CHALMERS

Communication in a Swedish Middle-Sized Construction Company

Master of Science Thesis in the Master's Programme - Design and Construction Project Management

PÄR LARSSON
ANDERS SIVENBRING

Department of Civil and Environmental Engineering
Division of Construction Management
CHALMERS UNIVERSITY OF TECHNOLOGY
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ABSTRACT

Well functioning communication is a key factor in construction projects. In order to complete a project in accordance with both the time schedule and budget, individuals involved in the projects need to communicate effectively. If everyone involved in the project are well informed and have a common vision of the project goals they are more likely to work in the same direction. Hence the risk for costly mistakes and time delays can be lessened. In young and expanding organisations the frameworks and routines can be under developed due to high focus on other organizational areas.

The focus of this report has been on identifying areas that can be improved and to investigate whether implementation of an electronic platform would be beneficial for communication within the company. Three research questions form the basis of this report:

1. What seem to be the most important communication channels in the company?
2. Is there a need for communication routines within MSCC, if so, how could such routines be developed?
3. Would a creation of a common platform, where information is regularly updated and easily accessible, improve communication in the company?

Previous research, articles, books, reports and other written material has been used as a basis for this study. In addition theories about how to perform in-depth interviews and how to collect data and field observations have been used. This study has a qualitative hermeneutic approach. Two exploratory interviews have been used to pinpoint areas for further in-depth studies. In addition seven main interviews were carried out and constitute main part of the results for study.

The result of this study indicates that it would be beneficial for the company to have an electronic platform accessible to all employees, provided that information and the latest news are constantly updated. The study also indicates that some routines are not used and perhaps should be re-formulated. The most important communication channels seem to be e-mail correspondence and telephone use.

Key words: communication, construction industry, construction sector, communication channels, intranet

Kommunikation i ett medelstort svenskt byggföretag.

Examensarbete inom Management och Projektledning i Samhällsbyggnadssektorn

PÄR LARSSON

ANDERS SIVENBRING

Institutionen för Bygg- och Miljöteknik
Avdelningen för Constructions Management
Chalmers tekniska högskola

SAMMANFATTNING

Välfungerande kommunikation är en nyckelfaktor inom byggprojekt. För att slutföra ett projekt i enlighet med såväl tidplan som budget så behöver de involverade parterna i projektet kommunicera effektivt. Om alla individer som är engagerade i projektet är välinformerade och har en gemensam bild av projektmålen så är det mer sannolikt att de arbetar i samma riktning. På så vis kan risken för kostsamma misstag och tidsförseningar reduceras. I unga och expansiva företag kan ramverken och rutinerna vara under uppbyggnad med anledning av stort fokus på andra områden inom organisationen.

Rapporten fokuserar på att identifiera potentiella förbättringsområden samt på att utreda huruvida implementeringen av en elektronisk plattform skulle vara gynnsam för kommunikationen inom företaget eller ej. Tre forskningsfrågor ligger till grund för rapporten:

1. Vilka tycks vara de viktigaste kommunikationskanalerna i företaget?
2. Finns det ett behov av kommunikationsrutiner inom MSCC, och om så är fallet, hur skulle dessa rutiner kunna utvecklas?
3. Skulle en gemensam plattform, där information regelbundet uppdateras och är lättillgänglig, förbättra kommunikationen i företaget?

Tidigare forskning, vetenskapliga artiklar, böcker, rapporten samt andra skrivna källor ligger till grund för studien. Teorier kring genomförande av forskningsintervjuer, insamling av data samt genomförande av fältobservationer har även använts. Studien har en kvalitativ, hermeneutisk ansats. Två förberedande intervjuer genomfördes för att identifiera områden att studera mer ingående. De två förberedande intervjuerna följdes av sju huvudintervjuer vilka utgör huvuddelen av resultatet i studien.

Resultatet av studien indikerar en möjlig vinning för företaget i att nyttja en elektronisk plattform, tillgänglig för alla, där uppdaterad information och nyheter finns tillgängliga. Vidare visar studien att vissa rutiner används sparsamt och möjligen skulle de behöva formuleras om. De viktigaste informationskanalerna inom företaget tycks vara e-postkorrespondens samt telefonsamtal.

Nyckelord: kommunikation, byggbranschen, byggsektorn, kommunikationskanaler, intranät

Content

Acknowledgement

First of all we would like to thank Christine Räisänen, Professor of Organization and Communication at Chalmers University of Technology for her input and help as Supervisor. Räisänen has filled an important role providing information and we are grateful for her enthusiasm expressed during the discussion of ideas. We would also like to express our gratefulness for the support provided by our supervisor at the middle-sized Swedish construction company [MSCC]. Finally, many thanks go to those MSCC employees engaged in the introduction of a new calendar routine and particularly to those of you that we interviewed. Without your thorough answers, this study would not have been possible.

GOTHENBURG, Month Year

Pär Larsson

Anders Sivenbring

1 Introduction

Communication is something that humans use every day. It is a complex process that concerns both tone of voice, body language, communication channel and routine. Communication channels are tools that are used every day when individuals are communicating and interacting with each other. Examples of these tools are writing letters, e-mails, telephone and meetings. Communication using these channels differs with regard to high or low information richness (Kauffman & Kauffman, 2007, p. 356). Built into the communication channels are different possibilities for the participants to register aspects such as tone of voice, body language etc. It is important to use the right channel or channels in order to provide the right kind of information in the right way. For example when writing a contract, a face-to-face meeting would be preferable to a telephone call because it creates a more personal contact and allows for immediate discussion and feedback. Such an approach can increase trustworthiness.

In the construction industry communication is perhaps even more important than in other sectors. The reason for this being that construction companies face difficulties concerning contingency factors during design and construction of the projects. Contingency could be defined as: "an event (as an emergency) that may but is not certain to occur" (Webster, 2012). But the complexity of the projects themselves also plays an important part. Many pieces need to be fitted together concerning many different stakeholders at the same time. Large corporations have, in comparison to middle seized companies, often rather rigid and standardized frameworks of how to communicate with different stakeholders (Carlsson & Josephson, 2001). Small companies can have quick decision paths, often a more personal service and possibilities for close contact between workers and management. Even if these companies are hierarchical there are often fewer levels for the decision to pass through thus making it possible for faster decisions. Middle seized companies face difficulties using complex and expensive systems. These problems might occur due to the cost and time needed to implement the systems. They need to find ways to combine the positive features of small companies with the effectiveness and standardized communication frameworks large companies often have.

According to Dainty et.al (2006) the main reason that communication in the construction industry is more complex than in other sectors is the many factors, and interests, that determine the success of a project. The project-based nature of the construction industry leads to temporary organizations that are dissolved when the projects are completed. Once the communication structure in one project starts to work well, and the stakeholders feel comfortable in the project, it is time to disband and start building up new communication processes. This is done with new actors, who may have another type of communication structure in another geographical location. This is a process that is repeated during the initiation of each project. These are not the only challenges that the construction industry faces. There are a set of possible pitfalls that managers in the construction industry must be aware of when communicating and avoid if possible. These possible pitfalls are presented by Dainty et.al (2006, p. 27):

Unclear objective: when a sender has an unclear objective, the message may be confused and not convincing to the receiver.

Faulty transmission: can occur when the sender chooses an inappropriate communication channel. This effect can also occur when a person, who is not fully aware of the situation, is expected to absorb too much information.

Perception and attitude problems: these originate from faulty interpretations of the message by the receiver. The sender and receiver see different meanings in the same message to an extent where a common understanding is not possible.

Problems in the environment: lack of suitable communication media and physical distance.

Chinese whispers: mouth-to-mouth communication, where the message is distorted the further down the chain from the source it goes. This phenomenon is also known as "word of mouth".

Communication in a typical construction company needs to work effectively between different specialist groups in the company as well as vertically in the hierarchy. Moreover the communication also needs to be effective between departments and between divisions. Many employees´ tasks depend largely on the collective achievement of others. For instance a tender handed in by a contract engineer is based on that person´s own work, but also on what subcontractors from different disciplines have produced together using calculations and contractual computations. A challenge is that individuals in a project tend to have tunnel visions, which obstructs communication. An example of this may be the views of an architect, who mostly considers the esthetics of the building rather than functional aspects, whereas the constructional engineers may mostly consider functional aspects and seldom consider esthetics (Dainty et al, 2006).

