



CHALMERS



The impact of partnering for subcontractors.

An analysis of subcontractor's aspect to partnering collaboration.

Diploma Thesis in the Bachelor programme.

Business Development and Entrepreneurship for Construction and property.

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MELWIN LINDELL

DIPLOMA THESIS BOMX03-16-31

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Examensarbete inom kandidatprogrammet

Affärsutveckling och entreprenörskap inom byggsektorn

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SAMMANFATTNING

Partnering är en ny typ av samverkansform som blir allt mer aktuellt på den svenska byggindustrin. Det är ett nytt sätt att mellan beställare, byggherre och underentreprenör utforma ett samarbete för att gynna alla parter. Partnering är baserat på tillit gentemot varandra där både förmåner och risker är jämnt distribuerade mellan de olika parterna. Byggbranschen har generellt varit mycket fixerad av att företag endast ska gynna sig själva, detta ofta på grund av någon annans förlust. Tilliten bland företagen har varit generellt låg och att gemensamt samarbeta mot ett gemensamt mål har ej varit aktuellt. Förhoppningen är att partnering ska leda till en mer transparent byggbransch där effektiviteten och kvalitén på utfört arbete ökas.

Kunskapen om partnering hos underentreprenörer som arbetar med invändiga ytskikt är generellt låg eller ej existerande. I diskussion med vår handledare på Celanders har vi fått i uppdrag att analysera hur branschen ser på partnering, och varför kunskapen om samverkansformen är bristande. I fokus ska främst ekonomi och upphandling behandlas då detta är av intresse för vår uppdragsgivare.

Denna rapport har framtagits genom att analysera de teorier som finns tillgängliga inom ämnet samt att kombinera detta med branschens syn på samarbetsformen hos underentreprenörer. Informationen som finns tillgänglig i rapporten ska vara ett underlag för att hjälpa Ivar Celanders AB att analysera hur de ska arbeta med partnering i framtida projekt.

Det omdöme som gjorts angående partneringsamverkan är att det är en arbetsform som kan leda till en mer hållbar marknad för underentreprenörer. Detta genom en jämnare lönsamhet, ökad input i projekten samt en förbättrad kommunikation mellan de olika parterna. Vi hoppas att den information som går att finna i rapporten ger en grund för hur vår handlare och företaget i framtiden ska arbeta och vara i framkant där partnering används.

Nyckelord: Partnering, Beställare, Byggherrar, Underentreprenörer, Upphandling, Entreprenader

The impact of partnering for Subcontractors.

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ABSTRACT

Partnering is a new type of collaboration which is becoming more pressing in the Swedish construction industry. It is a new method between clients, contractor and subcontractor to establish a cooperation for the benefit of all parties. Partnering is based on trust towards each other where both the benefits and risks are evenly divided between the different parties. The construction industry has generally been very fixed that companies should only benefit themselves, this is often by someone else's loss. The trust among businesses has been generally low and to cooperatively work together towards a common goal has not been viable. The hope is that partnering will lead to a more transparent construction industry where efficiency and quality of the work performed is improved.

Knowledge about partnering with subcontractors working with interior finishes are generally low or non-existent. In discussion with Ivar Celander AB, we have been asked to analyze how the industry views partnering, and why the knowledge of the collaboration form is insufficient. The focus will primarily be finance and procurement though these subjects are areas of interest to our client.

This report has been developed by analyzing the theories that are available in the field and to combine this with the industry's views on the form of cooperation with subcontractors. The information available in the report should form the basis for aiding o to analyze how to work with partnering in future projects.

The review made regarding partnering collaboration is that it is a method of work that can lead to a more sustainable market for subcontractors. This through a more consistent profitability, increased input in the projects and improved communication between the various parties. We hope that the information that can be found in the report provides a basis for how Ivar Celander. In the future will work and be in the forefront in projects where partnering is used.

Key words: Partnering, Client, Contractors, Subcontractors, Procurements, Contracts

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Preface

The impact of partnering for subcontractors is a bachelor thesis executed at the institution of Department of Civil and Environmental Engineering, at Chalmers University of Technology, on behalf of Ivar Celander AB.

Our examiner at the university has been Bert Luvö and our supervisor at the university has been Phil Thomas, both signed at the Division on Construction Management at Chalmers University of Technology. Supervisor at Ivar Celander AB has been Bengt Jansson.

The report examines how partnering in construction affects subcontractors on the Swedish market. Our anticipation is that this report will help to guide our supervisor and the organization in future projects where partnering is the way of collaboration.

Big thanks to both our supervisors Phil Thomas at Chalmers University of Technology and Bengt Jansson at Ivar Celander AB for guiding us through the project and supplying us with analyses, feedback and discussions in the entire project.

We would also like to express our gratitude to our examiner Bert Luvö for being supportive throughout our project.

Our last gratitude is sent out to all the companies and other persons which has participated on interviews and supplied us with inputs and other important knowledge and aspects for the report.

Gothenburg may 2016
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Notations

AB 04	General Provisions in build to order projects
ABT 06	General Provisions in turnkey projects
GPM	Guaranteed Maximum Pricing
TCM	Target cost management
TK	Turnkey
BTO	Built to order
TCC	Target cost contracting

1 Introduction

This bachelor thesis comprises 15 credits and is written for gaining an exam from the programme of Business Development and Entrepreneurship for Construction and Property. The report has been formed together with a supervisor from Chalmers University of Technology and a supervisor from the company Ivar Celander AB. They will together with the authors form a report which will have both company and academy inputs in the report.

This report and its content have been formed to review partnering as a way of working in Swedish construction projects. The ambition is to provide Ivar Celander AB an analysis for how the market is for subcontractors working with partnering on the Swedish market today. The report and knowledge shall guide and contribute the company with a clear view of how they shall work with partnering in future projects.

1.1 Purpose

The purpose of this report is to analyse subcontractor's way of working with partnering in the Swedish construction market today. The report shall contribute with increased knowledge on how subcontractors should handle and work with partnering projects.

The ambition with this report is to give Ivar Celander AB a clear view of how partnering works in Sweden and thereby contribute with knowledge regarding benefits, disadvantages, risks and opportunities for the company to work and apply on future projects where partnering is procured. The report intends to keep the organization to have a leading share in Gothenburg in internal surfaces by providing them with knowledge in how to handle partnering in the close future.

1.2 Company presentation

Ivar Celander AB is a historic painting company founded in 1898, with almost 120 years of experience, it is a company that has survived over a century of recessions and upturns, and two world wars.

The company was founded by seven painters who worked on the restoration and maintenance of churches in Gothenburg. In 1965 today's owners Örjan Berntsson acquired the company and it was during the following 20 years as Ivar Celander grew to its current size. Growth was primarily due to the Swedish million program which then was built in Sweden throughout the 60's and 70's. In the 80's Ivar Celander expanded its activities to include both flooring and ceiling work and a smaller carpentry section.

Today the organization has approximately 100 employees in the Gothenburg area, but is the main company in a group of companies that ranges from Malmö in the south to Oslo in the north with circa 300 employees. The company works in contracting in both large and small projects, and partly through the subsidiary the Linnépainters returned to its initial work on restoring churches.

