provides indepth understanding of how construction organisations manage their stakeholders and the critical success factors essential for the successful management of stakeholders in Stockholm region. Although previous studies by researchers like Yang, et al (2009) identified 15 Critical Success Factors, these have been presented in a general manner. However, in this study real-life experience has been provided through face to face interview in which respondents expressed their practical experience in the construction sites. Moreover, previous research has been mostly based on Questionnaire Survey results which provide the general opinion of the respondents without the platform to expound on the questions. However, the a face to face interviews, provided the opportunity for respondents to expound on their answers and discuss issues in details. Therefore this study provides the different ways in which the participating construction organisations apply the methods for managing construction project stakeholders and the critical success factors essential for successful stakeholder management.

Examples of real-life experience are found in Stockholm Slussen where Stakeholders tried to stop the construction project and took the City to court, and at PEAB, where Sigtuna Municipality has refused to grant permission for occupation of 64 residential apartments which have been ready for over one year. The significance of this study is that it has provided interesting issues that happen in real life which would not be known when Survey questionnaires are used. The results of this study provide good example for project managers so that they know the kind of problems to anticipate in order to formulate appropriate strategies for managing them.

7.3. RECOMMENDATION

This study, follows Yang's recommendation that case studies need to be carried out in other regions and different geographical areas that and gives details of how stakeholders are managed in those areas and the critical success factors. The studies by Yang et al (2009) and Salah Hammad were based on the results from Survey Questionnaires that did not give indepth understanding and practical experience of how the critical success factors are practically applied. The findings of the studies carried out in Hong Kong would not be generalized to other geographical locations such as Stockholm and Yang recommended that case studies be carried in different geographical areas to give real-life experience. Thus, this research has validated the studies in Hong Kong and Kuwait while this study is done in Stockholm region. Therefore, this researcher recommends that further case studies be done in construction project organisations in other regions of Sweden in order to create a "Standard Guidelines" for Construction Projects Stakeholder Management and Critical Success Factors. Also, further studies will enable researchers to build a "framework" that is relevant to construction projects in Sweden.

REFERENCES:

Aaltonen K., Jaakko, K., Tuomas, O. (2008). Stakeholder Salience in global projects: International Journal of Project Management 26: 509-516. Doi 0:1016/j.ijproman. 2008.05.004.

Aksorn, T. Hadikusumo, B.H.W. (2008). Critical Success Factors influencing safety program performance in Thai Construction Project, *Safety Science* 46: 709.727.doi:10.1016/j.ssci.2007.06.006.

Atkin, B. and Skitmore, M. (2008). Stakeholder Management in Construction. Construction Management and Economics 26(6):pp. 549-552. Taylor & Francis, doi.org/ 10.1080/01446190802142405.

Baxter, P., & Jack, S. (2008). Qualitative case study methodology. *The Qualitative Report*, December 2008, *13*(4), 544-559.McMaster University, West Hamilton, Ontario, Canada).

Baxter, P. & Rideout, L. (2006). Decision making of 2nd year baccalaureate nursing students. Journal of Nursing Education, *45*(4), 121-128. doi:10.1016/palmgrave ejis.3000252.

Baxter, P. (2003). The development of nurse decision making: A case study of a four year baccalaureate Nursing programme. Unpublished doctoral thesis, McMaster University, Hamilton.

Baxter, P., & Rideout, L. (2006). Decision making of 2nd year baccalaureate nursing students. Journal of Nursing Education, 45(4), 121-128.

Bourne, L. (2005). Project Relationship Management and the Stakeholder Circle TM. PhD. Thesis, RMIT University, Australia.

Bryson, J. (2004). What to do when stakeholders matter. Public Management Review, 6 (1), p.21 - 23. Available at http://archive.hhh.umn.edu/people/jmbryson/pdf/stakeholder _identification: analysis techniques.pdf.

Cleland, D.I, Ireland, R.L. (2002). Project Management: Strategic Design and Implementation.New York: McGraw-Hill.

Creswell, J. (1998). Research design: Qualitative, quantitative, and mixed methods approaches (2nd ed.). Thousand Oaks, CA: Sage.

Creswell, J. W. (2009) Research design: qualitative, quantitative, and mixed methods approaches (3rd ed.) London: Sage Publications.

Eden and Ackermann (1999:117). Stakeholder Definition – What are Stakeholders? http://stakeholdermap.com/stakeholder-definition. html.

Eisenhardt, K. M. (1989). Building Theories from Case Study Research. Academy of Management Review, 14(4), 32-550.