1.1 Purpose and Research Questions

The purpose of this case study is to examine how employees communicate within a middle-sized Swedish construction company [MSCC], focusing on communication channels, key communication persons and communication tools. Three research questions have been formulated and have served as a guide for this study.

1. What seems to be the most important communication channels in the company?
2. Is there a need for communication routines within MSCC, if so, how could such routines be developed?
3. Would a creation of a common platform, where information is regularly updated and easily accessible, improve communication in the company?

This thesis highlights both communication prerequisites and barriers. The study will not concern interorganizational communication. It will also not consider communication with the general public. Even if knowledge and change management are relevant aspects to the transformation that the company undergoes, they are not aspects that this case study will address.

1.2 MSCC Organisation in Brief

The company under study is a construction company that specializes in contract work for public and private clients. The head office is located on the west coast of Sweden with local offices along the west coast and in Skåne. The company has grown from a small company with a net turnover of 100 MSEK and 40 employees in 2003 to a middle seized company 2011, with a yearly net turnover of 1000 MSEK and 160 employees. This information has been gathered from the company's final accounts and their official web page. Such expansion can create growth stress and some organizational parts can get more focus from the board of directors then others. This could be due to too few resources, not enough time or a focus on other organizational areas. In addition communication is to a large extent carried out by email, both for simplicity reasons and for its possibility document exchange. The reason for documentation of conversations is primarily based on juridical reasons and the ability to prove who said or agreed to what.

The company has no intranet; instead it relies on emails and that all concerned parties are reached with this channel. When there is no common platform for all employees to easily access information or updates concerning the company in general, some employees might feel left out and uncertain of what is going on. Intranet could provide the possibility to serve at a common ground to find important documents and updates on the company. Moreover, mail could be lost or overlooked if the mail load is too high. In addition, once a month there is an office meeting where there is possibility to address issues that has arisen or to express opinions on matter that concern the entire office. The participants on these meetings are the office employees. Challenges that one might face are that if communication is neglected employees can feel worried and uncertain about what is happening causing them to underperform. Another risk is that clients may feel disappointed if their needs are not met due to lack of communication.

During the last eight years the middle-sized construction company (MSCC) has expanded dramatically. It grew from a local company with 20 employees to a regional company currently employing 160 persons. MSCC is active in most areas of construction, ranging from civil engineering to worksite maintenance. They also develop and build objects on speculation. During the economic recession in 2008-2010 the company continued to expand and hire new personnel, leading to its current position among the top-fifteen contract companies on the Swedish construction market. This development is in the writing moment still in progress.

Municipalities and other institutions that use the public tendering process to determine a suitable contractor are currently MSCC's most reoccurring clients. Bigger private organizations also appear on the client list, and future plans are to expand in both client areas. Rapid expansion like the one described for MSCC is interesting to study from the perspective of communication because communicating is what managers do 80% of their workday (Minzberg, 1973; Tufvesson, 2008). Any insight on how to improve the efficiency of the time spent could create a more effective and successful expansion. An obstacle to such insight is that there seems to be a low focus on communicational areas from the decision makers of the company. Often the focus seems to notably be shifted towards production. Managers and office employees acknowledge that they communicate a lot, but view it rather as something that they just do, not as a specific area that could be improved.

One of the authors has been employed at MSCC since June 2010 and questions about communication have arisen during the employment. Due to the expansion, the tools for communication have not been developed. Instead focus has been on breaking new ground and on production. Due to this focus there is reason to investigate how communication works in the organization as well as what can be improved. It is also important to provide the employees with tools and possibilities to communicate effectively.

The structure of MSCC is described by the interviewees as a flat organization with quick decision making paths. This is in contrast to the rather hierarchical formal structure. A common but problematic mode of communication is word of mouth since there is no common platform for information and company-related updates. This creates a problematic situation where some information risks not reaching all the intended receivers. On the other hand some information that is not supposed to reach all receivers might do.

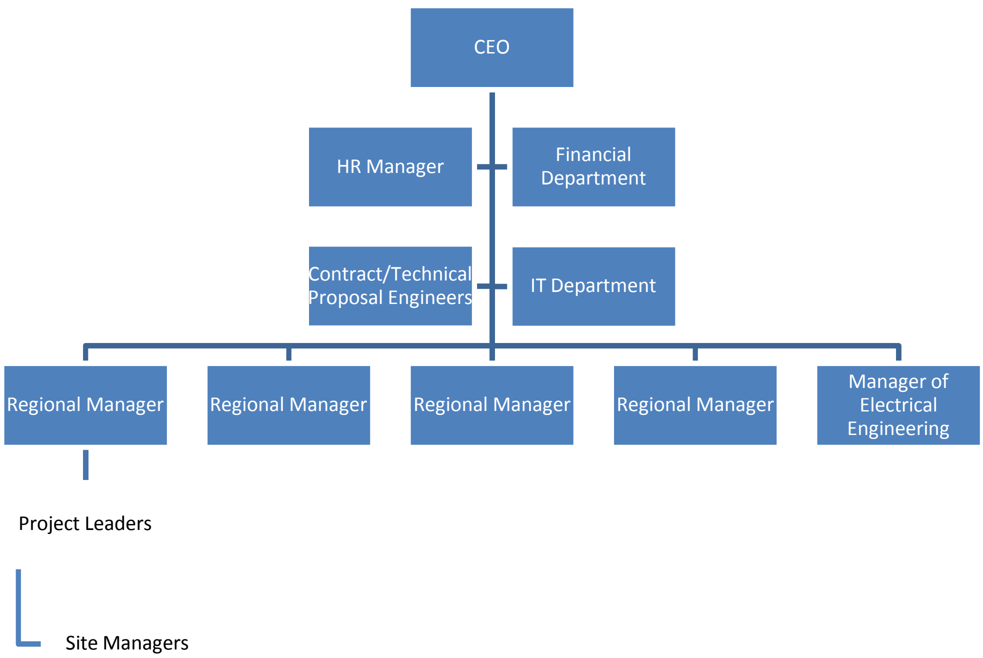

Figure 1 – Simplified Organizational Chart, MSCC

This organisational chart shows what the organizational structure in MSCC looks like; however, the communication paths do not seem to follow the same structure. Instead of the formal structure, the real communication pattern is rather flat. There is freedom of action and everyone talks to everyone. However if there are only a few information channels that reaches a limited number of people there is a risk that information does not reach all the intended receivers. This issue is not especially somewhere but rather that the channels are not available. For instance currently there is no intranet. This means that in order for employees to be informed of what is going on, they constantly have to search and actively use their connections and channels to be updated on what is happening and decisions that are taken by the board of directors. In the project groups this seems to work well, but in general, at the office, information seems to be unevenly distributed. Moreover it seems that in order to get information, the employee searching for information needs to be the active part. Information can in some cases be hard to attain.

2 Theoretical Framework

This chapter concerns the theory upon which the thesis is based. The theoretical framework is presented below. After that follows a short description of some basic communication concepts. In addition different media of communication are presented. Thereafter communication models will follow and the chapter will finish off with some aspects of how organizational culture affects communication.

2.1 What is communication?

To communicate originates from the Latin word "Communicare" and means to make something common or to share thoughts, opinions or information. In order to communicate people interacting with each other need some sort of communication channel and a common view or goal for the interaction, (Palm & Windahl, 1989, p. 13; Dimbleby & Burton, 1998).

Within an organization communication is important in governing the employees and is used to motivate and to provide information (Robbins, 2003). Dimbleby and Burton (1998, pp. 15-16) describe communication in an organization as a tool that is required for: survival, co-operation, power assertion/persuasion and to fulfil social needs. A similar view is presented by Heide et al (2005) and Keiser S (1978) and Enqvist (1992). They argue that we communicate to understand and to clarify social relations to others. In addition communication can be used as a defence or to provoke a reaction or to present a unified image to groups of people.