Örjan Berntsson who has been the owner and CEO for 40 years was awarded for the Royal Patriotic Society's gold medal for the long term benefit of the efforts 2005, which proves that the company is a solid and reliable contractor and employer.

1.3 Boundaries

We have chosen to limit our work to involve small to medium sized subcontractors, with between 25-50 employees, which substantially are subcontractors to large contractors. This is because our thesis to be answered is regarding the subcontractor's part of a partnering collaboration.

We have also made the delineation of contractors that work with interior surfaces in collaboration with Bengt Jansson at Ivar Celander. This partly because it is Ivar Celander main work but also because this part of the construction market in Gothenburg has been lacking the theoretical and practical competence and experience of partnering collaboration.

1.4 Method

To provide a clear view on how the report was established, this chapter consists of how information has been supplied and how analysis has been made to answers the issue in the report. Information gathering regarding how partnering is working on the Swedish construction market today form the basis of the report. This was a key factor to be able to understand the collaboration of partnering in an early stage before the final analyses were done.

The execution of this thesis was based in two methods, a literature study which accounted for all the understanding of the subject partnering collaboration. This was then supplemented with qualitative interviews that helped to give an insight of how subcontractors managed the collaboration form, this was then analysed consequently which we formed a conclusion of.

1.4.1 Works process

The working process have been divided into three phases. The first phase of the working process was a way of collecting different data and information regarding partnering to later on be able to answer our issue. This part was mostly supported by electronically references but also literature in form of books and dialogues with parties on the market. All references which were collected, were carefully chosen and critically examined.

The second phase consisted of analyses of the gathering information in phase one. This was to provide the report with a clear view of partnering and the different perspectives regarding the way of working with it. When the information was collected and analysed, an academic part was written. Further on did the academic written part of the report form the basis of the questionnaire survey.

The last phase of the report consisted of an analysis of the issue in the report, with a basis in the theoretical background and the interviews.

1.4.2 Literature studies

The literature studies were established in five theses provided by our supervisor Philip Thomas. Based on these studies, we searched for more material in the form of books, theses and articles published by industry associations.

This has also been complemented by conversations with our supervisor Bengt Jansson. Bengt Jansson has also provided us with aspects of partnering that Ivar Celander felt were relevant to their company's future work and also answered the issue that our thesis concerns.

The use of two digital libraries has aided in the research, Chalmers Library database but also Google's academic counterpart, called Google Scholar, has been mainly used as complement to the research. These have frequently been used to search for materials but we have also used physical books as a supplement. The books have been borrowed mainly at the Chalmers library and the architectural library on the Chalmers Johanneberg campus. Ivar Celander AB has also aided with some literature in form of books that we have been able to use as an adjunct in the thesis.

1.4.3 Qualitative interviews

To establish qualitative interviews several subcontractors were contacted. Those subcontractors who have both worked with partnering, are about to start working with partnering or have never worked within a partnering collaboration.

To lay a foundation for clarification of partnering collaborations and its effects on subcontractors a collaboration was established with Ivar Celander AB in Mölndal city in Sweden. The interviews were shaped so that an idea of what expertise the subcontractors possesses about partnering collaborations and their view of that type of system to collaborate.

In consultation and help our supervisor, several subcontractors were contacted for the interviews, our supervisor at the the company we carried the thesis with helped to screening out relevant subcontractors that fit the issue and the interview survey. The contractors which whom was chosen to interviews all work in the construction industry with a primary focus on interior surfaces. The interview cases are constricted to focus on subcontractors with about 25 to 50 employees that locally works in the Gothenburg area.

Although Celander is a company with about 100 employees in the Gothenburg area each department consist of approximately 20-35 employees. This makes small businesses as those we have interviewed relevant to the study because of the comparable size. Before the seeking of interviews started we made a list of 19 subcontractors that met these criteria's. Of these nineteen subcontractors' five of them choose to be interviewed, the other fourteen companies either declined to set up an interview or we could not get hold of them.

The subcontractors that we have conducted interviews with and whom are answering our survey are as follows:

Bengt Jansson from Ivar Celander AB.

Håkan Kilander from Adolfssons Painting AB.

Tony Norrman from Sandå Painting.

Arne Lidman from Assmundsons Flooring.

Lars Dahlin from Dahlins Flooring.

The interviews were compiled with the help of the theoretical academic part that was previously done in the report and we analysed these to answer our issue.

2 Definition and history of partnering

Partnering is a relatively new way to design contracts in an otherwise old and traditionally motionless industry. It is a new way to run projects, and many of the larger contractors around the world are more increasingly using these kind of working models. However, smaller subcontractors who do not have as much resources as the giants in the industry, or who just conducted by an older generation has not adapted to the new working model.

Partnering means that two or more parties establish a relationship for cooperating in individual or multiple construction projects. The cooperation is based on mutual trust between the parties where both the risks and benefits are distributed between the parties. In partnering collaboration is important that there is a trust between the client, contractor and subcontractor for long-term work toward common goals (Bennet, 1998).

There are several different natures of partnering collaboration, but the foundation is that each party should focus on what they do best, and thus be able to streamline the process of construction. Partnering originated in the United States, the reason that led to the collaboration format developed was that a large part of the works ended up in litigation. The goal was to bring the parties in these disputes to cooperate to reduce the cost of construction projects in the public procurement (Bjerle, 2014).

There are several definitions to describe what a partnership collaboration means, the Construction Industry Board in the Great Britain has developed a definition that describes the collaboration type.

“Partnering is a structured management approach to facilitate team working across contractual boundaries. Its fundamental components are formalised mutual objectives, agreed problem resolution methods, and an active search for continuous measurable improvements” (Construction Industry Board, 1997).

Byggherrarna who is a Swedish trade federation for Swedish developers also have defined the partnering which has a similarity to its American counterpart.

"Partnering is a structured form of cooperation in the construction industry, which the developer, consultants, contractors and other key actors to jointly solve construction assignments. The whole thing is based on a trusting cooperation in which everyone plays with open cards with the expertise to complement each other throughout all stages of the construction process." (Byggherrarna, 2010)

Byggherrarna has established three key factors for a partnering project.

- Common goals.
- Common activities.
- Common economy.

But most developers use different definitions of partnering, NCC's definition has several similarities with the builders' and also share the three key factors associated with the organization.

” Partnering is a structured form of cooperation in the construction sector in which the developer, consultants, contractors and other key actors, to jointly solve construction assignments through open and trusting cooperation in which each party contributes complementary professional knowledge throughout all stages of the construction process.” (Bjerle, 2014)

2.1 Concept of partnering

Partnering is a form of collaboration in the construction industry, where the objective is to make the construction process more lean and effective. There are several processes that are involved in a partnering collaboration. For example, the procurement aspect of the contract, the financial aspects and the collaboration between the client, contractor and subcontractor (Bjerle, 2014).

The difference regarding the procurement in a partnering collaboration unlike a traditional turnkey procurement is the involvement of both the client, contractor and subcontractors earlier in the process. In a partnering collaboration the knowledge and the expertise from all the involved parties are taken in consideration. The objective with this is to save both time and money throughout the project.

