



Leadership Competencies as Success Factors for Project Performance

A Case Study at Skanska Sweden

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

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ABSTRACT

The importance of leadership appears to be ever increasing in the business world today and the traditional view of leadership has changed dramatically over the last five to ten years. The development has shifted from mostly hard and easily measured skills towards a softer, intangible approach. The trend of leadership styles is now focusing on competencies that are considered appropriate for leaders. For this thesis, three categories of competencies are investigated, which all are considered as crucial performance factors for a project's success. However, these have not been shown to be applicable for the construction industry in the research literature. The lack of research on leadership on the lower management level in the construction industry, has created a demand for studies on the relationship between leadership, management, and performance, specific to the construction industry.

Through the objectives of this thesis, the intention is to increase the understanding of leadership and leadership competencies within construction projects. Furthermore, an evaluation is conducted on the link between how managers' leadership skills are perceived in a project and how project performance can be improved. The research questions "How is the leader's role connected to project performance on construction sites?" and "What leadership competencies support the leader's role on construction sites' performance?" are used to frame the problem for this thesis.

To obtain representative results, a case study has been conducted at the construction company Skanska, in Sweden. The case study is based on qualitative interviews which include ranking various competencies that are considered to be crucial for leaders in regards to project performance. The interviews were conducted on production sites with employees working as site managers, team leaders, or workers. The interviews were analysed using a theoretical framework as a foundation to find the most representative results.

The results of this thesis indicate that the leader's emotional competencies are important skills of the leader. Moreover, motivation is considered as the most crucial competency for successfully finishing a high performance project. Differences on how leadership competencies are perceived and what is deemed crucial between the different types were noted. The major difference between workers and managers in this study was considered to depend on which expectations each role has towards leaders in projects.

Key words: Lower management, construction projects, project performance, leadership competencies

Ledarskapskompetenser som framgångsfaktorer för bättre projektresultat En fallstudie på Skanska Sverige AB

Examensarbete inom masterprogrammet Design and construction project management

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SAMMANFATTNING

Intresset för ledarskap förefaller öka i näringslivet och den traditionella synen på ledarskap har förändrats dramatiskt under det senaste årtiondet. Utvecklingen har skiftat från att fokusera på mestadels hårda kvaliteter som är lätta att mäta, till ett mjukare synsätt med abstrakta egenskaper i centrum. Trenden för ledarskapsstilar fokuserar just nu på kompetenser som anses lämpliga för bra ledare. Den här uppsatsen undersöker tre kategorier av kompetenser som, enligt tidigare forskning, anses vara avgörande framgångsfaktorer för ett projekts resultat, men dock aldrig applicerats i byggsektorn tidigare. Avsaknaden av forskning på ledarskap för mellanchefsnivå inom byggsektorn, har skapat ett behov av att genomföra studier på relationen mellan ledarskap, management och framgång, specifikt utformade för byggsektorn.

Syftet med den här uppsatsen är att öka förståelsen för ledarskap och ledarskaps kompetenser inom byggprojekt som befinner sig i produktionsskedet och vidare utvärdera länken mellan hur mellanchefens ledarskaps kompetenser uppfattas i ett projekt och hur projektets resultat kan förbättras. Frågorna "Hur hör ledarens roll ihop med projektets resultat på byggarbetsplatsen?" och "Vilka ledarskaps kompetenser stödjer ledarens roll för byggarbetsplatsen resultat?" används för att rama in problemet för den här uppsatsen.

För att uppnå representativa resultat är en fallstudie genomförd på byggföretaget Skanska Sverige AB. Fallstudien är baserad på kvalitativa intervjuer som inkluderar möjligheten att ranka olika kompetenser som anses avgörande för ledare med projektets resultat i åtanke. Intervjuerna genomfördes ute i produktion med anställda som arbetar som platschefer, arbetsledare eller yrkesarbetare och analyserades därefter genom att använda ett teoretiskt ramverk som grund för att hitta de mest representativa resultaten.

Resultaten i denna uppsats indikerar att känslomässiga kompetenser är viktiga hos en duktig ledare. Motivation anses vara den mest avgörande kompetensen för att kunna uppnå ett mycket framgångsrikt projektresultat. Under fallstudien noterades även skillnader där ledarskapskompetenser uppfattades olika av olika yrkesroller och vidare vad dessa roller anser som avgörande. Den största skillnaden som noterades mellan yrkesarbetarna och arbetsledningen i den här studien var vilka förväntningar de olika rollerna har på en ledare i ett projekt.

Nyckelord: Mellanchefsnivå, Byggprojekt, Projektresultat, Ledarskapskompetenser

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Preface

This master thesis is the final part of the authors' studies at Chalmers University of Technology in the masterprogram Design and Construction Project Management (120 credits) within the department of Construction Management. The master thesis is 30 credits and is done in cooperation with Skanska Sweden, the civil construction department in Gothenburg, who accepted the authors' ideas and helped forming them further.

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Elin Elfwering & Jóhanna Sæmundsdóttir

1 Introduction

This chapter describes the background of the research area and what objectives this thesis has. A presentation of the problem and the research questions are formulated as well as the limitations. The last section of this chapter presents the structure of the thesis.

1.1 Background - Leadership & construction project performance

Most people work in an environment where employees with the title manager are the pronounced leaders, but it can be difficult to say if it is the title that makes someone a good leader (Bergman and Klefsjö, 2010). According to Bergman and Klefsjö (2010), there is a clear distinction between being a leader and being a manager. The manager has obligations obtained from above while a leader earns the legitimacy from the group or co-workers, which can be crucial for achieving project objectives and the performance of the organisation (Bolden et al., 2011).

The construction industry is one of the oldest industries in the world and perhaps the first business area that introduced project-based organisations (Dainty et al., 2007). The industry is full of complexity due to high requirements on construction's functionality and architecture, as well as all the temporary teams created at site (Ibid). In this temporary work environment the leadership is crucial for the team to be able to carry out high performance activities and reach a successful outcome (Ammenter and Dukerich, 2002). The success of a project can be measured in various ways. Hard measures, as objectives of how well the project meets time, cost and quality are commonly used (Maylor, 2010), also known as schedule and budget. Soft measures can be the thoughts and perceptions from the people executing the project which can be considered either a success or a failure (Ammenter and Dukerich, 2002). However, common to all types of measurements, the leadership is perceived as important for a project to reach any success at all (Bolden et al., 2011). Despite the different definitions of the two, their roles are similar in many ways (Anantatmula, 2010). Both roles are required to reach the same objectives but different requirements are used to achieve the goals (Clegg et al., 2011).

1.2 Problem formulation

Leadership seems to be getting increasingly important in the business world today and the construction industry is no exception in that regards (Clegg et al., 2011). Both the theory and the practice of leadership are getting more attention from various industries and the changing environment has influenced different approaches (Ibid). The traditional view of leadership has, over the last five to ten years, developed from including mostly hard and easily measured skills, such as a budget or a time schedule, towards a softer, intangible approach, including improved communication or social relationships between different actors (Maylor, 2010). The soft skills of leadership have gained a lot of focus and Dulewicz and Higgs (2005) have developed a questionnaire of different leadership competencies that leaders can possess, to be better able to carry out a successful project. These competencies consider three areas of skills, management, emotions and intellect, that all are considered as crucial performance factors for a project's success, but whether they are applicable for the construction industry has not been shown beyond all doubt so far in the research literature. The construction industry acts within a temporary, project-based framework and appears to be conservative and resistant to change (Styhre, 2010). Maylor (2010) further suggests that this can be a limitation in the translation of values concerning leadership between top management and construction sites, where the organisational values tends to be disconnected and are often misunderstood in this setting. There has been a lot of research done on leadership in general, but leadership applied in the construction industry is still quite unexplored (Ofori, 2008). This lack of research has created a high demand for studies on the relationship between leadership, management and performance, specific for the construction industry (Bolden et al., 2011) which this thesis will attempt to investigate.

1.3 Objectives

The objectives of this master thesis are to increase the understanding of leadership within the production phase in construction projects and evaluate whether there is a link between how managers' leadership skills are perceived in a project and how project performance can be improved. This study aims to interview site managers, team leaders and workers to better understand how leadership appears on site in a construction project. This study aims to give a better understanding of why leadership and leadership competencies are considered so crucial and valuable to a project's success on the lower management level. To be better able to link the results of the thesis to the literature, a questionnaire from earlier researches is used.

1.4 Research question

To investigate this area and gain a better understanding of the situation, the following research questions are chosen.

- How is the leader's role connected to project performance on construction sites?
- What leadership competencies support the leader's role on construction sites' performance?

To get a better idea of this development in reality and to apply the research questions, a single case study is conducted at Skanska Sweden AB, within the civil construction department in Gothenburg. Interviews are performed to gather qualitative data of the situation.

1.5 Limitations

Leadership perspective is a very wide field in the academic world, and an abundance books and articles have been published on different styles and trends, making it a very complex topic. Due to this complexity some limitations had to be established in this work to avoid misconceptions. The thesis is limited to the most recent theories, namely transformational and authentic leadership theories, and excludes all other theories connected to leadership styles and trends. The thesis only looks towards leaders in the production phase of construction projects and excludes all other types of management. Communication styles and methods are mostly ignored unless it connects directly to how the organisational values of the case study company are communicated down the hierarchy to site managers, team leaders, and workers on site. All issues regarding authority and culture are not in focus and therefore not included in the thesis.

Another limitation of the thesis is that it only focuses on a single case study. The theoretical framework is limited to journal articles published after the millennium. Articles before that are excluded, since the literature on the subject is very broad and

the most recent publications of leadership theories better correspond to the topic and research questions of this thesis. Limited research has been done on lower level management in construction. Therefore, this thesis does not make any distinction between a project manager and a site manager in the theoretical framework. Theory that considers project managers here is deemed applicable to site managers and team leaders, which is the focus for this thesis.

1.6 Structure of thesis

The structure of this thesis is divided into seven chapters where the first chapter gives an introduction and an overview of the discussed area. Further, the objectives and research questions are presented. In chapter two, the existing literature is reviewed to give the reader an understanding of the current theories concerning leadership, its characteristics, and how it connects to project performance. It also gives the thesis its theoretical framework. Further on, chapter three presents and motivates the methodology of the performed study whereas the fourth chapter describes the context connected to the single case study based on qualitative interviews. In chapter five, the gathered data from the case study is presented and analysed. Chapter six concerns further discussion, where the theoretical framework connected to the most important results and some critique on the subject is presented. Conclusion and recommendations are presented in chapter seven along with possible future research areas. Lastly, an appendix with the questions and additional data from the interviews are gathered to better clarify the results.