Organizational communication is all communication, internal and external that an organization has. As an example, it can be the communication between a manager and his/her employee or client. Organizational communication is important not only to get organizational members to accept organizational goals but also important for the stakeholders at all levels in an organization (Dainty et al, 2006, pp. 160-188; Heide et al, 2005; Berger, 2008).

2.1.1 Lateral and Vertical Communication

Lateral communication is the flow of information on the same level of an organization. For example lateral communication could be communication between a tender engineer and a regional manager. Lateral communication is important in order to create better teamwork and to exchange experience with people that run into similar problems (Shelby, 1993). Vertical communication is the upstream and downstream communication within the company. This communication often consists of reporting and delegating tasks between different levels in an organization (Shelby, 1993). Vertical communication is vital for the employer in order to understand the employee's requirements and to keep the employees informed of the common values of the company. In addition, vertical communication is useful in order to motivate employees and to allow them to partake in the decision-making process thus creating better understanding for the company's decisions (Dainty et al, 2006).

2.2 Interpersonal Communication

Interpersonal communication most often involves face-to-face contact and it can be defined as a selective, unique, process transaction that creates personal contact and allows for better personal knowledge. However, interpersonal communication may also involve contact via electronic media such as telephone. (Wood, 2010)

2.2.1 Paralanguage

Paralanguage describes the non-verbal signs and gestures that complement verbal communication. Generally this effects ones interpretation and understanding of what others are expressing in a conversation. Examples of such signs are sighs and laughers. Another example is when people use claims as questions; this is clarified through increased tone of voice in the end of the sentence (Dimbleby & Burton, 1998, p. 72).

2.3 Information Richness

Information richness theory could be defined as how well a media can depict the transmitted information, including non-verbal communication (Daft & Lengel, 1983). It is important to have high information richness when discussing important matters to avoid misunderstandings. According to Jacobsen & Thorsvik (1995, p. 344) a message channels ability to correctly transfer messages with high information richness are characterized by a set of aspects:

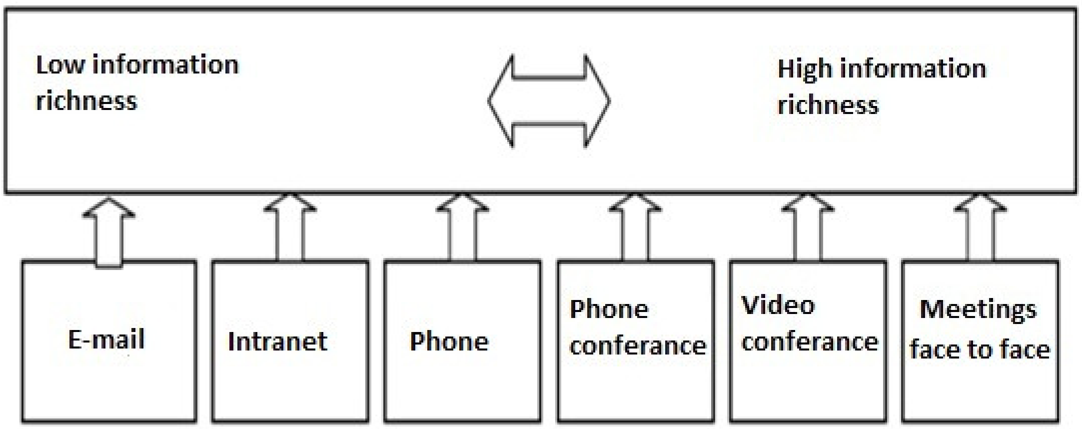

Figure 3 - Different Communication channels and their information richness (Jacobsen & Thorsvik, 1995, p. 344) adapted by Larsson & Sivenbring 2011.

Low information richness means that it is difficult to perceive details except what is written or presented. An example is that with an email it is impossible to perceive tone of voice, facial expressions, etc. of the corresponding party. When having a meeting face-to-face many things can be perceived more easily, such as tone of voice, stressed or calm appearance etc. Hence high information richness implies that many things can be registered, such as body language, eye contact and tone of voice. In other words it is often easier to interpret and understand each other. However traceability is more difficult to achieve if only verbal contracts are made nothing is written and agreements hard to justify if nothing is documented (Jacobsen & Thorsvik, 1995).

2.4 A communicative perspective model

This chapter presents a communicative perspective model explains the process of communication, taking into consideration cultural, social and physical dimensions.

2.4.1 Communicative perspective on construction

Figure 2 is based on Dimbleby & Burton´s context model of communication (1998, p. 44). In this model, communication starts with a sender wanting to convey a message to a receiver. A communication is embedded in cultural, social and physical environment, with a sender that encodes a message by using a communication channel. The receiver then decodes the message. Decoding a message means to put it into a context and to create meaning. Decoding is based on previous experience. For instance if a manager has a high pitch tone whenever discussing an important task, workers would after a while with that manager start to associate high pitch tone of voice from that specific manager as something to pay closer attention to. The message is decoded to be more important. Delimitations with decoding can also occur when the consensus around a certain term is interpreted differently by two people. For instance, inner wall might to an architect mean something that separates two rooms. As for a carpenter it would more likely mean what kind of gypsum board, the metal beams in the walls and insulation.

With every encoding and decoding there is a possibility that the message is interpreted differently than the sender intended it because of unclear instructions, faulty task descriptions, differentiating consensus about the subject etc. Such misinterpretations are often referred to as barriers. To limit the misinterpretations feedback might be for the receiver to ask questions or to get clarification on things that are unclear. The feedback can be immediate, when meeting face to face, or it can be slower, for instance when waiting for a reply on an e-mail to clarify things or get confirmation. This is the basic two way communication (Dimbleby & Burton, 1998).

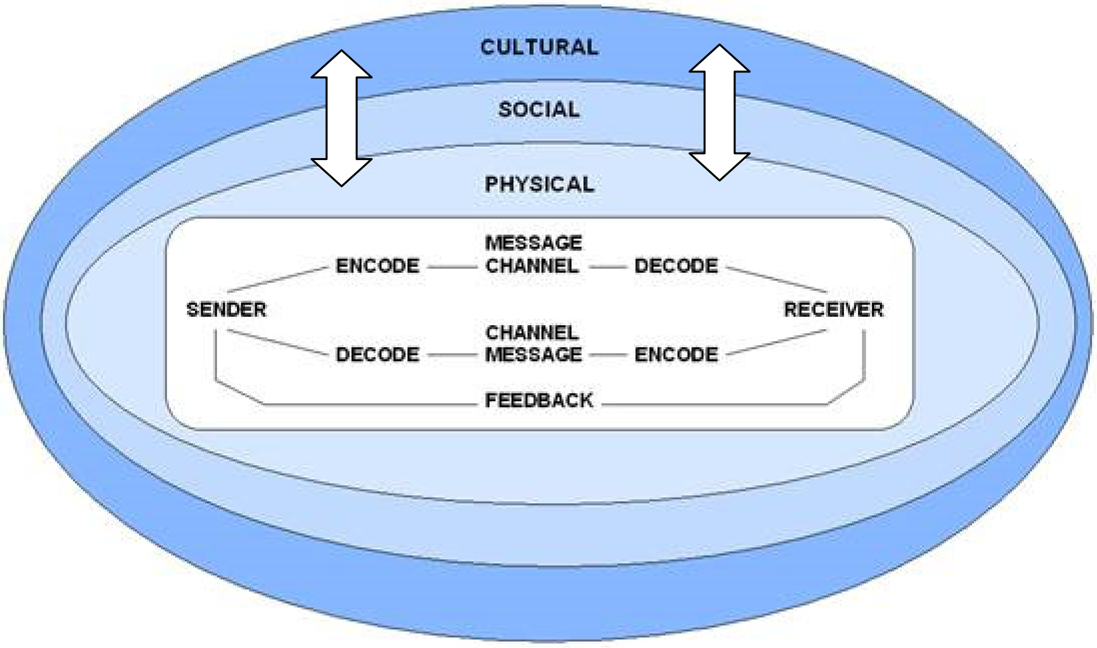

Figure 2 – Communicative perspective model – (Dimbleby & Burton, 1998, p. 44)

Cultural environment

The cultural environment considers underlying values and opinions, strongly affected by tradition and mindset of the company. An example could be that a highly hierarchical construction company could have certain role models, persons or other companies that they look up to. Other factors that create the company culture could be certain favored behaviors, ways of dressing could be considered appropriate or inappropriate. As an example in Sweden it could be considered appropriate for a site manager to wear a shirt at the office, while craftsmen at site could outdistance themselves, because they feel the site manager marks his position through his choice of clothes. That cultural environment governs how conversation takes place, what media is used and so forth (Dimbleby & Burton, 1998).