From a financial aspect a partnering collaboration is a shared economical project between the client and the contractor where the goal is to minimize the project budget and eliminate unnecessary costs during the project. This through minimalizing the project time, reducing costs and increase the quality.

One important aspect and foundation of partnering is the goal to decrease the number of disputes during a contract. Because solving disputes in courts is a huge cost for a project, and with an improved transparency in the process the expectation are that the different parts should be more honest with each other (NCC, 2016).

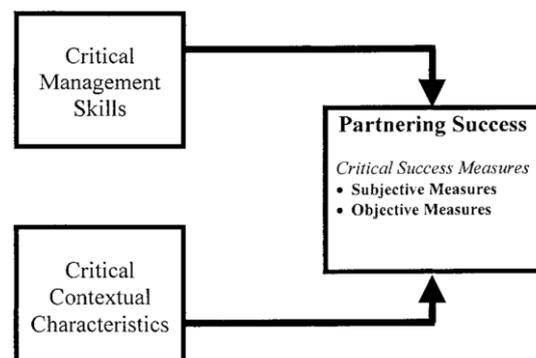


Figure 1 Partnering (Blacka, 1999)

The positive effects of a partnering collaboration is to establish a safer time frame for the project, a more secure financial plan and better communication between all involved. This will lead to a higher quality project that will benefit both the client and the contractors.

It is important to mention that partnering is not a contract form, but in a combination with a contract it is a way for the parties to collaborate throughout the construction process. It is a method to complement the project, procurement and financial aspects of a contract (Söderberg, 2011).

2.2 Theories and principles of Partnering

Partnering in construction implicates a commitment by organisations to cooperate and reach a common business goal. There are today several different studies in form of books, articles and reports which seek to investigate what is currently known about partnering. Further on has theories and principles that can be used as the basis for recommendations in partnering been developed, and the most well-known and recognised principles are expressed in *The Seven Pillars of Partnering* (Bennet, 1998).

2.2.1 The Seven Pillars of Partnering

The book sets out major elements in form of seven pillars which are essential if a good collaboration between organisations in a construction project want to be successful. These seven pillars according to *The Seven Pillars of Partnering* are: strategy, membership, equity, integration, benchmarking, project processes and feedback (Bennet, 1998).

2.2.1.1 Strategy

In the relationship between the seven different pillars, Strategy is identified as the most important one of them all and is seen forming a link with the seventh pillar which is feedback. The strategy emphasis on the importance of working together in long-term thinking and the linking between the different organisational work in the project by showing how the contractors, consultants and specialist should work together to reach satisfaction for the client's objective (Bennet, 1998).

2.2.1.2 Membership

This pillar identifies the different firms that needs to be involved in the project to ensure all necessary skills are developed and available. Some identified key elements are the need for a careful and intense selection process, structuring membership and workload to encourage repeat business. By fulfilling this, certainty is created for the clients (Bennet, 1998).

2.2.1.3 Equity

Equity is the third of the seven pillars and reflects on finding a balance of rewards and risks that is fair and commensurate with the efforts which is put in the project by the different parties to achieve the common goals. It ensures that everyone is rewarded for their work and the basis of fair prices and fair profit. Here are also some key elements identified such as sharing savings and other benefits fairly, maintaining commitment to long term development of the relationship and open book accounts for example (Bennet, 1998).

2.2.1.4 Integration

Integration helps to create conditions that eliminates exploitation and opportunistic behaviour. It improves the way firms involved in the project work together by using cooperation and building trust. Key elements are once again identified in ways of more effective integration and therefore can also greater equality be achieved. These elements are for example developing trust, getting rid of internal conflicts, joint IT-strategies and integration both external and internal in the project (Bennet, 1998).

2.2.1.5 Benchmarks

The benchmark pillar helps to settle measured targets that lead to effective evaluation and continuous improvements in performance from project to project. Key elements are again identified in The Seven Pillars of Partnering as the need for simple and robust benchmarks, agreeing how to measure improvements and what improvements to measure, use of both objective and subjective measures and at the same time involve workers (Bennet, 1998).

2.2.1.6 Project processes

The identification in the pillar of project processes draws attention to the importance of establishing standards and procedures that embody best practise based on process engineering. The key to success with this pillar is to develop and use common standards and procedures (Bennet, 1998).

2.2.1.7 Feedback

The final pillar which is linked with the first one that was strategy, is in the form of feedback. This pillar is about capturing lessons from project and task forces to guide the development of strategy. Also here are key elements identified such as process improvement based on process standardisation, robust systems of feedback based on measurable targets and final workshops (Bennet, 1998).



Figure 2 How the seven pillars of partnering inter-relate (Bennet, 1998)

2.3 Success factors of partnering

Partnering is used to develop closer relationships between the different parties to a project. The method aims to eliminate adversarial relationships between the contractor and the client by encouraging the parties to work together on shared objectives and achieve a win/win outcome (Blacka, 1999).

The writers of “*An analysis of success factors and benefits of partnering in construction*” have identified a variety of requirements and factors associated with a successful operation of partnering in a 5-stage process for organisations wishing to adopt to the partnering approach to procurement. The factors are listed below:

- Identify the product and services that will benefit from partnering.
- Convince internal and external organisations of the benefits that can be achieved.
- Select the first partners by concentrating on suppliers of key products and services identified.
- Define the objectives of the leadership to ensure that both parties have a clear purpose in their activities.
- Refine and develop the relationship to ensure that lessons are learnt from mistakes prior to rolling-out the new approach

Further on did the report gave results on what what consultants, contractors and clients in Great Britain thought was the “*most important factors responsible for a successful partnering*” as well as “*factors required for successful partnering*”, by a questionnaire survey. The first five and most important factors in both surveys were the same. From the most important one downwards were: Mutual Trust, Effective communication, Commitment from Senior Management, Clear Understanding and Acting consistent with the objective. (Blacka, 1999).

Factors for success	Total	Consultants	Contractors	Clients	ANOVA	
					F Statistics	Significance level
Mutual trust	4.61	4.38	4.74	4.71	1.30	0.28
Effective communication	4.50	4.19	4.77	4.48	2.87	0.63
Commitment from senior management	4.47	3.92	4.77	4.71	8.03	0.01
Clear understanding	4.45	4.19	4.58	4.57	1.49	0.23
Acting consistent with objectives	4.17	3.88	4.42	4.14	2.59	0.08

Figure 3 Factors responsible for successful partnering (Blacka, 1999)

Factors for success	Total	Involved	No involvement	ANOVA	
				F Statistics	Significance level
Mutual trust	4.61	4.72	4.40	2.13	0.15
Effective communication	4.50	4.66	4.16	5.11	0.03
Commitment from senior management	4.47	4.66	4.08	7.04	0.01
Clear understanding	4.45	4.58	4.16	3.63	0.06
Acting consistent with objectives	4.17	4.38	3.72	10.05	0.01

Figure 4 Factors required for successful partnering (Blacka, 1999)

The most supportive and positive parties to partnering according to the report, are the contractors and clients of the project. The consultants are less enthusiastic due to they perceive a loss of control. But the report and research in “*Analysis of success factors and benefits of partnering*” shows that there are a belief of benefits by partnering in construction by all parties. The conclusion from the report states that if all parties work together to control and minimize the risk events and prevent barriers that may occur, then projects operated with partnering will succeed. And as mentioned above, the success factors from the view of the construction section all agrees on that considerable effort in the five factors: trust, commitment, a clear understanding of roles, good communication and consistency and a flexible attitude is crucial (Blacka, 1999)

2.4 Disadvantages for subcontractors

There are not a lot of research on the disadvantages for subcontractors in any literature by partnering in building projects. This may be because of its relative new way of working but Fernström mentions three disadvantages in his book:

- Partnering requires extra meetings and this takes times compared to other construction forms when partnering isn't used.
- It is not suited for all kind of people and companies.
- There is a chance that the members in the partnering group forms a stronger relationship to each other than to their own company.