If your actions inspire others to dream more, learn more, do more and become more, you are a leader. -John Quincy Adams

2 Theoretical framework

This chapter will introduce the existing research concerning leadership theory and practice. The focus is on the most recent approaches focusing on leadership in projects, which is considered to be the most suitable for the topic of this study. To get a good overview of today's situation, both in the leadership theory and how leadership is practiced in projects in the construction industry, some history is presented.

2.1 Introduction & definitions

Almost everyone can think of a definition regarding the concept of leadership, and this rather complex and problematic area of management has been defined several times by different authors (Clegg et al., 2011). The concept has emerged and has been shaped by areas like psychology, philosophy, business, sociology, history, and politics and is today considered to build upon the relationships between people (Bolden et al., 2011). A common definition of leadership and being a leader is taken from Collins English dictionary, stating a leader as "a person who rules, guides or inspires others" and the process of leading or the exercise of leadership as "to show the way by going with or ahead [...] to serve as the means of reaching a place" (Clegg et al., 2011).

Today, there is an increasing focus on management areas in the research and it is important, when getting familiar with the concept of leadership, to realize the distinction between being a manager and being a leader. A manager has the technical skills and authority stated from above while leaders earn their legitimacy from below (i.e. from the team, group or co-workers) (Bergman and Klefsjö, 2010). A manager is typically a role in an organisational structure set to facilitate projects (Ibid) through functions such as planning, organising and controlling to make decisions about processes in order to improve efficiency (Anantatmula, 2010). When contrasting leadership from management, it becomes obvious that leaders possess many "soft" competencies that are not often mentioned in the management theory. These competencies, such as being a good motivator and guiding co-workers always requires social relations, something which is not perceived as crucial for being a manager. The social relations are considered vital for any leader and most social skills should and could be used to influence people to use their potential to achieve tough and challenging objectives (Clegg et al., 2011; Anantatmula, 2010). Even though leaders and managers are different by definitions, their roles in the working environment are relatively similar, i.e. to achieve objectives stated by an organisation (Anantatmula, 2010).

2.1.1 Leadership in Project management

Around 30 per cent of the global economy is considered to be project-based today (Turner et al., 2009), meaning that many managers work as project managers (Bergman and Klefsjö, 2010). Projects are defined by time limitations (Berg and Karlsen, 2013), uniqueness, and complexity. They are also often associated with many unforeseen events, making the project manager's role challenging (Anantatmula, 2010). Crawford and Turner (2007) define a project manager through a mixture of skills (ability to execute tasks), knowledge (qualifications), and core personality characteristics (beliefs, traits) that lead to greater performance. Based on current definitions and descriptions of project managers, it is obvious that the competencies required by project managers are similar to the skills desirable for good leaders (Geoghegan and Dulewicz, 2008). Being a good leader in a project requires

good judgment and the ability to use it to make sound decisions in diverse situations in order to determine the best course of actions for any circumstances (Gharehbaghi and McManus, 2003).

Further on, Srića (2008) argues that 80 per cent of projects fail due to poor leadership, also stated by Dey (2009). The role of the project manager or the leader is of great importance to failure prevention. This can be done through motivating people and creating a working environment that effectively reaches objectives in order for the project team to meet complex challenges in today's increasing globalisation. Trust is one of the major cornerstones to a leader and by establishing trust in the project environment it is possible to eliminate conflicts and make the project stakeholders a cohesive unit (Anantatmula, 2010). Along with trust, communicating project objectives and aligning them with the stakeholders' goals (Ammenter and Dukerich, 2002), creating transparency of decision making, ensuring understanding of objectives and paying attention to processes is of great importance to reaching good results (Anantatmula, 2010).

2.2 Development of leadership approaches

Various leadership approaches have been developed over the last decades and different schools of theories have emerged depending on the focus each time. One of the most well-known of the early styles is the traits school where the personality of the leader is in focus. According to Collins English dictionary trait is a distinguishing characteristics or quality, often in a person's nature. This style of leadership centres on the leader's traits or charisma and became the normative approach to leadership. The style attempted to prescribe the 'best way' for people to lead (Bolden et al., 2011). The theory assumes that leaders are born with certain characteristics that remain stable over time and in different situations. The theory has had a major impact on the development of the leadership theory and related research, but many believe it to be based on the norms and culture of its time since it focuses mostly on what leaders have and possess, not what they do (Clegg et al., 2011). Today this theory is considered obsolete since researchers have shown that leaders develop, not only their skills but also their abilities (Maylor, 2010). It has been shown that successful leaders behave and act individually and rarely possess the same characteristics (Bolden et al., 2011).

2.2.1 Transformational leadership

From the traits school of leadership many newer theories have emerged, among them the transformational leadership. This style of leadership has been shown to be favourable in uncertain and changing environments, such as in project-based organisations (Bolden et al., 2011). Transformational leaders can be described as developmentally orientated, optimistic and hopeful (Avolio and Gardner, 2005). Other transformational factors include inspirational motivation, charisma, and intellectual stimulation (Ofori, 2008). Further on, Yang et al. (2011) argue that transformational leadership provides inspiration and challenges to the followers with new approaches and ideas. In addition, they also mention that transformational leaders are seen, by both superiors and followers, to be effective. Robbins and Coulter (2007) argue that transformational leaders can raise the interest of their followers by specifying goals and tasks in a precise manner. In regards to projects, Avolio and Gardner (2005) recognise that transformational leadership is very fitting in a dynamic environment which is common for projects.

2.2.2 Authentic leadership

Authentic leadership has derived from the transformational school of leadership and is based on the contingent argument that the leaders and the followers interact with one another (Clegg et al., 2011). Authentic leadership characteristics include possession of self-awareness, self-control, and integrity. They are transparent, optimistic, positive, and work on ethical and moral grounds. Another important characteristic is the positive psychology of this school of leadership (Ibid). The definition of the word 'authentic' roots back to Greek philosophy, meaning that individuals should be true to themselves. This means that the leaders should own their own experiences, emotions, needs, and wants and be consistent with how they express themselves in accordance to their inner feelings (Avolio and Gardner, 2005). Ofori (2008) mentions that authentic leaders have a particular leadership style that is true to their character and personality which makes them unique. Another way to describe an authentic leader, according to Avolio and Gardner (2005) is "leading by example" (p.326). By this they mean that the authentic leaders demonstrate confidence, transparent decision making, optimism, and consistency between what is said and what is done. Through this they act more as role models to the followers, influence them to become leaders, and do not actively transform them like is seen in transformational leadership theory. According to Gharehbaghi and McManus (2003), a good leader is constantly developing through self-analysis and applying their education and experience to improve. This connects to the authentic leadership as well. Ofori (2008) claims that authentic leaders are able to motivate their subordinates and they take their followers' well-being very seriously. Based on the definition of authenticity, an authentic leader will take responsibility for his or her mistakes and wrongdoings as well as accepting accountability and then amending the situation to the best of their abilities (Clegg et al., 2011). The style emphasizes that individuals develop their awareness of purpose and values, which can then operate as their moral compass and subsequently can positively transform them into leaders (Bolden et al., 2011).

2.2.3 Transformational leadership vs. authentic leadership

Comparing transformational leadership with authentic leadership may seem redundant at first glance, giving how similar they seem. Upon a further look, however, some differences can be identified, to a certain degree. According to Avolio and Gardner (2005) both transformational and authentic leadership styles focus on the positive moral approach but only the authentic leadership style centres around the ethical and the moral element of the leadership. This difference has made the authentic leadership style an ideal solution for the future and today's leadership demands and challenges (Ofori, 2008). Another difference, stated by Avolio and Gardner (2005), is that the transformational style seems to try actively to transform the follower into a leader while the authentic style puts greater emphasis on being a role model and leading by example. Moreover, the research suggests that the authentic style is rather generic and can be incorporated with different positive leadership styles, such as the transformational style (Avolio and Gardner, 2005). This might imply that authentic leadership theory is in fact more advanced than transformational leadership theory.

Prabhakar (2005) concludes that transformational leaders are positive role models to their subordinates that motivate them to do their best work which in return leads to a higher degree of project success. This is very similar to the characteristics of the authentic leader based on research by Ofori (2008) saying that authentic leaders "possess positive values" (p. 620). Comparing the two approaches also revealed that even if a transformational leader shows authentic characteristics, being an authentic

leader does not automatically imply that the person is a transformational leader as well (Avolio and Gardner, 2005). A comparison of the two approaches can be seen in Table 1, which better shows that the two different styles are very similar but have slightly different focus points for the same components, which is why the two styles are often confused with each other.

	Focus Points		
Components	Transformational	Authentic	
Leader's self-awareness	Leaders are positive role models	Leader acts after his/her positive values	
Leadership processes and behaviours	Based on motivation	Ethics and moral is the core in all behaviours	
Authentic behaviour	Not major focus	Leaders being true to themselves, stay motivated due to own convictions and lead from the heart	
Follower development	Transform followers to leaders	Lead by example	
Performance	Motivate, inspire and challenge the workers to greater project success	Take responsibility and have accountability	

Table 1	The different focus points between transformational and authentic
	leadership styles (Avolio and Gardner, 2005; Prabhakar, 2005).

2.3 Performance of construction projects

According to Bolden et al. (2011) the systems that leaders work within constrain them, both in regards to success and failure. In the construction industry, projects are the dominant way of working and therefore the constraint for leaders within the sector. It is very important to keep in mind that project success is by no means a fixed target but is constantly changing and evolving (Müller and Turner, 2010).

According to Ammeter and Dukerich (2002), good performance within a project is due to strong leadership where the measures for successful outcome are linked to a schedule and a cost performance. Anantatmula (2010), on the other hand, developed a list of common factors of successful projects that included "creating clarity in communication", "defining roles and responsibilities", "communicating expectations", "employing consistent processes", "facilitating support", "establishing trust" and "managing outcomes" (p. 15). Further analysis of the different factors concluded that defining roles and responsibilities was the most important priority of a leader/project manager (Anantatmula, 2010). This is supported by Jugdev and Müller (2005) which claim that a leader should determine the success factors early on in a project, as well as keeping the main stakeholders well informed during the process.