These three external factors then interact. The culture set standards for how social interactions should take place. Factors that are included in the cultural environment are for example, how to behave, how to pay respect to superiors. The social environment with the standards of acceptable behaviors etc. creates an atmosphere where certain things for instance, interior design, problem solving methods and communication paths are preferred. From that social environment, which is formed out of the cultural environment, the physical environment is sculpted. Tables, paintings and other interior aspects are chosen to match expression of both the culture and the social atmosphere. Hence the physical environment can be an expression of the underlying cultural and social values and constructs that a company has. In the encoding and decoding of messages the individual pays attention to the culture in which the communication takes place. As an example, when decoding and encoding a message the cultural, social and physical environment has to be taken into consideration. This is done through evaluating how probable it is for an expression to have a specific meaning in that cultural, social and physical environment (Dimbleby & Burton, 1998, p. 44; Dainty et al, 2006).

Social environment

The social environment covers aspects such as in what social context the communication takes place. For instance, factors concerning who the involved persons are and if the communication setting is formal or informal are parts of the social environment. For example a conversation taking place between close friends has a different social tension than a conversation between a CEO and his/her subordinates. Employees are more cautious when talking to people they are in a position of dependence to. The opposite is when employees at the same organizational level interact; in such situations their behavior is often more relaxed.

Physical environment

The physical environment is for instance what we see around us and where the communication takes place, what surroundings the conversation is situated in. For instance the physical environment at a construction office could consist of tables, background noises, coffee machines, printers and every part of the interior, such as the color of the walls and ceiling, the shape of the table and the feel of the table linen. All these factors and more create the physical environment. The communication is affected depending on what surroundings the conversation is situated in, that is the physical environment. Examples of this could be if a meeting takes place in a noisy on-site office or at the head office with fresh coffee and fruit bowl.

2.5 Communication barriers

Barriers are obstacles to overcome in order to ensure successful communication. There are many forms of barriers that affect communication in different ways. This text will present and describe those that are most relevant for the case study. The different barriers have been selected from Dainty et al, (2006)**.** There are some particular difficulties connected to the construction industry. These difficulties involve contingency, the project based nature of the project, large sums of money in each project, high risk, demand on special competence etc. (Dainty et al, 2006). All these factors contribute to make it difficult to communicate. The reasons for that being that time and money are constraining factors in all projects.

The company needs to have a communication strategy and a framework for how to communicate in the projects. Such strategy will in theory ensure that necessary information reaches the intended receiver in time. Flexibility and adaptability can be achieved by ensuring that there is a two way communication and that there is a culture of acceptance towards change (Dainty et al, 2006). Moreover one of the most influential factors that influences communication in construction concerns how resources, both human, financial and material, are organized and how hindrances are handled. Flexibility and adaptability are key functions for managers to consider, when trying to achieve project objectives (Dainty et al, 2006).

In addition the stakeholders often change with each project due to the large sums of money connected to a construction project. Each project is always, to some extent, tailored to the client and the prerequisites of the site. Changes that occur will cost money, and the longer into the project the changes occur the more severe the economic and time bound effects are. Late changes from the client, that is influenced by the different stakeholders, puts increased demands on communicative structure of an organisation in order to ensure that nothing is forgotten or lost. This puts increasing demands on the actors who are forced to quickly understand and adapt to each other's viewpoints, requirements and demands (Dainty et al, 2006). Employees need to be able to question routines in order to improve and develop communication patterns. When organizational members simply accept the current way of working, without trying to find improved or better ways to communicate, the communication in the company could stagnate. One of the main reasons for that is that developments in communicational technology, information technology or other areas could be overlooked and competitors could gain an advantage that can be hard to retake. (Marques, 2010).

The individual´s frame of reference – individuals create meaning based on their personal frame of reference. That frame of reference is created by experiences and preconceptions of how to act in different situations and what is considered appropriate. An example of these differences would be that a company has a rule that all binders must be stored in alphabetical order. For some companies that rule would be fully complied with and considered extremely important whilst in others the rule would just be thought of as a guiding principle.

Stereotyping – stereotyping is a common phenomenon in everyday communication. People often have a clear perception about what other people will say in a given situation. That preconception is based on the socioeconomic background, and/ or profession that person has. Such behavior means that there is a risk that the receiver does not listen to what the sender actually says, but instead reads in what he or she expects the sender to say.

Cognitive dissonance - What an individual is presented information that does not correspond with the individual's preconception they are often conflicted and skeptical to that information and have a difficult time comprehending and responding in a positive way. That is, they will be skeptical and challenge that information due to the uncomforting notion when their preconceptions are challenged.

"Halo or Horn´s" effect - Closely related to stereotyping but more connected to the individual's opinion about another individual. Trust is a central concept, if the individual is distrusted opinions and ideas that person has are more likely to be treated cautiously and with distrust. If a person is trusted and presents the same suggestion the response is more likely to be more positive.

Semantics/jargon – Different groups put different subtexts to certain words or phrases. That can lead to difficulties with transferring information. Mostly that happens when a word is not interpreted according to the meaning of the word but with sub contextual meaning and attributes that the jargon group has. For instance a very technical person might have difficulties understanding metaphorical stories or claims since they are used to numbers having an exact meaning and that no sub context needs to be considered.

Not paying attention – Many factors can influence this barrier. However the main point is that the receiver somehow is distracted when the information is passed on. Such distractions could be stress, background noise, or simply forgetting the information soon after it is passed on.

Power differences – This occurs when employees distort information in the upward communication because they believe that the superiors have little understanding for their needs

Physical surroundings - Could be factors like how the room is designed, loud equipment or machinery. The physical environment can in some cases enhance the barrier "not paying attention".

Language – Dialect and local words together with specialist language or if there is a multitude of languages in the workgroup can impede communication and add to the effects of the "semantic/ jargon" barrier.

Cultural diversity – Companies and individuals have different cultural expectations of what is handled formally and informally. For instance, in smaller carpenter companies a close contact with the client can create an informal atmosphere whereas the atmosphere of a larger company would in the contact with a client be more formal (Dainty et al, 2006).

Time barrier - Lack of time is negative in many aspects, not only because it will be hard to find meeting times and time for reflection and improvement work, it also affects the communication as a whole. The human being is biologically wired to need time to accept changes, disregarded of the size of the changes (Heide & Johansson, 2008).

2.6 Communications management in organizations

Managers need to be able to influence how and what channel employees use when communicating with each other. This concerns both information from managers and information from employees. The ability to influence and manage those aspects is called communications management, and is essential for an effective manager. Top Management has responsibility to create routines and framework for communication and to make sure the lateral communication is working (Hamrefors, S, 2010).

It is important that managers have a possibility to influence Top Management in order to contribute to the information flows and work processes. Top Management has the assignment to set visions and objectives in order to strategically manage and steer the company in the desired direction. According to Fachet (2009) it is important for employees to communicate in the same manner as the management, especially considering style, message channel and tone. Acting this way could prevent some of the misconceptions that may arise due to cognitive dissonance and semantic/ jargon differences.

Because of the high work load and time pressure most managers experience today, it is common that managers are opposed to investing in “softer values”, e.g. communication, culture. The main reason is the difficulty in measuring and evaluating the impact resources put on softer values has on an organization as a whole. Almost all companies, non-profit organizations excluded, exist to create economic growth. When the result is hard to measure in currency it is difficult to motivate managers to invest much time in the matter (Heide et al, 2005).