Other setbacks of partnering mentioned by Fernström are that long term relationships between contractors and subcontractors makes it harder for new small companies to establish them self on the market. This leads to a closed market and some subcontractors may form a monopoly in the long run (Fernström, 2007).

Disadvantages for subcontractors may also come in form of the collaboration in partnering only reaches between the client and the contractor. This leads to a failure in both sustaining a commitment between all parties and the handling of the relationship according to the criteria's of how partnering should be used (Rhodin, 2012).

2.5 Partnering in Sweden

The Swedish market persisted relatively cautious to start making use of partnering, the first turnkey contract that used a partnering agreement took place in 1999 and was a collaboration between Värmlands County and Skanska Construction at Central Hospital in Karlstad. It was through this project that laid the foundation for partnering in Sweden (Värmlands landsting, 2000).

The following years more projects made use of these type of collaborations, but various definitions and incarnations of partnering were also spreading in the Swedish market. A problem occurred around 2004 when the appearance of several variations of partnering became troublesome because some variants lacked legal regulations (Bjerle, 2014). The Swedish trade organization Byggherrarna then designed a structure for how partnering agreement should be designed and regulated. The structure that describes how a partnering project should be carried out are available

for byggherrarnas associates to use as a base when they make use of partnering to create consistency in the industry. This solved some of the issues for the variations procurements of partnering on the Swedish market (Byggherrarna, 2010).

In the current state, there are three major Swedish developers that dominate the market NCC, Skanska and Peab. These major construction companies have increasingly used partnering collaboration for construction projects. There are also smaller developers who use partnering as the only type of procurement for their projects. The project format has increased in popularity in Sweden, both the trade association and the developers are pushing the expansion of partnering in Sweden. The organization has established standardized templates for its members, so more parties is able to work with partnering and to train its staff in procurement form. (Bjerle, 2014)

There has also been some critique to some aspects of partnering collaboration in Sweden. Some critics in Sweden argues that these forms of procurement cooperation lead to reduced competition in the construction market and the worst case scenario is that the market develops oligopoly. In 2012 the Swedish agency konkurrensverket investigated a case where partnering was used as a type of procurement. The project was a school in Östersund called Jonstorpskolan and were procured within a partnering collaboration. The tender was only based with a valuation of the soft parameters in partnering, the selection of the contractor was made entirely on subjective grounds and only one part did eventually make a bid on the project. Konkurrensverket showed some criticism when they could not guarantee that the most economical and the most high-quality tender would be selected, the matter was also treated by the EU commission (Husbyggaren, 2012).

Criticism has also been directed at larger construction companies who tends to get a monopoly of large and complicated construction projects, this puts smaller construction companies and subcontractors in a position where it becomes difficult to compete. Critics claim that this ultimately could lead to an oligopoly to occur in the Swedish market. This in turn affects the customer who receive less tenders to decide on from and over the long term, and therefore creates an oligopoly. (Carenholm, 2003)

2.6 Subcontractors and partnering

Most of the studies done in partnering and collaboration or similar projects are often discussed from the contractor or the client aspect. But the smaller entrepreneurs that may seem like a small basement firms with less than 10 employees have no access to the major organizational benefits a large contractor can take advantage of, it can be difficult to justify a change of the company in an industry where development should slow and old traditions still exist in the corporate culture¹.

¹ Bengt Jansson (Head of Department, Flooring contractor, Ivar Celander AB) Interviewd by authors, 7 of april 2016

Some of the subcontractors in Sweden has fallen behind in terms of knowledge and expertise in what a partnering agreement involves. Small entrepreneurs do not have access to the larger organizational advantages of a large builders have in their company. When it comes to educating staff about the different variations of the form of cooperation that exists in Sweden as it requires help from the larger contractors. Some companies offer contact persons that are available to answer questions and resolve problems that arise in the project¹².

However, this also requires smaller entrepreneurs to engage their employees in the project when the process of the construction site may be slightly different towards what a traditional construction site may be. Depending on the definition of partnering used in the procurement processes occur in different ways in the workplace. It is therefore essential to communication both between contractor and subcontractor is made clear, but also that the contractor take responsibility and educate their workers².

² Bengt Jansson (Head of Department, Flooring contractor, Ivar Celander AB) Interviewd by authors, 7 of april 2016

3 Procurement for subcontractors

Most of the literature written about partnering today describes the relationship between the client and the contractor and often leaves out the relationship between the contractor and subcontractor. The fundamental aspect about partnering is as mentioned earlier in the report, that all parties should be involved from the start of the project. Partnering is a way of working and often mistaken for a special construction form. This gives partnering possibilities to be combined with different construction forms as long as all parties and procurements are taken place in the start of the project. One of the biggest problem with the idea of this is that the subcontractor usually gets left out from the start of the project even though they account for around 90% of the total cost in the building projects (Eriksson 2007). There is then a risk that the subcontractors are not involved in the partnering team as much as the contractor and the client.

This can lead to negative results and the goals to be achieved from partnering with lower costs of the project suddenly gets ruined because of the fundamental aspects from partnering such as good communication and less conflicts are suddenly an issue (Bresnen, 2000). Its therefore important that the client and the contractor can ensure that all subcontractors are involved in the partnering team from the start so all benefits from partnering can be achieved.

3.1 Construction forms and contracts for subcontractors

There are several types of different contractual arrangements in construction when partnering is used. The construction form is depending on what kind of project it is and thereafter are the contracts formed. There are two main construction forms which is used in partnering today, and they are in form of turnkey projects and build to order projects.

In a turnkey project, the contractor is responsible for both the projecting and performance in the project. The contractor also choices which subcontractors to hire for the project and the subcontractor answers directly to the contractor. In a turnkey project, the ABT06 are often used in Sweden.

In a build to order project, it is a bit different for the subcontractor. The contractor only take responsibility for the performance while the client has responsibility for the projecting, these type of contracts are often regulated by the AB04 in Sweden. The subcontractor therefor answers directly to the client and also gets hired by the client (Otter, 2014).

The normal compensation form in the contracts when partnering being used is often combined with a guaranteed maximum price and incitement. In the Great Britain where partnering projects have been around for more years then in Sweden, the contracts are formed with Incitement where you divide both the positive and negative guaranteed maximum price. It is still normal in Sweden that the contracts in partnering are formed by the contractor and he chooses how big share the subcontractor should get in form of incitement (Fernström, 2007).