Another aspect of project success is being aware of the fact that project management success and project success are two separate entities which needs to be taken into account when success is measured within a project (Cooke-Davies, 2002). Cooke-Davies (2002) also stated that project success is more difficult to achieve than project management success, since project success is affected by change of goals and used methods. Geoghegan and Dulewicz (2008) indicate that project success is very dependent on, among others, the satisfaction of the stakeholders. To be able to provide efficient leadership in a project, Gharehbaghi and McManus (2003) state that a construction leader must possess certain skills. These skills include effective communication, teaching and planning, knowledge of resources, understanding of the

characteristics and the needs of the position, as well as setting an example and sharing leadership. To be a successful manager in a construction project, one must also be able to utilise efficient leadership processes in every construction project phase, from the pre-construction stage throughout the end of the project (Gharehbaghi and McManus, 2003). Khan et al. (2015) state that transformational leaders in projects are imperative factors when it comes to project success. Müller and Turner (2007) recognise this as well by concurring that certain leadership methods lead to improved performance, but state that in the last twenty years the understanding of project success has changed and transformational leadership will be best suited to deal with the future challenges. Yang et al. (2011) supported this statement by claiming that the type of a project plays a part in its success.

2.4 Leadership as crucial for project performance

In today's environment, leadership appears to be independent of styles that are based upon the traits and behaviour of the leaders (Clegg et al., 2011). The construction industry looks more towards leadership styles that takes the nature of the work, the external social and economic environment, and the internal environment of the organisation into consideration (Ibid). The conception of a flexible and adaptive leadership is gaining more following as a result (Ibid). Today's situation has revealed that the leader's most essential tasks are to give direction to their organisations, explore the individual's potential experience, and being able to define and communicate the organisational goals to the subordinates (Bergman and Klefsjö, 2010). It has also been established that leadership appears in various levels within an organisation and many have tried to construct some sort of measurements that can be used universally (Dulewicz and Higgs, 2005). According to Khan et al. (2015), transformational leaders are very important for a project to be successful and the transformational leadership style should be considered a 21st century theory. They also claim that the transformational style of leadership fits all project types. Korrapati and Rapaka (2009) state that successful projects are due to the leadership styles and managerial skills of the project manager. It is, on the other hand, important to remember that there is not a single description of how effective performance can occur (Dulewicz and Higgs, 2005).

Research has shown repeatedly that a certain percentage of projects fail and this demonstrates how important it is to have a competent project manager leading a project. Research has also suggested that the key success elements are the leadership style and the competencies of the leaders in charge of the projects, though they have not been directly linked the success of the project (Anantatmula, 2010). To be able to measure the performance of a project, certain indicators are used, such as time and cost. For a construction project they can, however, be problematic since projects are often complex and unique and their target performance frequently lies out of the project manager's control (Dainty et al., 2007). Since most of the performance target is done beforehand, when knowledge about the project is limited, different stakeholders can affect the targets during the cycle of the project, making it difficult to measure the end product (Atkinson, 1999). Anantatmula (2010) also concluded that one of the most important steps in the project success is to define the roles and their responsibilities within the process.

Ofori (2008) claims that research has shown that one of the important success factors in a project are the project managers. Dulewicz and Higgs (2005) stated that leadership is evidently very personal to the leader and that effective leaders need to be themselves but with skills. Müller and Turner (2010) also concluded that for a certain project types, the competencies of leadership profiles will differ for the sake of success in the project. Using the fifteen leadership competencies, see Table 2, by Dulewicz and Higgs (2005), Geoghegan and Dulewicz (2008) found out that leadership competencies are directly associated with successful projects. The competencies by Dulewicz and Higgs (2005) consist of management competencies (MQ), emotional competencies (EQ), and intellectual competencies (IQ), see Table 2, with further explanations found in Appendix 1. Müller and Turner (2007) stated that emotional competencies contributed most often in different types of project success while Geoghegan and Dulewicz (2008) showed that the management competencies contributed the most to successful project.

Table 2The fifteen leadership competencies and how they are ranked in
engineering and construction companies (Müller and Turner, 2010;
Dulewicz and Higgs, 2005).

Leadership competency	Engineering & Construction	
Emotional competencies (EQ)	Strengths in leadership competencies	
1. Motivation	High	
2. Conscientiousness	High	
3. Sensitivity	Medium	
4. Influence	High	
5. Self-awareness	Medium	
6. Emotional resilience	Low	
7. Intuitiveness	Low	
Managerial competencies (MQ)		
8. Managing resources	Medium	
9. Engaging communication	Medium	
10. Developing	High	
11. Empowering	Low	
12. Achieving	Medium	
Intellectual competencies (IQ)		
13. Strategic perspective	Medium	
14. Vision and imagination	Low	
15. Critical analysis and judgment	High	

Dulewicz and Higgs (2005) based their leadership competencies research on two different studies that were conducted to better refine the leadership dimension questionnaire. They could exclude factors such as sector, gender, job function and nationality since it was found that the competencies were independent of these. Results of these studies suggested that when leadership styles in a sector were compared no overall differences were found. Moreover, emotional competencies seemed to be the most relevant to leaders and self-assessment was important in leadership performance. The importance of emotional competencies is supported in the literature by other authors, and their prominence appears to be increasing within the research field (Dulewicz and Higgs, 2005). Based on their results they found that the critical analysis and judgment, along with empowering and achieving, were the weakest competencies of the ones tested in the questionnaire. They finally concluded that even if different leaders have different characteristics, they are still able to adapt to similar leadership styles and perform according to them (Dulewicz and Higgs, 2005).

Müller and Turner (2007) mentioned that different leadership competencies might fit with different types of projects, where shows the results from their study for the construction companies. For construction projects, emotional competencies seem to have been the most influential factor for project success in high performance projects (Müller and Turner, 2007). Clarke (2010) supports this with his study on emotional intelligence and connects it to transformational leadership within projects that helps facilitate better performance in a project. However, the competencies are not derived directly from either the transformational leadership theory or the authentic leadership theory, but rather a mixture of the two. As an example of this is the competency selfawareness that exists in both theories as shown in Table 1. However, competencies theories have gotten their fair share of critique in regards to their effectiveness within an organisation, as well as how they relate to the organisation's improved performance (Bolden and Gosling, 2006). Bolden and Gosling (2006) compiled a list of various weaknesses of the competencies. They included fragmented management roles, generic and common nature leadership competencies, focus on the past and present rather than the future performance, emphasis on the measurability of different factors such as outcome and behaviour, and the limits of the approach to relevant education (Bolden and Gosling, 2006). Another concern in regards to competencies relates to the understanding of the word competence and competency Clarke (2010) defines competence as the ability of an individual to comply with external standards, whereas competency is the individuals' characteristics that they use in their work.

The task of the leader is to get his people from where they are to where they have not been. -Henry A. Kissinger

3 Methodology

This chapter introduces the methodology used, both approaches and methods, in this thesis. Two research approaches are used, the abductive strategy and the deductive strategy, with a focus on a qualitative case study based on open-ended interviews and internal documentation. This is further explained in detail under each subchapter.

3.1 Research approach

There exist mainly three types of research approaches or strategies for social research, the inductive, abductive and deductive (Gill and Johnson, 2010). The inductive research strategy the deductive research strategy are considered and to be opposites while the abductive approach considers areas from both the inductive and deductive strategies (Blaikie, 2009). The inductive research strategy has its starting point in operationalizing data collection (Blaikie, 2009) to develop a preunderstanding of the researched area (Gill and Johnson, 2010) and then searching for patterns in the data. From these patterns a network of generalisations is made and further considered to be a theory. This gives the literature review a rather different purpose compared to in the deductive research theory (Blaikie, 2009). The deductive research strategy, in contrast, is when the researcher critically reviews existing literature and knowledge for the purpose to work out if existing findings are suitable for the research carried out (Gillham, 2010; Gill and Johnson, 2010). The findings in literature are then used to enable an exploration of relationships between different variables or concepts (Gill and Johnson, 2010), this is usually done through performance of empirical investigations and testing in 'real-life' settings (Patel and Davidson, 1994). The abductive research strategy is useful when answering 'what' questions and is an approach used for exploration and understanding (Blaikie, 2009). The continuous movement between the 'real' world and the theoretical world is the main character of the abductive approach and through systematically combining these two worlds, development of new theory is possible (Dubois and Gadde, 2002). According to Dubois and Gadde (2002) abduction is similar to induction in that sense that the approach aims to investigate the relationship between "every day language and concepts". The initial part of abduction is the theoretical preconceptions which during the on-going empirical study develops in accordance to what is discovered and might later result in new, yet related issues and current theory might have a need for a redirection (Dubois and Gadde, 2002).

The choice of research approach emerged from the fact that the area of leadership is complex and requires extensive knowledge during the process of testing in 'real-life' settings. In the conducted case study the abductive approach was chosen for the open ended interview questions while the deductive approach was more applicable for the ranking part of the interviews. The authors of this thesis chose to start their work in theory and create themselves a framework to fit the issues they wished to explore through the case study carried out and then later move back to the theory for a comparison and analysis.

3.2 Research design - A single case study

In the case of this thesis the area of research is social research (Gillham, 2010). Yin (2003) states that the chosen design should emerge from what type of research question is asked, the level on contemporary events and to which range the researcher controls behavioural events. There are mainly four research designs, a survey, a history and an analysis of archival records, and finally a case study.

According to Yin (2003), the case study seems to be the most suitable design for this research since the research question is partly formulated 'how' and the focus lies on contemporary events. Gillham (2010) strengthens Yin's (2003) opinion by saying that a case study is particularly suitable when the research looks at human phenomena and what it means to be human in a contemporary 'real' world. In general a case study investigates contemporary events for the purpose of highlighting and understanding (social and human) issues and in some cases the purpose is to find links in settings where the relationship between cause-and-effect is complex (Yin, 2003). Further, the research for this thesis is narrowed down to a single instrumental case study to get a deeper insight into a single organisation, to get knowledge of organisational, individual, social and political events.

The instrumental perspective chosen for this case study is promoted by Silverman (2010) and is suitable when the case is examined to highlight issues or to revise a generalisation. The case, as in this research, is studied in depth but the main focus is more general and applicable to other similar companies. Siggelkow (2007) argues the choice of a single case study is valuable for inspiration of new ideas, illustration of abstract concepts or for demonstration of the importance of particular research questions. This argumentation for a single case study is considered to fit very well with the research questions and objectives for this thesis.

3.3 A qualitative research method

The two types of research methods, the quantitative and the qualitative, are distinguished by the type of data they handle. A quantitative study is recognised for involving counting and measuring of numbers or close-ended questions as surveys. In contradiction, a qualitative study is framed by the use of words and focus primarily on what people tell you (open-ended interviews) or what they do (observations, documentation), to give you a greater understanding of what is happening contemporary (Creswell, 2013; Gillham, 2010).