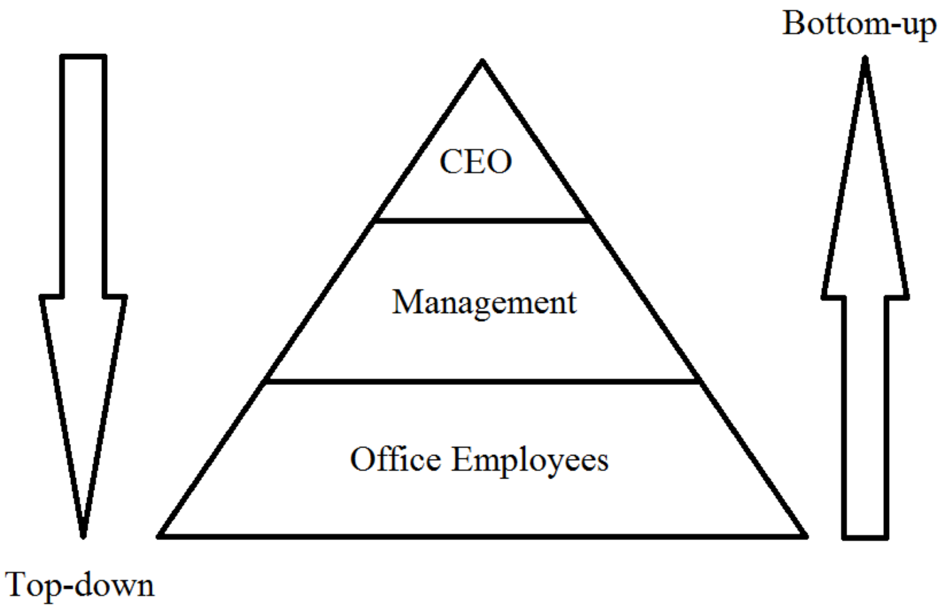

Figure 3 – Top-down, bottom-up communication

When communicating, creating trust and employee participation, it is important to anchor the process bottom up instead of trying to force everything top down (Heide & Johansson, 2008, p. 94)

According to Heide & Johansson (2008) many scientists have long claimed that the downward communication is often more developed than the upwards communication. This may have many different reasons, for instance superiors do not care about the opinions of the employees, or that the communication paths upwards in the company are inadequate. Such inadequacy may be due to lack of frameworks for such communication, or due to a low focus on the area from governing positions in the company.

2.6.1 Communication Routines

Often, organizational members mention lack of information in their daily work, while in fact it is often a matter of too much information but not the right one. The communication structure plays an important role in the limiting of too much information. Too much information makes it hard to prioritize and to sort out what is important. In other words, it is important to find an equilibrium level where relevant information is provided at the right time (Heide et al, 2005).

2.7 Channels for communication

Message channels will be more or less suitable in different situations and organizations. For instance the IT competence varies between different individuals and departments in organizations. Hence message channels will work differently depending on the employees involved (Palm & Windahl, 1989). Sometimes juridical reasons determine how communication should take place and what message channel is most appropriate to use, often this relates to contracts and agreements that need to be traceable and verifiable (Vigden, 2011). Described below, in terms of advantages and constraints, are message channels that are commonly occurring in the construction industry.

2.7.1 E-mail

Vigden (2011) argue that e-mail inboxes have two main functions: storage and checklist. Due to increased information flow some companies are experiencing problems with too many e-mails. E-mails have benefits compared to letters, they are simple to store and categorize digitally, and also handling and writing is much faster than regular mail. On the other hand the same factors that are advantageous could increase expectations on short response time and in turn put pressure on actors to answer quickly. For example, more errors could occur because of the increased tempo and pressure on employees. This could be detrimental to business when employees risk underperforming due to stress. It might also lead to an increased amount of misunderstandings due to low information richness. Too many email interruptions when the normal work is being carried out fragments the focus of employees and could cause more errors and lower productivity (Vigden, 2011). E-mail also makes it possible for the user to choose when to reply to messages compared to phones that can ring and disrupt the workflow. However e-mails have a lower level of information richness than for example face-to-face meetings (Ljungberg & Sörensen, 2000).

2.7.2 Meetings

When having a meeting it is essential to let meeting participants be involved in the meeting and to be allowed to discuss the current topics and to have time for feedback. The main benefit of meetings is that participants get the chance to ask questions and discuss matters, creating a dynamic communication situation. Such an approach makes employees feel engaged in the decision-making process and can create motivation. During meetings some people might have difficulties expressing their thoughts and opinions due to personality. In all cases the chairman/woman has an important role to encourage and provide the possibility for all participants to express their thoughts and opinions. Other challenges with meetings are that people must be able to participate at the same time; their schedules have to match. With physical meetings additional obstacles are that all participants must travel to the same place, despite possible long traveling distances. In addition, there is often time at the end of meetings for employees to ask questions even if there is little time for a full scale discussion (Heide et al, 2005).

Meeting media: phone conferences

According to Moberg (2010) phone conferences allow for several parties to communicate without the need for being at the same geographical location. This is a clear benefit as compared to traditional meetings. However in the beginning of a new contact with, for instance a client or supplier, other primary meeting media should be considered, as the parties might risk losing the sense of personality which is of importance in the beginning of such communication (Summer, 1988).

Meeting media: Video conferences

The main advantage when using video conferences as a meeting tool is the information richness it provides. It is described to be as information rich as face-to-face meeting when conveying both tone of voice, facial expressions and body language. However, video conferences can, due to poor video quality, cause trouble due to incorrect interpretation of body language, facial expressions etc. This problem seems to decrease as information technology development proceeds (Ott M, 1993). According to Chapanis (1999), one of the first video conference researchers, there is another issue with video conferences; being on camera. Meeting participants may feel distracted because they are in the spotlight. Being on camera could make participants rethink their words which could slow down the communication or lead to a situation where some issues are not mentioned at all.

2.7.3 Intranet

Intranet was first introduced as a communication tool in the mid 1990's. An intranet is a system used by organizational members to keep informed, download documents, templates, etc. In contrast to Internet, the use of an intranet is restricted, partly or wholly, to the members of the organization. The administrator of the intranet decides who in the organization will have access to different parts and who can change content and functions within the intranet (Bark, 2002)

Intranets are meant to support the exchange of information and knowledge within organizations, to be a tool and a platform for cooperation, and to support business processes within the organization (Bark, 1997). According to Jungermann & Larsson (2002) the purpose of intranets depends on what organization they are used in. However, they claim there are some functions that all users need, regardless of what company they are working at. Intranets should make it possible to search, communicate, store information, publish documents and other material, but also to make it possible to transfer files.

2.7.4 Phone

Phone use is regarded as regular calls and the use of text messages (SMS). The main benefits regard sense of personality, creating a better context for communication and the possibility to hear tone of voice and thus get a deeper understanding of the message. Bergquist & Ljungberg (2000) point out some disadvantages with phone use. For instance users could feel obligate to answers the phone, thus interrupting their current work and causing a fragmented work situation. Such interruptions might cause employees to lose focus on the work at hand and become more stressed. Making a phone-call to convey a message is preferable compared to e-mails when it comes to personal situations. Examples could be when there is a need for quick or important decisions (Summer, 1988). Using mail in Smartphones is considered as using regular mail but from a more mobile location. This might even further allow for quick answers that have the advantage of being traceable and easier to handle and store than normal mail and phone calls.

2.8 Routines and policies

In young organizations, routines and policies are often underdeveloped or even non-existing. For that reason, problems are solved when they occur. Few proactive measures are taken. When organizations grow and get older, routines and policies are developed out of necessity and experience to increase the organizations proactive side. Routines and policies that are created along with the growth of the company have a higher chance of succeeding than if policies and routines were to be adapted from external sources. Even if experience based routines are advantageous there is nothing that hinders setting up routines from an early stage in the company's development in addition Top Management needs to act in accordance with the new routines and policies. If that is not the case there will be little credibility to the system and it is more likely that the implementation will fail. In order to communicate effectively within a company there is often a need for routines, frameworks and policies of how to communicate in different situations. Routines and policies can be both beneficial and detrimental to communication. For instance hindrance can be that all communication must be submitted in writing. For example questions addressed to the client regarding project specifications must be submitted in writing. Some people might then omit asking questions because they find the process complicated. With a well functioning set of routines and policies for communication it should be clear who to contact, through what media and where to access information. In turn this creates a situation where communication has clear paths to follow, this decreases the time spent on investigating in what way to communicate and with whom (Heide et al, 2005).