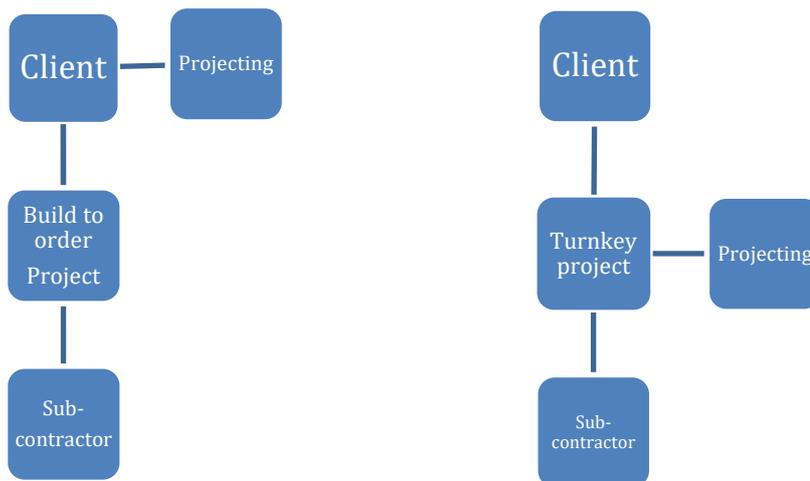


Figure 5 Differences between a build to order project and a turnkey project. (modified, Johansson 2007)

As today there are no partnering contracts in Sweden which are legally binding. Instead there are “*declarations of partnering*” and “*target documents*” being used and all parties in the project requires to sign. This document does not make the subcontractors legally binding but they are expected to fulfil what is required and asked for in the documents since they self were forming the contracts with the contractors. The traditional legal binding contract for the procurement forms are still in use, the partnering documents mentioned above are only there to motivate the subcontractors to collaborate in the partnering process. Compared to Great Britain were it exists four different standard partnering contracts and they are all accepted as complete contracts according to the traditional forms in partnering (Fernström, 2007).

3.2 Inspections, termination and disputes

Partnering collaboration is designed and developed to minimize disputes in a construction project, this applies both financial and liability terms in the project. But how much you try to prevent disagreements during the project there is still a high risk of disputes arising between the client, contractor and subcontractors. Therefore partnering contracts often includes regulations about how disputes will be resolved. If the parties include the standard contracts as AB04 or ABT06 in the procurement of the project, there are regulated how disputes should be handled. But these are not optimally suited for partnering collaboration and it may therefore be necessary to make changes in these standard contracts to more effectively resolve disputes over the construction time (Byggandets kontraktsskommité, 2007).

A form that has been used in some projects and that has proven to be very effective is that all disputes arising out of a project is treated by a so-called conflict staircase. In practice this means that disputes arising from the contract have a shorter period of time in which to be resolved between the parties. If the parties cannot agree on a settlement of the dispute within this time will move the dispute a step up the stairs.

If the case moves up on the “*staircase*” it means that the dispute will now be resolved by a senior manager, these same rules apply with a time limit incentive to reduce the cost of resolving the dispute and for the project to proceed. This conflict staircase may vary in length depending on how big the project is, how many parties involved.

The last step of the staircase is that the dispute reaches an arbitration panel, which is the least attractive solution and any time should be avoided. But before a dispute reaches an arbitration, there is sometimes the possibility that a group composed jointly by the parties will try to resolve the dispute. These people are external consultants or lawyers with knowledge in the field, their goal is to jointly come up with a solution that is fair to the parties. If the external team doesn't resolve the dispute the case will be settled in an arbitration panel (Bjerle, 2014).

3.2.1 Inspection and terminations

If the agreements are regulated by either AB04 or ABT06 there are set rules for how inspections and terminations are handled. Generally, no additions or changes are necessary in the design of the contract with regard to inspection or terminations when they are well regulated in the aforesaid document (Byggandets kontraktskommitté, 2007).

3.3 Financial factors for subcontractors

The traditional model of compensation of contracting differs from how the compensation in partnering collaboration works. Traditionally subcontractors submitted a tender for parts of a contract that contractors advertised. In partnering collaboration, a different compensation model is used, where a fixed price is not set but a more flexible model in which the contractor receives a percentage fee of the jobs performed. This compensation is controlled by many factors in the procurement and will be explained in the following chapters¹³.

3.3.1 Traditional financial compensation

Traditionally there are two types of main financial compensation forms, either a project is procured via a fixed price or via “current account” in which compensation is based on a price per unit, which is paid during the labour (Söderberg, 2011). The most relevant type of financial compensation for traditional procurement is the fixed price, these are often used in turnkey projects with the support of ABT06.

3.3.1.1 Fixed price

When a project is awarded a fixed price as subcontractors compete with each other where the documents from the builder is founded. Several subcontractors offer a price through a tender sum that the company calculates. A fixed price indexation often regulates the tender because the work is done in the future and the cost of labour and materials is continuously in the industry (Söderberg, 2011).

The structure of the subcontractor’s tender contains traditionally three shares, the company's direct costs for the work performed. That is, the cost of the work carried out and the material used. The second share of the tender containing overheads management, equipment, inventory and other expenses. The last share of the tender is the fee that subcontractor charge to perform the service, this being incorporated risk, profit and costs for the company's management.

How these three basic elements of the tenders are distributed in the tender price is generally not reported to the contractor, but the choice of the subcontractor to carry out the project that takes into account the total tender price and previous history of the company. This gives an advantage to the subcontractor when the contractor does not know how the tender is structured, and in a market with few subcontractors may lead to unfavourable prices for the contractor (Söderberg, 2011).

In a highly competitive market set there is a greater risk that the margins for the subcontractor is decreased and the profit margin for a project may become insufficient. Making use of partnering contracts that form instead of a fixed offer price can thus provide greater security but with less profit for the subcontractor (Bjerle, 2014).

³ Bengt Jansson (Head of Department, Flooring contractor, Ivar Celander AB) Interviewd by authors, 7 of april 2016

3.3.2 Pricing of projects

Guaranteed Maximum pricing is an agreement regulating the total construction cost so the contract does not exceed a specified maximum cost, also called a ceiling price regarding the Swedish market. Using a ceiling price is a common method used in turnkeys, that is, when a contractor is responsible for the design and construction of a project. If a project costs exceed the agreed ceiling price the contractor is responsible for any additional costs. If the project costs are under budget and ahead of schedule than the agreed ceiling price the contractor is rewarded with a higher bonus. There is also a possibility that if the client, contractor and the subcontractor has a special agreement that the profits and losses is shared between the parties. Sharing the expenses creates a relationship between the parties built on trust, in theory this will create incentives to encourage savings via holding down the cost of the project. Since this relationship creates the opportunity to share both profits and losses between client, contractor and subcontractors everyone is exposed to a minimum risk (Hughes, 2012).