The qualitative research method was chosen for this thesis since it is considered to be appropriate when exploring social or human issues (Creswell, 2013). According to Gillham (2010) the strength of qualitative methods is that they can highlight issues and their possible explanations, something the authors hope to achieve through the chosen data collection methods, interviews and documentation.

3.3.1 Data collection method

There are different qualitative methods of how data is collected in a case study, the most common ones, interviews, observations, documents and record analysis, have different strengths and weaknesses and are often used in parallel to give a valid and reliable view of the researched topic (Gillham, 2010). No source is considered the best or is likely to be satisfactory reliable on its own. Many authors (e.g. Gillham, 2010; Yin, 2003) advocate the use of many sources in a case study which often gives more evidence, meaning the case study in itself has more strength (Gillham, 2010).

For this research, the data collection will rely on semi-structured interviews with open-ended questions and internal documentation (secondary data) from the studied organisation. Because leadership is considered to be intangible and nonvisible, observations are not appropriate for this research. The documentation for this thesis is further referred to as secondary data, and is conducted from the studied company's internal business plan and intranet, presented in chapter 4 and used to get an understanding of how the company views leadership and how well their vision confirms the theory. The choice of carrying out interviews for this case study is supported by Gillham (2010) who argues that interviews are appropriate when a small number of people are involved, they are accessible and they can give you the key information and insights you need. Further on, he argues that interviews should be considered essential and practical when a single case is studied. They can also be the single source with the richest information if they are conducted in a case study (Gillham, 2010).

In a qualitative research as this, the interview questions should mainly follow a semistructure approach to effectively collect 'authentic' data of people's experiences and if they are also recorded and transcribed they can offer high reliability (Silverman, 2006). The semi-structured approach is chosen since it makes all interviews follow a similar structure and the same questions are answered in all interviews, making the data collection comprehensive but it also gives room for conversations where the interviewees can lift other related thoughts. All questions aim to be openended when the interviewees are asked about both facts and opinions of an event (Yin, 2003) requiring detailed answers (Gillham, 2010). There is also a ranking part of the interviews that are considered to be more structured but yet qualitative. The ranking of the competencies in each category is done by ranking a competency to the others other in that category, e.g. the emotional competencies (EQ) are ranked from one to seven, since that category includes seven competencies. These types of questions are chosen to give the interviewees room for own interpretations and the chance to highlight details they might deem important to the topic. Since the focus for this thesis is on leadership and performance in projects, the focus for the interviews in the case study is to capture the view of the employees working in the projects to get an accurate picture of the situation. In the organisational schedule (see chapter 4) the employees chosen for this purpose have the titles site managers, team leaders and workers and all of them work in direct connection to the production. A conscious choice was made to exclude the project managers since they do not participate full time in the production teams. The support functions of calculations and administrations are also excluded for the same reasons.

The workers interviewed, along with the site managers and team leaders, belonged to various projects within the department. One site manager was working on calculating various parameters for new projects when this case study was conducted but contributed with a relevant perspective in the interview. The first interview conducted in this case study was with the district manager of the civil construction department, to collect data to capture the company's vision relevant research. These answers were then base along with to this used as a theoretical literature for questions asked on the construction sites. The questions to the district manager, the management team on site and the workers were formulated differently to really capture as much information as possible from the different perspectives that the employees have. Three site managers, three team leaders and four workers, in all ten employees, were interviewed for this case study. The interview questions were sent out beforehand to give all interviewees an opportunity to prepare themselves and further make the interviews more time efficient. The interviews were recorded but not transcribed since they only lasted between five and fifteen minutes each. The interviews were carried out to catch the perspective on leadership from people in different roles (leaders and followers) on construction sites and to see if the presented theory is applicable in practice and to what extent. The questions consider characteristics from the company's internal vision of leadership, leadership competencies, and perception of what good leadership is. All questions are to find in Appendix 1.

3.4 Data analysis

According to Gillham (2010) the procedure of analysing findings and data becomes more and more important as the research comes along. The strategies for analysing data in this case study research concern pattern matching and content analysis (Yin, 2013; Yang and Miller, 2008) which both are considered to fit the type of findings this thesis presents. Pattern matching is one of the most desirable techniques for analysing data in case studies. The authors wish to compare the theoretical framework with the empirically based data and this strategy is doing just that, finding patterns in predicted data and empirical. If the patterns appear to be similar between the two, the results from the case study can help to strengthen the internal validity of already existing theory while the opposite shows that further investigations might be needed or that the predicted theory might not be applicable to this case. This strategy also seems to fit since the comparison does not necessarily involve quantitative or statistical data which is not the case in this research (Yin, 2013). Content analysis is a sub method to pattern matching and often used in qualitative research, in social science, to create a systematic and objective description and classification of the content of written and verbal communication (Colman, 2015). The underlying idea of the method is to analyse patterns and find key themes, usually by counting occurrences and coincidences of words or phrases that are uttered in communication (Yang and Miller, 2008). This method is widely recommended for analysing the content in interviews and is used to ensure that all collected data is treated equally and in a systematic way (Krippendorff, 2012).

The authors of this thesis have chosen to apply these two methods to make sense of the collected data. The two methods are throughout the whole analysis combined to find patterns in the content of the interviews conducted and later connect the empirical data to the theoretical. For the open-ended questions the content is analysed to see whether the interviewees give the same answers or if there is clear differences. Words that are often mentioned are framed as important and interpreted to represent a fair result. These techniques are also particularly valuable when the ranking is interpreted and evaluated. The use of content analysis will preferably highlight where the interviewees agrees or disagrees and why that is the case (Yin, 2013). Further the same method is used to link the ranking part with the open-ended questions to find key themes that strengthens or weakens the answers. When using the content analysis in the ranking part, one limitation has to be considered, and that is the results are very cognitive and highly affected by the mood of the interviewees which can easily vary on daily basis based on various factors (Colman, 2015). It might be the case that the interviewees express that they will rank different in another project but the results they will give is assumed to fit best with the situation they are in today. When the content of the interviews is analysed and the apparent patterns are found, the results are matched with literature and, to some extent, the internal data of the case study company. This part of the analysis is part of chapter six where the empirical data is compared and connected to the theoretical framework. Since this type of study is rather new to the construction industry, especially at the lower management level, it is difficult to foresee any connections to earlier research and it won't be a surprise if the results from this study differ from the theory to some extent which the authors are prepared for.

4 Case study

To investigate whether the studied theory about leadership and performance is applicable to the construction industry, a single case study at the Swedish construction company Skanska is conducted. Moreover, to facilitate further understanding of Skanska's values of the future, a historical background is introduced. The latest business plan for 2016-2020 is introduced along with the earlier one for 2011-2015. The two are compared and differences in the latest one are highlighted in regards to leadership and performance. Skanska's Leadership profile is also introduced but it is used to assess the employees based on their roles in the organisation. The future of Skanska is briefly presented in regards to the business plan for the next years.

4.1 Background of investigated company

Skanska is a construction company, founded as Skånska Cementgjuteriet in 1887 and has over the years developed from a local concrete company to a leading actor on the global construction market (Skanska, 2016a). Over the years, the original focus of expansion has, since the beginning of the 21th century, developed towards profitability. In Sweden, Skanska has around 10,300 employees and in 2015 the revenues reached a level of 34 billion SEK (Skanska, 2016b). The organisation focuses on constructing and developing residential housing, projects within commercial real estate, and infrastructure (Skanska, 2016a). Skanska Sweden AB is divided into three specialised business units, namely Housing, Asphalt & Concrete, and Civil construction that operate all over Sweden, subdivided in geographical areas. For this thesis the case study will only consider the civil construction department in Gothenburg, where interviews are carried out. The department has a wide range of operating areas, such as projects focusing on water and sewers, tunnels, roads, railroads, and bridges. Regardless of the project type, the goal is to build in an efficient and environmentally sustainable way. To further understand how the civil construction department in Gothenburg is organised and how it is connected to the focus area for this thesis, the following organisational schedule, see Figure 1, is helpful.

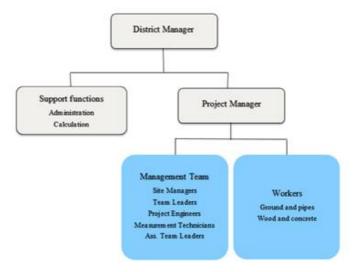


Figure 1 The organisational structure of the civil construction department.

4.2 Skanska's Business plan

Skanska is one of the oldest construction companies in Sweden and it has made an effort towards strong values for the company. These values materialise in different ways throughout the company but a compilation of the long term goals is listed in their business plan, published every five years and is easily available to all employees. The business plan lists the goals and strategies on the agenda for the next five years and is an internal guide for the management at all levels. Skanska's business plan was recently updated for the next five years, making the old business plan for 2011-2015 obsolete. The new business plan for 2016-2020 changed direction from the older version and had new emphases.

The business plan for 2011-2015 focused on being the industry's leader in safety, ethics, green, people development, and risk management. This derived from the Five Zeros (which are zero loss-making projects, zero environmental incidents, zero accidents, zero ethical breaches, and zero defects) that Skanska has become famous for in Sweden, aiming to make Skanska one of Sweden's most attractive workplaces. It also focused on conquering new sectors and geographies and increasing their operational and financial synergies. The strategies presented in the business plan entailed Skanska wanting to be leading in project management and production, in sustainable building and environment (the Green Building), and in safety and injury free work places within the building industry. Skanska also strived for having the best competencies in every position and for all resources within the company. One of the main ways to make that a reality is having good leaders. This is one of the most important things to achieve the best competencies and getting the best out of the employees. This connects back to how well different departments work together internally but also from an external point of view.

The new business plan for 2016-2020, called Profit with Purpose, focuses more on profitability than its predecessor. A new slogan for the profit is "Profit is needed to deliver our Purpose and a strong Purpose will contribute to our Profit". Profit with Purpose focuses on the increased emphasis for profitability in Skanska since they want the company to grow in a controlled fashion to maintain a stable trend of cash flows and earnings necessary for a continued success. To get this development going, a focus on the new values 'Great People', 'Market Making' and 'Operational Excellence' is evident, see Figure 2



Figure 2 The core values of the Business Plan 2016-2020.