El-Gohary,N. M. et al (2006). Stakeholder Management for public private partnerships. International Journal of Project Management 24(7): 595-604. Doi:10.1016/j.jproman. 2006.07.009.

Glaser, B. G. (1993) The Social Loss of Dying Patients. In: Glaser, BG (ed) Examples of Grounded Theory: A Reader. Mill Valley, CA: Sociology Press.

Glaser, B. G. and Strauss, A. L. (1967). The Discovery of Grounded Theory: Strategies for Qualitative Research, Chicago: Aldine De Gruyter.

Hammad, Salah (2013, April): Investigating the Stakeholder Management in Construction Projects in the Gaza Strip. Masters Thesis on Construction Mangement. The Islamic University, Faculty of Engineering, Gaza.

Hancock, D. R., &Algozzine, B. (2006). Doing case study research: A practical guide for beginning researchers. New York: Teachers College Press.

Handel, N., Silverstein, M., Waisman, E., Waisman, J., &Gierson, E. (1990). Reasons why mastectomy patients do not have breast reconstruction. Plastic Reconstruction Surgery,86(6), 1118-22.

Jergeas, G.F. Williamson, E. Skulmoski, G. J., Thomas J.L. (2000). Stakeholder management on Construction projects, AAC International Transactions 12:1-5.

Karlsen, J.T. (2002). Project Stakeholder Management. Engineering Management Journal 14(4): 19-24. Miles, M.

B., & Huberman, A. M. (1994). Qualitative data analysis: An expanded source book (2nd ed.). Thousand Oaks, CA: Sage.

Newcombe, R. (2007). Stakeholder Impact analysis in construction project management. Construction management and Economics 25(3):277-287.doi.10.1080/0144690600879125

Newcombe, R. (2003). From client to project stakeholder: a stakeholder mapping approach. Construction Management and Economics 22(9/10): 762-784.

Landin, A. (2000). Impact of Quality Management in the Swedish Construction Process. PhD. Thesis, Department of Construction Management, Lund University.

Lather, P. (1992). Critical frames in educational research: Feminist and post-structural perspectives. Theory into Practice, 31(2), 87-99.

Loosemore, M. (2006). Managing project risks, in the Management Complex Projects: A Relationship

Approach, Pryke, S. and Smyth, H. Blackwell, UK.
Olander, S., Landin, A. (2005). Evaluation of stakeholder influence in the implementation of construction project. International Journal of Project Management 23(4): 321. doi.10.1016/j.ijproman. 005.02.002
P.C.A., Ho, C.K.D., Tam, C.M. (2001). Design and build project success factors: Multivariate analysis. Journal of Construction Engineering and Management, March/April 93-100. doi:10. 1061/ (ASCE) 0733-9364(2001) 127:2(93).
Project Management Body of Knowledge, (PMBOK® Guide) – Fifth Edition, A Guide to the Project Management Institute, Inc., 2013 (pages 391 -415).
Pinto, J. K. (1998). Project Management Handbook. PMI, Jossey-bass Inc. San Francisco, California, USA.
Pouloudi A. Whitley, E.A. (1997). Stakeholder identification in inter-organisational systems: gaining insights for drugs use: European Journal for of Information System 6(1): 1.
Riege, Andreas (2003): Qualitative Market Research: An International Journal Vol.6: Issue 2: page 75-86 (published June 2003. MCB UP Ltd. Nathan, Australia.
Richard A. Nielsen (2016, Vol. 45(3) 569-597): Case selection via matching. Department of Political Science, Massachusetts Institute of Technology, Cambridge, MA 02139, USA.
Rockart, J.F. (1979). Chief Executives define their own data needs. Harvard Business Review, 57(2): 81-93.
Rowlinson, S. et al. (2008). Stakeholder management through empowerment: modelling project success, Construction Management and Economics 26(6): 611. doi:10.1080/01446190802071182.
Saraph, J.V. et al (1989). An instrument for measuring the critical factors of quality Management, Decision Science 20(4): 810-19.
Yang, J., Shen, G.Q. Ho, M. Drew, D.S. and Chan, A. P. (2009). Exploring Critical Success Factors for Stakeholder Management in Construction Projects. Journal of Civil Engineering and Management. ISSN 1392-3730 print/SSN 1822-3605 online.
Yin, R. K. (2003, 2009). Case study research: Design and methods (3rd ed.). Thousand Oaks, Sage California, USA.