3 Method

This chapter describes the method used for this study. It starts with a short description of the research approach and then continues with a description of how the data from the empirical study was collected and analyzed and how the interviews were carried out.

3.1 Research approach

To choose a research approach one must consider what research questions the research/case study intends to answer. The research questions are formulated in section 1.1. Use of a quantitative research could, but does not necessarily have to, provide results that are more easily generalized and measured compared to qualitative research. When studying a company in order to provide deep company-specific understanding, a qualitative approach is more appropriate (Yin, 2009; Trost, Enkätboken, 2004, pp. 16-21). An example of qualitative questions are: what?, where?, how?, and why? A case study aims to describe the situation as close to the reality in the specific company as possible (Yin, 2009). Quantitative studies generate results that are often presented in columns and charts. Results from qualitative research are the opposite; they are used when factors are difficult to measure or when the study is highly company specific or that statistical reliability through repeated measuring is inadequate to describe the situation (Yin, 2009; Kvale, 2006).

3.2 Empirical data

Empirical data were obtained through three different sources: interviews, observations during meetings and field observations. Through the collection of all empirical data our selection aimed at covering as many sections of office workers as possible in order to capture differentiating perspectives. The sections of workers we considered were; contract engineers, tendering engineers, site managers, regional managers, CEO and human resources manager, with additional emphasis on Top Management because they are the decision makers in a company. Observations and field observations were dicided to be carried out on a weekly basis taking into consideration the available time each week.

Table 1 – Empirical data collection

	Office worker	Site manager	Top management	Other	Total
Exploratory interview					
Number of persons	1		1		2
Interviews					
Number of persons	1	1	3	2	7
	The interviews (both exploratory and main interviews) were audiorecorded, questions were open ended, semi-structured and the results were then transcribed. Interviews lasted for 1-2h.				
Observations	Observations during four meetings each lasted for 2-3h where the entire office was gathered to discuss common issues.				
Field observations					
Number of persons	4	2	2	2	10
	Field observation during 10 days, each 3-4 h/day.				

The interview transcriptions, observations and field observations were transcribed and translated on an individual basis and then discussed and summarized.

3.2.1 Interviews

We have followed Kvale's (2006, pp. 36, 115-119) seven interview phases when carrying out the interviews, both the exploratory and the main interviews:

1. Thematising the interview project 2. Planning 3. The interview 4. Transcribing 5. Analysis 6. Verification and 7. Reporting.

We started by thematising the interviews, sorting the interview questions by starting with broad general questions followed by increasingly specific questions with the purpose and research questions in focus. After that we set up a time schedule for when the interviews were to be carried out and for how long. Moreover we also decided to interview one person at the time, because there was a risk of sensitive subjects being touched upon. We also decided how many persons in what positions we wanted to interview. First, two exploratory interviews were carried out in order to obtain background information of the company and to reflect over the research questions. The interview questions were formulated based on the exploratory interviews and the research questions. Based on the purpose of the study and the research questions, interviews can be more or less structured (Silverman, 2006). When studying the communication channels focusing on the opinions of the interviewees, semi-structured interviews were considered to be the most suitable option. This approach was selected in order to address the same issues with each interviewee and to be able to follow up with more in depth questions to ensure that we did not misinterpret anything. In order to get as truthful answers as possible confidentiality regarding what was said during the interviews was promised all interviewees.

The interviews were recorded using an electronic recording device. Those recordings were then transcribed and analyzed. The transcription was done by one of the interviewers and then reread and complemented together with the other interviewer to reduce the risk of misunderstandings in the interpretations. Analyses of the transcripts were carried out by reading and then re-reading the transcripts, commenting individually in the margin during each through reading. This approach was chosen in order to lessen the risk of biased interpretations. To further reduce the risk of biased opinions and to get as close to the reality as possible the individual notes were compared the discussed until a consensus was reached. The combination of one person employed at the company working together with a person not connected to the organization provides advantages in the analysis of the transcripts.

An inside connection allows for direct and quick contact with interview subjects and an outside look limits the biased opinions an employee might have. The interviews were held at the head office or in the office of the regional managers. This is a convenient solution where the interviewee has a physical environment that he/she is used to and which also is close to other employees if they needed any specialist information to answer the questions. Notes were taken during the interviews as reminders to ourselves for additional questions later during the interview, or to write down comments about behavior or in any other way support us during the transcription that was to follow. The interviews were all conducted with two interviewers present. One asking the main questions the other covering follow-up questions. Both interviewers took field notes during the interviews and the roles of asking main questions and follow-up questions alternated between interview subjects. Alternating was done in order to as far as possible avoid biased questions from the interviewees.

3.2.2 Observations

During the study, 4 office meetings were observed see table 1. The meetings were generally focusing on the well being of office personnel and the distributing of information regarding the company. The purpose of these meetings is to create a platform where personnel may ask questions about what is happening in the company. Additionally, for Top Management through direct representation or through the chairman, inform the personnel about coming events and company development. The employees present are in addition to contract engineers, tendering engineers, site managers, regional managers and the human resources manager also employees from the economical department and in some cases even guests from daughter companies. These meetings during which the observations took place were similar each month with only small differences considering participants. The chairman; the human resources manager, starts of by reading the previous meeting protocol and follows up on the things that were decided on during the previous meeting. The meeting then follows the schedule for the day

During the office meetings observations were written down, and later combined, by both observers. We acted as passive observers taking notes and keeping an as low profile as possible. By listening to the discussions, we were able to catch personal opinions and viewpoints that were of relevance to the study, such as is information reaching all intended receivers, etc.

3.2.3 Field observations

The field observations were conducted during normal business hours. During 10 days, see table 1, observations were recorded using field notes. These observations were carried out by both interviewers and the results was then transcribed and discussed. During these observations we tried to be as invisible as possible, taking notes where and when no one would be disturbed in their daily work by our activities. These field observations were done in order to investigate how the communication worked at the office during a typical work-week. The field observations were also compared to the notes that were taken during interviews in order to consider non-verbal communication which are hard to take into consideration when listening to audio recordings.

4 Results and analysis

This chapter describes and analyzes the results of the meetings, interviews, and observations. By “Top Management” we refer to the Regional Managers and CEO. The others are grouped together as “Office workers”. There is a homogenous view of the meaning of *communication* among the interviewees. This view implies that communication is seen as *the transferring of information*. For example, one of the employees defines communication as:

> *“Communication is the ability to transfer information, how capable you are in that and the trustworthiness in the transfer”.*

4.1 Organizational culture and structure

All interviewees shared the view that MSCC has a flat organizational structure. Office worker interviewees express that they are comfortable with the flat and the non-hierarchical structure, and believe that it enables a quick decision-making process. All interviewees express that they feel it is easy to ask questions of anyone in the organization. Top Management is of a similar opinion, however they express that they feel that the need for a more hierarchical structure will increase if the company continues to expand. All employees express that the company atmosphere is open and that it is possible to express new ideas and suggestions within the organization. There seems to be freedom of action and close collaboration between Top Management and the office workers. In addition, all of the interviewees seem to be straightforward in their communication, which they believe has lead to decreased response time when questions arise. Behavior and opinions recorded during observations and field observations indicate that the work and company climate might be strongly influenced by the personalities of Top Management.

4.2 Communication channels and clarity

It is a unanimous view that the most commonly used communication channels in MSCC are phone calls and emails. Communication within MSCC in these channels is fast and effective, which leads to quick resolution of unclear situations. Phone calls are the communication channel of choice when the urgency of the matter is high. When the urgency is lower, e-mail is most preferably used. Hence the choice of message channel seems to closely correlate with the urgency of the task. When receiving an email it is easier to prioritize tasks and address them in the right order, compared to phone calls. Both office workers and Top Management point out that if an employee is constantly interrupted by phone calls, it could lead to fragmented work and loss of focus.