A big part of the new purpose connects to sustainability and the ability to build a better society. Similar to the business plan for 2011-2015, the focus within the sustainability aspect is safety, ethics, and green. New focus is on corporate community investments, and diversity and inclusion. The starting point for 2016 continues being the industry's leader with a focus on the green development. People's

development is already accomplished while the focus on safety, ethics, and risk management is less accomplished. The focus point for the next years is on, among others, 'Great People', which involves developing the employees and fostering highperforming teams. Skanska also wants to increase knowledge sharing, collaboration, and mobility between different departments and teams to utilize the employees and resources available to the company in the best possible manner. The goals for 2020 focus on different things, including improved operational efficiency, high performing teams, being the most attractive employer in the industry, and having an injury-free as well as an ethical environment within Skanska. Over the years, Skanska has learned how important it is to have the right people in the right positions. Their focus on 'Great People' connects with the importance of having qualified leaders to build successful teams and to strive for better performance in projects. From the 'Market Making' perspective, the main priority is being on time and budget to get more profitable projects, which have more innovative technical solutions and higher quality. The 'Operational Excellence' entails monitoring risks in projects, improving efficiencies, and enhancing productivity by using computer software to improve planning, in addition to managing operations and change in projects.

The main change from the old business plan to the new one is mostly the focus on the leadership and how important it is to keep a company such as Skanska successful. The other major change is the focus on Profit with Purpose and how Skanska wants to change their environment in a sustainable manner to benefit their customers and employees in the best way possible.

4.3 Skanska's Leadership profile

In October 2015, Skanska introduced an updated version of Skanska Leadership Profile as they believes that it is not only important what is done but how it is done as well. This is a tool to help employees understand what is to be expected of them and also where their strengths and areas for development lie. It is used as an assessment tool during feedback conversations between the employees and their closest manager. It clearly defines what being a successful leader at Skanska entails. This is also aligned with Skanska's five zeroes while still being open for diverse personalities and thinking. The Leadership profile, in its current form, is only valid for 2016 but is redeveloped to be in an alignment to the business plan for 2016-2020.

With this program, Skanska wants its employees to exhibit leadership attitudes and behaviours, regardless of whether they lead people, projects, or merely themselves. The competencies are the "measurable characteristics of a person that are related to success at work". There are four core competency areas that group all the competencies within Skanska's employee pool of skills, summarised in Table 3. First is the 'Living our values' which includes the Skanska way of working. This includes managing diversity, green safety and health, ethics, and values along with driving a unified organisation. Second is the 'Developing the business', where Skanska pushes its boundaries in developing and delivering their business strategy and opportunities. Competencies here are customer focus, decision quality, problem solving, learning on the fly, and perseverance. Third, the 'Managing operations', focuses on delivering the promise of high quality and efficiency to the customer. This consists of functional and technical skills, drive for results, and communication skills. The fourth and final area is the 'Leading yourself and others' that supports employees in developing themselves and others to further their competitive strengths. This incorporates composure, conflict management, interpersonal savvy, and personal learning. Skanska realises that different roles within the organisation have different responsibilities depending on the type of position. Even though not all employees are in leading positions they all have a shared leadership profile since they are all considered to at least lead them, which is obviously one type of leadership as well as leading others. To further specify the leadership profile competencies in accordance with the different positions, the employees have additional competencies that are specific to their role. The employees are, depending on their role, fitted in one of four categories called Role Types. An employee fitted into the role type of 'business leader/expert' or 'leader of managers/specialist' often works at senior management level, while an employee working in the production has the role of a 'people leaders/area leader' or 'individual contributor'.

	Developing the	Managing	Leading yourself	Living our
	business	operations	and others	values
Core	Customer focus	Functional/techn	Composure	Managing
competencies	Decision quality	ical skills	Conflict	diversity
	Learning on the	Priority setting	management	Ethics and
	fly	Drive for results	Interpersonal	values
	Perseverance	Communication	savvy	Managing green
	Problem solving	skills	Personal learning	Managing
				health and
				safety
				Driving 'One
				Skanska'
Individual			Peer relationships	
contributor			Individual	
			courage	
People	Dealing with	Organising and	Developing direct	
leader/ area	ambiguity	managing work	reports and others	
leader	Negotiating		Managerial	
			courage	
			People	
			assessment	
			Motivating others	
			Building effective	
			teams	

Table 3	A summary of core c	ompetencies and role	e type specific competencies.
100000		ompereneres and rore	e type specific competencies.

This plan establishes a baseline such that every employee is rated by the same standard throughout the organisation. This also benefits the employees by setting clear expectations of their roles and providing feedback for individual strengths and their area of development. It also clearly states the behaviour and characteristics that are needed to advance their career. In each department, the leadership profile is used during feedback conversations between employees and closest manager. This entails using a grading system of 1-5 to determine if a competency is considered as a critical development area, listed as one on the grading scale, or an exceptional strength, listed as five on the grading scale. This clearly indicates the status of the employees' competencies and where the manager can help with further development. Lastly, it facilitates flexibility across different departments, geographies and functions which can help Skanska to support and increase their collaboration both regionally and globally.

For this thesis the focus lies with the site managers, the team leaders, and the workers. Site managers and team leaders are both roles that are considered to fit under people leaders/area leaders, while workers are fitted to the Role Type individual contributor.

Some of the extra competencies for the site managers and team leaders include dealing with ambiguity, negotiating, organising and managing work, developing direct reports, managerial courage and people assessment, motivating others, and building effective teams. On the other hand, workers only have role relationships and individual courage as their extra competencies from the core ones.

4.4 Future focus on leadership at Skanska

Leadership skills and competencies at Skanska are coming more into focus for the leaders as well as for other employees. The Leadership profile, introduced in its current version in October 2015, and the new Business plan for 2016-2020 both give a good idea how leadership is perceived within the organisation at all levels. The organisation at the investigated department is considered to have a rather low employee age on average, compared to other department in the company. The reason for this is believed to be the fact that the department focuses on hiring young and newly graduated people as leaders that can be shaped and educated in accordance with the company's values. The traditional way of having a leadership career within the department is to start as a team leader in the production, and progress thereafter to site manager and later project manager. This career ladder allows the employees to gain appropriate knowledge along their way up and have the opportunity to be mentored by a more experienced colleague that either currently or previously has held the same position. This emphasis on leadership and leadership competencies implies that Skanska will continue to challenge their employees to further develop their skills and competencies in order to advance within the organisation.

Remember the difference between a boss and a leader; A boss says 'Go' A leader says 'Let's Go'. -E.M Kelly

5 Results and Analysis

This chapter introduces and presents the results from interviews, conducted with the district manager, site managers, team leaders, and workers, working on various projects in the Gothenburg area. The answers from the questions are interpreted and analysed for a better understanding and connection to one another. Figures are presented in detail to illustrate the results from the ranking and to give a clearer view on the results of the interviews.

5.1 **Results from interviews**

The interviews, conducted with the site managers, team leaders, and workers, gave very similar answers overall, apart from the ranking of the leadership competencies, see Appendix 1. This gave the impression that the case study company's employees have similar ideas concerning how a construction site should operate and how their leaders should behave accordingly. The answers from the district manager are presented when they differ to a great extent. However, since the perspective on a project is significantly different at the senior management level compared to the lower management level, those answers are not prioritised.

5.1.1 Awareness of Business Plan 2016-2020

All companies have internal business plans and the investigated company has just introduced a new one, where the focus lies on the employees ('Great people') and thereby leaders and leadership. The district manager knew the business plan by heart and stated "The focus on the employees connects to the profitability since we know if we focus on the employees we earn more money for our business". When checking how well the content of the business plan had reached the site managers, team leaders and workers, different answers came up, depending on the different employee group. The workers could not say they were familiar with it in any way, since they are not equipped with computers on site and the internal information reaches them last. This answer was expected since the district manager had earlier claimed that the company would first introduce it to the workers right before the summer holiday. The site managers, on the other hand, had all been informed about it and could give a better presentation of the new values. They could interpret the business plan with their role in mind, especially in regards to the 'Great People' since they expressed that they want the best out of everyone working on the construction site, not only with respect to leadership. The team leaders had in turn barely heard about it and were not familiar with the exact changes from the older business plan.

5.1.2 Successful performance factors & perception of different leaders in projects

When the production groups were asked about soft parameters that could make a project successful, other than the cost, quality, and time, the answers varied, even within each group. However, the common view was that people want to 'feel at home' and be comfortable. This included easy and relaxed communication between different groups on site, a stress-free environment, and an accurate schedule in regards to logistics at the site. Most interviewees stressed that everyone must feel good with a sense of belonging in the team, within a project, and found this to be the most important factor of a successful project. The importance of the relationship to the client was brought up amongst the site managers, in addition to how imperative it is to have the client on the same page for a good collaboration. One site manager said

"Besides that everyone needs to feel involved in the team, the relationship with the client is very crucial". The district manager had a different perspective on which soft parameters are crucial to a project's success. Immediately, safety and green building were mentioned, which responds to the internal business plan in regards to a successful project. Further explained was that the market required construction projects to be sustainable and not affect the closest environment too much. Thus, when the projects are built in a green way, the long term costs are kept down. The district manager also claimed that any project where someone got injured was considered as a failed project even though the monetary profit was good, making the safety one of the most important factor in any project. These two factors were, however, not mentioned by any of the production personnel when asked the same. This difference is best explained by the different levels in the hierarchy and obligations that are connected to the roles the interviewees possesses, but also how the question is perceived. The difference is interesting in this case and better clarifies how the focus varies based on where people are in the structure of an organisation.

The interviewees were then asked how, why, and if they found different types of leaders fit for different projects, in regards to project performance. This question gave very similar answers from all the groups. All could agree that different leaders did indeed fit different projects in various ways. On the other hand, they could not give any specific examples of how leaders fit differently in the different projects. The interviewees agreed that knowledge and experience are important factors when placing a leader in a project, or any other role for that matter. It was further stated that it is important to have a variety among the project teams, where employees can support and complement each other. As one team leader mentioned, "You should have as wide a diversity as possible because then you can always get mentored by someone". Another interviewee considered the results of the project to be dependent on how the leaders communicated to other employees, such as workers or subcontractors. One interviewee even stated that if the managers were not respectful of the experience and knowledge of the workers, they would get worse response and behaviour than otherwise. One of the workers also mentioned that different leaders fit different sites to a varying degree and this could make or break the project. The workers also stated that certain managerial skills are essential features of a successful leader, such as good planning and keeping the schedule.

A difference was spotted between the senior and lower management's views on how much leadership could affect the profit within a project. The district manager considered it to be fairly high, or approximately 20% more profit when the leadership was good, whereas the production personnel had a more difficult time in determining a specific percentage. When the site managers, team leaders and workers expressed how optimal leadership could affect the profit of a project, they all agreed that the profit should be higher when the leadership was good. None of the interviewees specifically defined what they considered to be good or bad leadership but they appeared to have similar ideas of how it affected them. Few could offer an exact percentage due to inexperience with detailed numbers, but those who could answer in the range of 2-20% more profit due to good leaders in a project. Also commonly stated by the interviewees was the fact that inappropriate leadership could decrease the project success and performance in more perspectives than the monetary performance connected to profit. In relation to this the interviewees stressed that bad leadership would probably affect the project and profit more than good leadership, but in a negative way. One site manager expressed the following. "Good leadership might have some small effect on the end profit, 2% maybe, but bad leadership on the other

hand can affect the end profit much more, in a negative way, so the leadership is definitely a very important factor when it comes to a project's profit".