The risk of the contractor faces in a case where the ceiling price is forced up on the competition provides the client a lower price. If the client and the contractor agree on a distribution of possible savings contractor can earn a higher ceiling price when the deficit is distributed between the parties. The entrepreneur can consequently increase earnings only by raising the ceiling price. Current conditions regarding what is included in a ceiling price must be clearly specified to avoid client and contractor will disagree. In cases where the maximum cost down early in project phase, any future changes to the current structure and scope of project lead to the project costs exceed the ceiling price. By defining the work included in the ceiling price, the contractor can obtain compensation on any additional work (Hughes, 2012).

There is also something called target cost contracting, and this is an agreement regulating the target price for a project. The final project cost is compared to a pre-agreed target price and any gains or losses are shared between the two parties. If the project cost exceed certain target price regulates a formula in the contract between the parties how the cost will distribute. A portion of the project cost that exceeds the target price financed by contractor and the rest is financed by the client. Should the project cost below the exposed target price formula regulates the parties' agreement also how the savings will be distributed.

The ratio of the gains and losses are allocated to create a common interest in how the parties can minimize the costs of a project to jointly serve as much as possible (Contract Solutions, 2014). Distribution of profits and losses between a client and the contractors involved is defined by a preselected formula. What formula to be applied are chosen depending on how the actual the cost relates to the exposed target cost. Further results completed calculation a contract sum, which the client pays to the contractor, according to previous signed agreement (Johansson, 2012). These types of contracts are not so commonly used in Sweden between contractors and subcontractors, but only furthermore between the contractor and the client, which is a huge disadvantage or the subcontractors.

3.3.3 Current Account

The economic compensation model that are most frequently used in partnering collaboration is that the subcontractor is paid on a current account. Prices are already resolute in the aforementioned target price that is described in the chapter above (Bjerle, 2014). In this compensation form the subcontractor is paid for all their expenses, such as materials, hour's worked, management and a fee for the administrative division which the subcontractor has. The advantage of this arrangement for the subcontractor is that all work performed will be paid, the risk is minimized when the Builder will take care of all expenses in excess of the budget. The only thing at risk is a loss of profit in case it would be so that the budget is exceeded. The risks that the subcontractor takes in this case is if the partnering collaboration were procured without a target price, this would be an uncertainty about the amount of work the project will mean (Söderberg, 2011).

3.4 Sharing losses and profits

For economic compensation in a partnering collaboration there exists a so called pain or gain mechanism. The mechanism shares the financial risk between the client and the contractor, and somewhat the subcontractors too. This model regulates how the losses or profits are divided between the parties within the contract. Both the contractor and the client benefits from this, both regarding risk and also concerning the profits or losses, within some contracts the subcontractors is also involved. However, it is also a great incentive for all parties to streamline the construction process to increase the profits for all parties involved (Chan H., 2007).

The basis for the model is the earlier set ceiling price (GMP), and it is that price that both parties are working together to achieve. This is common in turnkey projects due the nature of the procurement, this means that the contractor is responsible for recruiting subcontractors necessary for the project. The contractor is responsible for the subcontractors and may lead to reduced profits if a subcontractor doesn't do their jobs during the contract (Building.co.uk, 2007). But this mechanism is usually procured between the client and the contractor, as for the subcontractor this kind of approach are somewhat unusual. In Sweden, it is common to use only a negative incentive for the Subcontractor, this means that the subcontractor may not take part in any "gain share" but may only take part of the so-called "pain share" were the contractor helps the subcontractor if the GMP is exceeded (Building.co.uk, 2007).

This has partly to do with that the subcontractor should not put a budget or a target price which is higher than the market price in order to take advantage of higher profits. This is because that the budget will most likely be held if a higher target price is set. This is something that particularly Skanska works with but it is a common method of working with partnering regarding to subcontractors in Sweden.

It is also common that a construction project changes overtime, therefore it is in the best interest for both the client and the contractor to have a good relationship. If there is a larger change in the project the target price will be recalculated.

This is a positive incentive for the contractor due the increasing marginal on the gain share. It will also fall back on the subcontractor due the increasing work hours that are needed. And even if the subcontractor isn't involved in the pain/gain share, the

subcontractor has a percentage on all works accomplished and all materials used. The potential negative effects for the contractor and subcontractor are minimized when the GMP is regulated this way (Hughes, 2012).

The target price is compared with the project's actual cost comparison which determines whether the project is placed under or over budget. If the target price is higher than the actual cost savings have been made and will be shared between the parties. If the target price is lower than the actual cost, the parties have exceeded the budget and share of loss. (Chan, 2007).

4 Interviews with subcontractors

In this chapter the interviews that took place during the course of the work will be summarized. The interviews took place in cooperation with subcontractors that works with internal surfaces in construction, especially flooring and painting. As this is highly relevant to answer the thesis in the report. The companies were smaller businesses with a workforce of between 25 to 50 people across the organization.

The interviews were designed so that it established a basis whether the subcontractors had any knowledge about partnering, if they had worked with partnering and how their attitude to the concept was. During the interviews there were also three larger questions affecting both the financial aspects and the procurement in a partnering project.

The answers of these is summarized in this chapter and individual responses can be seen in the appendices. To get as impartial answers as possible a decision was made to do the interviews anonymous. This is because we do not connect a single subcontractor to a specific answer. The summary is structured so that the general response to the questions are compiled under the first chapter, in the following chapters we then compile the answers for the more specific questions about economics and procurement regarding partnering.

4.1 General answers by subcontractors

Several of the subcontractors interviewed had been in contact with a partnering collaboration before, the difference between the subcontractors was that some had been working with it for a long time while others had only done a few projects. A few of those who we interviewed had not been involved in any partnering project more than during the initial parts of the procurement, but had not won the tender.

Most of the subcontractors interviewed agreed that partnering collaboration were an upcoming method for large construction companies to work with.

Of those who had worked within a partnering collaboration previously was willing to continue to work with it in the future. Those who had not participated in any projects were still considered to be positive to the idea and would be willing to work with partnering collaborations in the future. The interviewees all agreed to that partnering collaborations had a future in the construction sector in Sweden.

The benefits that were considered positive in a partnering collaboration was that the subcontractors were to be involved from the beginning and as a large, instead of several small individual teams. This would enable the subcontractor to give input in the initial part of the design of the project to reduce some of the problems that may crop up later in the construction process. It was also mentioned that it was common to have inadequate documents in the procurement process, often based of standard documentation or previous projects. However, to be involved earlier in the procurement, the subcontractor could help to produce better documentation with the information needed to give a fair tender to the constructor. Although this would require more time spent by the subcontractor earlier in the project, it would have been preferable to the current state of procurement.

In an interview a person who had not been working with partnering previously related to a project that they had previously performed in Gothenburg. During this project there were no documents available and the subcontractor were given the assignment to project the interior part by themselves, in collaboration with the contractor.

This meant that the work went very smoothly for the subcontractor and because of the knowledge he possessed no additional work needed to be done outside the contract, unlike other projects where the interviewees agreed that one often had to write a supplementary report as soon as they came to construction site. Those interviewed said that they were very positive to be able to work earlier in the procurement of projects in order to simplify the main construction part.