APPENDIX A

INTERVIEW QUESTIONS

PART I: PERSONAL INFORMATION

The questions are with regards to:

i) The nature of Organisation
ii) Your Positon in the organization
iii) Your work experience

PART II: FACTORS AFFECTING STATEKHOLDER MANAGEMENT IN YOUR PROJECT

a) What are the problems you face in your project with regards to Stakeholders? How do these problems affect the operations of your construction project organization?

This part is based on your experience in the field of project management and your feedback will be appreciated in questions regarding:

i) Management Support – What role do they play
ii) Information input – What kind of information
iii) Stakeholder assessment – How do you assess stakeholders and why
iv) Decision making – Why is this important
v) Action and evaluation – What do you look for when you take action and evaluate stakeholders
vi) Continuous support – How has this helped in your construction organization?

PART III: STAKEHOLDER MANAGEMENT PRACTICE

b) From the attached list of Critical Success Factors which ones do you think applies to your situation? Why? (Hammad Salah's (2013) list of 30 Critical Success Factors summarized into 15 by Yang, et al. 2009).

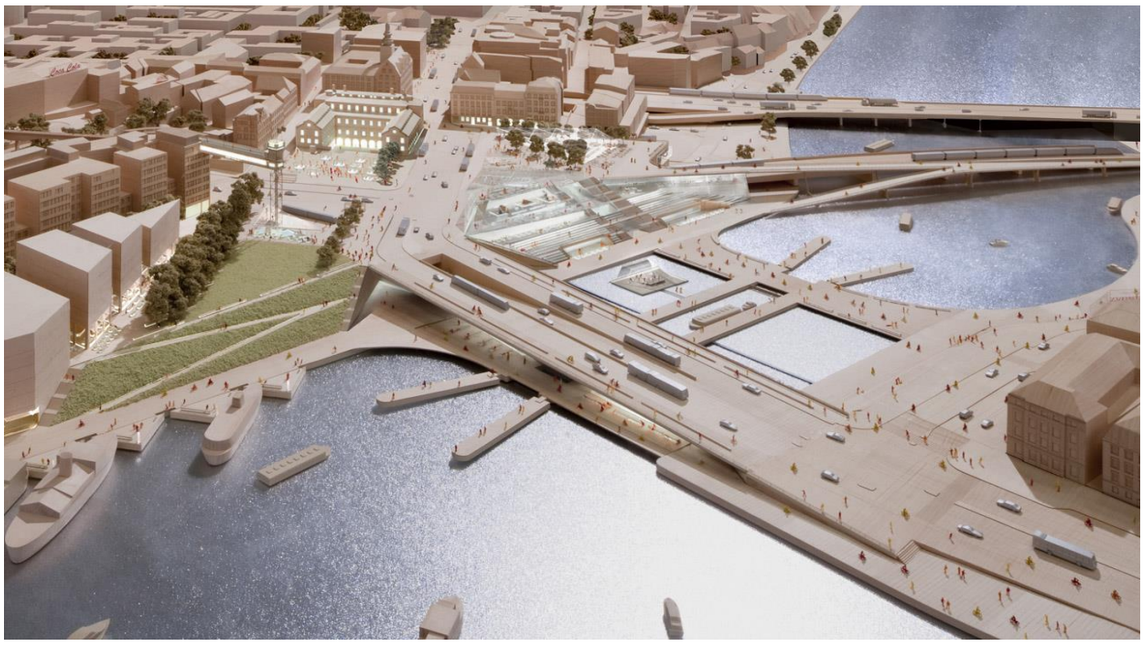
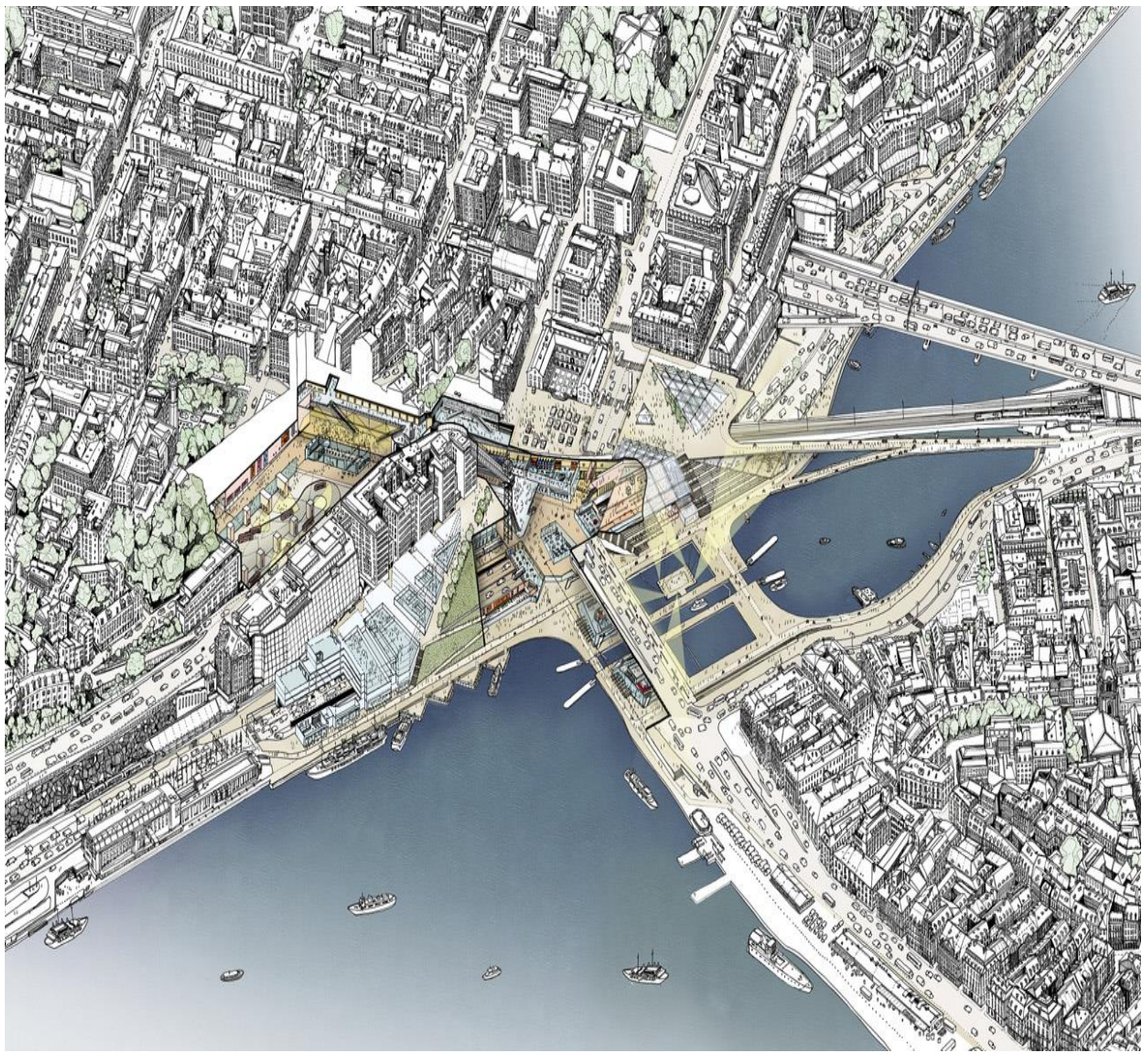
The 15 CSFs are as follows:

1. Managing stakeholders with social responsibilities (economic, legal, environmental & ethical);
2. Formulating a clear statement of project missions;
3. Identifying stakeholders properly;
4. Understanding area of stakeholders' interests;
5. Exploring stakeholders' needs and constraints to projects;
6. Assessing stakeholders' behaviour;
7. Predicting the influence of stakeholders accurately;
8. Assessing attributes (power, urgency, and proximity) of stakeholders;
9. Analysing conflicts and coalitions among stakeholders;
10. Compromising conflicts among stakeholders effectively;
11. Keeping and promoting good relationships;
12. Formulating appropriate strategies to manage stakeholders;
13. Predicting stakeholders' reactions for implementing the strategies;
14. Analysing change of stakeholders' influence and relationships during the project process;
15. Communicating with and engaging stakeholders properly and frequently.

This part is based on your experience in project management and your feedback will be appreciated:

16. Do you analyze stakeholders? What methods do you use for analyzing stakeholders' concern and need
17. How do you engage stakeholders in the project? Engagement methods for the stakeholders
18. a) Look at the listed methods and the critical success factors. To what Extent do you think the listed methods are effective to engage with stakeholders?
19. Response strategy to deal with the Stakeholder claims:
    a) To what extent do you think the listed response strategy types are effective to deal with the stakeholders?
    b) Strategy Type?
    c) What are the reaction of stakeholders to strategies?

Any other points for discussion?

APPENDIX B

THE SLUSSEN PLAN AND THE DIFFERENT TYPES OF STAKEHOLDERS