5.2 Ranking of leadership competencies

To evaluate what competencies a leader would preferably need in a project within the construction industry, a questionnaire of different competencies, based on research by Müller and Turner (2010), was used. This questionnaire was divided into three categories, emotional, managerial, and intellectual. Moreover, the interviewees ranked each category separately, e.g. the seven emotional competencies were ranked next to each other, where the most crucial or important skill was ranked as one and the least crucial was given a seven. The results are illustrated through pie diagrams in Figures 3-8. The results are analysed, and interesting points are lifted out and presented in textual form. The data of each interviewee's ranking can be found in Appendix 1.

The ranking of the three categories was observed to be somewhat difficult for most of the interviewees, with the emotional one considered to be the most difficult. The interviewees stated that the words were often very similar and complex but when the definitions of the skills were discussed, see Appendix 1, the ranking was observed to go more smoothly. Some of the interviewees were able to prepare for the interviews and had taken more time to reflect on the different competencies. They could therefore give more opinions and further reasoning for their ranking, which was much appreciated by the authors. It was noted during the interviews that the majority of the interviewees related best to the emotional competencies category of the ranking and had the strongest opinions on them. The other two categories appeared easier to rank but it was observed that it took shorter time to rank and less was said and reflected upon them.

5.2.1 Emotional competencies

The emotional competencies are the largest group in this ranking, consisting of seven skills. They are self-awareness (SA), emotional resilience (ER), intuitiveness (Int), sensitivity (Sen), influence (Inf), motivation (Mot), and conscientiousness (Con). The words describing each competency were hard to interpret by some of the interviewees and this category took the longest to rank.

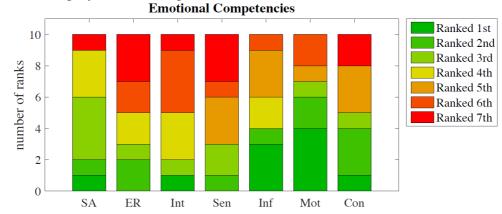
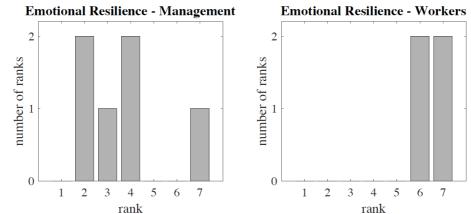
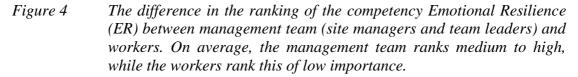


Figure 3 The results of the seven emotional competencies, ranked by the interviewees. From left: Self-Awareness (SA), Emotional Resilience (ER), Intuitiveness (Int), Sensitivity (Sen), Influence (Inf), Motivation (Mot) and conscientiousness (Con).

The seven emotional competencies were ranked next to each other, where the most crucial or important skill was ranked as one and the least crucial was given a seven.

Self-awareness was considered to have average importance, as shown in Figure 3. The result illustrates a rather common view among the interviewees, independent of the type of their role. A shared motivation for this result was that self-awareness is perceived as common sense, which is something all people should possess and is not really a skill as such. One team leader expressed this differently. He defined selfawareness to be the competency that determines the level of the other competencies, and believes it should be considered as very important. The result of emotional resilience is depicted in Figure 3 and shows a widely spread ranking. When analysing the patterns from the interviews more carefully it became clearer that the workers consider it to be of low importance, while the team leaders and site managers rank it higher. One worker motivates the ranking by stating "Everyone has bad days, which is natural and should always be okay and not affect the work that much". The results are interesting since it is the followers that consider it insignificant while the ones in leading positions deem it to be of more importance, see Figure 4. The results might mirror the difference in view of leadership between leaders and followers. Leaders may feel pressured to not have their own feelings affect the work while, in this case, the workers are not as concerned about it.





Intuitiveness in Figure 3 was one of the words for which most interviewees needed a definition, to be able to rank it knowledgably in regards to the others. Many of the interviewees interpreted the word to the synonym 'gut-feeling' and the majority considered the competency to be of rather low importance and. No further motivation for this result was found when analysing the content. A possible reason for this result is that the other competencies were simply considered more important. Furthermore, the need for a definition might have affected the result to some degree. The result of the ranking of sensitivity is rather surprising. As shown in Figure 3 it is obvious that the majority has given a low ranking to sensitivity, which contradicts what the same people answered in the other questions during the interviews. Most interviewees stressed that humility and the involvement of people in the team is of great importance for a leader to succeed, which is indeed a part of the definition of sensitivity. The reason behind the result did not connect to any pattern in the rest of the interviews' content, and hence a deeper analysis was necessary. Through this analysis it was found that the correct meaning of the word 'sensitivity' was lost when

translated to Swedish, which was the language the interviews were conducted in. This might be an explanation to why the ranking was not consistent with the rest of the results from the interviews. Figure 3 represents the result for the competency influence. The result varied a lot and when the data was analysed more carefully an interesting point was found, see Appendix 1. The ones ranking influence high were usually team leaders, while site managers ranked this competency of medium importance and the workers even lower, see Figure 5. The reason for this may, as it appears from the results, is connected to the roles and which expectations of leadership are connected to that role.

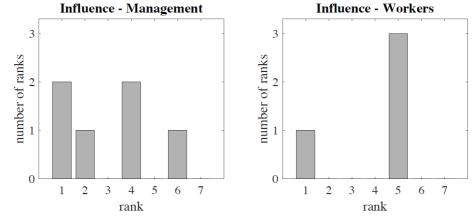
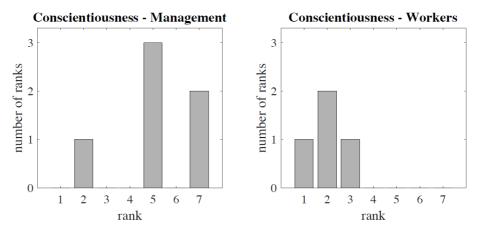
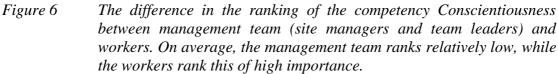


Figure 5 The difference in the ranking of the competency Influence between management team (site managers and team leaders) and workers. On average, the management team ranks medium to high, while the workers mostly rank this of relatively low importance.

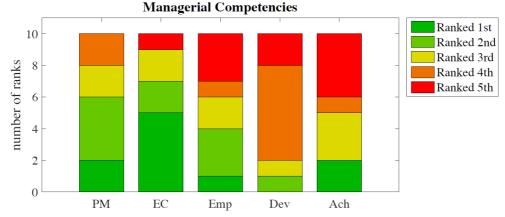
Motivation, shown in Figure 3, is ranked to be of high importance for the majority which also is the case in the literature research. One site manager describes the ranking as "We are building teams here, you need the team to perform work, and for this you need motivation". A team leader further discusses the ranking by stressing that "As a team leader you work with what you have and you need to get the team to want to work for you that requires motivation". No worker had a clear motivation for the ranking but the common ranking was medium to high. The ranking of conscientiousness is shown in Figure 3 and is the last of the seven emotional competencies. The result shows a wide spread of how important the competency is considered to be, but it mostly concentrated at each end of the spectrum. When analysing the patterns from the interviews it shows that the workers rank this skill high, while in general the site mangers and team leaders rank this competency of low importance, see Figure 6. For the workers the definition in Appendix 1 spoke for itself and was expressed by all of them in different words as a motivation for their ranking, also shown in Figure 6. The reason why those in leading positions ranked this low was not traceable to anything else in the interviews, but in view of the clear distinction between how the roles have ranked this competency it is possible that the reason is connected to how they perceive leadership in their profession.

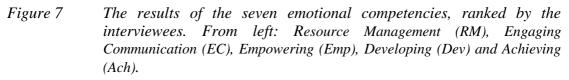




5.2.2 Managerial competencies

There are five managerial competencies in this ranking. They are resource management (RM), engaging communication (EC), empowering (Emp), developing (Dev), and achieving (Ach). They all focus on the managerial skill of leaders and how well they conduct themselves in certain areas. The interviewees ranked these from one, which was found to be the most important skill of a leader, to five, which was the least crucial competency. In general, this was the easiest group to rank for the interviewees. The words were considered to have a clear meaning and were associated with the work tasks of a leader, which seemed to easily recognisable to everyone.





The results from the interviews were interesting, especially when the differences and the similarities of the different rankings were assessed. For the resource management, the interviewees were in agreement that it was an important aspect of the leader's competencies. For this reason, they gave it rather high ranking on average, as shown in Figure 7. One site manager motivated his high ranking by saying "*This is an important part of my job, creating as good conditions as possible with what I have*". The workers motivated their choice of the high ranking slightly differently. One of

them expressed "I connect this with how the leaders make everything as smooth as possible for us, so we have all the material we need on time and in the place, which is very important for an efficient production". The same high ranking was also true for engaging communication, where almost all the interviewees shared the view on how important this competency is. This is illustrated in Figure 7. The workers were the ones that regarded this as a very crucial skill and one of them said "We cannot do any work if the managers don't talk to us and engage us in talking to them about problems and other issues". One team leader stated that "This sets the level of the working climate and is therefore important for anything else to work, this is also something you can learn and become better at". Both these competencies were found to be very important, both for site managers and team leaders but also among the workers. They also might be the two managerial competencies that contributed the most to clear data. For the competency of achieving, illustrated in Figure 7, there was some difference between the site managers and team leaders on the one hand, and between managers and workers on the other. The workers ranked this competency as rather low while the site managers and the team leaders found this to be a more important factor and ranked it higher. This difference was found to be interesting, shown in Figure 7, since those in the leading position considered it more important to achieve the given objectives, while the workers were not as aware of the detailed objectives and had a harder time to relate to this competency. Both the empowering and the developing competencies gave quite inconsistent results, and the interviewees found them to be important to a varying degree, as can be seen in Figure 7. The reason for this spread was hard to analyse and no clear pattern was found in the interview data. However, for the developing competency, it was found that the spread in ranking was mainly caused by the team leaders and site managers while the workers had a more shared view on this competency. This common view among the workers might stem from the fact that they do not regard the leaders to be supportive and pushing for their development, as the definition suggests.