Top Management considers both video and phone conferences as effective means for improving communication. In particular conferences are mentioned by Top Management as a good alternative when it comes to internal communication, and that such conferences could help bridge the geographical distances between regional offices. They also express that video conferences would be preferable compared to phone conferences since the participants would be able to observe each other’s non-verbal communication. Office workers seldom mentioned video or phone conferences as an option when it comes to communication channels. This could indicate a top down approach to communication. It could also indicate that Top Management are the ones that have a need for communication channels such as video and phone conferences. When considering accessibility and implementability of video conferences compared to phone conferences, the interviews reveal that the most positive aspect of phone conferences is that the technology is already in place and no new investments in equipment and installations need to be done. Additionally the interviewees believe that practically everyone has the knowledge of how to participate in a phone conference. This would give it an advantage compared to video conferances. Moreover, phone conferences are similar to video conferences, with the exception of moving images. Office workers are of the opinion that phone conferences can be a good option for real life meetings.

According to all interviewees and according to observations the primary benefit of e-mails is the simplicity in documenting and tracing conversations. However, they also express that too many e-mails create an excessive amount of information that may result in prioritizing issues. This could lead to standard answers that risk ignoring to address the actual question. In professional practice, MSCC employees use Short Message Service (SMS) in order to contact each other. However, during tendering processes and more formal matters SMS was perceived as a less serious communication channel compared to other channels.

A collective opinion expressed by both Top Management and the office workers is that things heard through Chinese whispers are problematic. The spreading of rumors is hard to deal with if the company does not have structured routines for how to handle issues resulting from rumors. Most interviewees seem to agree that the reason for many of the rumors originate in misinterpretation of information provided by Top Management. These misinterpretations were more prominent two years ago than what they are today. Office workers express that there is a shortage of information in MSCC. Top Management does not seem to be of the same opinion. Perhaps this could be because they consider themselves well informed and assume that others have access to the same information as they have.

To increase information availability, discussions focusing on an intranet as a platform for information have been held. The attitudes toward such a system are very positive both amongst Top Management and office employees. All interviewees believe that MSCC personnel have adequate computer knowledge to be able to use intranet both to inform and gather information. They also feel that an intranet has the potential to make information easier to understand and access and at the same time counteract the spread of rumors. Top Management suggests bulleted lists as one example of clear and effective communication; this view is also shared by the other interviewees. Such lists could be an effective way to handle time-related stress and could help to delegate tasks. However, if insufficient effort is put into formulating the bulleted lists, employees might misunderstand or simply omit the poorly formulated tasks. When questions are poorly or inadequately formulated, all interviewees stress that it is close to impossible to provide sufficient answers, unless guessing is an option.

Based on the observations and interviews we can see that Top Management appears to mainly communicate in order to delegate tasks, ask for information or inform. Office workers, on the other hand, seem to communicate to inform, clarify or discuss. A forum for such discussion and a platform for questions could be used to increase the vertical communication, both top down and bottom up.

Another forum for discussion is office meetings. There is also a unanimous view that there have been too few office meetings due to stress and an understaffed office. Additionally, all interviewees agree that the situation has improved compared to two year ago, due to new employees that unburden stressed parts of the organization, but feel that there are still areas that needs to be improved. As an example, there are situations when employees are taken by surprise by new information or they might have focused on the wrong tasks due to inadequate information from Top Management. Such situations can create stress and unnecessary irritation.

4.3 Routines and culture

A suggestion from an interviewee is that active use of routines would prevent reallocation of resources from occurring unnecessarily. There are written routines, but they are not used to the same extent as they were intended to be. Inconsistency in the use of routines might result in lower compliance with the routines. It could also be due to outdated routines or routines not adapted to the current company size. An example mentioned in the interviews of a routine causing trouble is the time-report cards. According to the economy department there are clear rules of how to fill in the cards. It is also argued that the reason the routines are not working as they should is due to outdated old behavior from the culture originating in MSCC as a small company.

Additionally, it became clear that Top Management have had a heavy influence on the worksite and they are in many cases considered as role models. Hence, it could be possible for Top Management to set a good example and get a substantial response from employees. Site Managers do not seem to influence the situation to the same extent. Most interviewees seem to feel that the work climate and organizational culture in MSCC are extensively influenced by the personalities of Top Management and the way they act. They are seen as the role models of MSCC and their behavior affect the entire organization, culture, values and the physical environment. Historically, Top Management has been present, in person, on the construction sites and has spent much time in conversations with craftsmen. This has lead to the flat organizational structure of MSCC, which the interviewees are positive towards.

The office meetings revealed that several of the participants are of the opinion that information regarding who is new in the organization and information regarding when someone chooses another career path is sometimes insufficient. Often little or no information reaches office workers, more than the rumors when employees decided either to leave or join the organization. Better routines and more information will help employees to understand and faster adapt to new situations.

4.4 Delegating work

According to Top Management, delegating work does not only consist of telling people what to do. It also means to follow up on the delegated tasks and to make sure that they actually get done. If a task is not followed up it could “fall between the chairs” and be left unattended, such misses are important to be vigilant against. The Top Management claim that the highest responsibility in task delegation lies with the CEO. Hence that person should also initiate any routine or structural change and delegate any large responsibility area. Top Management also point out that they are interested in providing new solutions and how to implement them as long as they are given the order and resources enough to fulfill the task. Office workers agree that decisions should come from above. The main reason, they claim, is that Top Management knows towards what goals to steer the company and what visions lie ahead. This indicates a top down approach from Top Management, not a bottom up approach.

During the interviews opinions were raised that resources sometimes are hastily reallocated due to seemingly high priority of a task. However, in some cases it becomes clear that they were not as urgent as they first seemed. When resources are pulled away and unexpected tasks arise, some employees may experience stress and uncertainty. Moreover office workers often take on too many tasks when asked by superiors due to the company culture in which high workload and putting in extra hours is taken for granted. This adds to work overload in which it can be difficult to fulfill all duties satisfactorily. It may also lead to fragmented work where personnel have to re-focus and abandon the current task too hastily attend to new assignments. Ultimately this might lead to information loss and insufficient work quality. The entire stress-related situation is closely connected to both the growth of the company and the organization culture. These factors have created a company culture and environment that shapes the employees´ actions. Moreover the office workers feel that they have opportunities to come up with suggestions and improvement ideas but that they need to implement these ideas themselves. This requires a lot of energy, which is hard to muster with a high workload.

5 Discussion

It seems as though Top Management sees the necessity to create a strong hierarchical company structure. At the same time, other employees feel that MSCC could lose some of the benefits that the current flat organizational structure implies. For instance a flat structure provides the possibility for freedom of action. Due to the expansion of the organization, employees have periodically experienced excessively high workloads with a strong focus on production; other areas such as office meetings and routine development have been left unattended. According to whom (Heide et al, 2005) as a company grows, the need for well-established routines is increased. The organizational structure is also often affected as it tends to become more hierarchical. The Top Management and the CEO cannot deal with every issue personally; these have to be delegated. In a hierarchical structure routines often need to be clearly specified and are frequently used. There are routines at MSCC today, but they are different in different geographical areas, and the extent to which routines are followed varies.

According to Heide & Johansson (2008) for employees to use routines, they need to be re-formulated or at least completed with information that clearly states why employees should use them. That information needs to create an understanding among the employees what the underlying reason of the routines is. It is also of importance that the routines are accessible to everyone, to make it possible for employees to re-read and ask questions if anything is unclear. Heide & Johansson also mention that it would be beneficial to engage employees in the development and establishment of new routines; this would lead to increased acceptance and understanding of the routines. Our opinion is that in order for any changes to have a durable effect, it is essential for managers to let employees be involved in the development and implementation of new routines. In addition, we believe that it is important for Top Management to be aware of their position as role models and to lead by example. We believe that by not letting employees be an active part in this decision-making process, the routines might not feel relevant to the employees in their daily work. It is our opinion that those employees who perform tasks which the routines are going to control have most detailed knowledge of how the routines could be designed. Both time and energy is needed to create, implement and update routines. In our opinion, the result of such changes is most likely going to be visible in a long-term perspective.