In several interviews, it was mentioned that contracts usually are procured with a short notice when it comes to the interior surfaces. This means that the backlog can be difficult to control in certain periods of the year. During some periods it can be empty and during other times it may become overfilled with work to do. Due the late procurement of interior surfaces the planning tends to be more complicated for subcontractors than it should be, because getting jobs at short notice continuously makes it hard to plan how much workforce the organization needs at a certain point.

Right now the construction industry in Sweden are booming, which has meant that there is a labour shortage in most of the fields regarding construction, this has led to the contractors starting to procure projects in a very good time over the past year, unlike the years before when the market has been less active. The developers are now forced to procure their projects in time because otherwise there is no labour for them to use. However, the people we have interviewed predict that this is just at temporary and will return to normal conditions in the future. This will then lead to a situation that again contractors will procure on short notice. Those interviewed agreed that partnering could fix this problem no matter how active the market would be because of the increased collaboration between the parties.

4.2 Early project engagement for subcontractors

There was also a will of the subcontractor to contribute knowledge to projects in the procurement stage. In most projects as mentioned before, the documentation are incomplete, and several interviewees mentioned that the architects today has little knowledge of what is possible to do regarding painting and flooring works. There was a consensus that architects often put form ahead of function. They meant that the subcontractor could contribute its expertise to both the contractor and the architects to provide input so the project could be proper procured, and for the architects to carry out their vision in a way that works and is allowed with today's regulations and materials. This would lead to a more efficient construction process but would also result in a better final product for the contractor and client, and therefore the whole construction industry would benefit from this in the long term.

Something that was considered a problem in today's market among the painting subcontractor was painting contract is often only a few percent of the total cost of the project. This established that the painting is the part of a building that can be seen most of all in a finished project. There is a perception that the developers skimp on painting part even though only a marginal increase in cost had given much better

results with higher quality. Partnering is believed to contribute to painting works in a turnkey contract must hold a higher quality, as both the developer and the client can get a better understanding of the weight of a job well done from painting page. Hopefully this would lead to the painting part would account for a slightly larger share of the contract.

4.3 Economical aspects by subcontractors

The construction industry has a relatively low profit margins, under normal circumstances it may be between 2% to 5%. The contractors however has an advantage, by using well planned cash flow will be able to have a return of investment by 15% to 20%, which is a very good result compared to the most markets. This is because they can finance the project by paying the subcontractors for work performed, and plan their cash flow so they can get their payment of the client before they need to pay the subcontractor. In this way, they can invest the money for short terms before they have to pay it further. This is an opportunity that the subcontractors don't have access to, because often there aren't that many further down the chain of contractors^{2Phil}. The low profit margins in combination with the market in Gothenburg is very competitive has made the overall profit margins for the subcontractors very low.

The interviewees also felt that if you win a tender of a contract, the first question you ask yourself is *"What did I miss?"* Because of that the lowest tender almost always wins the procurement, and the competitive market, it tends to be that the winner has missed something in the documents, and may lose money on the project.

This is to because the subcontractors must make a tender that's almost below the cost of carrying out the project in order to win it. That is because a subcontractor both need to compete with companies that use workers from other countries, with different regulations and lower payment, but who doesn't possess the same skills. There is a hope among the subcontractors that a partnering collaboration may possibly lead to a working climate where clients and contractors understand the weight of good skills and what a subcontractor may contribute to the project during the design, instead of only chose the tender with the lowest price.

Several of those whom we interviewed also said that they are pleased as long as there are jobs, even if more time is needed added into projects in the form of a partnering collaboration they all agreed that the main priority is that you get paid for the work that is done. Some of those we interviewed also said that they are willing to work with an even lower profit margins, but only if they constantly had contracts continuously, instead of an uneven workload of work during different periods. Some form of collaborations is based in combining several contracts in an agreement and use the same subcontractors during a longer time span and several projects, this for a lower profit margin, but it is a low risk investment.

The subcontractors also considered that the design of the financial compensation in the form of a target price with a percentage fee that is often used in partnering are better. This compared to a turnkey with a fixed price, which in the current situation tend to be unfavourable for both parties. To cite one of the interviewees; *"It means*

that in principle on who can fool whom the most wins". Partnering is considered a contributing factor to a more honest construction industry for all parties involved.

The question regarding the English financial model, which is that the subcontractor worked with a budget, and could be rewarded a bonus if they went under budget. Or financial help from the contractor if they exceeded the budget. The Swedish model gives no bonus, but the contractor takes all the costs the subcontractors get if the budget would be exceeded. This means that the subcontractor never could lose any money from a project in a partnering collaboration. Some of the subcontractors were positive to the English model, but mostly it had a negative attitude to the model. This is because the risk that the industry would return to the point where it is today, when the trust between the parties are low and there is a need of taking shortcuts to make any money.

5 Analysis

Partnering as a way of working in construction project, are starting to be well established on the Swedish construction market, for both big and small contractors as well as clients. Big contractors in Sweden are putting down more effort in developing the use and knowledge of partnering in projects. Partnering are often used as way of working in build to order projects and turnkey projects. This leads to a change in the contract form in the projects but the use of partnering is still the same. The biggest differences regarding partnering, are noticed in the contracts and procurements.

5.1 Contracts

There are today no partnering contract which juridical binds the subcontractor to a project on the Swedish market. Instead are “*declarations of partnering*” and “*target documents*” necessary to sign before entering the project as a subcontractor. This kind of documents does not juridical bind the subcontractor to the project, but they are still expected to fulfil what is written in those partnering documents. However, does other contracts which are not tied to partnering in the project, legally binding for the subcontractors. This is how it works on the Swedish market today compared to in Great Britain were finished partnering contract juridical binds the subcontractors to work in a partnering collaboration.

A big difference between a traditional cooperation in a project compared to when partnering is being used is that subcontractors and consultants who posses’ specialists in certain areas may be a part of the projecting in the contract. The subcontractor most therefor put in more time in the project before the actual project starts. This compared to when partnering is not used and the building process begins directly for the subcontractor when they have received the documents for the contract.

This may affect the subcontractors both positively and negatively in several aspects. The positive aspects are mainly that the subcontractor may affect the client and the contractor to make use of materials and operations that are of more economically advantageous for the subcontractor. Another positive aspect for the subcontractor is that there are possibilities to use specialists in certain work areas and discussions from the start of the project who otherwise had gone to waste. This provides a long-term saving of time and resources for both the subcontractor and contractor which will benefit the construction industry in long terms. Higher standards and results in Swedish construction will also be achieved.

The disadvantages of the contracts in partnering for the subcontractors, are that it requires more employees to contribute with time and resources before the actual construction project can start. The subcontractors must therefore put out with a lot of working hours before any kind of financial compensation been given.

5.2 Financial aspects

It is the financial part that is the most crucial to the subcontractor, the Swedish model of partnering is slightly different from other parts of the world, because the Swedish market does not work with positive incitement as rewards in partnering. This means that the target price that is set on the project with subcontractor and the contractor together will not result in a so called “gain share” for the subcontractor.