5.2.3 Intellectual competencies

This ranking consists of three different intellectual competencies which are critical analysis and judgment (CAJ), vision and imagination (VI), and strategic perspective (SP). The interviewees ranked this category from one, which was the competency they found most crucial for their leader to have, to three, which was the least important skill. This was the category of competencies commonly considered to be relatively easy to rank. However, not much motivation for the ranking was given by the interviewees. The lack of motivation or opinions on these competencies made the results hard to interpret and the analysis brief. The results of the ranking among the interviewees showed that strategic perspective, shown in Figure 8 was found to be the most important part of the intellectual competencies of a leader. The reason to this result is likely due to the fact that most interviewees connected the planning of projects to this competency. Since many had already stressed that resource management, where planning is a part, was a very important aspect of the managerial skills, it is not surprising that the strategic perspective would be ranked high. Common among the managers was also the opinion that one needs to have a strategy for the entirety of one's actions in order to achieve objectives. As shown in Figure 8, the vision and imagination of leaders was found to be rather unimportant according to the interviewees, since most ranked it low or medium. There was no further motivation for this ranking to be found in the obtained data, which made a deeper analysis troublesome. The interviewees found the critical analysis and judgment

competency to be both important and unimportant, in view of the fact that it got varying ranking overall. The result could not connect any specific data to workers, site managers or team leaders. This might be due to unclear meaning of that specific competency. The results are illustrated in Figure 8.

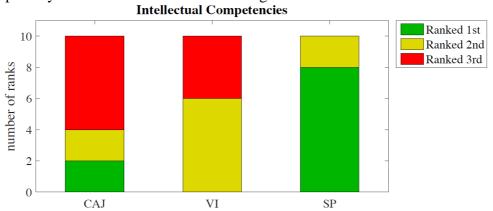


Figure 8 The results of the seven emotional competencies, ranked by the interviewees. From left: Critical Analysis and Judgment (CAJ), Vision and Imagination (VI) and Strategic Perspective (SP)

6 Discussion

This chapter focuses on connecting the literature, within the theoretical framework, to the results and analysis of the interviews taken with the site managers, the team leaders, and the workers, as well as with the district manager of the department. The discussions highlight the results that were found to relate the best to the research questions that were put forth in chapter one. Given that this study has a unique topic, the focus is on the most interesting results from the case study that strengthen related theories and research, but any obvious contradictions are lifted up.

6.1 Leadership as a success factor for projects

In earlier studies, the managers on the functional level are recognized as the managers that have an impact on the performance and success of projects, which contributes to the organisational success (Geoghegan and Dulewicz, 2008). This connects to the results from this study, where the roles of the site managers and the team leaders are considered very important when recognizing success factors in projects. Regardless of the leadership style, the managers on site should, according to the most highlighted results from this study, encourage involvement, open communication, and the sense of belonging among the project team, which are all considered to be the basic success factors to reach profit, at both the project level and the organisational level. How much leadership can affect the profit, in numbers, is however not easily answered but from this case study. The interviewees gave a range of 2-20% increased profit in the projects if the leaders act in an optimal way. How senior managers practice leadership in regards to project performance has been excluded from this study, which is also the case in general for earlier research (Geoghegan and Dulewicz, 2008; Turner and Müller, 2005).

The reviewed literature revealed that the lower management of a project has never been in focus, in the same way the senior management has been in construction. The fact that lower management has never been the focal point in the literature affects how the literature review can be viewed in this case study. Most of the articles that were reviewed discussed the effects of the senior management or the project manager. In Swedish construction, site managers and team leaders are lower in the hierarchy than the project manager, as Figure 1 illustrates. Due to this slight difference in the hierarchy level of the subject, the literature can only support the results in a partial manner. Even though the earlier research has only been performed on senior management it is, to some extent, applicable to this study. The empirical data, however, shows a clear gap in the literature of lower management in the field of construction that requires future research. This case study contributes to overlapping the existing gap and the results demonstrate the importance of further studying this area. In accordance to the literature, the results from this case study suggest how a leader fits in different situations and how the behaviour in different circumstances is based on knowledge and experience, making the leader flexible to unique events often occurring in projects. This is discussed by Prabhakar (2005), who states that a manager that employs flexibility, to a wide extent, to his or her leadership approaches, is a successful manager. Gharehbaghi and McManus (2003) further stress that different leadership is required in different situations, which is also the commonly agreed answer among the interviewees in this study. Similarly, Yang et al. (2011) concluded that the type of the project affected its success as well. Müller and Turner (2007) further support this by stating that different leadership competencies fit different project types. On the other hand, Dulewicz and Higgs (2005) claimed that

even if leaders have different characteristics they should still be able to adapt to similar leadership styles. This connects to the result where knowledge and experience are expressed as determinants for how the leader acts and fits in different situations.

6.2 Importance of leadership competencies

Geoghegan and Dulewicz (2008) state that the correct competencies are a necessity for the project manager, to ensure that projects are implemented successfully. Even though their study is based on managers on a higher level, it is assumed that this is also the case for the lower level managers studied in this research. As shown in the results of the ranking, the emotional competencies were expressed as the hardest to rank but considered the most crucial when linked to the answers on project performance and leadership styles. Müller and Turner (2010) discuss this increasing need for emotional competencies and the crucial relationship between the concern for people and demanding projects. This is in agreement with the transformational leadership theory mentioned in the theoretical framework, see chapter two. Connections between the results and the authentic leadership theory was not easily traced in the results of this study, but Ofori (2008) expresses that the overall performance of the project is likely to be superior if a leader is authentic. When analysing the competencies ranked as high or expressed more often among the interviewees, it was possible to find key elements from the transformational leadership perspective as well as the authentic leadership perspective. Some of the competencies were considered important from the findings and matched with the two perspectives. Motivation was ranked high amongst the emotional competencies in this research, which is observed to be the major link to the theoretical perspectives introduced in chapter two. Anantatmula (2010) stresses that the possessed motivation and the ability to motivate others are crucial to achieve objectives and prevent failure. This statement conforms to the results highlighted during the conducted interviews. How well one motivates others is something the case study company's site managers and team leaders are assessed on, see chapter 4.3, making the focus and importance of motivation competency even more crucial. Lastly, motivation is considered as one of the reappearing focus points in both the authentic leadership theory and in the transformational leadership theory, as can be seen in Table 1. To include further links to the theoretical perspectives, self-awareness is lifted up in both theories and is considered of medium importance among the interviewees in this case study. Among the workers, the component conscientiousness was expressed as important, which connects to the two leadership perspectives.

When looking at the ranking of various competencies from the interviews, some similarities as well as differences between the different groups of interviewees were spotted. The emotional competencies category was the one that interviewees had the most difficulties answering, but all of them had their reasoning and opinions for their ranking, much more so than what was the case with the other two categories. The authors therefore assume that this category is important in projects, which is supported by Müller and Turner (2007) who stated that the emotional competencies are the biggest contributing factors to the success of a project. The first competency that showed a major difference between the management team and the workers was the Emotional resilience. This was a competency that the workers all ranked as low but the management team considered the importance of it as ranging from medium to high. This difference is best explained in how the different groups look at how their feelings should affect their work. Based on the research by Müller and Turner (2010), see Table 2, Emotional resilience is ranked low in engineering and construction

companies, which supports the workers' answers. The authors found it interesting that the theory does not support the management team's ranking of this competency, but this is most likely connected to the fact that the research done by Müller and Turner is on senior management. Another competency that showed difference in the ranking was Influence. Here it was ranked as high for the team leaders, which correlates to the theory by Müller and Turner (2010), medium importance for the site managers but low for the workers. This difference can be explained by the expectations of leadership from each group and their role in a project. The Conscientiousness competency was yet another part that displayed difference in ranking between the groups. This was something that the workers found to be highly important while the management team gravitated towards the lower end in this ranking. This difference in ranking can be best explained by how the different group perceive leadership in their profession. The research done by Müller and Turner (2010) again supports the workers for this competency by ranking it high for engineering and construction companies. On the other hand, some prominent results were found among the managerial competencies category, which Geoghegan and Dulewicz (2008), in contradiction to the results of this study, concluded are the most important to achieve a successful project. For the Engaging communications, the differences were almost non-existent between the management team and the workers since this was the only part that got a high ranking from majority of the participants of the interview. This does not correlate perfectly to the theory by Müller and Turner (2010), where this competency got medium importance for engineering and construction companies. Results for the Achieving competency, however, showed that the workers found it of low ranking while the management team ranked it from medium to high. This difference can best be explained by the fact that the different groups related to this competency with relative ease. For this competency, the theory by Müller and Turner (2010) supports the management team's ranking but the research ranked Achieving as of a medium importance for engineering and construction companies. These various rankings on the same competencies give a glance at how the different groups in a project view the components of leadership and where the priority lies.

The district manager at the studied company stressed that during the recruiting process of employees for leading positions, he looks for certain personal characteristics which he thinks fit with the requirements of a certain position. The personal characteristics leaders possess, in regards to their position, are argued by Müller and Turner (2010) to be determinants for how the leader performs and how long they stay in their position. This argument makes the role of the district manager, in this case study, crucial for the organisation's ability to make profit, since the leaders' performance is already stressed to be crucial for project and organisational success. It was also stated by the district manager that he rarely employs people that are 'ready-made', which means that the focus is on young, newly graduated people that can be shaped and educated by the organisation. The personal characteristics of the employee determines how fast they will climb the internal career ladder, from an assisting team leader at the lower management level, to a project manager at senior management level. This answer further strengthens the theory presented by Müller and Turner (2010) and Müller and Turner (2007), introduced in chapter two.

6.2.1 **Reflections on limitations**

The literature has voiced critique on the competencies theory and how many a leader should possess. Buckingham (2001) discussed how competencies of leadership support conformity such that diversity on the individual level decreases. He further

argues this by stating that the individuals that shine in their role all demonstrate similar behaviour, but this particular behaviour can be studied and learned. Finally, he concludes that organisations should build on their employees' individual strengths and other differences they possess, and not focus on the behaviours as such but on the outcomes. Bolden and Gosling (2006) further confirm this by discussing that managers need the support of their seniors to be better able to display their developed competencies. The fact that the interviewees were asked to rank a list of competencies next to one another is yet another point which has some shortcomings that can be critiqued. When asked, the interviewees only gave their opinion, making the ranking very cognitive for that moment. This, on the other hand, best explains why the ranking gave such a variety in the results. Another interesting observation was made of the fact that most interviewees had difficulties when ranking the various competencies next to each other, further indicating on how cognitive that part was, especially the first category of the emotional competencies. It was assumed during the interviews that the ranking could be affected by factors such as the interviewee's current mood, how matters were going on site, and other complex situations happening for each of the individual asked. The results might have been very different on another day or even in a different setting. However, most of the interviews were conducted on the same day, which might lessen the effect of various factors that could have otherwise affected the mood of the interviewees.

7 Conclusions & Recommendations

This chapter introduces the conclusions of the research by answering the research questions, asked in the beginning of the study. This chapter further introduces practical applications for the case study company and recommendations on future research on the topic.

7.1 Concluding remarks - the leader's role and leadership competencies in projects

To sum up the whole thesis, a look back at the following research questions, which this case study investigated, is appropriate.

- "How is the leader's role connected to the project performance on construction sites?"
- "What leadership competencies support the leader's role on the sites' performance?"

During the interviews with the site managers, team leaders, and workers, it became clear that different leaders do indeed lead different projects in a varied manner, making some leaders better at certain projects than others. No examples could be given for this by the participants of the interviews. Another point that connects to this is that good leadership includes the knowledge and the experience of the leaders. Thus, leaders become more qualified the longer they lead, making the saying 'practice makes perfect' very relevant. An entity that kept coming up in all the interviews conducted on site, was the importance for the personnel to feel good on site, putting much responsibility on the leaders to act with openness and involvement. This connects to how the site is led by its leaders.

The leadership competencies that support the leader's role in the project's performance can be divided into emotional, managerial, and intellectual competencies. Based on this study, which used leadership competencies ranking, the emotional competencies appeared to be the most important in a construction project. This conclusion in based on the fact that the interviewees could best motivate their answers in this category and they also had the most opinions on this group of competencies. This gave the authors the best data to work with and connect it to other answers from the interviews. This leads to the conclusion that soft parameters are indeed basic factors for any successful project and how important it is for leaders to be able to have and use the emotional competencies in their arsenal, such as motivation. The managerial competencies were found to be important to some degree, especially in connection to communications according to the participants. The intellectual competencies were not considered very important for this level of management, which explains the results for the ranking in that category being less consistent than the others. For most parts, the interviewees connected this part to the project's planning stage, which is at a much lower level than this category is designed for. This connects to the fact that the leadership competencies have never been applied to lower management, which this study focuses on, thereby decreasing the existing gap in the literature on leadership competencies for lower level managers in construction.

7.2 Practical applications

During this case study, several areas have been discovered where recommendations can be made for researchers and companies working with leadership in projects. The

recommendations are presented in this section as guidelines for where the focus for future improvement can be put. From the reviewed literature, the most recognized way to measure performance of projects is with monetary factors, where profitability is highlighted as the most efficient way. However, the major results from the conducted case study indicate that there is a need for a deeper focus on the soft parameters, such as the competencies of the employees in leading positions, for the possibility to even reach any profitability. The recommendations for future research and companies are to put focus on the soft parameters of the project's employees and not solely the profitability.

7.2.1 Recommendation to Skanska

It appears as if Skanska puts a lot of effort into their leaders in projects and has created internally useful tools for guidance in this area. However, there are measures for which the authors recommend improvements. Feedback from the employees at visited construction sites indicates that there is a wish for more involvement and openness all the way from senior management level down to the people on site. This is requested by site personnel as a step towards mirroring the open and involving working environment that is required at sites and today appears to be work properly. What is required for improving this area is a better way of sharing values, information, requirements of the project and employees, etc. An initial step towards this is to present and share the new business plan to the sites, which clearly states what Skanska stands for. This makes it simpler for the less informed employees to grasp the information, since today it has various parts that can be difficult to understand properly.

7.2.2 Recommendation on future research on the topic

One shortcoming of this research is the fact that it only considers one case study of the subject of lower management as a focus point. Because of this, the results are limited and might not consider all the factors needed for an effective conclusion. By using only one case study in a research such as this thesis, it can be problematic to compare the results with similar case studies. Another thing to consider is that the case study company has a certain vision for the way they practice, which might not be the case if a similar study would be conducted in another company of similar background. This is a limiting factor of the thesis, but this work could be used in future research. It is recommended that in future work another research should take into account more than one case study to get an extensive overview of the subject.

What was discovered by the authors, when earlier research was reviewed, was the lack of focus on the lower management in general, specifically in connection to leadership and project performance. The gap in earlier research requires a deeper focus on leadership development for lower management and it is recommended to conduct more extensive studies on this area for future research. Furthermore, it was found that there is very little focus on the construction industry in regards to leadership and project performance. The construction industry is known for its unique way of working with leadership in projects, which would make this an interesting area for future research. The lack of research within this area motivates the authors to recommend future research focused on lower management in construction, leadership competencies for leaders in construction projects, and especially for leaders in lower management.

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Appendix 1

Interview questions for District manager

- 1. How do you interpret Skanska's vision about 'Great People'?
 - a) How does it connect to the hiring process of site managers and team leaders?
- 2. How does, the focus area from the Business plan 2020, 'Great People' connects to the Profit of a project, 'Project with Purpose', in your opinion?
 - a) To what extend?
 - b) What is profit to you?
- 3. What are the characteristics and competencies that you look for in new site managers or team leaders?
 - a) Of those, which do you think is the most important for the projects' performance?
- 4. Projects are often constrained by cost, quality and time, but are there other factors you can think of that can determine if a project performs successfully? (soft parameters, intangible, not monetary)
 - a) Of these mentioned factors, what performance factors do you think are important for a project to be successful?
- Do you think that different leaders fit in different projects to make it successful?
 a) How?
 - b) Why?
- 6. The literature studied suggests that personal characteristics and knowledge can be divided under managerial, emotional or intellectual competencies as crucial to a project's success. These competencies are listed in the table below. How would you rank them (from 1-7(5(3)), where 1 is not crucial at all and 7(5(3)) is very crucial), as crucial for a project's successful performance?

Interview questions for employees on site: site managers, team leaders & workers

- Are you aware of what the new business plan 2016-2020 states about leadership?
 a) How do you interpret that in regards to your role in a project?
- 2. Projects are often constrained by cost, quality and time, but are there other parameters you can think of that can determine if a project is successful? (soft parameters, intangible, not monetary)
 - a) What performance factors do you think are important for a project to be successful?
- 3. Do you think that different leaders fit in different projects to make it successful?a) How?
 - b) Why?
 - c) How much do you think the leadership of a project can affect profit, in percentage?
- 4. The literature studied suggests that personal characteristics and knowledge can be divided under managerial, emotional or intellectual competencies as crucial to a project's success. These competencies are listed in the table below. How would you rank them (1-7(5(3)), where 1 is not crucial at all and 7(5(3)) is very crucial), as crucial for a project's successful performance?

Theory by Dulewicz and Higgs (2005)

A.1. Emotional competencies (EQ)

They suggest there are seven emotional dimensions to leadership competency:

- 1. **Self-awareness**: the leader is aware of his or her own feelings and able to recognize and control them.
- 2. **Emotional resilience**: the leader is able to maintain consistent performance in a range of situations. He or she retains focus on a course of action or the need to obtain certain results in the face of personal challenge or criticism.
- 3. **Intuitiveness**: the leader arrives at clear decisions and is able to drive their implementation in the face of incomplete or ambiguous information by using both rational and 'emotional' perceptions.
- 4. **Interpersonal sensitivity**: the leader is aware of, and takes account of, the needs and perceptions of others in arriving at decisions and proposing solutions to problems and challenges.
- 5. **Influence**: the leader can persuade others to change a viewpoint based on the understanding of their position and the recognition of the need to listen to this perspective and provide a rationale for change.
- 6. **Motivation**: the leader has drive and energy to achieve clear results and make an impact.
- 7. **Conscientiousness**: the leader displays clear commitment to a course of action in the face of challenge and matches 'words and deeds' in encouraging others to support the chosen direction.

A.2. Managerial competencies (MQ)

They suggest there are five managerial dimensions to leadership competency:

- 1. **Resource management**: the leader organizes resources and co-ordinates them efficiently and effectively. He or she establishes clear objectives and converts long term goals into action plans.
- 2. **Engaging communication**: the leader engages others and wins their support through communication tailored for each audience. He or she is approachable and accessible.
- 3. **Empowering**: the leader gives direct reports autonomy and encourages them to take on challenges, to solve problems and develop their own accountability.
- 4. **Developing**: the leader encourages others to take on ever more-demanding tasks, roles and accountabilities. He or she develops others' competencies and invests time and effort in coaching them.
- 5. Achieving: the leader shows an unwavering determination to achieve objectives and implement decisions.

A.3. Intellectual competencies (IQ)

They suggest there are three intellectual components of leadership competency:

- 1. **Critical analysis and judgment**: the leader gathers relevant information from a wide range of sources, probing the facts, identifying advantages and disadvantages. Sound judgments and decisions making, awareness of the impact of any assumptions made.
- 2. **Vision and imagination**: the leader is imaginative and innovative. He or she has a clear vision of the future and foresee the impact of changes on implementation issues and business realities.
- 3. **Strategic perspective**: the leader is aware of the wider issues and broader implications. He or she balances short and long-term considerations and identifies opportunities and threats.

Data from interviews (Ranking)

Table

Results from the interview's ranking of various leadership competencies.

Leadership Competencies	Site managers			Team leaders			Workers			
	#1	#2	#3	#1	#2	#3	#1	#2	#3	#4
Emotional Competencies (EQ)										
self-awareness	3	3	3	4	1	3	7	4	2	4
emotional resilience	2	2	4	3	7	4	6	7	6	7
Intuitiveness	1	6	7	6	4	6	4	3	4	6
Sensitivity	7	5	5	5	3	7	3	6	7	2
Influence	4	4	6	1	2	1	5	1	5	5
Motivation	6	1	1	2	6	2	1	5	1	3
Conscientiousness	5	7	2	7	5	5	2	2	3	1
Managerial Competencies (MQ)										
resource management	1	1	4	3	4	2	2	2	2	3
engaging communication	2	2	1	5	1	3	3	1	1	1
empowering	5	4	3	2	2	5	1	5	3	2
developing	4	5	2	4	5	4	4	3	4	4
achieving	3	3	5	1	3	1	5	4	5	5
Intellecutal Competencies (IQ)										
critical analysis and judgment	3	2	1	3	3	3	2	3	1	3
vision and imagination	2	3	3	2	2	2	3	2	3	2
strategic perspective	1	1	2	1	1	1	1	1	2	1

A leader is best when people barely know he exists, when his work is done, his aim fulfilled, they will say: we did it ourselves. -Lao Tzu