Many e-mails are sent through MSCC servers daily. Among these e-mails, some have little relevance to the receiver. According to Vigden (2011) too many e-mails may cause information overflow and it can be hard to distinguish which are relevant e-mails and information. We agree that too much information is problematic. One way to lessen the effects of e-mail overflow could be to more frequently use time restraints in the emails. That is, stating the latest time at which the sender wants the receiver to answer. However, overuse of deadlines and times could counteract the desired effect and the employees could start ignoring deadlines. In addition overuse might also cause the employee to spend too much time ranking the urgency of the tasks instead of actually working. Using, but not overusing, deadlines seems to be the best option. Many employees CC or BCC each other in order to inform about matters that could concern them. Perhaps an increased use of CC and BCC would make employees feel more informed and counteract misunderstandings and eventual exploitation from subcontractors and others that seize the opportunity to question the person that has least knowledge about the project in order to gain a more favorable position. However, too extensive use of CC and BCC might be more irritating than helpful due to e-mail overflow. When tasks are delegated through e-mail it is also important for the receiver to answer yes or no to the question so that the sender knows whether to continue looking for someone else to help or if the task is already handled.

The choice of information channel seems to be closely connected with the urgency of the matter. For instance, employees tend to prefer phone calls over e-mails when the matter is urgent. This could be due to higher information richness in the chosen channel, or more clarity in the message. During holidays or when employees are ill it might be hard to get hold of an employee who is familiar with a particular project or matter. When employees are out of office there needs to be clear information of who to contact until the employee returns. This issue would most easily be resolved if people changed their answering machine messages and auto reply on e-mails when they were out of office. Moreover, when leaving messages on someone's voicemail, it would be better to leave messages containing the reason why they are calling, when they want answers and where they can be contacted. Again, this is closely connected to information richness and the clarity of the message. Leaving such messages would make it possible for employees to prepare material before they call back. This could generate higher quality of answers.

Sending SMSs could be another way of leaving messages instead of using voicemail, especially since MSCC is positive to SMS use. In some cases, SMS use is a good choice of communication channel since it is traceable and the message can be viewed when suitable for the receiver. The receiver could also view the message without disrupting others if participating in a meeting. However the information richness conveyed by an SMS is lower than that of for instance voicemails. According to Jacobsen & Thorsvik (1995) and their study information channels that allow the receiver to hear the voice of the sender contain higher information richness compared to information channels which do not. This means that it is easier for the receiver to interpret the meaning of the message. The interviewees considered use of SMS in professional life less serious than e-mail use. However, the difference in how these communication channels were used appeared to be smaller today than two years ago. This is probably due to smart phones and their increased everyday use. Still, many people use e-mail in their smart phone each day, but they view SMS as a less serious channel than e-mail. Probably, this view has its origin in the way in which SMS was used when first introduced to the general public, as an informal chat log.

The use of video conferences would make it possible to hold meetings more regularly. It would also provide higher information richness than phone conferences or e-mail. Traceability is important to MSCC and video conferences are easily recordable. This makes it simple to go back and see what has really been said. However, when discussing agreements, contracts and so forth, verbal agreements between actors can be hard to prove. Therefore a need exist, to complement verbal agreements with written documents. Video conferences would also make it possible not only for Regional Managers but also for Site Managers to hold meetings on a regular basis.

Due to the geographical dispersion, money could be saved on travels by using video/phone conferences.

All interviewees were of the opinion that having an Intranet would benefit MSCC. Most employees seem to feel there is a lack of information at MSCC, and that an Intranet could be a good platform to create the clarity and accessibility needed. Bark (2002) highlights the importance of appointing a person in charge of the Intranet. It is essential to have someone who has an eagle-eye view of the system in order to coordinate all efforts put into the intranet. In addition, we think it is of great importance to create a routine for how to use intranet in the organization. This creates clarity of how to use intranet as a tool for communication within the organization. As Jungermann & Larsson (2002) suggest, an intranet should also contain the most recent information and make files and templates available to the entire organization. This aspect is of great importance when creating an intranet. In addition, introducing an intranet would probably lead to a more unified way of communicating within the organization. Both because it makes it possible for employees to easily access and use company specific templates and because it creates a common platform in which communication can take place.

According to Dainty et.al (2006) the construction industry is somewhat unique in its project-based nature, which involves contacts between new parties and a complex set of relations between actors involved in the projects. The result of this study shows that there are many possible pitfalls, regarding communication. The result of this study indicates that the message can get distorted due to incorrect choice of information channel. This could partly be caused by e-mail overflow. The active use of e-mails provides a clear advantage compared to physical meetings. Primarily e-mail use holds the advantage of traceability. Perhaps it would be beneficial for employees to reflect over the balance between e-mail use, phone calls and physical meetings. In some cases it might be a good idea to both make phone calls and to ask for confirmation in writing. This makes it easier to have legal support for claims and to remember what has been said.

6 Conclusions and recommendations

After the interviews with employees at different levels of the organization, observations and a literature study, we suggest improvement areas that could be helpful with a continued expansion of the organization. MSCC is a relatively new actor on the market and has undergone a rapid expansion; we think it is necessary to develop a unified approach and way of communicating if the expansion proceeds. E-mails and phone calls were found to be the most frequently used communication channels. Due to the presence of Chinese whispers we think it is important to have clear frameworks for what information and in what way information should be distributed. Our recommendation is to start to implement an intranet within the organization in order to structure information and the way in which it is distributed. Furthermore, we believe that the employees should be involved in the decision-making process concerning the design, functions and information on the intranet. We find this important in order to get a well-functioning intranet that employees feel comfortable using.

Not only is it important for employees to participate in the development of an intranet, we also believe employees should have an active role in the development of new routines. This involvement of employees in the decision-making process is essential since acceptance of new ways of working is created first when employees understand the underlying reasons behind those decisions. In addition, since they are the ones who are going to carry out the tasks they do have relevant input that could be of use for the decision makers.

Because of the geographical dispersion of MSCC, we think it might be beneficial for MSCC employees to try and evaluate video conferences as a channel for communication during meetings. In addition, it would help the exchange of experiences between different regions. Since time is of the essence, we find video conferences a good alternative to travel and hosting face-to-face meetings. Additionally, use of video conferences might have an indirect positive effect as it presents MSCC as a company that uses new technology.

The organizational structure of MSCC is likely to become more hierarchical if the expansion continues. This will, in such a case, be a necessity since managers will not have enough time to cope with matters at all levels of the organizations. Employees will have to contact their nearest superior. This will create better structure, but at the same time it could slow down the decision making process, making the organization less flexible. Finally, it is our belief that the structure and intranet will help MSCC in it's strive towards meeting their organizational goals concerning turnover financial results and employees.

All interviewees were of the opinion that having an Intranet would benefit MSCC. Most employees seem to feel there is a lack of information at MSCC, and that an Intranet could be a good platform to create the clarity and accessibility needed. Bark

(2002) highlights the importance of appointing a person in charge of the Intranet. It is essential to have someone who has an eagle-eye view of the system in order to coordinate all efforts put into the intranet. In addition, we think it is of great importance to create a routine for how to use intranet in the organization. This creates clarity of how to use intranet as a tool for communication within the organization. This aspect is of great importance when creating an intranet. In addition, introducing an intranet would probably lead to a more unified way of communicating within the organization. Both because it makes it possible for employees to easily access and use company specific templates and because it creates a common platform in which communication can take place.

According to Dainty et.al (2006) the construction industry is somewhat unique in its project-based nature, which involves contacts between new parties and a complex set of relations between actors involved in the projects. The result of this study indicates that the message can get distorted due to incorrect choice of information channel. This could partly be caused by e-mail overflow. The active use of e-mails provides a clear advantage compared to physical meetings. Primarily e-mail use holds the advantage of traceability. Perhaps it would be beneficial for employees to reflect over the balance between e-mail use, phone calls and physical meetings. In some cases it might be a good idea to both make phone calls and to ask for confirmation in writing. This makes it easier to have legal support for claims and to remember what has been said. These suggested changes along with clear routines and a common platform will most likely be beneficial for the subject company.

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