Unlike the contract between the client and the contractor the subcontractor may not enjoy an extra bonus if the project will be completed under budget (the “gain share”). The reasons that primarily motivates this is that the subcontractors would be motivated to bid up the target price for the project if they knew they could have a larger bonus. Partnering fundamentally stands for honesty and trust, but this does not apply to that statement. This is seen as a disadvantage from the subcontractor’s side, however there is a great advantage for the subcontractor in forms of the negative incitement. The negative incitement makes it almost impossible for a subcontractor to lose money on a contract. In cases where a contract does not go as planned, and the budget is over the limit, there is the possibility of sharing the cost with the contractor.

There are also some contractors applying the method negative incitement where the subcontractor does not take any part of the loss, the subcontractor only loses its profit margins, the labour and materials are paid by the contractor. A contract that makes use of this kind of partnering can exclude many of the risks a subcontractor needs to take, but at the same time the fee will be smaller for the subcontractor. But that’s a standard low risk investment that usually leads to lower fee. Generally, a partnering collaboration is a low risk with guaranteed compensation for the subcontractor, but it is also potentially a lower compensation for work reward.

5.3 Analyse of the interviews with the subcontractors

We can after the interviews be ascertained that subcontractors all had a positive attitude on the idea of working with partnering. The positive aspects seem to outweigh the negative aspect of partnering and the desire for a more honest relationship between parties formed the basis of this opinion. There were also expectations that a better cooperation will take place when the subcontractor can be a part of the procurements. This will make the subcontractor contribute with his abilities and knowledge in the start of the projects and this would benefit all parties.

It is today normal that the procurements are deficient and this leads to exorbitant tenders which also makes misunderstandings in project between the different parties a more common problem. The subcontractors were convinced that if they could participate at an earlier stage in projects with knowledge and inputs, both the project and market will benefit.

Our vision on partnering as a way of working when we only had theoretical knowledge on the subject was that it seemed negatively for the subcontractors. But this was about to change when we started our interviews. The interviews with the subcontractors gave us an insight on how they thought about the current market and how partnering collaboration could benefit their business. Even though the subcontractors knew that partnering had some disadvantages, they all agreed on that

this kind of collaboration was better than the normal procurements alternatives existing on the market today.

The analyse that can be drawn from the financial aspects seen from the subcontractor point of view is that a safer and more even income is preferable in executions of contracts. This compared to how the market is working today when subcontractors experience a highly variable profitability. If a more even income could be achieved, then it would be easier for subcontractors to decide if they need and could expand their business. This because they believe that the risk of be completely out of work will decrease when partnerships and collaboration with major contractors are made.

The Swedish construction market are currently having a period of great prosperity and one of the most important thing for the subcontractors are to divide the workforce available to maximize the profit. But the Swedish market will not always be this active in the future given that both boom and recession occurs in cycles. We then got the impression that the subcontractors rather saw a lower but steady profitability in the future if partnering could help to regularly get jobs.

The interviewed subcontractors also had a unified opinion that the lowest tender always wins the procurement to a turnkey contract, and this without that the contractors take into consideration what quality and history the subcontractors may have from earlier projects. The anticipation is then that partnering does not only take the lowest tender in consideration. The interviewed subcontractors believe that quality and competence will be of greater importance when partnering is being used, especially since the procurements will be of higher standards. Another aspect to this was that painting and flooring subcontractors have a relative low part of the total contract cost and therefore should be scope to expand the budget for a higher qualitative work for the subcontractors working with this.

Something that does not get mentioned in the theory and interviews are the trust that the parties need to have to each other. Trust seems to be the main foundation in a partnering collaboration, and this is a common view that's been shared by all parties.

6 Conclusion

The information Ivar Celander AB wants from this report is how partnering on today's market affects the subcontractors in the Swedish construction industry, and also the subcontractor's general approach to the collaboration form.

This is a report about the pros and cons that exist with the collaboration form partnering as well as a theoretical background about the concept. What we discovered during this report is that the existing literature regarding partnering is mostly related to the contractor and the client. There is a lack of information about the subcontractor's relation to the contractor and client. To be a leading part in partnering collaboration for subcontractors that works with internal surfaces there is a need of knowledge about the collaboration form in the organization.

Partnering collaboration is a growing working method in the Swedish market, and in a few years the contractors will have a higher request for the subcontractors to have knowledge in this area. In order for the subcontractors to succeed with the partnering collaboration there are some criteria's that theoretical needs to be met. One of the most common models in partnering is the "*Seven pillars of partnering*". This is a well-established model which is being used to achieve successful projects in partnering.

It exists five important key factors for a successful collaboration between the client, contractor and subcontractor from their point of view. The key factors are Mutual Trust, Effective communication, Commitment from Senior Management, Clear Understanding and Acting consistent with the objective.

When the theoretical part in this was written, the first analysis of the information we had gathered regarding partnering collaboration was that it didn't benefit subcontractors such as Ivar Celander AB. But this opinion changed when we came to the interviews with the subcontractors. It was clear that the theory regarding how today market should work don't compliance with the practical interpretation. This because the traditional working methods has more practical deficiencies than they should have theoretical. With this in our awareness we have seen some advantages within the partnering collaboration. It could lead to a more healthy construction industry, where trust and a good teamwork is worth more than maximize profits on others losses.

The aspects that could been seen as negative with a partnering collaboration such as a lower profit, more time consuming procurement and the risk of the market that would evolve in an oligopoly. This compensates the large shortages that already exists on the market today, and the advantages a partner collaboration offers.

What we would recommend Ivar Celander AB regarding a partnering collaboration is that it is a collaboration form that will increase the transparency and trust in the Swedish construction industry. But it could also result in a loss of profit margins, but that compensates by the fact that Swedish contractors offer almost a guarantee for subcontractors that they can't lose any money on a well-executed contract. This is a positive aspect which in time will contribute in more projects and benefits for the planning of a possible expansion of the organization.

7 References

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7.1 Oral references

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- Håkan Kilander, Head of department, Painting contractor, Adolfssons Måleri
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- Philip Thomas, Guest lecturer on the department of construction management, Chalmers University of Technology
- Örjan Berntsson, CEO, Ivar Celander

11. A disadvantage in partnering is that you as a subcontractor has to put down a lot of extra time and effort in the start of the project in form of extra meetings and procurements. This is to minimize risks and problems further on in the project. Is this something you think is an advantage or disadvantage for you as a subcontractor?

Subcontractors answer:

12. Partnering in Great Britain uses a economic model in partnering which gives the subcontractor a possibility to earn a bonus if the project is finished in time and under budget, a so called positive incitement. But it also means that this can be compromised and the subcontractor then have to split the additional cost compared to partnering for subcontractors in Sweden were the positive incitement in form of a bonus only applies between the client and the contractor. Do you think the subcontractors in Sweden should be apart of a positive incitement in form of a divided earning like the way of working in Great Britain even though the risk of losing money may increase?

Subcontractors answer:

13. If you compare a traditional turnkey tender with a fixed price, where you don't fully disclose the costs of your expenses, which is a common way to give a tender, with the more transparent way in partnering where all the costs are disclosed and a percentage fee is added to the tender. Which way would you prefer, and can you see any pros and cons with the different ways of financial compensation?

Subcontractors answer: